

**ESTRO**  
**2021**

Scientific Programme

**Optimal  
radiotherapy  
for all**

**ESTRO  
ANNUAL  
CONFERENCE**

**27 - 31 August 2021**

Onsite in Madrid, Spain & Online



Saturday  
28 August  
2021



Track: Interdisciplinary

**Teaching lecture: Multidisciplinary research in Europe**

Saturday, 28 August 2021 08:00 - 08:40

N101-102

**Chair: Ben Slotman**

08:00 **Multidisciplinary clinical cancer research: Can we make it better than just the sum of its parts?** SP - 0002

D. Lacombe (Belgium)

08:20 **Multidisciplinary cancer care: Adding value in times of change** SP - 0003

J.M. Borrás (Spain), J. Prades (Spain)

Track: Radiobiology

**Teaching lecture: The microbiome: Its role in cancer development and treatment response**

Saturday, 28 August 2021 08:00 - 08:40

N104

**Chair: Marc Vooijs**

08:00 **The microbiome: Its role in cancer development and treatment response** SP - 0004

A. Facciabene (USA)

Track: Clinical

**Teaching lecture: Breast reconstruction and radiotherapy**

Saturday, 28 August 2021 08:00 - 08:40

Plenary

**Chair: Philip Poortmans**

08:00 **Breast reconstruction and radiotherapy** SP - 0005

O. Kaidar-Person (Israel)

Track: Clinical

**Teaching lecture: Neurocognitive changes following radiotherapy for primary brain tumours**

Saturday, 28 August 2021 08:00 - 08:40

Room 1

**Chair: Brigitta G. Baumert**

08:00 **Evaluation and care of neurocognitive effects after radiotherapy** SP - 0006

M. Klein (The Netherlands)

08:20 **Imaging biomarkers of dose-induced damage to critical memory regions** SP - 0007  
A. Laprie (France)

*Track: Physics*

**Teaching lecture: Independent dose calculation and pre-treatment patient specific QA**

Saturday, 28 August 2021 08:00 - 08:40 Room 2.1

**Chair: Kari Tanderup**

08:00 **Independent dose calculation and pre-treatment patient specific QA** SP - 0008  
P. Carrasco de Fez (Spain)

*Track: Physics*

**Teaching lecture: Diffusion MRI: How to get started**

Saturday, 28 August 2021 08:00 - 08:40 Room 2.2

**Chair: Tufve Nyholm**

08:00 **Diffusion MRI: How to get started** SP - 0009  
R. Tijssen (The Netherlands)

*Track: RTT*

**Teaching lecture: The role of RTT leadership in advancing multi-disciplinary research**

Saturday, 28 August 2021 08:00 - 08:40 N103

**Chair: Sophie Perryck**

08:00 **The role of RTT leadership in advancing multi-disciplinary research** SP - 0010  
M. Velec (Canada)

*Track: Brachytherapy*

**Teaching lecture: New developments In skin cancers treatment: is brachytherapy the new frontier especially for the face?**

Saturday, 28 August 2021 08:00 - 08:40 N105-N106

**Chair: Luca Tagliaferri**

08:00 **New developments In skin cancers treatment: is brachytherapy the new frontier especially for the face?** SP - 0011  
P. Wojcieszek (Poland)

Track: Interdisciplinary

**Symposium: Education in radiation oncology**

Saturday, 28 August 2021 08:45 - 10:00

N101-102

**Chair: Jesper Grau Eriksen**

**Co-chair: TBC**

08:45 **ESTRO Curricula done and published - Now what?** SP - 0012

M. Giuliani (Canada)

09:03 **How to design a training programme that actually train the resident** SP - 0013

B. Millar (Canada)

09:21 **Does work-place based assessment deliver on its promise?** SP - 0014

S. Turner (Australia)

09:39 **The trainee perspective - What do we really need for good training?** SP - 0015

J. Heukelom (The Netherlands)

Track: Radiobiology

**Joint symposium: ESTRO-EACR: How does cancer cell metabolism affect the radiation response and vice versa?**

Saturday, 28 August 2021 08:45 - 10:00

N104

**Chair: Caroline Dive**

**Chair: Anthony Chalmers**

08:48 **Tumour metabolic adaptations as biomarkers for radiation oncology** SP - 0016

O. Maddocks (United Kingdom)

09:06 **Application of metabolic imaging for the predication and assessment of treatment response** SP - 0017

J. Bussink (The Netherlands)

09:24 **Radiation-driven tumour metabolic reprogramming** SP - 0018

T. Burns (UK)

09:42 **Targeting tumour metabolism for enhancing radiotherapy response** SP - 0019  
L. Kunz-Schughart (Germany)

*Track: Clinical*

**Symposium: New endpoints for early breast cancer - Less is more?**

Saturday, 28 August 2021 08:45 - 10:00

Plenary

**Chair: Dorota Gabrys**

**Co-chair: Elisabetta Bonzano**

08:45 **Health-related quality of life - Primary or surrogate endpoint?** SP - 0020  
I. Meattini (Italy)

09:03 **Less surgery or less radiation therapy in early stage breast cancer?** SP - 0021  
P. Poortmans (Belgium)

09:21 **Tumour bed boost in breast cancer - When, whom, how?** SP - 0022  
M. Krause (Germany)

09:39 **Less endocrine therapy for very low-risk patients?** SP - 0023  
E. Nowicka (Poland)

*Track: Clinical*

**Symposium: Radiosurgery for central nervous system disorders: Beyond glioblastoma and metastases**

Saturday, 28 August 2021 08:45 - 10:00

Room 1

**Co-chair: Maximilian Niyazi**

**Chair: Sławomir Blamek**

08:45 **Radiotherapy for vestibular schwannoma and meningioma** SP - 0024  
E. Herrmann (Switzerland)

09:03 **SRS for Parkinson's disease and trigeminal neuralgia** SP - 0025  
*TBC*

09:21 **Primary and repeat radiosurgery for functioning and non-functioning pituitary adenoma** SP - 0026  
Roman Liscak (The Czech Republic)

09:39 **Can we treat epilepsy and obsessive-compulsive disorder with radiation?** SP - 0027  
Sameer Sheth (USA)

*Track: Physics*

**Symposium: Clinical implementation of in vivo dosimetry**

Saturday, 28 August 2021 08:45 - 10:00

Room 2.1

**Chair: Cristina Garibaldi**

**Co-chair: Elise Konradsson**

08:45 **Large scale clinical implementation of in vivo dosimetry - What value does it bring?** SP - 0028  
E. Bossuyt (Belgium)

09:10 **In vivo dosimetry in EBRT: Requirements and future directions for research, development, and clinical practice** SP - 0029  
I. Olaciregui Ruiz (The Netherlands)

09:35 **In vivo dosimetry in brachytherapy: Requirements and future directions for research, development and clinical practice** SP - 0030  
K. Tanderup (Denmark)

*Track: Physics*

**Symposium: The use of MR in radiotherapy**

Saturday, 28 August 2021 08:45 - 10:00

Room 2.2

**Chair: Marielle Philippens**

**Co-chair: Emilia Persson**

08:45 **Does MR-only treatment planning live up to its expectations?** SP - 0147  
T. Nyholm (Sweden)

09:10 **Real-time adaptation under MR-guidance** SP - 0148  
J. Bertholet (Switzerland)

09:35 **A roadmap for imaging biomarker studies on MR-linac systems** SP - 0149  
*P. van Houdt (The Netherlands)*

*Track: RTT*

**Symposium: RTT-led radiomics research**

Saturday, 28 August 2021 08:45 - 10:00

N103

**Chair: Ingrid Kristensen**

**Co-chair: To be confirmed**

08:45 **Personalised breast cancer treatment using radiomics** SP - 0035  
*W. Tran (Canada)*

09:10 **MR radiomics in prostate cancer** SP - 0036  
*M. Leech (Ireland)*

09:35 **Head and neck radiomics in a toxicity prediction model** SP - 0037  
*A. Duffton (United Kingdom)*

*Track: Brachytherapy*

**Debate: Prostate cancer: Short treatments by SBRT or brachytherapy?**

Saturday, 28 August 2021 08:45 - 10:00

N105-N106

**Chair: Barbara Jereczek-Fossa**

**Chair: Carl Salembier**

08:45 **SBRT** SP - 0038  
*G. Marvaso (Italy)*

09:00 **Brachy** SP - 0039  
*P. Hoskin (United Kingdom)*

09:45 **Discussion**



Track: Physics

**Poster highlights: Poster Highlights 1: Treatment planning 1**

Saturday, 28 August 2021 08:45 - 09:45

Online Stream 1

**Chair: To be confirmed**

**Chair: To be confirmed**

- 08:45 **Introducing a probabilistic target presence in expected-value optimization** PH - 0041  
*G. Buti (Belgium), K. Souris, A.M. Barragan-Montero, J.A. Lee, E. Sterpin*
- 08:53 **Dosimetric impact of auto segmentation on treatment planning in IMRT for prostate patients** PH - 0042  
*M. Kawula (Germany), D. Purice, M. Li, G. Vivar, S. Ahmadi, K. Parodi, C. Belka, G. Landry, C. Kurz*
- 09:01 **Robustness of Wide Tangents and VMAT through simulations and CBCT delivered dose in breast cancer** PH - 0043  
*J. Gleeson (United Kingdom), M. Toomey, K. Hutchinson, H. Chantler*
- 09:09 **Robust planning of VMAT for breast cancer including loco-regional lymph nodes** PH - 0044  
*M. Kjeldsen (Denmark)*
- 09:17 **Comparing robustness of margin and robustly optimised plans to anatomical deformations in H&N** PH - 0045  
*J. Robbins (United Kingdom), E. Vasquez Osorio, A. Green, M. van Herk*
- 09:25 **Benefit of 4D robustly optimized proton plans for NSCLC patients with intrafractional motion > 5mm** PH - 0046  
*S. Spautz (Germany), L. Haase, M. Tschiche, S. Makocki, E.G. Troost, C. Richter, K. Stützer*
- 09:33 **CTV and OAR robustness of clinical neuro IMPT: dosimetric impact of the DUPROTON robustness protocol** PH - 0047  
*J. Rojo Santiago (The Netherlands), S.J. Habraken, D. Lathouwers, A. Méndez Romero, Z. Perko, M.S. Hoogeman*

Track: Clinical

**Poster highlights: Poster Highlights 2: Head and neck 1**

Saturday, 28 August 2021 08:45 - 09:45

Online Stream 2

- 08:45 **Pattern of failure after curative (C-)RT in HNSCC: data from the phase III DAHANCA19 study** PH - 0048  
*M.H. Kristensen (Denmark), C.R. Hansen, R. Zukauskaitė, A.I.S. Holm, E.S. Hinsby, C. Maare, J. Johansen, H. Primdahl, Å. Bratland, C.A. Christensen, M. Andersen, J. Overgaard, J.G. Eriksen*

08:53	<b>Reduction of GTV to CTV radiation margin in head and neck squamous cell carcinoma is oncological safe and significantly reduced acute and late radiation-related toxicity</b>	PH - 0049
	<i><u>A. Al-Mamgani (The Netherlands), R. Kessels, A. Navran, O. Hamming-Vrieze, C.L. Zuur, J.P. de Boer, M.C. Jonker, T. Janssen, J. Sonke, C.A. Marijnen</u></i>	
09:01	<b>Detailed analysis of lymphatic progression patterns for oropharyngeal squamous cell carcinoma</b>	PH - 0050
	<i><u>B. Pouymayou (Switzerland), J. Hoffmann, R. Ludwig, M. Guckenberger, P. Balermipas, J. Unkelbach</u></i>	
09:09	<b>Outcomes after definitive (C)RT in HPV+ OPC: Largescale comparison of two population-based cohorts</b>	PH - 0051
	<i><u>P. Lassen (Denmark), S.H. Huang, J. Su, B. O'Sullivan, J. Waldron, M. Andersen, H. Primdahl, J. Johansen, C. Andrup Kristensen, E. Andersen, J. Eriksen, C. Rønn Hansen, J. Alsner, J. Lilja-Fisher, S. V. Bratman, J. Ringash, J. Kim, A. Hope, A. Spreafico, J. de Almeida, W. Xu, J. Overgaard</u></i>	
09:17	<b>Do head and neck cancer patients in randomized trials represent the population in daily practice?</b>	PH - 0052
	<i><u>J. Kaanders (The Netherlands), S. van den Bosch, J. Kleijnen</u></i>	
09:25	<b>NBTR3 activated by SBRT combined with nivolumab or pembrolizumab in advanced cancers: phase I trial</b>	PH - 0053
	<i><u>O. Vivar (France), C. Shen, J. Frakes, J. Niu, A. Rosenberg, J. Weiss, J. Caudell, K. Jameson, P. Said, T. Seiwert</u></i>	
09:33	<b>Re-Irradiation in head &amp; neck cancer - a pooled analysis of 253 individual cases</b>	PH - 0054
	<i><u>J. Roesch (Germany), M. Oertel, A. Fabian, M. Höck, J. von der Grün, A. Löser, C. Süß, M. Vinsensia, B. Tamaskovics, S. Heß, M. Waltenberger, S. Wegen, M. Trommer, M. Mäurer, D. Medenwald, A. Rühle, L. Käsmann, D. Fleischmann, S. Dobiasch, M. Hecht</u></i>	

*Track: Interdisciplinary*

**Proffered papers: Proffered papers 1: Health services and health economics**

Saturday, 28 August 2021 10:30 - 11:30 N101-102

10:30	<b>COVID-19 impact on working conditions for researchers in radiation oncology: a qualitative analysis</b>	OC - 0055
	<i><u>J. Dhont (The Netherlands), C.A. Pittens, V. Petit-Steeghs, P. Franco, L. Dubois, L. Mullaney, S. Petit, J. Bertholet</u></i>	
10:40	<b>Cost of the external beam radiotherapy in Catalonia (Spain): an application of the ESTRO-HERO model</b>	OC - 0056
	<i><u>J. Corral, M. Algara, C. Muñoz-Montplet, A. Eraso, J. Giralt, J.A. Espinàs, J. Solà, N. Defourny, Y. Lievens, <u>J.M. Borrás (Spain)</u></u></i>	

10:50	<b>Report of Radiotherapy and Cancer Status in Latin America: Tailoring a Projection to 2030</b>	OC - 0057
	<i>G.R. Sarria (Germany), D.A. Martinez-Perez, R. Del Castillo, A. Salgado, L. Pinillos, A. Felix, I. Bobadilla, G. Ferraris, J. Carmona, P. Aquino, L. Aviles, L. Ricagni, N. Isa, C. Flores, B. Li, M. Castilho, A. Polo, E.H. Zubizarreta, F.A. Giordano, G.J. Sarria</i>	
11:00	<b>Impact of increased hypofractionation on treatment cost</b>	OC - 0058
	<i>N. Defourny (United Kingdom), K. Spencer, D. Tunstall, V. Cosgrove, K. Kirkby, A. Henry, Y. Lievens, P. Hall</i>	
11:10	<b>Multidisciplinary Tumor Board Smart Virtual Assistant in Locally Advanced Cervical Carcinoma</b>	OC - 0059
	<i>G. Macchia (Italy), G. Ferrandina, S. Patarnello, R. Autorino, C. Masciocchi, V. Pisapia, C. Calvani, C. Iacomini, A. Cesario, B. Gui, V. Rufini, L. Boldrini, G. Scambia, V. Valentini</i>	
11:20	<b>Clinical adoption patterns of 0.35 Tesla MR-guided radiation therapy in Europe and Asia</b>	OC - 0060
	<i>M.A. Clark (USA), B. Slotman, E. Ozyar, M. Kim, J. Itami, A. Tallet, J. Debus, R. Pfeffer, P. Gentile, Y. Hama, N. Andratschke, D. Azria, P. Camilleri, C. Belka, M. Quivrin, B. Kim, A. Pedersen, M. van Overeem Felter, K. Young, J.H. Kim, V. Valentini</i>	

Track: Radiobiology

**Proffered papers: Proffered Papers 2: Tumour microenvironment**

Saturday, 28 August 2021 10:30 - 11:30

N104

10:30	<b>Radiotherapy affects the morphology and phenotype of HNSCC derived Cancer associated fibroblasts</b>	OC - 0061
	<i>M. Ansems (The Netherlands), M. Dotinga, V. Mekers, A. Beerkens, K. Strepj</i>	
10:40	<b>Potential predictive biomarkers for Nimorazole-modified radiochemotherapy in head and neck cancer</b>	OC - 0062
	<i>M.J. Besso (Germany), V. Bitto, L. Koi, W. Hadiwikarta, R. Euler-Lange, M. Bonrouhi, A. Linge, M. Krause, I. Kurth, M. Baumann</i>	
10:50	<b>Role of microenvironment on the post-irradiation regenerative potential of salivary gland stem cells</b>	OC - 0063
	<i>Y. Wu (The Netherlands), S. Pringle, U. Brouwer, X. Peng, A. Vissink, L. Barazzuol, R.P. Coppes</i>	
11:00	<b>Microbeam radiosurgery enhances drug delivery across the vascular wall: results from 2 animal models</b>	OC - 0064
	<i>C. Fernandez (Switzerland), V. Trappetti, J. Fazzari, O. Martin, V. Djonov</i>	
11:10	<b>Overcoming radioresistance with the hypoxia-activated prodrug CP-506: a pre-clinical in vivo study</b>	OC - 0065
	<i>A. Yaromina (The Netherlands), L. Koi, A. van der Wiel, N.G. Lieuwes, J. Theys, L. Dubois, M. Krause, P. Lambin</i>	

- 11:20 **Heterogeneity of a hypoxia gene signature within the dominant tumor lesion in prostate cancer** OC - 0066  
*U.B. Salberg (Norway), V. Eide Skingen, C. Sæten Fjeldbo, T. Hompland, L. Vlatkovic, K.H. Hole, T. Seierstad, H. Lyng*

*Track: Clinical*

**Proffered papers: Proffered papers 3: Breast**

Saturday, 28 August 2021 10:30 - 11:30 Plenary

- 10:30 **De-escalation of radiation therapy after primary chemotherapy in cT1-2N1 breast cancer (RAPCHEM)** OC - 0067  
*S. de Wild (The Netherlands), L. de Munck, J. Verloop, T. van Dalen, P. Elkhuizen, R. Houben, E. van Leeuwen, S. Linn, R. Pijnappel, P. Poortmans, L. Strobbe, J. Wesseling, A. Voogd, L. Boersma*

- 10:40 **Elective internal mammary node irradiation in women with node-positive breast cancer** OC - 0068  
*Abstract withdrawn*

- 10:50 **Quality assessment of locoregional breast cancer radiotherapy in the international SENOMAC-trial** OC - 0069  
*S. Alkner (Sweden), D. Lundstedt, E. Wieslander, M. Berg, I. Kristensen, J. Ahlgren, B. Offersen, J. de Boniface, H. Dahl Nissen, O.B.O.T.S.T.G. .*

- 11:00 **Patient-reported symptoms of late radiation toxicity in breast cancer patients** OC - 0070  
*D. Mink van der Molen (The Netherlands), M. Batenburg, A. Doeksen, T. van Dalen, E. Schoenmaeckers, R. Bijlsma, A. Witkamp, M. Ernst, M. Sier, W. Maarse, D. van den Bongard, F. van der Leij, H. Verkooijen*

- 11:10 **Safety and efficacy of concomitant radiation and CDK4/6 inhibitors in breast cancer patients** OC - 0071  
*L. Visani (Italy), I. Ratoso, E. Scoccimarro, C. Becherini, C. Saieva, I. Desideri, V. Scotti, M. Ozarem, D. Ribnikar, M. Aquilano, C. Cerbai, L. Orzalesi, M. Bernini, L. Sanchez, J. Nori, S. Bianchi, I. Meattini, L. Livi*

- 11:20 **Hypofractionated radiotherapy for breast cancer: Findings from an international ESTRO-GIRO survey** OC - 0072  
*M. Mushonga (Canada), J. Weiss, A.Z. Liu, O. Mohamad, Y. Lievens, D. Rodin*

*Track: Clinical*

**Proffered papers: Proffered papers 4: CNS**

Saturday, 28 August 2021 10:30 - 11:30 Room 1

- 10:30 **Reirradiation of brain metastases with SRS after local or marginal recurrence from prior SRS** OC - 0073  
*R. Kowalchuk (USA), A. Niranjana, C. Lee, H. Yang, R. Liscak, K. Guseynova, M. Tripathi, N. Kumar, S. Peker, Y. Samanci, J. Hess, V. Chang, C. Iorio-Morin, D. Mathieu, S. Pikiş, Z. Wei, L. Lunsford, D. Trifiletti, J. Sheehan*

10:40	<b>Different pre-operative glioma location patterns in patients with or without post-radiation injury</b>	OC - 0074
	<i>A. van der Boog (The Netherlands), S. David, A. Steennis, J.W. Dankbaar, T. Snijders, P. Robe, J. Verhoeff</i>	
10:50	<b>Dual FET PET-guided SIB in radiotherapy of newly diagnosed glioblastoma- a pilot study.</b>	OC - 0075
	<i>M. Harat (Poland), M. Blok, I. Wiatrowska, B. Małkowski</i>	
11:00	<b>Meningioma I° involves optical structures: does proton therapy lead to subjective changes in vision?</b>	OC - 0076
	<i>B. Flechl (Austria), L. Konrath, E. Hug, C. Lütgendorf-Caucig, M. Achtaewa, M. Pelak, A. Schallerbauer-Peter, J. Zimmermann, M. Sebek, C. Svardal, M. Mumot, U. Mock, R. Konstantinovic, P. Fossati, P. Georg</i>	
11:10	<b>High-dose post-operative Protontherapy to improve the outcome of high-grade meningiomas</b>	OC - 0077
	<i>K. Holub (Spain), S. Froelich, H. Adle-Biassette, J. Guichard, K. Champeaux, A. Carpentier, K. Mokhtari, L. Feuvret, G. Lot, S. Bolle, C. Alapetite, S. Helfre, F. Goudjil, I. Pasquie, C. Nauraye, R. El Ayachy, V. Calugaru, R. Dendale, H. Mammar</i>	
11:20	<b>Impact of surgery and PET-guided radiotherapy in therapy management of cavernous sinus meningioma</b>	OC - 0078
	<i>I. Hadi (Germany), A. Biczok, N. Terpolilli, J. Thorsteinsdottir, R. Forbrig, N.L. Albert, P. Yanchovski, B. Zollner, R. Bodensohn, S. Corradini, P. Bartenstein, C. Belka, J. Tonn, C. Schichor, M. Niyazi</i>	

Track: Physics

**Proffered papers: Proffered Papers 5: Applied dosimetry**

Saturday, 28 August 2021 10:30 - 11:30		Room 2.1
10:30	<b>EPID in vivo dosimetry implementation world-wide: results of an ESTRO survey</b>	OC - 0079
	<i>M. Esposito (Italy), J.B. van de Kamer, E. Bossuyt, S.F. Kry, D. Verellen, C. Clark, N. Jornet Sala</i>	
10:40	<b>First theoretical determination of relative biological effectiveness of very high energy electrons</b>	OC - 0080
	<i>R. Delorme (France), T. Masilela, C. Etoh, F. Smekens, Y. Prezado</i>	
10:50	<b>Blood dose calculation model: proton therapy versus photon therapy</b>	OC - 0081
	<i>A. Hammi (Germany)</i>	
11:00	<b>Impact of intra-fraction deformations on proton therapy measured with a 3D silicone-based dosimeter</b>	OC - 0082
	<i>S. Vindbæk Jensen (Denmark), P. Balling, L. P. Muren, J. B. B. Petersen, L. B. Valdetaro, P. R. Poulsen</i>	

11:10 **QA of DL-based dose calculations: determination of the application range** OC - 0083  
G. Tsekas (The Netherlands), G. Bol, B.W. Raaymakers, C. Kontaxis

11:20 **Validation of a source tracking method for brachytherapy in vivo dosimetry using a realistic phantom** OC - 0084  
T. van Wagenberg (The Netherlands), G. Fonseca, R. Voncken, C. Van Beveren, F. Verhaegen

Track: Physics

**Proffered papers: Proffered Papers 6: Adaptive RT: MR-guided and SBRT**

Saturday, 28 August 2021 10:30 - 11:30

Room 2.2

10:30 **Development and quantitative evaluation of AI-based pelvic MRI autocontouring for adaptive MRgRT** OC - 0085  
M. Nachbar (Germany), M. Lo Russo, S. Boeke, D. Wegener, J. Boldt, S. Butzer, T. Roque, A. Lombard, L. De Vitry, N. Paragios, D. Zips, D. Thorwarth

10:40 **PTV margins for intrafraction motion in MRI-guided online adaptive radiotherapy in rectal cancer** OC - 0086  
C. Kensen (The Netherlands), T. Janssen, A. Betgen, L. Wiersema, F. Peters, P. Remeijer, C. Marijnen, U. Van der Heide

10:50 **Benchmarking daily plan adaptation on the Unity MR-Linac** OC - 0087  
T. Jagt (The Netherlands), T. Janssen, A. Betgen, L. Wiersema, R. Verhage, S. Garritsen, T. Vijlbrief-Bosman, P. de Ruiter, F. Peters, P. Remeijer, C. Marijnen, J. Sonke

11:00 **Margin calculation for multiple metastases in single-isocenter lung SBRT** OC - 0088  
J. van Timmeren (Switzerland), M. Hoogeman, S. Ehrbar, M. Mayinger, N. Andratschke, M. Guckenberger, S. Tanadini-Lang

11:10 **Impact of using uncorrected CT-based DIR-propagated autocontours on online ART for pancreatic SBRT** OC - 0089  
A. Maqallón Baro (The Netherlands), M. Milder, P. Granton, W. den Toom, J. Nuytens, M. Hoogeman

11:20 **Dosimetric evaluation of an online adaptive strategy for prostate SBRT** OC - 0090  
J. Calvo-Ortega (Spain), J. Torices-Caballero, S. Moragues-Femenia, C. Laosa-Bello, J. Casals-Farran

Track: RTT

**Proffered papers: Proffered Papers 7: Advances in RT imaging and contouring**

Saturday, 28 August 2021 10:30 - 11:30

N103

- 10:30 **Head Coil Head Support: in support of the head and the head coil** OC - 0091  
*W. Frans (The Netherlands), M. Frantzen-Steneker, J. Osinga, U.A. van der Heide, R. Navest*
- 10:40 **Evaluation of MRI sequences for image guided radiotherapy in a MR-only radiotherapy planning pathway** OC - 0092  
*R. Brooks (United Kingdom), R. Pearson, K. Pilling, S. West, B. Ormston, A. Beardmore, D. Redding, J. Wyatt*
- 10:50 **Automated organ at risk delineation in T2w head and pelvis MR images for MR-only radiation therapy** OC - 0093  
*L. Ruskó (Hungary), V. Czipczer, B. Kolozsvári, B. Deák-Karancsi, R. Czabány, B. Gyalai, D. Hajnal, Z. Karancsi, M.E. Capala, G.M. Verduijn, R. Pearson, J.J. Wyatt, E. Borzasi, G. Kelemen, R. Kószó, V. Paczona, Z. Végváry, C. Cozzini, T. Tan, R. Maxwell, J.A. Hernandez Tamames, S.F. Petit, H. Mccallum, K. Hideghéty, F. Wiesinger*
- 11:00 **Real-world performance of neural network segmentation of Head and Neck Contours** OC - 0094  
*M. Butler (USA), A. Kruzer, A. Nelson*
- 11:10 **ADC predicts persistent cervical lymph node disease following curative (chemo)radiotherapy** OC - 0095  
*A. Salah (United Kingdom), Y. Jain, S. Bonington, A. France, D. Buckley, C. Eccles, A. McPartlin*
- 11:20 **Does inter-observer variation affect functional imaging quantification in DW-MRI for HNSCC?** OC - 0096  
*L. Hay (United Kingdom), I. McCrea, A. Duffton, P. McLoone, C. Paterson*

Track: Brachytherapy

**Symposium: Highlights of WCB 2021**

Saturday, 28 August 2021 10:30 - 11:30

**Chair: Bradley Pieters**

**Chair: Christian Kirisits**

**Intensity modulated HDR ocular brachytherapy using Yb-169 and Se-75** SP - 0098

**Tumor regression of cervical cancer during chemoradiation evaluated by the T-score in EMBRACE I** SP - 0099

**APBI versus very APBI in the elderly: a comparison analysis of oncological outcome and late toxicity** SP - 0100

**Comparative study of brachytherapy vs. radical cystectomy for cT1-2 muscle-invasive bladder cancer** SP - 0101

**Development of a dynamic-shielding intensity modulated endorectal brachytherapy applicator** SP - 0102

*Track: Physics*

**Poster highlights: Poster Highlights 3: Outcome modelling**

Saturday, 28 August 2021 10:30 - 11:30

Online Stream 1

10:30 **Outcome prediction for the prognosis of head and neck cancer patients based on deep learning** PH - 0103

*J. Guo (The Netherlands), T. Zhai, A. van der Schaaf, R. J.H.M. Steenbakkers, S. Both, J. A. Langendijk, P. M.A. van Ooijen, N. M. Sijtsema*

10:38 **[18F]-FDG PET radiomics to predict survival in locally advanced cervical cancer and anal carcinomas** PH - 0104

*S. Niyoteka (France)*

10:46 **Prediction of clinical complete response in rectal cancer using clinical and radiomics features** PH - 0105

*P. Mbanu (United Kingdom), E. Vasquez Osorio, H. Mistry, J. Mercer, L. Malcomson, R. Kochhar, A. Renehan, M. van Herk, M. Saunders*

10:54 **FDG-PET features help predict distant metastases in oropharyngeal cancer patients with definitive RT** PH - 0106

*P. Brodin (USA), J. Lubin, J. Eichler, C. Velten, S. Zhu, S. Saha, W. Tomé, C. Guha, S. Kalnicki, R. Kabarriti, M. Garg*

11:02 **A dynamic model for lymphatic progression of cancer through the head & neck** PH - 0107

*R. Ludwiq (Switzerland), B. Pouymayou, P. Balermipas, J. Unkelbach*

11:10 **New dose-volume constraints for patient-reported acute bowel toxicity symptoms in whole pelvis IMRT** PH - 0108

*A. Bresolin, A. Faiella, E. Garibaldi, F. Munoz, D. Cante, V. Vavassori, J.M. Waskiewicz, G. Girelli, B. Avuzzi, E. Villa, A. Magli, B. Noris Chiorda, M. Gatti, L. Ferella, A. Maggio, V. Landoni, S. Aimonetto, C. Sini, T. Rancati, G. Sanguineti, R. Valdaghi, N. Di Muzio, C. Cozzarini, C. Fiorino (Italy)*



- 11:18 **Reactive Feeding Tube Insertion Relates to Dose to Tongue Subunits and Brainstem** PH - 0109  
*E.M. Vasquez Osorio (United Kingdom), A. Abravan, A. Green, A. Green, V. Kota, S. Gaito, A. McPartlin, M. van Herk*

Track: Clinical

Poster highlights: Poster Highlights 4: Lower GI (colon, rectum, anus)

Saturday, 28 August 2021 10:30 - 11:30

Online Stream 2

- 10:30 **Surgical Tolerability after Chemoradiotherapy. Preliminary Data of phase III OPERA in rectal cancer** PH - 0110  
*J. Gerard (France), N. Barbet, B. Thamphya, A. Dhadda, N. Magné, L. Mineur, M. Deberne, T. Zilli, A. Sun Myint*
- 10:38 **Impact of body-mass index on multimodal treatment and outcome in locally advanced rectal cancer** PH - 0111  
*M. Diefenhardt (Germany), E.B. Ludmir, R. Hofheinz, M. Ghadimi, B. D. Minsky, M. Fleischmann, E. Fokas, C. Rödel*
- 10:46 **Multicenter large retrospective database on SBRT for colorectal lung metastases: the LaIT-SABR study** PH - 0112  
*L. Nicosia (Italy), D. Franceschini, F. Perrone Congedi, F. Casamassima, M.A. Gerardi, M. Perna, V. Scotti, A. Fodor, R. Mazzola, M. Rigo, A. Iurato, F. Pasqualetti, G. Gadducci, S. Chiesa, R.M. Niespolo, A. Bruni, L. Frassinelli, P. Borghetti, A. Di Marzo, A. Ravasio, B. De Bari, M. Sepulcri, D. Aiello, G. Mortellaro, C. Sangalli, M. Franceschini, G. Montesi, F.M. Aquilanti, R. Valdagni, I. Fazio, L. Corti, L. Vavassori, E. Maranzano, S.M. Magrini, F. Lohr, S. Arcangeli, V. Valentini, F. Paiar, S. Ramella, N.G. Di Muzio, L. Livi, B.A. Jereczek-Fossa, M.F. Osti, M. Scorsetti, F. Alongi*
- 10:54 **Anti-Epidermal Growth Factor Receptor Therapy in combination with Chemoradiotherapy for the Treatment of Locally Advanced Anal Canal Carcinoma: Results of a Phase II Study with Panitumumab (FFCD 0904)** PH - 0113  
*V. Vendrely (France), P. Ronchin, K. Le-Malicot, M. Minsat, C. Lemanski, X. Mirabel, A. Lievre, A. Darut-Jouve, C. De La Fouchardiere, G. Breysacher, D. Argo-Leignel, E. Thimonier, N. Magne, C. Belletier, C. Lepage, T. Aparicio*
- 11:02 **Pelvic insufficiency fractures detected by MRI one-year after chemoradiotherapy for anal cancer.** PH - 0114  
*C. Kronborg (Denmark), B.G. Pedersen, J. Klemmensen, A.C. Lefèvre, K.L. Wind, K.G. Spindler*
- 11:10 **Bone marrow-sparing IMRT in anal cancer patients: final results of a prospective phase II trial** PH - 0115  
*P. Franco (Italy), F. Arcadipane, F. Olivero, P. Silveti, I. Chiovatero, L. Spinelli, R. Carlevato, E. Gallio, F.R. Giglioli, C. Fiandra, U. Ricardi*
- 11:18 **Zebrafish avatars as radiosensitivity predictors in Rectal Cancer: towards personalized treatment** PH - 0116  
*O. Parés i Grau (Portugal), B. Costa, S. Vieira, J. Stroom, M.J. Cardoso, R. Coutinho, R. Rio-Tinto, M. Bispo, I. Santiago, L. Fernandez, N. Figueiredo, C. Greco, R. Fior*

Track: Interdisciplinary

**Plenary session: Presidential symposium - Optimal radiotherapy for all**

Saturday, 28 August 2021 11:40 - 12:40

Plenary

**Chair: Ben Slotman**

- |       |   |           |
|-------|---|-----------|
| 11:40 | <b>Introduction</b><br><u><i>B. Slotman (The Netherlands)</i></u>         | SP - 0117 |
| 11:50 | <b>Multidisciplinary collaboration</b><br><u><i>U. Ricard (Italy)</i></u> | SP - 0118 |
| 12:00 | <b>Patients as advocates</b><br><u><i>A. Kirby (United Kingdom)</i></u>   | SP - 0119 |
| 12:10 | <b>Policy-making</b><br><u><i>Y. Lievens (Belgium)</i></u>                | SP - 0120 |
| 12:20 | <b>Discussion</b>   |           |

Track: Interdisciplinary

**Symposium: Guidelines**

Saturday, 28 August 2021 14:15 - 15:30

N101-102

**Co-chair: Ivica Ratoska**

**Chair: Claus Belka**

- |       |  |           |
|-------|--|-----------|
| 14:15 | <b>Introduction: Guideline pipeline</b><br><u><i>C. Belka (Germany)</i></u>    | SP - 0122 |
| 14:20 | <b>Guideline development: Prostate</b><br><u><i>C. Salembier (Belgium)</i></u> | SP - 0123 |
| 14:30 | <b>Guideline development: Lung</b><br><u><i>U. Nestle (Germany)</i></u>        | SP - 0124 |
| 14:40 | <b>Guideline development: Upper GI</b><br><u><i>V. Valentini (Italy)</i></u>   | SP - 0125 |

- 14:50 **Guideline development GEC ESTRO** SP - 0126  
*V. Strnad, J. Perez-Calatayud (Spain), I. Jurgenliemk-Schulz*
- 15:00 **Guideline development RTT** SP - 0127  
*M. Mast (The Netherlands)*
- 15:05 **Guideline development clinical DIVERSA - Glioblastoma, breast, skull base** SP - 0128  
*M. Høyer (Denmark)*
- 15:15 **Look into the future: ESTRO/Guidelines** SP - 0129  
*U. Ricardi (Italy)*

*Track: Radiobiology*

**Symposium: Radiobiology underpinning the interactions between radiotherapy and the anti-tumour immune response**

Saturday, 28 August 2021 14:15 - 15:30

N104

**Chair: Navita Somaiah**

**Chair: Laure Maignol**

- 14:15 **Apoptotic caspases - Key regulators of the interaction between radiotherapy and anticancer immunity** SP - 0130  
*L. Galluzzi (USA)*
- 14:33 **Molecular triggers of the abscopal effect by radiotherapy** SP - 0131  
*M. Rodríguez-Ruiz (Spain)*
- 14:51 **Manipulating the immune contexture to improve radiotherapy responses** SP - 0132  
*T. Illidge (United Kingdom)*
- 15:09 **Radiation-induced remodelling of the inflammatory microenvironment by tumour cells** SP - 0133  
*M. McLaughlin (United Kingdom)*

Track: Clinical

**Debate: Should the majority of radiation treatments after breast conserving surgery consist of maximum 5 fractions?**

Saturday, 28 August 2021 14:15 - 15:30

Plenary

**Chair: Icro Meattini**

**Chair: TBC**

14:15 **Should the majority of radiation treatments after breast conserving surgery consist if maximum 5 fractions? For the motion.** SP - 0134

C. Coles (United Kingdom)

14:30 **Against the motion** SP - 0135

B. Offersen (Denmark)

14:45 **For the motion (rebuttal)** SP - 0136

E. Senkus-Konefka (Poland)

15:00 **Against the motion (rebuttal)** SP - 0137

S. Rivera (France)

15:15 **Discussion**

Track: Clinical

**Joint symposium: ESTRO-CARO: COVID-19**

Saturday, 28 August 2021 14:15 - 15:30

Room 1

**Chair: Ben Slotman**

**Chair: Corinne Doll**

14:15 **Effect of Covid on radiotherapy practice** SP - 0139

B. Slotman (The Netherlands)

14:30 **Hypofractionation after Covid?** SP - 0140

F. Cury (Canada)

14:45 **Low-dose radiotherapy for treatment of Covid** SP - 0141  
*N. Sanmamed Salgado (Spain), P. Alcantara, E. Cerezo, M. Gaztañaga, N. Cabello, S. Gomez, A. Bustos, A. Doval, J. Corona, G. Rodriguez, M.E. Fuentes, A. Sanz, M. Vazquez, F. Ortuño*

15:00 **Covid-toxicity and consequences for future radiotherapy** SP - 0142  
*B. Abdulkarim (Canada)*

15:15 **Discussion**

*Track: Physics*

**Symposium: Proton arc therapy - An evolution or revolution?**

Saturday, 28 August 2021 14:15 - 15:30

Room 2.1

**Co-chair: Kristian Ytre-Hauge**

**Chair: Aswin Hoffmann**

14:15 **Spot scanning arc therapy: From concept to first delivery** SP - 0144  
*X. Ding (USA)*

14:40 **Improving proton therapy dose distribution through the use of arc irradiation** SP - 0145  
*L. Toussaint (Denmark)*

15:05 **Can proton arc therapy offer the opportunity to increase the therapeutic index?** SP - 0146  
*A. Carabe (USA)*

*Track: Physics*

**Joint symposium: ESTRO-AAPM: A roadmap for the use of quantitative imaging in radiation oncology**

Saturday, 28 August 2021 14:15 - 15:30

Room 2.2

**Chair: TBC**

**Chair: James O'Connor**

14:15 **Introduction (O'Connor roadmap) + PET/MRI biomarker discovery and validation for Radiation Oncology** SP - 0031  
*K.R. Redalen (Norway)*

14:33 **Technical validation of MR imaging biomarkers for interventional trials in radiation oncology** SP - 0032  
*TBC*

14:51 **PET-based radiotherapy adaptation: From biomarker discovery and technical validation to clinical trials** SP - 0033

S. Graves (USA)

15:09 **CT-based quantification of existing biomarkers** SP - 0034

A. McWilliam (United Kingdom)

*Track: RTT*

**Symposium: What's next for breathing motion management in radiotherapy?**

Saturday, 28 August 2021 14:15 - 15:30

N103

**Co-chair: Angela Botticella**

**Chair: Bartosz Bak**

14:15 **Advanced motion management in MR guided radiotherapy** SP - 0150

D. O'Dwyer (Denmark)

14:40 **Advanced motion management in proton radiotherapy** SP - 0151

TBC

15:05 **Safely regularising breathing motion and prolonging single breath-holds for radiotherapy with a mechanical ventilator** SP - 0152

S. Parveen (United Kingdom), M. Parkes, E. Wingate, B. Shingler, S. Green , Q. Ghafoor

*Track: Brachytherapy*

**Joint symposium: ESTRO-ESGO - State of the Art: Updated ESGO-ESTRO-ESP guidelines in endometrial cancer**

Saturday, 28 August 2021 14:15 - 15:30

N105-N106

**Chair: Nicole Concin**

**Chair: Carien Creutzberg**

14:15 **Introduction to the ESGO-ESTRO-ESP guidelines and methodology** SP - 0153

N. Concin (Austria)

14:20 **Pathology aspects** SP - 0154

X. Matias-Guiu (Spain)

14:32	<b>Surgical aspects</b> <u>N. Concin (Austria)</u>	SP - 0155
14:44	<b>Early-stage disease, adjuvant treatment including molecular risk classification</b> <u>C. Creutzberg (The Netherlands)</u>	SP - 0156
14:56	<b>Advanced/relapsed disease</b> <u>A. Taylor (United Kingdom)</u>	SP - 0157
15:08	<b>Discussion and Q&amp;A</b>	

Track: RTT

**Poster highlights: Poster Highlights 5: Advanced radiotherapy service implementation**

Saturday, 28 August 2021 14:15 - 15:15

Online Stream 1

14:15	<b>Starting a new era in radiotherapy, transition of work from radiation-oncologist to RTT.</b> <u>L. ten Asbroek (The Netherlands), L. Zwart, E. van Dieren, F. Ong, E. de Wit</u>	PH - 0159
14:23	<b>An evaluation of a therapeutic radiographer led “Sexual Care after Radiotherapy” clinic</b> <u>H. Nisbet (United Kingdom), L. Caulfield, E. Holloway</u>	PH - 0160
14:31	<b>Virtual reality distraction during uterovaginal brachytherapy applicators’ removal: a pilot study</b> <u>R. Varnier, O. Brière, T. Brouillard, I. Martel-Lafay, A. Serre, A. Couillet, G. Chvetzoff, C. Freulet, P. Pommier (France)</u>	PH - 0161
14:39	<b>Evaluation of New Patient Positioning Workflow on Setup Efficiency and Accuracy</b> <u>G. Zhang (China), H. Zhong, Y. Gao, H. Wu, J. Liu, D. Zhang, B. Li</u>	PH - 0162
14:47	<b>1.5 T MR Linac RO-Lite Workflow</b> <u>M. Jameson (Australia), D. Crawford, L. Hogan, C. Loo, T. Twentyman, A. baker, J. de Leon</u>	PH - 0163
14:55	<b>Abdominal compression; development of a non-gated pancreas MRIgRT workflow</b> <u>S. Alexander (United Kingdom), R. Lawes, G. Adair Smith, H. Barnes, I. Hanson, T. Herbert, R. Huddart, C. Lacey, H. McNair, A. Mitchell, S. Nill, C. Ockwell, U. Oelfke, H. Taylor, A. Wetscherek, K. Aitken, A. Hunt</u>	PH - 0164

Track: Clinical

**Poster highlights: Poster Highlights 6: CNS 1**

Saturday, 28 August 2021 14:15 - 15:15

Online Stream 2

- 14:15 **Differentiation of Pseudoprogression vs. True Progressive Disease using Contrast Clearance Analysis** PH - 0165  
*R. Bodensohn (Germany), R. Forbrig, S. Lietke, J. Reis, A. Boulesteix, U. Mansmann, I. Hadi, D.F. Fleischmann, K.H.J. von Henning-Yoo, J. Mücke, A. Holzgreve, N.L. Albert, V. Ruf, M. Dorostkar, S. Corradini, C. Belka, N. Thon, M. Niyazi*
- 14:23 **Hypofractionated radiotherapy preserves/improves quality-of-life in poor-prognosis high-grade glioma** PH - 0166  
*Y. Baviskar (India), B. Likonda, S. Pant, A. Dasgupta, A. Chatterjee, S. Mokal, P. Maitre, S. Kanan, J. Goda Sastri, R. Jalali, T. Gupta*
- 14:31 **MRI features correlate with a molecular signature in glioblastoma stem cells** PH - 0167  
*F. Eckert (Germany), K. Ganser, N. Stransky, B. Bender, J. Schittenhelm, S. Noell, E. Hoffmann, L. Klumpp, D. Zips, F. Paulsen, S. Huber*
- 14:39 **Hyper-versus normofractionated radiochemotherapy with temozolomide in patients with glioblastoma.** PH - 0168  
*V. Lewitzki (Germany), R. Sweeney, R.J. Klement, A. Grosu, B. Polat, I. Popp*
- 14:47 **Proton therapy for low grade glioma, who will benefit most?** PH - 0169  
*H. van der Weide (The Netherlands), M. Kramer, D. Scandurra, M. Landeweerd, R. Enting, I. Bosma, M. Heesters, A. Bannink-Gawryszak, S. Both, J. Langendijk*
- 14:55 **Proton therapy for adult craniopharyngioma** PH - 0170  
*N. Scher (France), R. Bentahila, C. Alapetite, A. Beddok, S. Helfre, S. Bolle, H. Mammari, R. Dendale, V. Calugaru, L. Feuvret*
- 15:03 **Linac-based Stereotactic Radiosurgery for Brain Arteriovenous Malformations** PH - 0171  
*A. Gawish (Germany), A. Mpotsaris, I. Sandalcioglu, K.P. Stein, T. Brunner*

Track: Interdisciplinary

**Award lecture: E van der Schueren Award**

Saturday, 28 August 2021 16:00 - 16:20

Plenary

- 16:00 **Introduction**  
*B. Slotman (The Netherlands)*
- 16:05 **ESTRO Education: What did we learn from COVID-19?** SP - 0173  
*J.G. Eriksen (Denmark)*



Track: Interdisciplinary

**Award lecture: Jens Overgaard Legacy Award**

Saturday, 28 August 2021 16:20 - 16:40

Plenary

16:25 **Introduction**

J. Overgaard (Denmark)

16:20 **Towards evidence-based radiation oncology**

H. Lagendijk (The Netherlands)

SP - 0175

Track: Interdisciplinary

**Proffered papers: Proffered papers 8: Patient-reported outcome measures & quality of life**

Saturday, 28 August 2021 16:45 - 17:45

N101-102

16:45 **Risk factors for cognitive impairment in NSCLC: Secondary findings of the NVALT-11 study**

H. Zeng (The Netherlands), L. Hendriks, W. Witlox, H. Groen, A. Dingemans, J. Praag, J. Belderbos, R. Houben, V. van der Noort, D. De Ruysscher

OC - 0176

16:55 **Quality of life after dose-escalated chemoradiation for locally advanced rectal cancer**

M. Verweij (The Netherlands), S. Hoendervangers, A. Couwenberg, M. Burbach, M. Berbee, J. Buijsen, J. Roodhart, O. Reerink, A. Pronk, E. Consten, A. Smits, J. Heikens, H. van Grevenstein, M. Intven, L. Verkooijen

OC - 0177

17:05 **Impact of gender on quality of life and toxicity following (chemo)radiotherapy for bladder cancer**

L. Philipps (United Kingdom), N. Porta, N. James, R. Huddart, S. Hafeez, E. Hall

OC - 0178

17:15 **Associations between patient-reported outcomes and radiation dose in brain tumour patients.**

L. Haldbo-Classen (Denmark), A. Amidi, L. Wu, S. Lukacova, G.V. Oettingen, Y. Lassen-Ramshad, R. Zachariae, J.F. Kallehauge, M. Høyer

OC - 0179

17:25 **Empowering Patients in Radiation Oncology: Educating cancer patients about Radiation Oncology.**

M. Leech (Ireland), A. Cardone, K. Ceka, C. Hoving, C. Poole

OC - 0180

17:35 **Implementation of direct quality of life guided treatment plan optimisation**

A. van der Schaaf (The Netherlands), H.P. van der Laan, L. Van den Bosch, E. Korevaar, S. Both, J.A. Langendijk

OC - 0181

Track: Radiobiology

**Proffered papers: Proffered Papers 9: Radiation immune effects**

Saturday, 28 August 2021 16:45 - 17:45

N104

- 16:45 **SIRT2 promotes murine melanoma progression through natural killer cell inhibition** OC - 0182  
*S. Acklin-Wehnert (USA), M. Zhang, J. Gillenwater, W. Du, M. Patra, J. Yu, F. Xia*
- 16:55 **Hypofractionated radiation synergizes with lenalidomide to induce an abscopal immune response** OC - 0183  
*K. Onyshchenko (Germany), R. Luo, G. Niedermann*
- 17:05 **Comparison of the potency of clinically relevant platinum derivatives to enhance the abscopal effect** OC - 0184  
*R. Luo (Germany), K. Onyshchenko, L. Wang, E. Firat, G. Niedermann*
- 17:15 **Radiation plus PI3K- $\gamma$  $\delta$  inhibitor potentiated PD-1 blockade in murine and human breast cancer models** OC - 0185  
*I.A. Kim (Korea Republic of), M.G. Han, B.S. Jang, M.H. Kang*
- 17:25 **Innate immune signalling and immunogenic cell death upon treatment with radiation and ATR inhibitors** OC - 0186  
*A. Eek Mariampillai (Norway), S. Hauge, R.G. Syljuåsen*
- 17:35 **Effects of proton vs photon irradiation on inflammation and senescence in salivary gland organoids** OC - 0187  
*D. Cinat (The Netherlands), L. Barazzuol, R. Coppes*

Track: Clinical

**Proffered papers: Proffered papers 10: Lung**

Saturday, 28 August 2021 16:45 - 17:45

Plenary

- 16:45 **Adjuvant treatment following irradical resection of stage I-III NSCLC: a population-based study** OC - 0188  
*M. Rasing (The Netherlands), M. Peters, M. Aarts, G. Herder, A. van Lindert, F. Schramel, F. van der Meer, J. Verhoeff, P. van Rossum*
- 16:55 **Postoperative radiotherapy in non-small cell lung cancer pN1** OC - 0189  
*Abstract withdrawn*
- 17:05 **Validation of the impact of heart base dose on survival in NSCLC patients from the PET-Plan Trial** OC - 0190  
*M. Craddock (United Kingdom), U. Nestle, T. Schimek-Jasch, S. Kremp, S. Lenz, G. Price, A. Salem, C. Faivre-Finn, M. van Herk, A. McWilliam*

- 17:15 **Cardiac death relates to cardiac admission and left anterior descending artery RTdose in lung cancer** OC - 0191  
*A. Abravan (United Kingdom), C. Faivre-Finn, J. Khalifa, K. Banfill, A. McWilliam, M. van Herk*
- 17:25 **Impact of heart irradiation on survival (OS) in lung SBRT and locally advanced NSCLC treatments.** OC - 0192  
*M. Fatyga (USA), J. Li, J. Hu, S.E. Schild, J. Anderson*
- 17:35 **Introduction of IMPT for (N)SCLC patients: NTCP model based selection of patients and first results** OC - 0193  
*R. Wijsman (The Netherlands), O. Chouvalova, P. Klinker, A. Niezink, A. Van der Leest, F. Ubbels, M. Woltman - Van Iersel, S. Both, E. Korevaar, J. Langendijk*

Track: Physics

**Proffered papers: Proffered papers 11: Detectors and dosimetry**

Saturday, 28 August 2021 16:45 - 17:45 Room 2.1

- 16:45 **Monte Carlo determination of magnetic field correction factors  $k_B, Q$  for dosimetry in 1.5T MR-Linacs** OC - 0194  
*V. Margaroni (Greece), E.P. Pappas, A. Episkopakis, P. Karaiskos*
- 16:55 **The effective point of measurement of thimble-type chambers in the presence of a magnetic field** OC - 0195  
*T. Tekin (Germany), I. Blum, B. Delfs, B. Poppe, H.K. Looe*
- 17:05 **Determination of the beam-quality correction factors  $k_Q$  for the PTW PinPoint 3D 31022 chamber** OC - 0196  
*B. Delfs (Germany), R. Kapsch, J. Kretschmer, I. Blum, T. Tekin, L. Brodbek, B. Poppe, R. Kranzer, K. Burzlaff, D. Poppinga, J. Würfel, H.K. Looe*
- 17:15 **Dose response of diode-type detectors in magnetic field under small field conditions** OC - 0197  
*I. Blum (Germany), T. Tekin, B. Delfs, A. Schönfeld, R. Kapsch, B. Poppe, H.K. Looe*
- 17:25 **First microdosimetry 2D maps with an array of new 3D-cylindrical microdetectors in proton therapy** OC - 0198  
*C. Guardiola (France), D. Bachiller-Perea, C. Fleta, D. Quirion, L. De Marzi, A. Maia Leite, F. Gómez*
- 17:35 **Toward traceable dosimetry for electronic brachytherapy devices with skin applicators** OC - 0199  
*B. Reniers (Belgium), D. Colson, M. Wieme, S. Arits, R. Federighi, P. Aviles Lucas, K. Elfried, G.Y. Fernando, J. Derrien, L. de Prez, F. Verhaegen*

Track: Physics

**Proffered papers: Proffered papers 12: Adaptive RT: Proton**

Saturday, 28 August 2021 16:45 - 17:45

Room 2.2

- 16:45 **Patterns Of Practice in Adaptive and Real-Time Particle Therapy, Part I: intrafractional motion** OC - 0200  
*Y. Zhang (Switzerland), P. Trnkova, B. Heijmen, C. Richter, M. Aznar, F. Albertini, A. Bolsi, J. Daartz, J. Bertholet, A. Knopf*
- 16:55 **Breast specific cone-beam CT calibration for daily dose verification in proton therapy** OC - 0201  
*T. Omand Kirkegaard Sørensen (Denmark), L. Muren, U.V. Elstrøm, C. Kronborg, B.V. Offersen, S.E. Petersen, L.B. Stick, V.T. Taasti, M.F. Jensen*
- 17:05 **Influence of deformable propagated structures for lung cancer online daily adaptive proton therapy** OC - 0202  
*L. Nenoff (Switzerland), M. Matter, E.J. Amaya, M. Josipovic, A. Knopf, T. Lomax, G.F. Persson, C.O. Ribeiro, S. Visser, M. Walser, D.C. Weber, Y. Zhang, F. Albertini*
- 17:15 **Nominal, daily and accumulated target coverage for photon and proton treatment of sinonasal cancer** OC - 0203  
*R. Argota Perez (Denmark), M.B. Sharma, U.V. Elstroem, D.S. Moeller, C. Grau, K. Jensen, S.S. Korreman, A.I. Holm*
- 17:25 **Prompt-gamma-based verification in proton therapy: CNN-based classification of treatment deviations** OC - 0204  
*J. Pietsch (Germany), C. Khamfongkhrua, J. Berthold, G. Janssens, K. Stützer, S. Löck, C. Richter*
- 17:35 **Thermoacoustic Range Verification During Delivery of a Clinical Plan to a Abdominal Imaging Phantom** OC - 0205  
*S. Patch (USA), C. Nguyen, R. Labarbe, G. Janssens, J. Lambert, M. Cohilis, K. Souris, S. Ono, T. Lynch*

Track: Clinical

**Proffered papers: Proffered papers 13: Haematology / Paediatrics / Sarcoma**

Saturday, 28 August 2021 16:45 - 17:45

N103

- 16:45 **Radiotherapy as bridging strategy in Large B-cell lymphoma patients selected for CAR T-cell therapy** OC - 0206  
*A. Niezink (The Netherlands), M. Beijert, J. van Doesum, C.T. Muijs, J.A. Langendijk, D.M. Busz, A.P. Crijns, T. van Meerten*
- 16:55 **Long-term results of peri-transplant RT in Hodgkin's lymphomas: results from a multi-center study** OC - 0207  
*M. Levis (Italy), B. Campbell, F. Matrone, G. Furfaro, L. Grapulin, A. Di Russo, M. Buglione, I. Iamundo De Cumis, G. Simontacchi, P. Ciammella, A. Magli, G. Pascale, S. Meregalli, M. MacManus, G. Fanetti, F. De Felice, A. Alghisi, M.A. Deidda, M. Manicone, G. Ciccone, A.R. Filippi, U. Ricardi*

- 17:05 **Cardiac substructure dosimetry and late cardiac arrhythmia in the Childhood Cancer Survivor Study** OC - 0208  
*J. Bates (USA), S. Shrestha, Q. Liu, S. Smith, D. Mulrooney, W. Leisenring, T. Gibson, L. Robison, E. Chow, K. Oeffinger, G. Armstrong, L. Constine, B. Hoppe, C. Lee, Y. Yasui, R. Howell*
- 17:15 **Radiation-induced cavernomas: investigating the role of MRI-SWI for screening and surveillance in long-term cancer survivors** OC - 0209  
*B. Campbell (Australia), A. Lasocki, M. Bressel, S. Oon, N. Goroncy, J. Seymour, M. Dwyer, K. Wiltshire, K. Mason, D. Tange, M. Xu, G. Wheeler*
- 17:25 **Long-term results from the phase II/III Act.In.Sarc trial evaluating NBTXR3 in locally advanced STS** OC - 0210  
*S. Bonvalot (France), P. Rutkowski, J. Thariat, S. Carrère, A. Ducassou, M. Sunyach, P. Agoston, A. Hong, A. Mervoyer, M. Rastrelli, C. Le Péchoux, V. Moreno, R. Li, B. Tiangco, Z. Papai*
- 17:35 **Overall survival of patients with myxofibrosarcomas: an epidemiological study** OC - 0211  
*P. Braam (The Netherlands), C. van der Horst, S. Bongers, Y. Versleijen-Jonkers, V. Ho, J. de Wilt, I. Desar*

Track: Physics

**Poster highlights: Poster Highlights 7: Quantitative functional and biological imaging**

Saturday, 28 August 2021 16:45 - 17:45

Online Stream 1

- 16:45 **Optimization of intravoxel incoherent motion diffusion MRI for brain tumours biomarkers estimation** PH - 0212  
*G. Buizza, M.A. Zampini, G. Sablone, G. Fontana, S. Imparato, G. Riva, A. Iannalfi, E. Orlandi, C. Paqanelli (Italy), G. Baroni*
- 16:53 **Repeatability of free breathing diffusion weighted MRI for MR guided liver SBRT** PH - 0213  
*V. van Pelt (The Netherlands), R.J.M. Navest, M.E. Nowee, U.A. van der Heide, P.J. van Houdt*
- 17:01 **Does longitudinal Diffusion-Weighted MRI have the potential to carry biological information?** PH - 0214  
*A. Bisgaard (Denmark), C. Brink, M. Lynge Fransen, T. Schytte, C. Behrens, H. Nissen, F. Mahmood*
- 17:09 **Repeatability of diffusion-weighted MRI in head and neck cancer at a 1.5 T MR-Linac** PH - 0215  
*J. Habrich (Germany), S. Boeke, M. Nachbar, K. Nikolaou, F. Schick, C. Gani, D. Zips, D. Thorwarth*
- 17:17 **Volumetric and dosimetric stability of metabolic tumor volume in dose painting of anal cancer** PH - 0216  
*A.M. Acosta Roa (Norway), V.E. Skingen, B.L. Rekstad, M.G. Guren, E. Rusten, E. Malinen*

17:25 **Synergistic use of combined FDG and FMISO PET/CT imaging for personalized dose prescription** PH - 0217

*M. Lazzeroni (Sweden), A. Ureba, N.H. Nicolay, N. Wiedenmann, B. Thomann, D. Baltas, M. Mix, I. Toma-Dasu, A.L. Grosu*

17:33 **Functionality-optimised radiotherapy for lung cancer patients using SPECT/CT** PH - 0218

*A. Quinet, Y. Jourani (Belgium), B. Vanderlinden, P. Fernandes, Z. Paquier, F. Charlier, L. Moretti, P. Flamen, P. Van Houtte, D. Van Gestel, N. Reynaert*

Track: Clinical

**Poster highlights: Poster Highlights 8: Breast**

Saturday, 28 August 2021 16:45 - 17:45

Online Stream 2

16:45 **Ten-year results of hypofractionated whole breast RT and intraoperative boost in premenopausal women** PH - 0219

*S. Dicuonzo (Italy), C. Cormio, C.I. Fodor, A. Morra, D.P. Rojas, M.A. Zerella, F. Cattani, V.E. Galimberti, P. Veronesi, M. Zaffaroni, R. Orecchia, M.C. Leonardi, B.A. Jereczek-Fossa*

16:53 **Long-term quality of life in breast cancer survivors 10 years after radiotherapy** PH - 0220

*P. Seibold (Germany), Y. Gao, S. Behrens, J. Chang-Claude*

17:01 **Invasive ductal carcinoma tumor grade in patients treated with intra-operative radiation therapy** PH - 0221

*B. Schwartzberg (USA), H. Chang, A.M.N. Syed, W. Hodge, S. Reiner*

17:09 **Irradiation With or Without Boost in Low Risk Early Breast Cancer: Data from a Large Health System** PH - 0222

*S.W. Seol (USA), T. Pflederer, L. Weller, C. Goodman, E. Donnelly, J. Hayes, J. Strauss*

17:17 **Pathological complete response after preoperative chemoradiotherapy for HER2+/TN breast cancer** PH - 0223

*R. Ciervide (Spain), A. Montero, M. García-Aranda, B. Alvarez, X. Chen-Zhaoi, R. Alonso, M. Lopez, O. Hernando, E. Sanchez, J. Valero, M. Nuñez, M. Izquierdo, K. Rossi, C. Cañadillas, M.A. De la Casa, J. Marti, L. Alonso, P. Fernandez Leton, C. Rubio*

17:25 **Association between the genomic immune response and locoregional control in ER- breast cancer** PH - 0224

*C. Liveringhouse (USA), C. Wilson, M. Mills, R. Thapa, B. Fridley, T. Robinson, R. Diaz*

17:33 **TROG 14.04: Multicentre study of feasibility and impact on anxiety of DIBH in breast cancer patients** PH - 0225

*T. Kron (Australia), M. Bressel, P. Lonski, C. Hill, R. Mercieca-Bebber, V. Ahern, M. Lehman, C. Johnson, D. Latty, R. Ward, D. Miller, D. Banjade, D. Moriss, R. De Abreu Lourenco, J. Woodcock, R. Montgomery, J. Lehmann, B. Chua*

**Sunday**  
**29 August**  
**2021**



*Track: Interdisciplinary*

**Teaching lecture: Biomarker-guided precision radiotherapy**

Sunday, 29 August 2021 08:00 - 08:40

N101-102

**Chair: Anna Dubrovská**

08:00 **Biomarker-guided precision radiotherapy**  
S. Bratman (USA)

SP - 0226

*Track: Radiobiology*

**Teaching lecture: The radiobiology of the normal brain**

Sunday, 29 August 2021 08:00 - 08:40

N104

**Chair: TBC**

08:00 **The radiobiology of the normal brain**  
C. Limoli (USA)

SP - 0227

*Track: Clinical*

**Teaching lecture: Shifting cold to hot tumors: Interplay between radiation, cancer cells and microenvironment**

Sunday, 29 August 2021 08:00 - 08:40

Plenary

**Chair: Maria Antonietta Gambacorta**

08:00 **Shifting cold to hot tumors: Interplay between radiation, cancer cells and microenvironment.**  
S. Tubin (Austria)

SP - 0228

*Track: Clinical*

**Teaching lecture: How to tailor your cervical cancer treatment based on evidence-based dose-effect relationships**

Sunday, 29 August 2021 08:00 - 08:40

Room 1

**Chair: Ina Jürgenliemk-Schulz**

08:00 **Does-effect relationship in the targets**  
M. Schmid (Austria)

SP - 0229



08:20 **Dose-effect relationship in the organs at risk** SP - 0230  
A. Sturdza (Austria)

*Track: Physics*

**Teaching lecture: IAEA TRS 398: Update for modern radiotherapy**

Sunday, 29 August 2021 08:00 - 08:40

Room 2.1

**Chair: Catharine Clark**

08:00 **IAEA TRS 398: Update for modern radiotherapy** SP - 0231  
H. Palmans (Austria)

*Track: Physics*

**Teaching lecture: The dos and don'ts for statistical treatment outcome modelling**

Sunday, 29 August 2021 08:00 - 08:40

Room 2.2

**Chair: Ane Appelt**

08:00 **The do and don'ts for statistical treatment outcome modelling** SP - 0232  
I. Vogelius (Denmark)

*Track: RTT*

**Teaching lecture: The future of RTT advanced practice**

Sunday, 29 August 2021 08:00 - 08:40

N103

**Chair: Michael Velec**

08:00 **The future of RTT advanced practice** SP - 0233  
Y.M. Tsang (United Kingdom)

*Track: Interdisciplinary*

**Symposium: Turning cold into hot tumours: Challenges in radio-immunotherapy**

Sunday, 29 August 2021 08:45 - 10:00

N101-102

**Chair: Kerstin Borgmann**

**Co-chair: Sara Pilskog**

- 08:45 **Radiotherapy and Immunotherapy Combinations: The Hype and the Hope** SP - 0234  
R. Weichselbaum (USA)
- 09:10 **How to boost the abscopal effect** SP - 0235  
S. Formenti (USA)
- 09:35 **New PET technologies for the imaging of immune responses** SP - 0236  
TBC

*Track: Radiobiology*

**Symposium: Normal tissue effects of combined therapies**

Sunday, 29 August 2021 08:45 - 10:00

N104

**Co-chair: TBC**

**Chair: Brita Singers Sørensen**

- 08:45 **Necessity of normal tissue models** SP - 0237  
A. van der Kogel (USA)
- 09:03 **Normal tissue effects of radiation combined with vascular targeting agents** SP - 0238  
M. Horsman (Denmark)
- 09:21 **NOTCH interference and lung radiation response** SP - 0239  
M. Vooijs (The Netherlands)
- 09:39 **DDR inhibition combined with thoracic irradiation side effects** SP - 0240  
M. Hecht (Germany)

*Track: Clinical*

**Joint symposium: ESTRO-RANZCR - Challenges and benefits of SBRT**

Sunday, 29 August 2021 08:45 - 10:00

Plenary

**Chair: Sara Ramella**

**Chair: Keen Hun Tai**

08:45	<b>Primary and adjuvant pancreatic SBRT for close or positive margins</b> <i>A. Namysł-Kaletka (Poland), J. Wydmanski, I. Debosz-Suwinska, R. Kulik, A. Roch-Zniszczol, D. Gabrys</i>	SP - 0241
09:03	<b>Current status and future perspectives of SBRT for lung tumours</b> <i>E. Troost (Germany)</i>	SP - 0242
09:21	<b>SBRT - A new frontier for primary kidney cancer</b> <i>S. Siva (Australia)</i>	SP - 0243
09:39	<b>SBRT for liver tumours</b> <i>M. Lee (Australia)</i>	SP - 0244

Track: Clinical

**Joint symposium: ESTRO-ESR: MRI-guided radiotherapy in gynaecological cancer treatment**

Sunday, 29 August 2021 08:45 - 10:00

Room 1

**Chair: Henrike Westerveld**

**Chair: Regina Beets-Tan**

08:48	<b>Functional MRI for cervical cancer</b> <i>E. Sala (United Kingdom)</i>	SP - 0245
09:06	<b>MR-linac in gynaecological tumours: Looking for added values</b> <i>L. Boldrini (Italy)</i>	SP - 0246
09:24	<b>MR anatomy of the uterus, cervical and pelvic floor: All you need to know for accurate contouring</b> <i>S. Nouqaret (France)</i>	SP - 0247
09:42	<b>Image-guided adaptive brachytherapy in gynaecological tumours</b> <i>R. Nout (The Netherlands)</i>	SP - 0248

Track: Physics

**Joint symposium: ESTRO-EFOMP: New radiotherapy technology - What does it mean for radioprotection**

Sunday, 29 August 2021 08:45 - 10:00

Room 2.1

**Chair: TBC**

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**Chair: To be confirmed**

-

08:45 **Radiation protection in proton therapy facilities**

SP - 0249

H. Nyström (Sweden)

09:03 **Radiation protection when you are installing a PET-CT for planning: Tips and tricks**

SP - 0250

TBC

09:21 **Implementation of new BSS in a radiotherapy department: Implications for medical physicists**

SP - 0251

B. McClean (Ireland)

09:39 **Justification and optimisation of radiation doses for imaging in radiotherapy**

SP - 0252

A. Torresin (Italy)

Track: Physics

**Symposium: Novel planning approaches for uncertainties in GTV delineation and microscopic disease around GTVs**

Sunday, 29 August 2021 08:45 - 10:00

Room 2.2

**Chair: Claudio Fiorino**

-

**Co-chair: TBC**

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08:45 **Modelling and quantifying microscopic tumour progression**

SP - 0253

J. Unkelbach (Switzerland), R. Ludwig, B. Pouymayou, J. Hoffmann, P. Balermipas

09:10 **Probabilistic planning for microscopic disease**

SP - 0254

N. Shusharina (USA), T. Bortfeld

09:35 **Prioritised MCO to automatically balance dose extensions for uncertainties in GTV contours and microscopic disease against doses in OARs** SP - 0255  
L. Rossi (The Netherlands)

*Track: RTT*

**Symposium: Opportunities for RTTs in higher education: Making the right choice**

Sunday, 29 August 2021 08:45 - 10:00

N103

**Co-chair: TBC**

**Chair: Aileen Duffton**

08:45 **Higher education for advancing clinical practice - Examining the degrees of "preparation"** SP - 0256  
N. Harnett (Canada)

09:10 **Preparing for a clinical academic career** SP - 0257  
H. McNair (United Kingdom)

09:35 **Training RTTs for leadership** SP - 0258  
C. Washington (USA)

*Track: Brachytherapy*

**Symposium: Salvage brachytherapy for breast cancer**

Sunday, 29 August 2021 08:45 - 10:00

N105-N106

**Chair: Jean-Michel Hannoun-Levi**

**Chair: Vratislav Strnad**

08:45 **In-breast recurrences: Patients selection for salvage lumpectomy and brachytherapy** SP - 0259  
P. Csaba (Hungary)

09:03 **Techniques and results of salvage brachytherapy after 2nd breast conserving surgery** SP - 0260  
J. Hannoun-Levi (France)

09:21 **Salvage surface-brachytherapy of thoracic wall - indications, technique, results** SP - 0261  
A. Chichet (Poland)

09:39 **Interstitial Salvage -brachytherapy for recurrent breast cancer of thoracic wall** SP - 0262  
P. Niehoff (Germany)

Track: Physics

**Poster highlights: Poster highlights 9: Intra-fraction motion management**

Sunday, 29 August 2021 08:45 - 09:45

Online Stream 1

**Chair: To be confirmed**

08:45 **Pre-clinical vs. clinical 4D accumulated proton dose delivery for thoracic tumours with large motion** PH - 0263

C. O. Ribeiro (The Netherlands), E.W. Korevaar, S. Visser, A.C. Hengeveld, G. G. Marmitt, J.A. Langendijk, R. Wijsman, A. Knopf, A. Meijers, S. Both

08:53 **Quantification of organ motion during prolonged breath-holding using deformable image registration** PH - 0264

E.R. Gunwhy (The Netherlands), Z. van Kesteren, M.J. Parkes, M.F. Stevens, J.G. van den Aardweg, G. van Tienhoven, A. Bel, I.W. van Dijk

09:01 **Diaphragm motion prediction based on optical surface with machine learning for liver tumor SBRT** PH - 0265

Z. Dai (China), Y. Zhang, Q. He, S. Zhao, Y. Zhu, H. Jin, J. Chen, X. Wang

09:09 **Fast deformable contour propagation for intra-fraction adaptive MR-guided prostate radiotherapy** PH - 0266

T. Willigenburg (The Netherlands), C. Zachiu, J. Lagendijk, H. de Boer, J. van der Voort van Zyp, B. Raaymakers

09:17 **Exploration of feasible motion metrics for bowel motion quantification in pelvic radiotherapy** PH - 0267

M. Dassen (The Netherlands), D. Barten, J. Laan, H. Westerveld, A. Bel, Z. Van Kesteren

09:25 **Precision of image-guided RT for spinal SABR patients and impact of positioning variables** PH - 0268

C. Billiet (Belgium), S. Van Laere, I. Joye, C. Mercier, P. Dirix, W. Vingerhoed, P. Vermeulen, D. Nevens, P. Meijnders, D. Verellen

09:33 **Intrafractional monitoring of patients in four immobilization mask systems for cranial radiotherapy** PH - 0269

D. Reitz (Germany), J. Muecke, V. Mendes da Silva, G. Landry, M. Reiner, M. Niyazi, C. Belka, S. Corradini, P. Freisleder

Track: Clinical

**Poster highlights: Poster Highlights 10: Lung**

Sunday, 29 August 2021 08:45 - 09:45

Online Stream 2

- 08:45 **Prediction models for cardiotoxicity in patients with non-small-cell lung cancer: systematic review** PH - 0270  
*F. Tohidinezhad (The Netherlands), F. Pennetta, J. Van Loon, D. De Ruyscher, A. Traverso*
- 08:53 **Mid-p strategy versus ITV strategy in locally advanced lung cancer. A randomized phase II study** PH - 0271  
*L. Claude (France), V. Isnardi, C. Schiffler, S. Metzger, I. Martel-Lafay, S. Rit, D. Sarrut, T. Baudier, M. Ayadi*
- 09:01 **Prospective quality of life in 682 lung cancer patients treated with radiotherapy: real life data** PH - 0272  
*M. Nies (The Netherlands), R. Wijsman, O. Chouvalova, F.J. Ubbels, H.J. Elzinga, E. Haan-Stijntjes, M. Woltman-van Iersel, A.H. van der Leest, J.A. Langendijk, A.G. Niezink*
- 09:09 **Chemoradiotherapy for NSCLC patients with a high predicted risk of irradical resection** PH - 0273  
*H. van Joolingen (The Netherlands), M. Rasing, M. Peters, A. van Lindert, L. de Heer, M. Aarts, J. Verhoeff, P. van Rossum*
- 09:17 **NLR & ALC as prognostic markers in patients treated with curative intent radiotherapy for NSCLC** PH - 0274  
*C. Hiley (United Kingdom), A. Punjabi, E. Barrett, A. Cheng, A. Mulla, G. Walls, D. Johnston, J. McAleese, K. Moore, J. Hicks, K. Blyth, M. Denholm, L. Magee, D. Gilligan, S. Silverman, M. Qureshi, H. Clinch, M. Hatton, L. Philips, S. Brown, M. O'Brien, F. Macdonald, C. Faivre-Finn, M. Evison*
- 09:25 **Estimating the casual effect of reducing dose to cardiac structures in lung cancer radiotherapy** PH - 0275  
*A. McWilliam (United Kingdom), A. Abravan, K. Banfill, G. Price, C. Faivre-Finn, M. van Herk*
- 09:33 **Prospective study exploring early cardiac toxicity in radiotherapy for LA-NSCLC:Preliminary Analysis** PH - 0276  
*M. Miele (Italy), M. Fiore, E. Ippolito, S. Mega, M. Carpenito, S. Ramella*

Track: Interdisciplinary

**Proffered papers: Proffered papers 14: Hypoxia and tumour microenvironment**

Sunday, 29 August 2021 10:30 - 11:30

N101-102

- 10:30 **A 6-gene signature for loco-regional control prognosis in HNSCC patients treated by PORT-C** OC - 0277  
*S. Patil (Germany), A. Linge, M. Grosser, V. Gudziol, A. Nowak, I. Tinhofer, V. Budach, A. Sak, M. Stuschke, P. Balermipas, C. Rödel, H. Schäfer, A. Grosu, A. Abdollahi, J. Debus, U. Ganswindt, C. Belka, S. Pigorsch, S.E. Combs, D. Mönlich, D. Zips, G.B. Baretton, M. Baumann, M. Krause, S. Löck*

10:40	<b>Accelerated CH-RT with/without nimorazole for p16- HNSCC: the randomized DAHANCA 29-EORTC 1219 trial</b>	OC - 0278
	<i>V. Grégoire (France), Y. Tao, J. Kaanders, J. Machiels, N. Vulquin, S. Nuyts, C. Fortpied, H. Lmalem, S. Marreud, J. Overgaard</i>	
10:50	<b>Hypoxic gene expression is a prognostic factor for survival in locally advanced SCC cervical cancer</b>	OC - 0279
	<i>J. Alsner (Denmark), J. Overgaard, T. Tramm, J.C. Lindegaard</i>	
11:00	<b>Tumour hypoxia and immunity as predictors of chemoradiotherapy outcome in cervical cancer</b>	OC - 0280
	<i>C. Fieldbo (Norway), V.E. Skingen, E. Aarnes, G.B. Kristensen, H. Lyng</i>	
11:10	<b>Tumour reoxygenation by intratumoural hydrogen peroxide: a mechanism for enhanced radiosensitivity</b>	OC - 0281
	<i>S. Nimalasena (United Kingdom), S. Anbalagan, C. Box, J.K. Boulton, N. Bush, S.P. Robinson, J. Yarnold, N. Somaiah</i>	
11:20	<b>Inhibition of oxidative phosphorylation alters the tumor microenvironment in syngeneic mouse models</b>	OC - 0282
	<i>D. Boreel (The Netherlands), P. Span, A. Kip, H. Peters, R. van den Bijgaart, S. Heskamp, G. Adema, J. Bussink</i>	

Track: Radiobiology

**Proffered papers: Proffered papers 15: Radiobiology of normal tissues**

Sunday, 29 August 2021 10:30 - 11:30

N104

10:30	<b>LET dependence of proton RBE in early normal tissue damage in vivo</b>	OC - 0283
	<i>C. Overgaard (Denmark), M.K. Sitarz, N. Bassler, H. Spejlborg, J.G. Johansen, E. Kanouta, C. Grau, J. Overgaard, P. Poulsen, B.S. Sørensen</i>	
10:40	<b>MAN1C1, a potential regulator of monocyte – endothelial cell interactions after irradiation</b>	OC - 0284
	<i>S. Ladaïque (France), A. Lefranc, K. Baldé, M. Quitoco, E. Bacquer, A. François, V. Paget, F. Milliat, O. Guipaud</i>	
10:50	<b>Differential neurocognitive response after partial brain proton irradiation</b>	OC - 0285
	<i>D. Voshart (The Netherlands), F. van Buuren-Broek, M. Klaver, A. Scholma, P. van Luijk, R. Coppes, L. Barazzuol</i>	
11:00	<b>Wnt-associated DKK3 mediates radiation-induced dermal inflammation and fibrosis</b>	OC - 0286
	<i>L. Li (Germany), R. Jennemann, K. Shehzad, E. Grimm, R. Lopez Perez, R. Sandhoff, P. Nelson, P. Huber</i>	



11:10 **Long-term recovery of pulmonary vasculature after thoracic irradiation requires sparing of the heart** OC - 0287

*J. Wiedemann (The Netherlands), S.K. Paruchuru, L.E. den Boef, U. Brouwer, E.M. Schouten, M.G. Dickinson, R.A. de Boer, R.P. Coppes, P. van Luijk*

11:20 **Preclinical study of chronic radiation cystitis and cell therapy treatment** OC - 0288

*C. Brossard (France), A. Lefranc, M. Dos Santos, M. Benadjaoud, C. Demarquay, V. Buard, G. Tarlet, C. Linard, C. Squiban, N. Mathieu, R. Granger, A. Sache, D. Denais Lalieve, J. Simon, M. Benderitter, F. Milliat, A. Chapel*

*Track: Clinical*

**Proffered papers: Proffered papers 16: Late-breaking abstracts**

Sunday, 29 August 2021 10:30 - 11:30

Plenary

10:30 **Comparison of side effects at 2 years in the randomised PACE-B trial (SBRT vs standard radiotherapy)** OC - 0289

*A.C. Tree (United Kingdom), E. Hall, P. Ostler, H. van der Voet, A. Loblaw, W. Chu, D. Ford, S. Tolan, S. Jain, A. Martin, J. Staffurth, P. Camilleri, K. Kancherla, J. Frew, D.H. Brand, A. Chan, I.S. Dayes, S. Brown, J. Pugh, S. Burnett, A. Dufton, C. Griffin, M. Mahmud, O. Naismith, N. van As, O.B. of the*

10:40 **Discussant: P. Ost (Belgium)**

10:50 **IMPORT HIGH trial: Dose escalated simultaneous integrated boost radiotherapy in early breast cancer** OC - 0291

*C. Coles (United Kingdom), J.S. Haviland, A.M. Kirby, I. Bhattacharya, A.M. Brunt, C. Chan, E.M. Donovan, D.J. Eaton, C.L. Griffin, P. Hopwood, M.L. Jefford, S. Lightowers, C. Rajapakse, E. Sawyer, L. Stones, I. Syndikus, J.C. Tittley, Y. Tsang, N.I. Twyman, J.M. Bliss, J.R. Yarnold*

11:00 **Discussant: L. Boersma (The Netherlands)**

11:10 **TNT in rectal cancer: Final results of the CAO/ARO/AIO-12 randomized phase 2 trial** OC - 0293

*E. Fokas (Germany), A. Schlenska-Lange, B. Polat, G. Klautke, R. Fietkau, T. Kuhnt, T. Brunner, A. Grosu, S. Kirste, M. Flentje, C. Germer, W. Bechstein, T. Friede, R. Hofheinz, M. Ghadimi, C. Rödel*

11:20 **Discussant: C. Marijnen (The Netherlands)**

*Track: Clinical*

**Proffered papers: Proffered papers 17: Gynaecological**

Sunday, 29 August 2021 10:30 - 11:30

Room 1

10:30 **New Prognostic factors in locally advanced cervical cancer treated with MR-IGABT in EMBRACE Study.** OC - 0295

*U. Mahantshetty (India), M. Schmid, C. Kirisits, K. Tanderup, C. Haie-Meder, L. Fokdal, A. Sturdza, P. Hoskin, B. Segredin, K. Bruheim, F. Huang, B. Rai, R. Cooper, E. van*

der Steen-Banasik, E. van Limbergen, B. Pieters, L.T. Tan, R. Hawaldar, S. Kannan, R. Nout, A. A.C. de Leeuw, N. Nesvacil, I. Jürgenliemk-Schulz, J. Lindegaard, R. Pötter

- 10:40 **Risk factors for severe gastrointestinal morbidity in locally advanced cervix cancer (EMBRACE study)** OC - 0296  
*S. Spampinato (Denmark), N.B. Jensen, L.U. Fokdal, R. Pötter, C. Haie-Meder, J.C. Lindegaard, M.P. Schmid, A. Sturdza, I.M. Jürgenliemk-Schulz, U. Mahantshetty, B. Segedin, P. Hoskin, K. Bruheim, B. Rai, E. Wiebe, R. Cooper, E. van der Steen-Banasik, E. Van Limbergen, C. Kirisits, R.A. Nout, S. Chopra, K. Kirchheiner, K. Tanderup*
- 10:50 **Preliminary results of the Italian Retrospective Study on exclusive radiotherapy for vulvar cancer** OC - 0297  
*C. Casà (Italy), L. Tagliaferri, M. Ferioli, V. Lancellotta, M. Boccardi, A. Cerrotta, F. Tortoreto, E. Ippolito, C. Laliscia, A. Huscher, S. Gribaudo, A.G. Morganti, R. Lazzari, G. Garganese, G. Macchia*
- 11:00 **Toxicity and patient-reported symptoms after 3D-conformal or intensity-modulated pelvic radiotherapy** OC - 0298  
*B. Wortman (The Netherlands), C. Post, M. Powell, P. Khaw, A. Fyles, R. D'Amico, C. Haie-Meder, I. Jürgenliemk-Schulz, M. McCormack, V. Do, D. Katsaros, P. Bessette, M. Baron, R. Nout, K. Whitmarsh, L. Mileskin, L. Lutgens, H. Kitchener, S. Brooks, H. Nijman, E. Astreimidou, H. Putter, C. Creutzberg, S. de Boer*
- 11:10 **Is pelvic radiation the right approach after surgery for FIGO IB grade 3 or type II uterine cancers?** OC - 0299  
*Z. Horne (USA), M. Manire, S. Crafton, E. Miller, J. Nakayama, C. Morse, T. Krivak, S. Glaser, S. Teterichko, S. Beriwal*
- 11:20 **Patients' and clinicians' preferences in adjuvant treatment for high-risk endometrial cancer** OC - 0300  
*C. Post (The Netherlands), J.W. Mens, M. Haverkort, F. Koppe, I. Jürgenliemk-Schulz, A. Snyers, E. Roeloffzen, E. Schaake, A. Slot, T. Stam, J. Beukema, H. van den Berg, L. Lutgens, H. Nijman, C. de Kroon, J. Kroep, A. Stiggelbout, C. Creutzberg*

Track: Physics

**Proffered papers: Proffered papers 18: Training and implementation for new technologies**

Sunday, 29 August 2021 10:30 - 11:30 Room 2.1

- 10:30 **Update of the ESTRO-EFOMP core curriculum for medical physics experts in radiotherapy** OC - 0301  
*C. Garibaldi (Italy), M. Essers, B. Heijmen, J. Bertholet, E. Koutsouveli, M. Schwarz, C. Bert, N. Jornet, C.H. Clark*
- 10:40 **FFF beam steering discrepancies not identified by traditional physics workflow** OC - 0302  
*J. McAloney (Australia)*

10:50	<b>Using spatial probability maps to highlight potential inaccuracies in deep learning based contours</b>	OC - 0303
	<i><u>W. Verbakel (The Netherlands)</u>, W. van Rooij, B. Slotman, M. Dahele</i>	
11:00	<b>A novel direct machine-specific parameter Spot-scanning proton arc (SPArc) optimization algorithm</b>	OC - 0304
	<i><u>X. Ding (USA)</u>, G. Liu, L. Zhao, D. Yan, X. Li</i>	
11:10	<b>Acceptance procedure of a novel Flash irradiation system with standard dosimetric tools</b>	OC - 0305
	<i><u>A. Gasparini (Belgium)</u>, V. Vanreusel, M. Pacitti, B. Reniers, F. Di Martino, G. Felici, D. Verellen</i>	
11:20	<b>Performance evaluation of BgRT delivery directed at multiple PET-avid targets</b>	OC - 0306
	<i>O.M. Oderinde, <u>M. Narayanan (USA)</u>, P. Olcott, Y. Voronenko, J. Burns, D. Zaks, S. Xu, D. Rigie, M. Haytmyradov, R.H. Gong, L. Shao, S.M. Shirvani, G. Kuduvalli</i>	

Track: Physics

**Proffered papers: Proffered papers 19: Plan optimisation and algorithms**

Sunday, 29 August 2021 10:30 - 11:30

Room 2.2

10:30	<b>Results of the ESTRO plan quality assessment 2020 online survey</b>	OC - 0307
	<i><u>L.P. Kaplan (Denmark)</u>, L. Placidi, A. Bäck, M. Hussein, R. Canters, V. Hernandez, M. Fusella, T. Piotrowski, A. Vaniqui, C.R. Hansen, L. Widesott</i>	
10:40	<b>Fast Monte-Carlo dose simulation with recurrent deep learning</b>	OC - 0308
	<i><u>S. Martinot (France)</u>, N. Bus, M. Vakalopoulou, C. Robert, E. Deutsch, N. Paragios</i>	
10:50	<b>Non-coplanar beam angle optimization in IMRT using a total-beam-space reference plan</b>	OC - 0309
	<i><u>B. Schipaanboord (The Netherlands)</u>, B. Heijmen, S. Breedveld</i>	
11:00	<b>Planning dose constraint corrections due to changes in treatment and measurement accuracy</b>	OC - 0310
	<i><u>J. Stroom (Portugal)</u>, A. Taborda, S. Vieira, C. Greco, B. Nijsten</i>	
11:10	<b>Integrating data envelopment analysis into radiotherapy treatment planning for head and neck cancer</b>	OC - 0311
	<i><u>J. Simpson (Australia)</u>, A. Raith, F. Fauzi, K. Lin, A. Macann, P. Rouse, M. Ehrgott</i>	
11:20	<b>CT-less 3D image guidance for high-precision small animal particle irradiation</b>	OC - 0312
	<i><u>M. Boucsein (Germany)</u>, J. Müller, T. Suckert, E. Beyreuther, M. Alber, A. Dietrich, A. Lühr, E. Bahn</i>	

Track: RTT

**Proffered papers: Proffered papers 20: Education and training**

Sunday, 29 August 2021 10:30 - 11:30

N103

- |       |  |           |
|-------|--|-----------|
| 10:30 | <b>Future solutions to improve comfort during radiotherapy: patient &amp; radiation therapist interviews</b><br><i>S. Goldsworthy (United Kingdom), S. Palmer, J. Latour, H. McNair, M. Cramp</i>                                | OC - 0313 |
| 10:40 | <b>Panoptes - a novel tool for teaching organ at risk delineation to radiotherapy technologists</b><br><i>J. Scheurleer (The Netherlands), E.M. Vasquez Osorio, E. Assendelft, A. Bel, I. van Dijk, H. Bijwaard, M. van Herk</i> | OC - 0314 |
| 10:50 | <b>Qualitative evaluation of the role of RTTs IGRT specialists and their influence on treatment quality</b><br><i>F. Sousa (Belgium), M. Somoano, Y. Jourani, D. Van Gestel</i>  | OC - 0315 |
| 11:00 | <b>Knowledge and skills for MRI in radiotherapy practice: An international modified Delphi study</b><br><i>M. Campbell (Canada), L. D'Alimonte, K. Porter, D. Erler, S. Morassaei, J. Croke</i>                                  | OC - 0316 |
| 11:10 | <b>Improving patients' experience in RT: development and clinical assessment of a PREMS questionnaire</b><br><i>G. Van Ooteghem (Belgium), S. Konings, A. Vaandering</i>   | OC - 0317 |
| 11:20 | <b>A novel eLearning tool for ongoing radiation therapist education on pelvic radiotherapy late effects</b><br><i>M. Kirby, L. Oliver (United Kingdom), L. Kind, B. Porritt</i>  | OC - 0318 |

Track: Physics

**Poster highlights: Poster highlights 11: Dosimetry 1**

Sunday, 29 August 2021 10:30 - 11:30

Online Stream 1

- |       |  |           |
|-------|--|-----------|
| 10:30 | <b>Alanine dosimeters for determining linear energy transfer in proton beams</b><br><i>R. Nattudurai (Norway), D. Arous, N. F.J. Edin, E. Malinen</i>                            | PH - 0319 |
| 10:38 | <b>Influence of variable beam quality on dosimetry for light ion beams relevant for ocular treatments</b><br><i>A. Resch (Austria), D. Georg, H. Palmans</i>                     | PH - 0320 |
| 10:46 | <b>Determination of the effective point of measurement of a ionization chamber in light-ion beams</b><br><i>S. Barna (Austria), A. Resch, M. Puchalska, D. Georg, H. Palmans</i> | PH - 0321 |

- 10:54 **Application of the TRS-483 protocol for the determination of field output factors** PH - 0322  
*R. Rodríguez Romero (Spain), A. López Corella, M. Pinto Monedero, P. Sánchez Rubio, A. Montes Uruén, J. Martínez Ortega*
- 11:02 **clinical evaluation of the myQA SRS detector for stereotactic body radiotherapy plan verification** PH - 0323  
*C. Stepanek (United Kingdom), A. Stapleton, J. Haynes, S. Fletcher*
- 11:10 **Suitability of plastic detector dosimetry in MR-Linacs** PH - 0324  
*M.F. Klavsen (Denmark), K. Boye, R.H. Hansen, C. Ankjærgaard, C.E. Andersen*
- 11:18 **Quality assurance of electronic brachytherapy treatment units with a plastic scintillation detector** PH - 0325  
*P. Georgi (Denmark), G. Kertzsch, T. Schneider, J. Graversen Johansen, K. Tanderup, L. Nyvang*

Track: Clinical

**Poster highlights: Poster highlights 12: Miscellaneous**

Sunday, 29 August 2021 10:30 - 11:30

Online Stream 2

- 10:30 **Treatment for recurrent Ependymoma : A retrospective and multicentric French study** PH - 0326  
*J. desrousseaux (France), L. Chaltiel, L. Claude, L. Padovani, A. Ducassou, S. Bolle, J.L. Habrand, C. Carrié, X. Muracciole, A. Escande, C. Alapetite, S. Supiot, V. Bernier-Chastagner, A. Huchet, J. Lesueur, C. Kerr, G. Truc, S. Servagi-Vernat, P. Leblond, A. Bertozzi, S. Boetto, A. Sevely, F. Tensaouti, A. Laprie*
- 11:38 **Tumour control and visual outcomes after proton therapy for uveal melanoma** PH - 0327  
*N. Horeweg (The Netherlands), L.J. Pors, F.P. Peters, A. Schalenbourg, A. Pica, J. Hrbacek, K. Vu, J. Bleeker, C.R. Rasch, M.J. de Jager, G.P. Luyten, M. Marinkovic*
- 11:46 **Current practice for selection of adult patients for proton therapy across Europe** PH - 0328  
*M. Tambas (The Netherlands), H.P. van der Laan, R. Steenbakkers, J. Doyen, B. Timmermann, E. Orlandi, M. Hoyer, K. Haustermans, P. Georg, N.G. Burnet, K. Kirkby, V. Gregoire, V. Calugaru, E.G. Troost, F. Hoebbers, F.A. Calvo, J. Widder, F. Eberle, M. van Vulpen, P. Maingon, T. Skóra, D.C. Weber, K. Bergfeldt, J. Kubes, J.A. Langendijk*
- 11:54 **Feasibility and outcome of bridging RT pre CAR-T in DLBCL in one centre with a wide referral network** PH - 0329  
*J. Brady (United Kingdom), I. Vasiliadou, V. Potter, R. Benjamin, P. Patten, M. Cuadrado, O. Evans, E. Alexander, C. Gillham, J. Summers, T. Ajithkumar, A. Bates, R. Sanderson, A. Kuhn, N. Mikhaeel*
- 11:02 **Introducing IMPT for mediastinal lymphoma: feasibility and NTCP model based selection of patients** PH - 0330  
*A. Niezink (The Netherlands), P. Klinker, D.M. Busz, M. Beijert, S. Both, P. Pisciotta, E.W. Korevaar, J.A. Langendijk, A.P. Crijns*

11:10 **Patterns And Predictors Of Relapse In Merkel Cell Carcinoma :Results From A Population Based Study.** PH - 0331

K. Joseph (Canada), J. Wong, A. Abraham, A. Menon, S. Ghosh, H. Warkentin, J. Walker, T. Salopek

11:18 **The role of multidimensional evaluation in curative radiotherapy for elderly patients (aged  $\geq 75$ )** PH - 0332

L. Gasparini (Italy), L. Caravatta, M. Taraborrelli, F. Allega, M. Candeloro, I. Bottone, E. Porreca, D. Genovesi

Track:

**Proffered papers: Highlights of Proffered Papers - Latest Clinical Trials**

Sunday, 29 August 2021 11:40 - 12:40

11:40 **Dose-painting multicenter phase III trial in newly diagnosed glioblastoma: the SPECTRO-GLIO trial** OC - 0333

A. Laprie (France), G. Noel, L. Chaltiel, G. Truc, M. Sunyach, M. Charissoux, N. Magné, P. Auberdiac, S. Ken, F. Roux, L. Vieillevigine, F. Tensaouti, I. Catalaa, S. Boetto, E. Uro-Coste, S. Supiot, V. Bernier, T. Filleron, M. Mounier, M. Poublanc, J. Delord, E. Cohen-Jonathan-Moyal

11:50 **Partial vs whole-breast irradiation for breast cancer patients in the randomized DBCG PBI trial** OC - 0334

B. Offersen (Denmark), J. Alsner, H.M. Nielsen, E.H. Jacobsen, M.H. Nielsen, L. Stenbygaard, A.N. Pedersen, M.S. Thomsen, E. Yates, M. Berg, E. Lorenzen, I. Jensen, M. Josipovic, M. Jensen, J. Overgaard

12:00 **Final results of TROG 13.01 SAFRON II: Single vs multi-fraction SABR for pulmonary oligometastases** OC - 0335

S. Siva (Australia), M. Bressel, T. Mai, H. Le, S. Vinod, H. de Silva, S. Macdonald, M. Skala, N. Hardcastle, A. Rezo, D. Pryor, S. Gill, B. Higgs, K. Wagenfuehr, R. Montgomery, R. Awad, B. Chesson, T. Eade, W. Wong, G. Sasso, R. De Abreu Lourenco, T. Kron, D. Ball, P. Neeson

12:10 **Dose escalated chemoradiotherapy in esophageal cancer : randomized phase 2/3 CONCORDE trial** OC - 0336

G. Crehange (France), C. M'vondo, A. Bertaut, R. Pereira, E. Rio, D. Peiffert, K. Gnep, K. Benezery, P. Ronchin, G. Noel, L. Mineur, A. Drouillard, J. Blanc, M. Rouffiac, J. Boustani

12:20 **Quality of life, functional outcome and late toxicity in patients treated within the RAPIDO trial** OC - 0337

E. Dijkstra (The Netherlands), G. Hospers, C. van de Velde, J. Fleeer, R. Bahadoer, M. Guren, J. Tjalma, H. Putter, E. Meershoek-Klein Kranenbarg, A. Roodvoets, A. ten Tije, J. Capdevila, M. Hendriks, A. Cervantes, P. Nilsson, B. Glimelius, B. van Etten, C. Marijnen

12:30 **Prognostic value of testosterone following androgen deprivation and high-dose radiotherapy in prostate cancer** OC - 0338

A. Zapatero (Spain), A. Guerrero, X. Maldonado, A. Alvarez, C. González San Segundo, M.A. Cabeza Rodríguez, C. Martín de Vidales, J.M. Sole, A. Pedro Olivé, F. Casas, A. Boladeras, M.L. Vázquez de la Torre, F.A. Calvo

Track: Interdisciplinary

**Joint symposium: ESTRO-JASTRO - Current status of hyperthermia in radiation oncology**

Sunday, 29 August 2021 14:15 - 15:30

N101-102

**Chair: Yasushi Nagata**

**Chair: Stephan Bodis**

- |       |   |           |
|-------|---|-----------|
| 14:15 | <b>Introduction to hyperthermic radiation oncology</b><br><u>J. Overgaard (Denmark)</u>   | SP - 0339 |
| 14:20 | <b>Biological rationale for combining heat and radiation</b><br><u>J. Crezee (The Netherlands)</u>                                    | SP - 0340 |
| 14:36 | <b>Clinical heating techniques, thermometry and quality assurance</b><br><u>G. van Rhoon (The Netherlands), M. Paulides, S. Curto</u> | SP - 0341 |
| 14:52 | <b>Status of clinical hyperthermia in Japan</b><br><u>H. Sakurai (Japan)</u>  | SP - 0342 |
| 15:08 | <b>Thermoradiotherapy: Clinical evidence and potential indications</b><br><u>Z. Vujaskovic (Croatia)</u>                              | SP - 0343 |
| 15:24 | <b>Concluding remarks on the future role of hyperthermia in radiation oncology</b><br><u>B. Slotman (The Netherlands)</u>             |           |

Track: Radiobiology

**Symposium: Novel model systems for radiobiology research**

Sunday, 29 August 2021 14:15 - 15:30

N104

**Chair: François Paris**

**Co-chair: Monica Olcina**

- |       |   |           |
|-------|---|-----------|
| 14:15 | <b>Normal tissue organoids for radiosensitivity studies</b><br><u>R. Coppes (The Netherlands)</u> | SP - 0345 |
|-------|---|-----------|

- 14:33 **Screen of combined effect between 2nd-generation TRAIL receptor agonist and radiation by patient-derived colorectal carcinoma-organoids** SP - 0346  
TBC
- 14:51 **Organoid model system to study response in radiotherapy** SP - 0347  
M. Mahé (France)
- 15:09 **Patient-derived xenografts as a model system for radiobiology research** SP - 0348  
C. Willey (USA)

*Track: Clinical*

**Symposium: Multiple and multifocal SBRT in advanced disease**

Sunday, 29 August 2021 14:15 - 15:30

Plenary

**Chair: Max Dahele**

**Co-chair: Łukasz Kuncman**

- 14:15 **Manageable or oligometastatic disease: Evolution of terminology in radiation oncology** SP - 0349  
M. Scorsetti (Italy)
- 14:33 **Repeat SBRT: Number of treatments, response, toxicity and patient performance** SP - 0350  
S. Blamek (Poland)
- 14:51 **How to register images and dose from all treatment plans** SP - 0351  
I. Toma-Dasu (Sweden)
- 15:09 **How to differentiate local tumour progression and recurrence from radiation-induced changes after SBRT** SP - 0352  
M. Dahele (The Netherlands)

*Track: Clinical*

**Symposium: Update in advanced breast cancer**

Sunday, 29 August 2021 14:15 - 15:30

Room 1

**Chair: Birgitte Offersen**

**Co-chair: Tomasz Latusek**



- 14:15 **Axillary management after primary systemic treatment** SP - 0353  
L. Boersma (The Netherlands)
- 14:33 **Radiotherapy in case of complete pathological response after primary systemic therapy** SP - 0354  
L. Bech Jellesmark Thorsen (Denmark)
- 14:51 **SBRT as a strategy to delay systemic treatment in metastatic breast cancer** SP - 0355  
D. Gabrys (Poland), R. Kulik, D. Graupner, T. Latusek, I. Debosz-Suwinska, A. Roch-Zniszczol, A. Namysl-Kaletka
- 15:09 **Concomitant radio-chemotherapy in a metastatic setting - Is it safe?** SP - 0356  
C. Becherini (Italy)

Track: Physics

**Proffered papers: Proffered papers 21: Motion management**

Sunday, 29 August 2021 14:15 - 15:30

Room 2.1

**Co-chair: To be confirmed**

**Chair: To be confirmed**

- 14:15 **The MArkerless Lung target Tracking CHallenge (MATCH)** OC - 0357  
M. Mueller (Australia), P. Poulsen, W. Verbakel, R. Berbeco, D. Ferguson, L. Wang, L. Ren, S. Mori, J. Roeske, P. Zhang, P. Keall
- 14:24 **Development and validation of 4DCT(MRI) numerical lung phantoms for 4D radiotherapy investigations** OC - 0358  
A. Duetschler (Switzerland), M. Krieger, D.C. Weber, A.J. Lomax, Y. Zhang
- 14:33 **A novel external/internal tracking algorithm mitigating respiratory motion baseline drifts.** OC - 0359  
M. Giżyńska (The Netherlands), Y. Seppenwoolde, B. Heijmen
- 14:41 **A surrogate-driven motion model for incorporating motion irregularity into 4D proton treatment** OC - 0360  
Y. Zhang (Switzerland), L. Huang, G. Fattori, A. Duetschler, D. Weber, A. Lomax
- 14:50 **Treatment planning and 4D robust evaluation for proton therapy of lung tumors with large motion** OC - 0361  
V. Taasti (The Netherlands), D. Hattu, F. Vaassen, R. Canters, M. Velders, J. Mannens, J. van Loon, I. Rinaldi, M. Unipan, W. van Elmpt

- 14:59 **What to expect from MR-guided beam gating: Residual motion, efficiency and dose reconstruction** OC - 0362  
*S. Ehrbar (Switzerland), S. Braga Magalhaes, M. Chamberlain, J. Krayenbühl, L. Wilke, M. Mayinger, H. Garcia Schüler, M. Guckenberger, N. Andratschke, S. Tanadini-Lang*
- 15:08 **Evaluation of how well a PCA model represents anatomical variations during H&N radiation treatment** OC - 0363  
*J. Robbins (United Kingdom), R. Argota-Perez, A. Green, M. van Herk, S. Korreman, E. Vasquez Osorio*
- 15:17 **A statistical method for reducing systematic errors in the presence of organ at risk deformations** OC - 0364  
*Ø. Rørtveit (Norway), L.B. Hysing, A.S. Stordal, S. Pilskog*

*Track: Physics*

**Symposium: Automatic contouring: Metrics and clinical evaluation approaches**

Sunday, 29 August 2021 14:15 - 15:30

Room 2.2

**Chair: Ellen Brunenberg**

**Co-chair: Laura Patricia Kaplan**

- 14:15 **Overview of AI-based methods for automatic contouring of OARs and tumours** SP - 0365  
*C. Brouwer (The Netherlands)*
- 14:33 **Contour similarity metrics and clinical usability** SP - 0366  
*M. Gooding (United Kingdom)*
- 14:51 **Clinical validation of automatic segmentation** SP - 0367  
*C. Robert (France), A. Gasnier, P. Blanchard, S. Rivera, A. Munoz, V. Grégoire, E. Deutsch*
- 15:09 **Quality assurance of image segmentations used for radiotherapy treatment planning** SP - 0368  
*J. Siebers (USA)*

*Track: RTT*

**Symposium: Working with infections/contagious pateitns - COVID-19**

Sunday, 29 August 2021 14:15 - 15:30

N103

**Co-chair: Sophie Bockel**

**Chair: Mirjam Mast**

- 14:15 **RTT practice during COVID-19** SP - 0369  
L. Capone (Italy)
- 14:40 **ESTRO RTTC guidance on COVID-19** SP - 0370  
M. Rossi (The Netherlands)
- 15:05 **Radiotherapy service continuity during the COVID-19 pandemic** SP - 0371  
P. Scherer (Austria)

*Track: Brachytherapy*

**Symposium: Next generation of brachytherapy treatment planning systems: What do we want and what do they need?**

Sunday, 29 August 2021 14:15 - 15:30

N105-N106

**Chair: Frank-André Siebert**

**Chair: Elisa Placidi**

- 14:15 **Advancement of model-based dose calculation algorithms in brachytherapy and their clinical impact** SP - 0372  
J. Vijande (Spain)
- 14:40 **Do we have enough data to feed automated dose planning algorithms in brachytherapy?** SP - 0373  
B. Pieters (The Netherlands)
- 15:05 **Requirements for a clinical treatment planning concept to guide automated brachytherapy planning** SP - 0374  
E. Placidi (Italy)

*Track: Physics*

**Poster highlights: Poster highlights 13: Treatment planning 2**

Sunday, 29 August 2021 14:15 - 15:30

Online Stream 1

- 14:15 **Lymphocyte-sparing in pelvic radiotherapy for prostate cancer: an in-silico planning study** PH - 0375  
M. Baré (Belgium), S. Poeta, Y. Jourani, F. Otte, P. Lambin, D. Van Gestel, R. Van den Begin
- 14:23 **Dose escalation to lymph nodes in cervical cancer using a sequential boost on the MR-Linac (MRL)** PH - 0376  
J. Lodeweges (The Netherlands), F. van der Leij, I. Jürgenliemk Schulz, A. de Leeuw, J. Hes, A. van Lier

- 14:31 **Organ-at-risk sparing in head and neck radiotherapy with dynamic trajectory radiotherapy** PH - 0377  
*J. Bertholet (Switzerland), P. Mackeprang, S. Mueller, W. Volken, D. Frei, O. Elicin, D.M. Aebersold, M.K. Fix, P. Manser*
- 14:39 **How to achieve the sharpest dose fall-off for hypo-fractionated radiosurgery of large brain lesions?** PH - 0378  
*T. Nano (USA), O. Morin, B. Ziemer, D. Raleigh, L. Boreta, J. Nakamura, S. Fogh, P. Sneed, S. Harvey-Jumper, P. Theodosopoulos, S. Braunstein, L. Ma*
- 14:47 **Influence of tumor site on neurovascular structure doses in proton therapy of pediatric brain tumors** PH - 0379  
*L. Toussaint (Denmark), S. Peters, R. Mikkelsen, S. Karabegovic, C. Bäumer, L.P. Muren, L. Tram-Henriksen, M. Høyer, Y. Lassen-Ramshad, B. Timmermann*
- 14:55 **Longitudinal evaluation of Knowledge-based planning for prostate treatments** PH - 0380  
*A. Scaggion (Italy), M. Fusella, F. Dusi, B. El Khouzai, A. Germani, N. Pivato, A. Roggio, M.A. Rossato, M. Sepulcri, R. Zandonà*
- 15:03 **Creating and Validating a Distributed RapidPlan Head and Neck ‘Super-Model’** PH - 0381  
*M. Frizzelle (United Kingdom), N. Lalli, A. Pediaditaki, C. Thomas, C. South, S. Jagadeesan, E. Adams, R. van der Straeten, W. Wiessler, R. Lynn*

Track: Clinical

**Poster highlights: Poster highlights 14: Head and neck 2**

Sunday, 29 August 2021 14:15 - 15:30

Online Stream 2

- 14:15 **Radiotherapy as nose preservation treatment for cancer of the nasal vestibule: the Dutch experience** PH - 0382  
*M. Czerwinski (The Netherlands), P. Jansen, E. Zwijnenburg, A. Al-Mamgani, M. Vergeer, J. Langendijk, F. Wesseling, J. Kaanders, C. Verhoef*
- 14:23 **Hearing loss in nasopharyngeal carcinoma survivors in modern era – Effect of radiation and cisplatin** PH - 0383  
*P.L. Yip (Hong Kong (SAR) China), K.C.J. Mok, A.C.L. Wong, F.C.S. Wong, K.W. Yeung, S.F. Lee*
- 14:31 **Risk of stroke in nasopharyngeal cancer survivors: a national registry-based, population cohort study** PH - 0384  
*T.H. Tan (Singapore)*
- 14:39 **Modulations of salivary microbiota during radiotherapy for head and neck cancer** PH - 0385  
*E. Gioscio (Italy), N.A. Iacovelli, R. Ingargiola, A. Cavallo, L. De Cecco, S. Alfieri, P. Bossi, N. Facchinetti, M.S. Serafini, A. Devecchi, C. Bergamini, F. Badenchini, T. Rancati, R. Valdagni, E. Orlandi*

14:47 **NTCP modeling for late radiation-associated taste impairment in oropharyngeal cancer patients** PH - 0386

*S. Stieb (USA), G.M. Engeseth, L.V. van Dijk, A.S. Mohamed, R. He, I. Perez-Martinez, S. Rock, T.S. Deshpande, A.S. Garden, D.I. Rosenthal, S.J. Frank, G.B. Gunn, C.D. Fuller*

14:55 **Mandible osteoradionecrosis: a dosimetric study** PH - 0387

*L. Humbert-Vidan (United Kingdom), V. Patel, R.H. Begum, M. McGovern, D. Eaton, A. Kong, I. Petkar, M. Reis Ferreira, M. Lei, A.P. King, T. Guerrero Urbano*

15:03 **Development of guideline for dental care in head and neck cancer patients prior to radiation therapy** PH - 0388

*A. Oladega (Canada), D. Mojdami, A. Hope, E. Watson, M. Glogauer*

*Track: Interdisciplinary*

**Award lecture: C Regaud Award**

Sunday, 29 August 2021 16:00 - 16:20

Plenary

16:00 **Introduction** SP - 0389  
*A. Kibirby (United Kingdom)*

16:05 **Hypofractionation for breast cancer and some other things** SP - 0390  
*J. Yarnold (United Kingdom)*

*Track: Interdisciplinary*

**Award lecture: Iridium Award**

Sunday, 29 August 2021 16:20 - 16:40

Plenary

16:20 **Introduction** SP - 0391  
*TBC*

16:25 **Merits and challenges for Multicatheter Interstitial Brachytherapy (MCBT) in the treatment of Breast Cancer** SP - 0392  
*E. Van Limbergen (Belgium)*

*Track: Interdisciplinary*

**Proffered papers: Proffered papers 22: Functional and biological imaging**

Sunday, 29 August 2021 16:45 - 17:45

N101-102

15:15 **Intravoxel incoherent motion MRI, a potential alternative for DCE MRI in prostate cancer patients** OC - 0393  
*E. Kooreman (The Netherlands), P. van Houdt, V. van Pelt, M. Nowee, F. Pos, U. van der Heide*

15:25	<b>Early prediction of tumour changes in NSCLC patients during radiotherapy</b>	OC - 0394
	<i><u>L.M. Amugongo (United Kingdom), E. Vasquez Osorio, A. Green, D. Cobben, M. van Herk, A. McWilliam</u></i>	
15:35	<b>Ex vivo validation of PET imaging for response based dose-painting of NSCLC</b>	OC - 0395
	<i>T. Meijer, J. de Swart, C. Groenendijk, L. Maat, R. Kanaar, D. van Gent, J. von der Thüsen, <u>S. Petit (The Netherlands)</u></i>	
15:45	<b>Decrease in tumour blood flow during radiation predicts overall survival in rectal cancer</b>	OC - 0396
	<i><u>K. Bakke (Norway), S. Meltzer, E. Grøvik, A. Negård, S.H. Holmedal, L.T.G. Mikalsen, L.G. Lyckander, F.M.I. Julbø, A. Bjørnerud, K. Gjesdal, A.H. Ree, K.R. Redalen</u></i>	
15:55	<b>Quantitative analysis of diffusion weighted imaging in rectal cancer during MR-Linac radiotherapy</b>	OC - 0397
	<i><u>M. Ingle (United Kingdom), M.D. Blackledge, I. White, S. Lalondrelle, S. Hafeez, S. Bhide</u></i>	
16:05	<b>Stability of multiparametric MR imaging biomarker-derived dose prescriptions for glioblastoma</b>	OC - 0398
	<i><u>C. Brighi (Australia), D. Waddington, A. Walker, L. Holloway, F. Aly, E. Koh, P. Keall</u></i>	

Track: Radiobiology

**Proffered papers: Proffered papers 23: Radiation response and biomarkers**

Sunday, 29 August 2021 16:45 - 17:45

N104

16:45	<b>Co-occurrence of APOBEC3B and Homologous Recombination Deficiency is Rare in Breast Cancer</b>	OC - 0399
	<i><u>P. Span (The Netherlands), M. Jarvis, J. Martens, R. Harris, P. Roelofs</u></i>	
16:55	<b>The mutational landscape of cancer's sensitivity to ionizing radiation</b>	OC - 0400
	<i><u>M. Abazeed (USA), T. Bera, J. Castrillon, A. Petty, B. Yard, P. Gopal</u></i>	
17:05	<b>Avoidance of DNA Replication Stress Leads to Decreased Cytosolic DNA in Breast Cancer Stem Cells</b>	OC - 0401
	<i><u>F. Meyer (Germany), A. Engel, A. Krause, T. Wagner, L. Poole, A. Dubrovskaya, C. Peitzsch, C. Petersen, K. Rothkamm, K. Borgmann</u></i>	
17:15	<b>Metabolomics as predictor of treatment response in neoadjuvant chemoradiation for rectal cancer</b>	OC - 0402
	<i><u>C. Rosa (Italy), F.C. Di Guglielmo, L. Gasparini, L. Caravatta, M. Di Tommaso, D. Pieragostino, P. Del Boccio, I. Cicalini, D. Genovesi</u></i>	

17:25 **MiR-200 family members as predictive biomarkers for radioresistance in cervical cancer** OC - 0403  
*A. Nilsen (Norway), T. Hillestad, V. Eide Skingen, E. Aarnes, C. Sæten Fjeldbo, T. Hompland, T. Sandø Evensen, G. Balle Kristensen, B. Grallert, H. Lyng*

17:35 **Role of single nucleotide polymorphisms (SNPs) in high-grade gliomas treated with concomitant RTCT** OC - 0404  
*A. Gonnelli, F. Pasqualetti, A. Molinari, G. Gadducci (Italy), N. Giannini, G. Malfatti, P. Fabiola*

Track: Clinical

Proffered papers: Proffered papers 24: Palliation

Sunday, 29 August 2021 16:45 - 17:45

Plenary

16:45 **Development and internal validation of an RPA-based pre-treatment decision tool for spinal SBRT** OC - 0405  
*R. Kowalchuk (USA), T. Mullikin, W. Harmsen, P. Rose, B. Siontis, D. Kim, B. Costello, J. Morris, J. Marion, B. Johnson-Tesch, R. Gao, S. Shiraishi, J. Lucido, D. Trifiletti, K. Olivier, D. Owen, B. Stish, M. Waddle, N. Laack, S. Park, P. Brown, K. Merrell*

16:55 **Short-course palliative radiotherapy of advanced solid cancer (sharon project): a pooled analysis.** OC - 0406  
*E. Farina (Italy), F.A. Mauro, G. Macchia, F. Deodato, D. Pezzulla, S. Cilla, F. Cellini, G. Siepe, A. Zamagni, M.A. Sumon, K.A.F.M. Uddin, T. Wondemagegnhu, A.A. Woldemariam, B.T. Deressa, L. Caravatta, M. Buwenge, S. Cammelli, A.G. Morganti*

17:05 **Quality of Life after Palliative Radiotherapy for Bone Metastases: Analysis of the PRESENT-cohort** OC - 0407  
*M. Bartels (The Netherlands), J. van der Velden, B. Pielkenrood, S. Gerlich, M. Bras, J. Verlaan, E. Monnikhof, M. Peters, Y. van der Linden, H. Verkooijen*

17:15 **Higher-dose radiotherapy for metastatic spinal cord compression: First results of a phase II trial** OC - 0408  
*D. Rades (Germany), C. Staackmann, D. Lomidze, D. Lomidze, N. Jankarashvili, A. Navarro, F. Lopez, B. Šegedin, B. Groselj, A.J. Conde-Moreno, N.H. Holländer, S.E. Schild, J. Cacicedo*

17:25 **Salivary gland Radiotherapy for Sialorrhea Treatment in Amyotrophic Lateral Sclerosis patients.** OC - 0409  
*A. ASSOULINE (France), A. Schernberg, M. del Mar Amador, C. Morelot-Panzini, J. Gonzalez-Bermejo, T. Lenglet, N. Le Forestier, G. Bruneteau, F. Salachas, S. Delanian, P. Pradat*

17:35 **Adequacy of pain treatment in radiotherapy departments: a multicentric study (ARISE)** OC - 0410  
*C.M. Donati (Italy), C.M. Donati, E. Galofaro, A. Zamagni, G. Siepe, F. Cellini, A. Di Rito, M. Portaluri, C. De Tommaso, C. Tamburella, R. Di Franco, S. Cossa, V. Fusco, A. Bianculli, P. Ziccarelli, L. Ziccarelli, L. Caravatta, D. Genovesi, F. Deodato, F. Fiorica, G. Napoli, M. Maltoni, R. Rossi, A.G. Morganti, A.G. Morganti*

Track: Clinical

**Proffered papers: Proffered papers 25: Upper GI**

Sunday, 29 August 2021 16:45 - 17:45

Room 1

- 16:45 **The prognostic value of tumor markers in patients with resectable gastric cancer** OC - 0411  
*A. Slagter (The Netherlands), M. Vollebergh, I. Caspers, J. van Sandick, K. Sikorska, P. Lind, M. Nordsmark, H. Putter, J. Braak, E. Meershoek-Klein Kranenbarg, C. van de Velde, E. Jansen, A. Cats, H. van Laarhoven, N. van Grieken, M. Verheij*
- 16:55 **Quality of life associated with survival in gastric cancer patients: Results from the CRITICS trial** OC - 0412  
*R. van Amelsfoort (The Netherlands)*
- 17:05 **Definition Of Local REcurrence Site in resected pancreatic cancer: a multicentric study (DOLORES-1)** OC - 0413  
*A. Arcelli (Italy), F. Bertini, S. Strolin, G. Macchia, F. Deodato, S. Cilla, S. Parisi, A. Sainato, M. Fiore, P. Gabriele, D. Genovesi, F. Cellini, A. Guido, S. Cammelli, M. Buwenge, E. Loi, M. Renzulli, R. Golfieri, A.G. Morganti, L. Strigari*
- 17:15 **Stereotactic body radiotherapy: neoadjuvant strategy of chemoradiation in pancreatic adenocarcinoma** OC - 0414  
*M.C. Rubio Rodríguez (Spain), X. Chen-Zhao, M. López, E. Sánchez-Suagar, O. Hernando, E. Vicente, Y. Quijano, H. Durán, S. Prados, S. Tabernero, A. Cubillo, R. Alvarez, I. Vázquez, M.L. Orgáz, D. Zucca, J. García Ruiz-Zorrilla, A. Montero, R. Ciérvide, J. Valero, M. García-Aranda, B. Alvarez, R. Alonso, M. Núñez, M.A. de la Casa, P. Fernández-Letón*
- 17:25 **Long-term outcomes of MR-guided SABR & on-table adaptive replanning for unresectable pancreas cancer** OC - 0415  
*M. Chuong (USA), K. Mittauer, R. Herrera, T. Romaguera, D. Alvarez, R. Kotecha, M. Hall, A. Kaiser, J. Bryant, J. McCulloch, A. Ucar, F. De Zarraga, S. Aparo, H. Asbun, R. Jimenez, G. Narayanan, S. Joseph, A. Gutierrez, M. Rubens*
- 17:35 **Results of SBRT-SG-01, a prospective multicentric-study of SBRT for liver metastases.** OC - 0416  
*M.C. Rubio Rodríguez (Spain), F. Arias, X. Chen-Zhao, S. Flamarique, P. Fernández-Letón, M. Campo, M. López, M. Rodríguez, D. Zucca, D. Martínez, E. Sánchez-Saugar, F. Mañeru, J. García Ruiz-Zorrilla, P. García de Acilu, J. Valero, A. Montero, R. Ciérvide, B. Alvarez, M. García-Aranda, R. Alonso, M.A. de la Casa, L. Alonso, M. Nuñez, J. Martí, O. Hernando*

Track: Physics

**Proffered papers: Proffered papers 26: Treatment planning for proton therapy**

Sunday, 29 August 2021 16:45 - 17:45

Room 2.1

- 16:45 **Is a variable proton RBE considered in clinical practice? – ESTRO survey among 25 proton centres** OC - 0417  
*L. Heuchel (Germany), C. Hahn, J. Pawelke, B. Singers Sørensen, M. Dosanjh, A. Lühr*



16:55	<b>European multi-centric study on variable proton RBE dose calculations for multiple anatomical sites</b>	OC - 0418
	<i>C. Hahn (Germany), J. Ödén, A. Dasu, A. Vestergaard, J. Folsted Kallehaug, C. Pardi, F. Bourhaleb, A. Leite, L. de Marzi, E. Smith, A. Aitkenhead, M. Merchant, K. Kirkby, E.G.C. Troost, A. Lühr</i>	
17:05	<b>LET and RBE investigation of various structures for a cohort of proton neuro-oncological patients</b>	OC - 0419
	<i>A. Vaniqui (The Netherlands), F. Vaassen, D. Di Perri, I. Compter, W. van Elmpt, M. Unipan</i>	
17:15	<b>A novel stochastic optimization method for handling uncertainty in combined proton-photon treatments</b>	OC - 0420
	<i>S. Fabiano (Switzerland), N. Torelli, D. Papp, J. Unkelbach</i>	
17:25	<b>Towards a new optimization algorithm for Arc Proton Therapy treatment planning</b>	OC - 0421
	<i>S. Wuyckens (Belgium), G. Janssens, E. Sterpin, J. Lee, K. Souris</i>	
17:35	<b>Proton-based SBRT of tumors in the liver: Prescription strategy, motion and interplay effects</b>	OC - 0422
	<i>E. Worm (Denmark), R. Hansen, M. Høyer, B. Weber, H. Mortensen, P.R. Poulsen</i>	

Track: Physics

**Proffered papers: Proffered papers 27: Large-scale assurance of quality**

Sunday, 29 August 2021 16:45 - 17:45

Room 2.1

16:45	<b>Developing quality assurance tests for simultaneous PET-MR imaging for radiotherapy planning</b>	OC - 0423
	<i>J. Wyatt (United Kingdom), E. Howell, H. McCallum, R. Maxwell</i>	
16:55	<b>Robust quality assurance criteria for deformable image registration for adaptive radiotherapy</b>	OC - 0424
	<i>L. Bosma (The Netherlands), C. Zachiu, B. Denis de Senneville, B. Raaymakers, M. Ries</i>	
17:05	<b>Dosimetric effects of national guidelines in breast cancer radiotherapy 2008-2016 (DBCG RT-Nation)</b>	OC - 0425
	<i>L. Refsgaard (Denmark), T. Ravkilde, E. Riis Skarsø, E. Svitzer Yates, L. Bech Jellesmark Thorsen, B. Vrou Offeren, S.S. Korreman</i>	
17:15	<b>Prospective knowledge-based planning for personalised plan QA in a multi-centre kidney SABR trial</b>	OC - 0426
	<i>N. Hardcastle (Australia), O. Cook, X. Ray, A. Moore, K. Moore, D. Pryor, A. Rossi, F. Foroudi, T. Kron, S. Siva</i>	

17:25 **Statistical monitoring for a large multi-institutional clinical study in radiation oncology** OC - 0427

*S. Ecker (Austria), C. Kirisits, Y. Seppenwoolde, A. De Leeuw, M. Schmid, A. Sturdza, J. Knoth, R. Pötter, K. Tanderup, R. Nout, N. Nesvacil*

17:35 **Improving local Patient Specific Quality Assurance – a novel remote auditing approach** OC - 0428

*J. Lehmann (Australia), M. Hussein, S. Siva, A. Moore, T. Standen, B. Subramanian, P. Greer, C. Clark*

Track: RTT

**Poster highlights: Poster highlights 15: Image-guided innovations in radiotherapy**

Sunday, 29 August 2021 16:45 - 17:45

Online Stream 3

16:45 **Feasibility of tracking skeletal muscle mass changes by CBCT in HNC patients during radiotherapy** PH - 0429

*W. Huang (China), Y. Pan, P. Tan, X. Gao, H. Zhang, Z. Li, H. Lin*

16:53 **The benefits of pre-procedure planning in fiducial marker insertion for CyberKnife treatment** PH - 0430

*Abstract withdrawn*

17:01 **Evaluation of microscopic tumor extension in localized stage non-small-cell lung cancer** PH - 0431

*M. Schmitt (France), L. Aussenac, J. Seitlinger, V. Lindner, G. Noël, D. Antoni*

17:09 **Treatment uncertainty for ultra- vs. standard-hypofractionated breast RT based on in-vivo dosimetry** PH - 0432

*Y.A.C. FIAGAN (Belgium), E. Bossuyt, M. Machiels, D. Nevens, C. Billiet, P. Poortmans, T. Gevaert, D. Verellen*

17:17 **DIBH SABR for abdominal tumors while monitoring with fiducial markers and triggered images** PH - 0433

*K. Kisivan (Hungary), C. Glavak, Z. Laszlo, M. Petone Csima, E. Somogyine Ezer, K. Mahr, A. Gulyban, Z. Kaposztas, F. Lakosi*

17:25 **RTT verification of margin reduction strategy in rectal cancer short course radiotherapy** PH - 0434

*L. Devlin (United Kingdom), G. Marshall, S. O'Cathail, H. Chemu, P. McLoone, A. Smith, S. Corish, A. Duffton*

Track: Radiobiology

**Poster highlights: Poster highlights 16: Radiobiology**

Sunday, 29 August 2021 16:45 - 17:45

Online Stream 1

- 16:45 **ADAM17-dependent paracrine and intercellular communication in response to irradiation** PH - 0435  
*F. Tschanz (Switzerland), V. Waller, I. Telarovic, M. Guckenberger, M. Pruschy*
- 16:53 **Comprehensive screening for drugs that modify radiation-induced immune responses** PH - 0436  
*M. Okumura (Japan), J. Du, S. Kageyama, R. Yamashita, A. Motegi, H. Hojo, M. Nakamura, Y. Hirano, Y. Okuma, H.S. Okuma, K. Tsuchihara, A. Tetsuo*
- 17:01 **Heart base irradiation causes functional changes in the conduction system: a pre-clinical model** PH - 0437  
*G. Walls (United Kingdom), M. Ghita, K. Edgar, E. Gill, A. Cole, S. Jain, L. Overman, R. Queen, S. Lisgo, C. Watson, D. Grieve, K. Williams, A. McWilliam, M. van Herk, K. Butterworth*
- 17:09 **Effects of particle irradiation on human mesenchymal stromal cells** PH - 0438  
*A. Rühle (Germany), P. Dai, R. Lopez Perez, M. Strack, S. Brons, J. Debus, P. Wuchter, A. Grosu, P. Huber, N. Nicolay*
- 17:17 **An innovative strategy in cancer treatment: Proton minibeam radiation therapy** PH - 0439  
*T. Schmid (Germany), A. Dombrowsky, M. Sammer, J. Reindl, G. Dollinger, S. Bartzsch, S. Combs*
- 17:25 **Investigating The Role of the cGAS-STING Pathway in Mediating Radiation Induced Bystander Effects** PH - 0440  
*P. Cahoon (United Kingdom), S.J. McMahon, K. Prise*
- 17:33 **DNA- and mitochondrial damage may be involved in tamoxifen-induced radioresistance** PH - 0441  
*F. Naumann (The Netherlands), G. Adema, F. Sweep, J. Bussink, P. Span*

Track: Clinical

**Poster highlights: Poster highlights 17: Gynaecological**

Sunday, 29 August 2021 16:45 - 17:45

Online Stream 2

- 16:45 **Risk of recurrence identified by MRI and FDG-PET in locally advanced cervical cancer patients** PH - 0442  
*K. Skipar (Norway), T. Hompland, K.V. Lund, E.S. Nakken, K. Bruheim, H. Lyng*
- 16:45 **The role of 18FDG-PET/CT target volume delineation in locally advanced cervical cancer radiotherapy** PH - 0443  
*L. Vicenzi (Italy), S. Costantini, C. Di Carlo, F. Cucciarelli, C. Mariucci, A. Palucci, L. Burrioni, M. Valenti, G. Mantello*

- 17:01 **Optimal use of radiotherapy in the definitive treatment of non-bulky IB–IIA cervical cancer** PH - 0444  
*Y.J. Lim (Korea Republic of)*
- 17:09 **Preliminary results of the Italian Retrospective Study on adjuvant radiotherapy for vulvar cancer** PH - 0445  
*C. Casà (Italy), G. Macchia, M. Ferioli, V. Lancellotta, M. Boccardi, A. Cerrotta, F. Tortoreto, E. Ippolito, C. Laliscia, A. Huscher, J. Di Muzio, A.G. Morganti, R. Lazzari, G. Ferrandina, L. Tagliaferri*
- 17:17 **The impact of lymph node ratio in patients with stage IIIC endometrial carcinoma** PH - 0446  
*C. Onal (Turkey), S. Yuçe Sari, G. Yavas, O.C. Guler, E. Yigit, E. Oymak, M. Gultekin, F. Yildiz*
- 17:25 **Dosimetric predictor of urinary and bowel toxicity for exclusive adjuvant vaginal cuff brachytherapy** PH - 0447  
*E. Cerezo Druet (Spain), N. Sanmamed, Z. Aza, M. Fuentes, L. Gomez, M. Gaztañaga, P. Coronado, A. Doval, J. Corona, G. Vázquez*
- 17:33 **Advanced Brachytherapy for Re-Irradiation in Gynaecological Malignancies: Outcomes and Toxicities** PH - 0448  
*G. Mulye (India), L. Gurrām, R. Mittal, S. Chopra, D. A., J. Ghosh, S. Gupta, S. T.S., A. Maheshwari, U. Mahantshetty*

**Monday**  
**30 August**  
**2021**



Track: Interdisciplinary

**Teaching lecture: Stem cells in radiation oncology**

Monday, 30 August 2021 08:00 - 08:40

N101-102

**Chair: Rob Coppes**

08:00 **Stem cells in radiation oncology**

SP - 0449

P. van Luijk (The Netherlands)

Track: Clinical

**Teaching lecture: The microbiome: An emerging concept impacting the tumour and normal tissue with implications for treatment personalisation**

Monday, 30 August 2021 08:00 - 08:40

Plenary

**Chair: TBC**

08:00 **The microbiome: An emerging concept impacting the tumour and normal tissue with implications for treatment personalisation**

SP - 0450

A. Levy (France)

Track: Clinical

**Teaching lecture: Which techniques and delineation for craniospinal irradiation?**

Monday, 30 August 2021 08:00 - 08:40

Room 1

**Chair: Anne Laprie**

08:00 **Which techniques and delineation for craniospinal irradiation?**

SP - 0451

L. padovani (France)

Track: Physics

**Teaching lecture: Treatment plan quality assessment**

Monday, 30 August 2021 08:00 - 08:40

Room 2.1

**Chair: Christian Rønn Hansen**

08:00 **Treatment plan quality assessment**

SP - 0452

V. Hernandez (Spain), C. Rønn Hansen, L. Widesott, N. Jornet

Track: Physics

**Teaching lecture: Respiratory motion interventions for high precision radiotherapy**

Monday, 30 August 2021 08:00 - 08:40

Room 2.1

**Chair: Antje-Christin Knopf**

08:00 **Respiratory motion interventions for high precision radiotherapy**

SP - 0453

M. Josipovic (Denmark)

Track: RTT

**Teaching lecture: Evidence-based approach for optimising clinical processes in radiotherapy**

Monday, 30 August 2021 08:00 - 08:40

N103

**Chair: TBC**

08:00 **Evidence-based approach for optimising clinical processes in radiotherapy** SP - 0454  
B. Soares Vieira (Portugal)

Track: Young

**Teaching lecture: Mental health prevention - Tips to stay healthy, recognise the signs of burnout**

Monday, 30 August 2021 08:00 - 08:40

N104

**Chair: TBC**

08:00 **Mental health prevention - Tips to stay healthy, recognise the signs of burnout** SP - 0455  
A. Bakker (The Netherlands)

Track: Interdisciplinary

**Symposium: State-of-the-art in lung cancer**

Monday, 30 August 2021 08:45 - 10:00

N101-102

**Chair: Esther Troost**

**Co-chair: Nicolaus Andratschke**

08:45 **Target volume delineation and fractionation in locoregionally advanced NSCLC and SCLC** SP - 0566  
D. De Ruysscher (The Netherlands)

09:03 **Evidence for prophylactic cranial irradiation in NSCLC and SCLC** SP - 0567  
P. Putora (Switzerland)

09:21 **Overview of systemic treatments in metastasised NSCLC** SP - 0568  
R. Dziadziuszko (Poland)

09:39 **Shared-decision making in the treatment of lung cancer** SP - 0569  
D. Timmermans

Track: Clinical

**Symposium: Salvage treatment for radiotherapy-recurrent primary prostate cancer**

Monday, 30 August 2021 08:45 - 10:00

Plenary

**Chair: Morten Høyer**

**Co-chair: Andrea Lancia**

- 08:45 **Immediate local or deferred therapy: The role of prognostic factors and novel imaging modalities** SP - 0460  
*W. Majewski (Poland)*
- 09:03 **The role of EBRT: Can we give second chances?** SP - 0461  
*B. Jereczek-Fossa (Italy)*
- 09:21 **The role of brachytherapy** SP - 0462  
*A. Bossi (France)*
- 09:39 **The role of surgery** SP - 0463  
*S. Joniau (Belgium)*

Track: Clinical

**Symposium: New developments in head and neck cancer radiotherapy**

Monday, 30 August 2021 08:45 - 10:00

Room 1

**Chair: Daniela Alterio**

**Co-chair: Olgun Elicin**

- 08:45 **Current status of IMPT versus VMAT in head and neck cancer** SP - 0464  
*M. Krenkli (Italy), C. Pisani, P. Franco*
- 09:10 **Dose painting in head and neck radiotherapy** SP - 0465  
*D. Thorwarth (Germany), F. Paulsen, C. Pfannenber, G. Reischl, C. La Fougère, D. Zips, S. Welz*
- 09:35 **Reirradiation in head and neck cancer** SP - 0466  
*P. Blanchard (France)*



Track: Physics

**Proffered papers: Proffered papers 28: Automated planning**

Monday, 30 August 2021 08:45 - 10:00

Room 2.1

- 08:45 **Multi-criterial optimization of 200-400 MeV electron beams for strong improvement of photon VMAT** OC - 0467  
*A.W. Sharfo (The Netherlands), J. Dijkstra, B. Heijmen, D. Lathouwers, S. Breedveld*
- 08:54 **Implementation of a Knowledge-Based automated approach for whole breast tangential field planning** OC - 0468  
*P.G. Esposito (Italy), R. Castriconi, P. Mangili, S. Broggi, A. Fodor, B. Longobardi, M. Pasetti, L. Perna, N. Di Muzio, A. Del Vecchio, C. Fiorino*
- 09:03 **inter-institute variability of kb-models for whole breast irradiation with tangential field** OC - 0469  
*A. tudda (Italy), R. castriconi, E. cagni, G. benecchi, F. dusi, P. esposito, M. guernieri, A. ianiro, V. landoni, A. mazzilli, E. moretti, L. placidi, V. trojani, A. scaggion, C. fiorino*
- 09:11 **Development and validation of an automated robust treatment planning method for lung proton therapy** OC - 0470  
*R. Canters (The Netherlands), V. Taasti, D. Hattu, J. Van Loon, D. De Ruyscher*
- 09:20 **Computerized selection of non-coplanar beams to enhance coplanar VMAT for nasopharyngeal carcinoma** OC - 0471  
*R. Bijman (The Netherlands), J. Leitão, A.W. Sharfo, Y. Brus, B. Heijmen, L. Rossi*
- 09:29 **Automated and clinical-criteria-driven optimal planning: clinical experience with over 3400 patients** OC - 0472  
*L. Hong (USA), M. Zarepisheh, Y. Zhou, Q. Huang, G. Jhanwar, J. Yang, H. Pham, L. Cervino, J. Yamada, J. Deasy*
- 09:38 **Pre-clinical validation of a novel TPS for fully-automated multi-criterial treatment planning** OC - 0473  
*R. Bijman (The Netherlands), A.W. Sharfo, L. Rossi, S. Breedveld, B. Heijmen*
- 09:47 **Bias and reporting quality of artificial intelligence models in radiotherapy treatment planning** OC - 0474  
*M. Sharabiani (Belgium), E. Clementel, N. Andratschke, N. Reynaert, W. van Elmpt, C. Hurkmans*

Track: Physics

**Symposium: The role of deep learning in CBCT-based workflows**

Monday, 30 August 2021 08:45 - 10:00

Room 2.2

**Chair: Guillaume Landry**

**Co-chair: Marco Mueller**

08:45	<b>Deep learning-based CBCT image intensity correction for adaptive radiotherapy</b> <i><u>M. Maspero (The Netherlands)</u></i>	SP - 0475
09:04	<b>The use of deep-learning based CBCT segmentation in adaptive radiotherapy</b> <i><u>X. Yang (USA)</u>, Y. Lei, J. Roper, P. Patel, A. Jani, J. Bradley, T. Liu</i>	SP - 0476
09:23	<b>Self-attention Condition GAN for Synthetic CT Generation from CBCT for Head and Neck Radiotherapy</b> <i><u>S. Wu (China)</u>, S. Liu, A. Chen, D. Qian, Y. Lu</i>	OC - 0477
09:32	<b>Neural network based synthetic CTs for adaptive proton therapy of lung cancer</b> <i><u>A. Thummerer (The Netherlands)</u>, P. Zaffino, C. Seller Oria, A. Meijers, G. Guterres Marmitt, J. Seco, J. Langendijk, A. Knopf, M.F. Spadea, S. Both</i>	SP - 0478
09:41	<b>Towards CBCT-guided online adaptive radiotherapy for prostate cancer patients</b> <i><u>L. Zwart (The Netherlands)</u>, F. Ong, L. ten Asbroek, E. van Dieren, S. Koch, A. Bhawanie, E. de Wit, J. Dasselaar</i>	OC - 0479
09:50	<b>Range probing as a quality control tool for CBCT based synthetic CTs: an in vivo demonstration</b> <i><u>C. Seller Oria (The Netherlands)</u>, A. Thummerer, J. Free, J.A. Langendijk, S. Both, A.C. Knopf, A. Meijers</i>	SP - 0480

Track: RTT

**Symposium: Innovations in radiotherapy practice**

Monday, 30 August 2021 08:45 - 10:00

N103

**Chair: Maeve Kearney**

**Co-chair: Madalyne Chamberlain**

08:45	<b>SBRT in cardiac diseases: The evolving role of the RTT</b> <i><u>K. Pilling (United Kingdom)</u></i>	SP - 0481
09:10	<b>SGRT - A hype or the new standard of practice?</b> <i><u>S. Perryck (Switzerland)</u>, M. Guckenberger</i>	SP - 0482
09:35	<b>Innovative practice for lymphoma radiotherapy - Can we use protons for this?</b> <i><u>I. Kristensen (Sweden)</u>, M. Enmark, A. Edvardsson</i>	SP - 0483

Track: Young

**Symposium: Mobility/Grant reports**

Monday, 30 August 2021 08:45 - 10:00

N104

**Chair: Dora Correia**

- 08:45 **Implementation of MR-guided radiotherapy to treat oligometastases** SP - 0484  
*H. Saxby (United Kingdom)*
- 09:00 **Federated (distributed) radiomics across three European Radiation Oncology centers** SP - 0485  
*I. Zhovannik (The Netherlands)*
- 09:15 **SBRT in clinical practice for pancreatic tumours** SP - 0486  
*M. Kountouri (Switzerland)*
- 09:30 **Skin effects after breast radiotherapy: Focus on biological features** SP - 0487  
*A. Cicchetti (Italy)*
- 09:45 **Transitioning from 2D to IMRT in head and neck cancer** SP - 0488  
*J. Paraqas (Philippines)*

Track: RTT

**Poster highlights: Poster Highlights 18: Radiotherapy treatment outcome**

Monday, 30 August 2021 08:45 - 09:45

Online Stream 1

- 08:45 **How can we predict permanent xerostomia after radiotherapy in patients with head and neck cancer?** PH - 0489  
*M. Bruvo (Denmark), A.M.L. Pedersen, E. Samsøe, C. Maare, F. Mahmood*
- 08:53 **Deep learning predicts survival for early stage NSCLC patients treated with SBRT** PH - 0490  
*S. Zheng (The Netherlands), J. Guo, J. Langendijk, S. Both, R. Veldhuis, M. Oudkerk, P. van Ooijen, R. Wijsman, N. Sijtsema*
- 09:01 **Clinical stereotactic ablative body radiotherapy on patients with early-stage inoperable lung cancer** PH - 0491  
*R. Yeo (United Kingdom), P. Nariyangadu, N. Shah, Y. Tsang*

- 09:09 **Modesty in breast cancer patients during radiotherapy: interim results of a multicentric study** PH - 0492  
*L. Boldrini (Italy), C. Elia, V. Pollutri, L. Dinapoli, M. Caliandro, S. Manfrida, V. Masiello, D. Chieffo, M. Balducci, F. Marazzi, F. Gregucci, M.A. Gambacorta, S.P. Colangione, A. Fiorentino, V. Valentini*
- 09:17 **The impact of anal VMAT on radiotherapy skin reactions** PH - 0493  
*L. Buckley (United Kingdom), M. Theodoulou, V. Lavin, P. Bridge*
- 09:25 **Treatment outcomes of stereotactic ablative radiotherapy on oligometastases from colorectal cancer** PH - 0494  
*J. Duong (United Kingdom), A. Steward-Lord, P. Nariyangadu, M. Harrison, Y. Tsang*

Track: Clinical

**Poster highlights: Poster Highlights 19: Upper GI**

Monday, 30 August 2021 08:45 - 09:45

Online Stream 2

- 08:45 **A multivariable prediction model for severe toxicity after chemoradiation for esophageal cancer** PH - 0495  
*C. Muijs (The Netherlands), E. Oldehinkel, A. Pattipeiluhu, A.G. Niezink, V.E. Mul, M. Dieters, B. Etten van, A. Schaaf van de, J.A. Langendijk*
- 08:53 **incidence and pattern of LRR in esophageal cancer patients treated with iCT followed by neoadj CTRT** PH - 0496  
*G. rossi (Italy), N. Simoni, R. Rossi, M. Venezia, M. Pavarana, P. Del Bianco, C. Cavedon, G. De Manzoni, R. Mazzarotto*
- 09:01 **Local treatment including RT for HCC with portal invasion: a matched analysis using nationwide data** PH - 0497  
*C.H. Rim (Korea Republic of), H.A. Lee*
- 09:09 **Stereotactic body radiation therapy for the management of hepatocellular carcinoma** PH - 0498  
*I. Roquette (France), E. Bogart, T. Lacormerie, M. Ningarhari, M. Le Deley, E. Lartigau, X. Mirabel, D. Pasquier*
- 09:17 **SABR as a treatment option for HCC patients: efficacy and toxicity profile** PH - 0499  
*R. Carlevato, V. Chiofalo, L. Spinelli (Italy), F.R. Giglioli, P. Carucci, E. Rolle, G. Rizza, R. Faletti, R. Romagnoli, G.M. Saracco, P. Fonio, G.C. Iorio, A.S. Guarneri, U. Ricardi*
- 09:25 **Outcome analysis in locally advanced pancreatic cancer: a predictive model (PAULA-1)** PH - 0500  
*A. Arcelli (Italy), G. Tarantino, M. Buwenge, G. Macchia, F. Bertini, A. Guido, F. Deodato, S. Cilla, V. Scotti, M.E. Rosetto, I. Djan, S. Parisi, G.C. Mattiucci, F. Cellini, M. Fiore, P. Bonomo, L. Belgioia, R.M. Niespolo, P. Gabriele, M. Di Marco, N. Simoni, R. Mazzarotto, A.G. Morganti*

09:33 **Plan Adaptation in Patients with Abdominopelvic Tumors Treated with Stereotactic MR-Guided Adaptive Radiotherapy** PH - 0501  
*R. Kotecha (USA), R. Herrera, M. Chuong, M. Rubens, K. Mittauer, T. Romaguera, D. Alavrez, J. McCulloch, D. Doty, M. Hall, J. Contreras, A. Gutierrez, M. Mehta*

*Track: Interdisciplinary*

**Proffered papers: Proffered papers 29: New technologies**

Monday, 30 August 2021 10:30 - 11:30 N101-102

10:30 **Real-time cardiorespiratory motion management for MRI-guided stereotactic arrhythmia radioablation** OC - 0502

*O. Akdag (The Netherlands), P. Borman, P. Uijtewaal, P. Woodhead, J. Kok, B. Van Asselen, B. Raaymakers, M. Fast*

10:40 **Characterisation of cardiac and respiratory motion in cone-beam CT images for cardiac SABR** OC - 0503

*J. Daniel (United Kingdom), K. Burke, P. Whitehurst*

10:50 **Quality Assurance and Clinical Acceptability for AI-driven Automatic Contouring of Organs at Risk** OC - 0504

*N. Dissler, S. Stathakis, A. Lombard, N. Paragios (France), G. Klausner, L. Lahmi, W. Jones III, E. Maani*

11:00 **Distributed comparative patient selection in the DAHANCA35 RCT of protons vs photons for H&N cancer** OC - 0505

*C.R. Hansen (Denmark), J. Friberg, P. Skyt, P. Sibolt, M.S. Nielsen, E.H. Samsøe, A.I. Holm, J. Johansen, R. Zukauskaitė, E. Andersen, M. Andersen, M. Farhadi, J.G. Eriksen, J. Overgaard, C. Grau, K. Jensen*

11:10 **Ultra-fast scintillator-based dosimeter for pencil beam scanning proton FLASH therapy** OC - 0506

*E. Kanouta (Denmark), J. Johansen, G. Kertzscher, M. Sitarz, B. Sørensen, P. Poulsen*

11:20 **Microbeams excellent tumour control and high normal tissue tolerance: limitations and perspectives** OC - 0507

*V. Dionov (Switzerland), C. Fernandez, V. Trappetti, J. Fazzari, O. Martin*

*Track: Clinical*

**Proffered papers: Proffered papers 30: Urology**

Monday, 30 August 2021 10:30 - 11:30 Plenary

10:30 **ESTRO ACROP Guideline on Prostate Bed Delineation for Postoperative Radiotherapy in Prostate Cancer** OC - 0508

*A. Dal Pra (USA), P. Dirix, V. Khoo, C. Carrie, C. Cozzarini, V. Fonteyne, P. Ghadjar, A. Gomez-Iturriaga, V. Panebianco, A. Zapatero, A. Bossi, T. Wiegel*

10:40	<b>10-year outcome of ultrahypofractionated stereotactic RT from two multicenter prostate cancer trials</b> <i>R. Meier (USA), I. Kaplan, D. Bloch, R. Chen, B. Kane, G. Henning, S. Woodhouse, T. Royce, C. Cotrutz, D. Fuller</i>	OC - 0509
10:50	<b>SABR +/- pelvic nodal irradiation for higher risk prostate cancer. A randomized feasibility study</b> <i>C. Fairmichael (United Kingdom), K.M. Redmond, S.O. Osman, C. Lyons, D.M. Mitchell, J.M. O'Sullivan, A.J. Cole, V. Giacometti, G.S. Lundy, D.M. Irvine, C.K. McGarry, A.R. Hounsell, S. Jain</i>	OC - 0510
11:00	<b>Urethra and bladder dose-effect relations for genitourinary toxicity after EBRT for prostate cancer</b> <i>V. Groen (The Netherlands), M. van Schie, N.P. Zuithoff, E.M. Monninkhof, M. Kunze-Busch, J.C. de Boer, J. van der Voort van Zijp, F.J. Pos, R.J. Smeenk, K. Haustermans, S. Isebaert, C. Draulans, H.M. Verkooijen, U.A. van der Heide, L.G. Kerkmeijer</i>	OC - 0511
11:10	<b>Impact of modern radiotherapy on subsequent hematological cancer risk in prostate cancer survivors</b> <i>M. Jahreis (The Netherlands), K. Aben, A. Bertoen, M. Dirx, M. Hoogeman, L. Incrocci, R. Nout, W. Heemsbergen</i>	OC - 0512
11:20	<b>Acute toxicity of hypo- and conventionally-fractionated radiosensitised bladder radiotherapy</b> <i>R. Huddart (United Kingdom), S. Hafeez, A. Omar, A. Choudhury, A. Birtle, I. Syndikus, B. Hindson, M. Varughese, A. Henry, D. McLaren, F. Foroud, A. Webster, H. McNair, A. Tolentino, L. Webster, H. Gribble, L. Philipps, A. Nikapota, O. Parikh, R. Alonzi, R. Mahmood, S. Hilman, Y. Rimmer, C. Griffin, E. Hall</i>	OC - 0513

Track: Clinical

**Proffered papers: Proffered papers 31: Head and neck**

Monday, 30 August 2021 10:30 - 11:30

Room 1

10:30	<b>Long-term follow up of a RCT of Accelerated Radiotherapy for early Glottic Cancer (JCOG 0701A3)</b> <i>T. Kodaira (Japan), Y. Kagami, R. Machida, N. Shikama, Y. Ito, S. Ishikura, Y. Saito, Y. Matsumoto, K. Konishi, N. Murakami, T. Akimoto, Y. Fukushima, T. Toshiyasu, K. Nakagawa, Y. Nagata, H. Ogawa, T. Uno, Y. Hamamoto, Y. Nishimura</i>	OC - 0514
10:40	<b>NBTR3 activated by radiotherapy in cisplatin-ineligible locally advanced HNSCC patients</b> <i>C. Le Tourneau (France), V. Calugaru, Z. Takacs-Nagy, X. Liem, Z. Papai, V. Moreno, I. Braña, S. Salas, G. Poissonnet, E. Calvo, B. Doger, O. Choussy, X. Mirabel, S. Khili, K. Bernois, N. Fakhry, S. Wong Hee Kam, E. Borcoman, C. Hoffmann</i>	OC - 0515
10:50	<b>Local control in HNSCC after introduction of geometric margins in DAHANCA radiotherapy guidelines</b> <i>R. Zukauskaitė (Denmark), J. Grau Eriksen, E. Andersen, J. Johansen, E. Samsøe Hinsby, S. Long Krogh, J. Overgaard, C. Grau, C. Rønn Hansen</i>	OC - 0516

11:00	<b>Importance of dose to the parotid gland stem cell rich region in preventing xerostomia in RT for HNC</b> <i>M.I. van Rijn - Dekker (The Netherlands), P. van Luijk, L. Van den Bosch, J.G. van den Hoek, E. Oldehinkel, T.W. Meijer, J.A. Langendijk, R.J. Steenbakkers</i>	OC - 0517
11:10	<b>Impact of observer knowledge on AI delineation assessments: Bias in clinical acceptability testing</b> <i>J.W. Kim (Korea Republic of), J. Marsilla, J. Weiss, D. Tkachuk, J.K. Jacinto, J. Cho, E. Hahn, S. Bratman, B. Haibe-Kains, A. Hope</i>	OC - 0518
11:20	<b>Feasibility of local proton-photon plan comparison in a national proton trial in head-neck cancer</b> <i>J. Friborg (Denmark)</i>	OC - 0519

Track: Physics

**Proffered papers: Proffered papers 32: Image acquisition and processing**

Monday, 30 August 2021 10:30 - 17:45 Room 2.2

10:30	<b>CT calibration for precise proton therapy planning in children</b> <i>E. Baer (United Kingdom), C. Collins-Fekete, V. Rompokos, Y. Zhang, M. Gaze, A. Warry, A. Poynter, G. Royle</i>	OC - 0520
10:40	<b>A deep learning approach to generate synthetic CT in low field MR-guided radiotherapy for lung cases</b> <i>D. Cusumano (Italy), J. Lenkowicz, C. Votta, M. Nardini, L. Boldrini, L. Placidi, F. Catucci, N. Dinapoli, M.V. Antonelli, A. Romano, V. De Luca, G. Chiloiro, L. Indovina, V. Valentini</i>	OC - 0521
10:50	<b>Cell-Rad: Towards Histology-driven Radiation Oncology from Multi-Parametric MRI</b> <i>A. Leroy (France), K. Shreshtha, M. Lerousseau, T. Henry, T. Estienne, M. Classe, N. Paragios, E. Deutsch, V. Grégoire</i>	OC - 0522
11:00	<b>Cardiac-Synchronized T1 mapping on the Unity MR-linac to guide STereotactic Arrhythmia Radioablation</b> <i>S. Mandija (The Netherlands), O. Akdag, A. van Lier, P. Borman, T. Schakel, E. Alberts, O. van der Heide, R. Hassink, M. Alings, J. Verhoeff, F. Mohamed Hoesein, M. Fast</i>	OC - 0523
11:10	<b>Evidence supporting anal and rectal cancer MR-only radiotherapy planning clinical implementation</b> <i>D. Bird (United Kingdom), M. Nix, M. Tyyger, M. Beasley, H. McCallum, M. Teo, N. Casanova, R. Cooper, A. Gilbert, D. Buckley, D. Sebag-Montefiore, A. Henry, R. Speight, B. Al-Qaisieh</i>	OC - 0524
11:20	<b>HarMonAE: Zero-shot, unsupervised harmonisation of multi-scanner MRI for radiotherapy applications</b> <i>M. Nix (United Kingdom), M. Tyyger, K. Fatania, B. Al-Qaisieh</i>	OC - 0525

Track: Physics

**Proffered papers: Proffered papers 33: Outcome modelling 1**

Monday, 30 August 2021 10:30 - 11:30

Room 2.2

- 10:30 **Deep learning based time-to-event prediction for a large multicentric cohort of H&N cancer patients** OC - 0526  
*E. Lombardo (Germany), C. Kurz, S. Marschner, M. Avanzo, V. Gagliardi, G. Fanetti, G. Franchin, J. Stancanella, S. Corradini, M. Niyazi, C. Belka, K. Parodi, M. Riboldi, G. Landry*
- 10:40 **Tumour Repopulation Varies Between Sequential vs. Concurrent Chemoradiation in Lung Cancer** OC - 0527  
*H. Huang (United Kingdom), M.G. Nix, J.D. Fenwick, M.A. Hawkins*
- 10:50 **Model-based assessment of hypoxia dose painting in NSCLC patients treated with PBS proton therapy** OC - 0528  
*A. Köthe (Switzerland), N. Bizzocchi, S. Safai, A.J. Lomax, D.C. Weber, G. Fattori*
- 11:00 **Actuarial NTCP modeling of contrast-enhancing brain lesions in proton-treated glioma patients** OC - 0529  
*E. Bahn (Germany), J. Bauer, S. Harrabi, K. Herfarth, J. Debus, M. Alber*
- 11:10 **Local TCP and NTCP after radioactive plaque therapy for uveal melanoma: a data pooled analysis** OC - 0530  
*L. Cella (Italy), F. Buonanno, M. Conson, C. de Almeida Ribeiro, C. Oliviero, F. Itta, R. Liuzzi, R. Pacelli, S. Clemente*
- 11:20 **a probabilistic biological atlas for prostate cancer** OC - 0531  
*R. Finnegan (Australia), H.M. Reynolds, Y. Sun, M.A. Ebert, L. Holloway, J. Sykes, J. Dowling, A. Haworth*

Track: RTT

**Proffered papers: Proffered papers 34: Image-guided radiotherapy and treatment verification**

Monday, 30 August 2021 10:30 - 11:30

N103

- 10:30 **IV contrast-enhanced CBCT position verification for SBRT of ventricular tachycardia.** OC - 0532  
*C. van Gijlswijk (The Netherlands), E. Astreimidou, M. de Ridder, K. Zeppenfeld, M. Hol, C. Rasch*
- 10:40 **Two Centre Feasibility study of single fraction lung stereotactic ablative radiotherapy (SABR)** OC - 0533  
*Z. Jani (United Kingdom), M. Chiu, S. Petkar, A. Blower, H. Grimes, N. Lalli, R. Akasha, D. Johnson, S. Masinghe, G. Kumar, S.A.A. Moinuddin, S. Dubash, C. Peedell, J. Wilson, E. Aynsley, C. Hiley*



10:50	<b>Image review for COVID-19 on CBCT vs MIP's</b>	OC - 0534
	<i><u>A. Clough (United Kingdom), J. Sanders, K. Banfil, C. Faivre-Finn, G. Price, C. Eccles, M. Aznar, M. Van-Herk</u></i>	
11:00	<b>Comparison of a surface-based (SGRT) vs. a laser-based setup in breast cancer radiation therapy.</b>	OC - 0535
	<i><u>M. Machiels, F. Horácio (Belgium), N. De Dooij, W. Vingerhoed, D. Nevens, C. Billiet, P. Meijnders, P. Poortmans, D. Verellen</u></i>	
11:10	<b>A feasibility trial of buscopan to improve cone beam CT image quality during abdominal/pelvic SABR</b>	OC - 0536
	<i><u>F. Slevin (United Kingdom), M. Beasley, J. Zhong, E. Hudson, R. Speight, J. Lilley, L. Murray, A. Henry</u></i>	
11:20	<b>Interfractional changes of rectum and bladder effect on uterus position in cervix external beam RT</b>	OC - 0537
	<i><u>Y.M. Tsang (United Kingdom), E. Sulaili, A. Steward-lord, D. Megias, H. Tharmalingam, P. Hoskin</u></i>	

Track: Young

**Symposium: Make the best use of online resources and meetings for remote (net)working**

Monday, 30 August 2021 10:30 - 11:30

N104

10:30	<b>Starting a networking group in a virtual environment</b>	SP - 0538
	<i><u>M. Aznaar (UK)</u></i>	
10:45	<b>Conducting research and teaching remotely</b>	SP - 0539
	<i><u>J. Dhont (Belgium)</u></i>	
11:00	<b>Working from home - Yay</b>	SP - 0540
	<i><u>M. Chamberlain (Switzerland)</u></i>	
11:10	<b>Working from home - Nay</b>	SP - 0541
	<i><u>J. Heukelom (The Netherlands)</u></i>	
10:30	<b>Discussion: If yay, what is the ideal balance?</b>	SP - 0542
	<i><u>F. Mahmood (Denmark)</u></i>	

Track: Physics

**Poster highlights: Poster Highlights 20: Treatment and planning evaluation**

Friday, 30 August 2021 10:30 - 11:30

Online Stream 1

10:30	<b>Identifying treatment errors for lung cancer patients using EPID dosimetry and deep learning</b>	PH - 0543
	<i><u>C. Wolfs (The Netherlands), R. van Doormaal, E. de Jong, R. Canters, F. Verhaegen</u></i>	

- 10:38 **Clinical impacts of managing motion in kidney stereotactic ablative body radiotherapy** PH - 0544  
*M. Gaudreault (Australia), S. Siva, T. Kron, N. Hardcastle*
- 10:46 **Daily and accumulated dose based on residual errors for pancreas SABR using two different approaches** PH - 0545  
*Y. Ez-zyouy, A. Gulyban (Belgium), C. Bouchart, N. Reynaert*
- 10:54 **Proton therapy guidelines for treating targets with adjacent cardiac implantable electronic devices** PH - 0546  
*L.B. Stick (Denmark), P.M.T. Lægdsmand, H.L. Bjerre, M. Høyer, M.F. Jensen, B.V. Offersen, C.J.S. Kronborg*
- 11:02 **Quality assurance of Treatment Planning Systems: upgrading the NCS report 15** PH - 0547  
*Y. Jourani (Belgium), A. Delor, W. Crijns, G. Bol, R.G.J. Kierkels, C.L. Ong, J. Penninkhof, E. van der Bijl, T.A. van de Water, W. Verbakel, D. Schuring, R. Westendorp, J. van de Kamer*
- 11:10 **Pareto Navigation Guided Automated Planning for Extreme Hypo-fractionated Prostate Radiotherapy** PH - 0548  
*S. Berenato (United Kingdom), N. Abbott, O. Woodley, M. Chu, N. Palaniappan, A. Millin, P. Wheeler*
- 11:18 **Anatomical evaluation of the breast treatment planning strategy for the randomised DBCG proton trial** PH - 0549  
*M. Fuqhsang Jensen (Denmark), L.B. Stick, I. Bahij, M. Giørtz, M. Høyer, C.J.S. Kronborg, E.L. Lorenzen, H.R. Mortensen, P.W. Nyström, S.E. Petersen, R.L. Poulsen, P. Randers, L.M.H. Thai, E.S. Yates, B.V. Offersen*

Track: Clinical

**Poster highlights: Poster Highlights 21: Hyperthermia**

Friday, 30 August 2021 10:30 - 11:30

Online Stream 2

- 10:30 **Importance of high thermal dose in post-operative re-irradiation and hyperthermia in breast cancer** PH - 0550  
*C. Tello Valverde (The Netherlands), A. Bakker, G. van Tienhoven, M.W. Kolff, H.P. Kok, B.J. Slotman, I.R. Konings, A.L. Oei, H.S. Oldenburg, E.J. Rutgers, C.R. Rasch, H.D. van den Bongard, H. Crezee*
- 10:38 **Modulated electro-hyperthermia improves three year survival in cervical cancer patients** PH - 0551  
*C. Minnaar (South Africa), J. Kotzen, A. Baeyens, M. Vangu, C. Minnaar*
- 10:46 **Imaging-based patient selection in MR-guided hyperthermia for locally advanced cervix cancer** PH - 0552  
*I. VilasBoas-Ribeiro (The Netherlands), S. Curto, G.C. van Rhooen, M. Franckena, M.M. Paulides*

10:54	<b>Prognostic factors in hyperthermia-based thermoradiochemotherapy for locally advanced rectal cancer</b> <i>Y. Lee (Korea Republic of), S. Kim, S.H. You</i>	PH - 0553
11:02	<b>Re-irradiation and concurrent Hyperthermia for recurrent brain tumors: an initial experience</b> <i>C. Silva (Portugal), M. Amorim, M.A. Costa, C. Fardilha, J. Conde, G. Campos, P. Genésio, A. Moreira Pinto, A. Cruz, P. Costa</i>	PH - 0554
11:10	<b>Modulated electro-hyperthermia plus systemic cancer treatment in digestive cancer. A safety study.</b> <i>E.E. Arrojo Alvarez (Spain), J.C. Mazabuel Quintero, D. Arribas Crespo, A. Serrano Escalada, J. Anchuelo Latorre</i>	PH - 0555
11:18	<b>Thermo-Chemo-Radiotherapy: preliminary feasibility assessment in a single centre experience</b> <i>M. Fiore (Italy), G. D'Ercole, G.M. Petrianni, L. Marinelli, P. Trecca, S. Ramella</i>	PH - 0556

Track: Interdisciplinary

**Proffered papers: Highlights of proffered papers - Best Papers and Paper Awards**

Monday, 30 August 2021 11:40 - 12:20

Plenary

11:40	<b>AI-based NSCLC detection and segmentation: faster and more prognostic than manual segmentation</b> <i>S. Primakov (The Netherlands), A. Ibrahim, J. van Timmeren, G. Wu, S. Keek, M. Beuque, R. Granzier, M. Scrivener, S. Sanduleanu, E. Kayan, I. Halilaj, J. Wu, R. Monshouwer, H. Gietema, L. Hendriks, O. Morin, A. Jochems, H. Woodruff, H. Woodruff, P. Lambin</i>	OC - 0557
11:50	<b>No correlation between mean heart dose and coronary stenosis in 17,088 DBCG breast cancer patients</b> <i>M.L. Milo (Denmark), D.S. Møller, T.B. Nyeng, L. Hoffmann, I. Jensen, H.D. Nissen, E.L. Lorenzen, K.M. Nielsen, L.B.J. Thorsen, S.P. Johnsen, J. Alsner, B.V. Offersen</i>	OC - 0558
12:00	<b>Experiences implementing a Radiation Therapist-led oncology prehabilitation program during COVID-19</b> <i>E. Bennett (Ireland), T. Clifford, F. Cregan, E. O'Neill, D. Spillane, M. Hickey, P. Kelly</i>	OC - 0559
12:10	<b>Impact of 4D-CT imaging protocol on local control in SBRT of lung and liver metastases</b> <i>T. Gauer (Germany), T. Sentker, V. Schmidt, L. Wimmert, A. Ozga, C. Petersen, F. Madesta, C. Hofmann, R. Werner</i>	OC - 0560
12:20	<b>In vivo validation and tissue sparing factor for acute damage of pencil beam scanning proton FLASH</b> <i>B.S. Sørensen (Denmark), M.K. Sitarz, C. Ankjærsgaard, J. Johansen, C.E. Andersen, E. Kanouta, C. Overgaard, C. Grau, P. Poulsen</i>	OC - 0561
12:30	<b>Announcement of Donal Hollywood Award winning abstract</b>	

Track: Young

**Young lunch symposium + networking: Diversity, Equity and Inclusion**

Monday, 30 August 2021 12:45 - 14:15

N104

**Chair: Stephanie Kroeze**

**Chair: Jenny Bertholet**

- |       |  |           |
|-------|--|-----------|
| 12:45 | <b>Equity and diversity in the workforce</b><br><u>J. Pollard-Larkin (USA)</u> | SP - 0563 |
| 13:15 | <b>Equitable patient care around the globe</b><br><u>J. Van Dyk (Canada)</u>   | SP - 0564 |
| 13:45 | <b>yESTRO Project on equity and diversity</b><br><u>A. Gasnier (France)</u>    | SP - 0565 |

Track: Interdisciplinary

**Joint symposium: ESTRO-ASTRO: FLASH radiotherapy from a multidisciplinary prospective**

Monday, 30 August 2021 14:15 - 15:30

N101-102

**Chair: Ben Slotman**

**Chair: TBC**

- |       |  |           |
|-------|--|-----------|
| 14:15 | <b>FLASH radiotherapy from a multidisciplinary perspective</b><br><u>Borivoj Vojnovic</u>                          | SP - 0456 |
| 14:33 | <b>A review of what is known, and what needs to be explored, in chemistry and biology</b><br><u>D. Spitz (USA)</u> | SP - 0457 |
| 14:51 | <b>Clinical application of proton-FLASH from dog trial to humans</b><br><u>K. Cengel (USA)</u>                     | SP - 0458 |
| 15:09 | <b>FLASH: ready for the clinic?</b><br><u>J. Bourhis (CH)</u>  | SP - 0459 |

Track: Clinical

**Debate: Rectal spacers for prostate radiotherapy - The farther the better?**

Monday, 30 August 2021 14:15 - 15:30

Plenary

**Chair: Bradley Pieters**

**Chair: Pierre Blanchard**

- |       |  |           |
|-------|--|-----------|
| 14:15 | <b>For the motion</b><br><u>B. Vanneste (The Netherlands)</u>            | SP - 0570 |
| 14:35 | <b>Against the motion</b><br><u>C. Parker (United Kingdom)</u>           | SP - 0571 |
| 14:55 | <b>For the motion (rebuttal)</b><br><u>B. Vanneste (The Netherlands)</u> | SP - 0572 |
| 15:05 | <b>Against the motion (rebuttal)</b><br><u>C. Parker (UK)</u>            | SP - 0573 |
| 15:15 | <b>Discussion</b>  |           |

Track: Clinical

**Symposium: New opportunities for radio-immunotherapy in head and neck cancer**

Monday, 30 August 2021 14:15 - 15:30

Room 1

**Co-chair: Cihan Gani**

**Chair: Franziska Eckert**

- |       |  |           |
|-------|--|-----------|
| 14:15 | <b>Biological basis for radiotherapy combined with immunotherapy in head and neck PD1/PD-L1</b>  | SP - 0575 |
| 14:40 | <b>PD-L1 expression and HPV in neck and head cancer: The rationales for a new treatment approach</b><br><u>J.G. Eriksen (Denmark)</u>                                  | SP - 0576 |
| 15:05 | <b>Combining radiotherapy and check point immune inhibitors in head and neck cancer: Preclinical and clinical approaches.</b><br><u>K. Harrington (United Kingdom)</u> | SP - 0577 |

Track: Physics

**Symposium: Next steps in automated treatment planning**

Monday, 30 August 2021 14:15 - 15:30

Room 2.1

**Co-chair: TBC**

**Chair: Ben Heijmen**

- |       |  |           |
|-------|--|-----------|
| 14:15 | <b>Opportunities, challenges and added-value of multi-institutional knowledge-based models</b> | SP - 0578 |
|       | <i><u>R. Castriconi (Italy)</u></i>  |           |
| 14:40 | <b>Deep learning in planning – Knowledge-based planning or more?</b>                           | SP - 0579 |
|       | <i><u>E. Sterpin (Belgium)</u></i>   |           |
| 15:05 | <b>Deep learning and/or mathematical optimisation for automated planning</b>                   | SP - 0580 |
|       | <i><u>S. Breedveld (The Netherlands)</u></i>   |           |

Track: Physics

**Symposium: Image guidance in particle therapy: From state-of-the-art towards real-time ART**

Monday, 30 August 2021 14:15 - 15:30

Room 2.2

**Chair: TBC**

**Co-chair: Petra Trnkova**

- |       |   |           |
|-------|---|-----------|
| 14:15 | <b>Patterns of practice and guideline development: A status update from the EPTN image guidance working group</b> | SP - 0581 |
|       | <i><u>A. Bolsi (Switzerland), A. Hoffmann</u></i>   |           |
| 14:33 | <b>Online CBCT-based proton range and dose calculation</b>  | SP - 0582 |
|       | <i><u>C. Kurz (Germany)</u></i>   |           |
| 14:51 | <b>4D imaging and online motion management</b>  | SP - 0583 |
|       | <i><u>A. Knopf (Germany)</u></i>  |           |
| 15:09 | <b>Towards MR-integrated proton therapy</b>   | SP - 0584 |
|       | <i><u>B. Oborn (Australia)</u></i>  |           |

Track: RTT

**Debate: This house believes that in the next 5 years the current RTT education curriculum will be obsolete**

Monday, 30 August 2021 14:15 - 15:30

N103

**Chair: Yat Man Tsang**

**Chair: Maddalena Rossi**

- |       |  |           |
|-------|--|-----------|
| 14:15 | <b>For the motion</b><br><i><u>M. Kearney (Ireland)</u></i>                      | SP - 0585 |
| 14:35 | <b>Against the motion</b><br><i><u>H. Nisbet (United Kingdom)</u></i>            | SP - 0586 |
| 14:55 | <b>For the motion (rebuttal)</b><br><i><u>M. Kearney (Ireland)</u></i>           | SP - 0587 |
| 15:05 | <b>Against the motion (rebuttal)</b><br><i><u>H. Nisbet (United Kingdom)</u></i> | SP - 0588 |
| 15:15 | <b>Discussion</b>  |           |

Track: Young

**Symposium: Project from A to Z in a hot or new topic Where do you start? And how to publish?**

Monday, 30 August 2021 14:15 - 15:30

N104

**Chair: René Winter**

**Chair: Mateusz Spalek**

- |       |  |           |
|-------|--|-----------|
| 14:15 | <b>Starting in FLASH RT</b><br><i><u>V. Favaudon (France)</u></i>        | SP - 0590 |
| 14:30 | <b>Cardiac radioablation</b><br><i><u>M. Fast (The Netherlands)</u></i>  | SP - 0591 |
| 14:45 | <b>Learning machine learning</b><br><i><u>J. Kazmierska (Poland)</u></i> | SP - 0592 |

15:00 **How to get a new topic published? (from an editor about how to publish new types of research, level of detail for still-unfamiliar audience.)** SP - 0593  
TBC

15:15 **Publishing interdisciplinary science** SP - 0594  
M. Leech (Ireland)

*Track: Physics*

**Poster highlights: Poster Highlights 22: Dosimetry 2**

Monday, 30 August 2021 14:15 - 15:15

Online Stream 1

14:15 **Radiation dose to tissue inside 3D printed titanium and PEEK scaffolds: Monte Carlo simulation** PH - 0595  
G. Katsifis (Australia)

14:23 **Relationship between treatment logs and pre-treatment QA results from a Halcyon 2.0 linac** PH - 0596  
D. Sánchez-Artuñedo (Spain), M. Hermida-López

14:31 **Commissioning and clinical implementation of myQAiON for proton independent dose calculation (IDC)** PH - 0597  
L. Grevillot (Austria), R. Dreindl, R. Fayos-Solà Capilla, A. Elia, M. Bolsa-Ferruz, J. Gora, A. Amico, F. Padilla-Cabal, A. Carlino, M. Stock

14:39 **Variance-based sensitivity analysis of inter-observer, range and setup variability in proton therapy** PH - 0598  
J. Hofmaier (Germany), F. Walter, I. Hadi, M. Rottler, R. von Bestenbostel, G. Dedes, K. Parodi, M. Niyazi, C. Belka, F. Kamp

14:47 **Three-dimensional dosimetric verification of spot-scanning proton therapy in a breast-shaped phantom** PH - 0599  
S.E. Jensen (Denmark), L. Barbosa Valdetaro, M. Fuglsang Jensen, P. Balling, P. Sandegaard Skyt, J. Breede Baltzer Petersen, L. Paul Muren

14:55 **3D in-vivo dosimetry for detecting interplay effect: a phantom study** PH - 0600  
F. Biltekin (Turkey), G. OZYIGIT

15:03 **3D dosimetry with a novel fast optical CT scanner utilizing fiber optic taper for collimated images** PH - 0601  
C. Wu (USA), Y. Wang, X. Qian, Y. Na, J. Adamovics, A. Xu

*Track: Clinical*

**Poster highlights: Poster Highlights 23: CNS 2**

Monday, 30 August 2021 14:15 - 15:15

Online Stream 2

14:15 **Effect of radiation therapy on cerebral cortical thickness in glioma patients** PH - 0602  
J. Kallehauge (Denmark), C.S. Byskov, L. Haldbo-Classen, A. Harbøll, S. Lukacova



- 14:23 **Clinical implementation of standardized neuro-cognitive assessment after radiation to the brain** PH - 0603  
*C. Zegers (The Netherlands), C. Offermann, J. Dijkstra, I. Compter, F. Hoebbers, D. de Ruyscher, M. Anten, W. Backes, A. Postma, W. van Elmpt, D. Eekers*
- 14:31 **Hippocampal Sparing Wbrt: Trade-Off Between Tumor Control And Quality Of Life? A series of 150 pts** PH - 0604  
*G. Corrao (Italy), L. Bergamaschi, V.E. Pierini, A. Ferrari, G. Piperno, G. Marvaso, G. Riva, I. Cavallo, F. Emiro, M. Pepa, M. Zaffaroni, S. Gandini, M.C. Leonardi, F. Cattani, R. Orecchia, B.A. Jereczek-Fossa*
- 14:39 **Role of hippocampal location and radiation dose in glioblastoma patients with hippocampal atrophy** PH - 0605  
*N. Georges (France), C. Le Fevre, M. Loit, A. Keller, H. Cebula, D. Antoni, A. Thiery, J. Constans, F. Proust*
- 14:47 **<sup>18</sup>F-FDG hippocampal metabolic preservation following hippocampal-sparing PCI in SCLC patients** PH - 0606  
*S. El Chammah (Switzerland), G. Allenbach, R. Jumeau, S. Boughdad, J.O. Prior, M. Nicod Lalonde, N. Schaefer, M. Meyer*
- 14:55 **Intra-arterial bevacizumab after blood-brain barrier disruption for refractory radiation necrosis** PH - 0607  
*S. Dashti (USA), R. Kadner, B. Folley, J. Sheehan, D. Han, R. Kryscio, M. Carter, L. Shields, B. Plato, R. La Rocca, A. Spalding, T. Yao, J. Fraser*
- 15:03 **A national study on the inter-observer variability in delineation of organs at risk in the brain** PH - 0608  
*E.L. Lorenzen (Denmark), J.F. Kallehauge, J.F. Kallehauge, C.S. Byskov, R.H. Dahlrot, C.A. Haslund, T.L. Guldborg, Y. Lassen-Ramshad, S. Lukacova, A. Muhic, P.W. Nyström, L. Haldbo-Classen, I. Bahij, L. Larsen, B. Weber, C. Rønn Hansen, C.R. Hansen*

Track: Interdisciplinary

**Award lecture: K Breur Award**

Monday, 30 August 2021 16:00 - 16:20

Plenary

16:00 **Introduction**  
*B. Slotman (The Netherlands)*

16:05 **Value-based radiotherapy: turning evidence into practice.** SP - 0610  
*Y. Lievens (Belgium)*

Track: Interdisciplinary

**Award lecture: Honorary Physicist Award**

Monday, 30 August 2021 16:20 - 16:40

Plenary

- 16:20 **Introduction** SP - 0611  
*TBC*
- 16:25 **Honorary what?** SP - 0612  
*C. Rash (The Netherlands)*,

Track: Interdisciplinary

**Proffered papers: Proffered papers 35: Adaptive radiotherapy**

Monday, 30 August 2021 16:45 - 17:45

N101-102

- 16:45 **Nine years of plan libraries for locally-advanced cervical cancer patients: what have we learned?** OC - 0613  
*D. Reijtenbagh (The Netherlands)*, J. Godart, J. Penninkhof, S. Quint, A. Zolnay, J.W. Mens, M. Hoogeman
- 16:55 **Patterns Of Practice in Adaptive and Real-Time Particle Therapy, part II: interfractional changes** OC - 0614  
*P. Trnkova (Austria)*, Y. Zhang, B. Heijmen, C. Richter, M. Aznar, F. Albertini, A. Bolsi, J. Daartz, A. Knopf, J. Bertholet
- 17:05 **Radiographer-led online image guided adaptive radiotherapy: A qualitative investigation** OC - 0615  
*E. Joyce (United Kingdom)*, H.A. McNair, G. O'Gara, M. Jackson, B. Peet, R.A. Huddart, T. Wiseman
- 17:15 **First VMAT delivery with MLC-tracking for single and multi fraction lung SBRT on a Unity MR-linac** OC - 0616  
*P. Uijtewaal (The Netherlands)*, P. Borman, P. Woodhead, C. Kontaxis, S. Hackett, J. Verhoeff, B. Raaymakers, M. Fast
- 17:25 **Gastric deformation models for adaptive radiotherapy: Personalized vs Population-based strategy** OC - 0617  
*M. Bleeker (The Netherlands)*, M.C. Hulshof, A. Bel, J. Sonke, A. van der Horst
- 17:35 **Feasibility CBCT-based online adaptive 5x5Gy radiotherapy for neoadjuvant rectal cancer treatment.** OC - 0618  
*M. Frank (The Netherlands)*, R. de Jong, J. Visser, N. van Wieringen, J. Wiersma, D. Geijsen, A. Bel

Track: Clinical

**Proffered papers: Proffered papers 36: Lower GI**

Monday, 30 August 2021 16:45 - 17:45

Plenary

- 16:45 **Plasma HPV elimination patterns as strong predictor of outcome in primary Anal Cancer treatment** OC - 0619  
*A.C. Lefèvre (Denmark), N. Pallisgaard, C. Kronborg, K.L. Wind, S.N. Krag, K.G. Spindler*
- 16:55 **A multicenter study on Intensity Modulated Radiotherapy techniques for anal carcinoma (RAINSTORM).** OC - 0620  
*L. Caravatta (Italy), G. Mantello, F. Valvo, F. Pierfrancesco, G. Lucrezia, C. Rosa, N. Slim, P. Pittoni, F. De Felice, M.A. Gerardi, S. Vagge, M. Krengli, E. Palazzari, M.F. Osti, G. Catalano, G.B. Ivaldi, A. Galardi, M. Lupattelli, R.M. Niespolo, A. Guido, G. Macchia, M.A. Gambacorta, M. Di Nicola, V. Donato, D. Genovesi*
- 17:05 **Interim Safety Analysis and Preliminary Results of the Morpheus Phase III Study** OC - 0621  
*A. Garant, C. Vasilevsky, M. Boutros, F. Khosrow-Khavar, P. Kavan, H. Diec, S. Desgroseilliers, J. Faria, E. Ferland, V. Pelsser, A. Martin, S. Devic, K. Asiev, T. Vuong (Canada)*
- 17:15 **Propensity- Score analysis of Proctectomy-TME vs Organ Preservation for Rectal cancer** OC - 0622  
*J. Gerard (France), L. Montagne, J. Doyen, B. Thamphya, S. Gourgou, K. Benezery, J. Hannoun-Levi*
- 17:25 **SMAD3 expression and genetic variation could predict response to chemoradiation in rectal cancer** OC - 0623  
*E. Palazzari (Italy), E. Cecchin, E. De Mattia, J. Polesel, R. Innocente, F. Navarra, C. Belluco, A. Lauretta, V. Canzonieri, A. Buonadonna, G. Spolverato, S. Pucciarelli, G. Franchin, G. Toffoli, A. De Paoli*
- 17:35 **PTV margin assessment for an online adaptive MR-guided dose-escalation strategy in rectal cancer** OC - 0624  
*H. Eijkelenkamp (The Netherlands), M. Boekhoff, M. Verweij, F. Peters, G. Meijer, M. Intven*

Track: Clinical

**Proffered papers: Proffered papers 37: Immuno and targeted agents**

Monday, 30 August 2021 16:45 - 17:45

Room 1

- 16:45 **Immuno-radiotherapy in solid tumors: preliminary results of the randomized phase 2 CHEERS trial** OC - 0625  
*M. Spaas (Belgium), N. Sundahl, S. Rottey, V. Kruse, D. De Maeseneer, F. Duprez, P. Dirix, V. Surmont, Y. Lievens, R. Van den Begin, D. Van Gestel, V. Renard, D. Reynders, E. Goetghebeur, P. Ost*
- 16:55 **Toxicity of SRT combined with targeted agents: prospective analysis of the TOaSTT database** OC - 0626  
*S. Kroeze (Switzerland), J. Schaule, M. Spaas, K.H. Kahl, J.J. Verhoeff, F.L. Schneiders, O. Blanck, F. Lohaus, S. Rogers, D. Kaul, S. Benavente, S.E. Combs, G.*

Skazikis, K. Baumann, I. Popp, F. Koppe, H. Geinitz, K.E. de Jaeger, S. Siva, S. Stera, A. Wittig-Sauerwein, V. Lewitzki, F. Eckert, M.M. Schymalla, M. Guckenberger

- 17:05 **A phase II trial of PD-1 inhibitor combined with Radiotherapy and GM-CSF (PRaG) in metastatic tumors** OC - 0627  
L. Zhang (China), Y. Kong, P. Xing, X. Zhao, G. Chen, Y. Ma, L. Zou, Q. Peng, M. Xu, Z. Xu
- 17:15 **Regional Control after Stereotactic Radiation therapy and Immunotherapy for NSCLC Brain Metastases** OC - 0628  
J. Porte (France), C. Saint-Martin, T. Frederic-Moreau, M. Massiani, E. Jadaud, J. Otz, P. Verrelle, N. Girard, G. Créhange, A. Beddok
- 17:25 **A hypoxia-immune prognostic classifier for head-and-neck cancer patients undergoing radiotherapy** OC - 0629  
N. Nicolay (Germany), A. Rühle, M. Mix, N. Wiedenmann, R. Stoian, G. Niedermann, D. Baltas, M. Werner, J. Ruf, G. Kayser, A. Grosu
- 17:35 **Olaparib combined with radiotherapy for TNBC: 1-year toxicity report of the RADIOPARP phase 1 trial** OC - 0630  
P. Loap (France), D. Loirat, F. Berger, M. Rodrigues, L. Bazire, J. Pierga, F. Ricci, K. Cao, A. Vincent-Salomon, F. Laki, C. Ezzili, A. Jochem, L. Raizonville, V. Mosseri, M. Ezzalfani, A. Fourquet, Y. Kirova

Track: Physics

**Proffered papers: Proffered papers 38: Treatment planning: applications**

Monday, 30 August 2021 16:45 - 17:45 Room 2.1

- 16:45 **Proton and photon treatment planning comparison for oesophageal cancer between six European centres** OC - 0631  
L. Hoffmann (Denmark), H. Mortensen, M. Berbee, N. Bizzocchi, R. Bütof, R. Canters, G. Defraene, M.L. Ehmsen, G.V. Freixas, K. Haustermans, E.W. Korevaar, S. Makocki, C.T. Muijs, M. Nordmark, M. Thomas, E.G. Troost, S. Visser, D.C. Weber, D.S. Møller
- 16:55 **Radiation dose variations in treatment plans for pediatric ependymoma** OC - 0632  
L. Toussaint (Denmark), P. Brandal, A. Embring, J. Engellau, M. Egeberg Evensen, R. Griskevicius, J. Hansen, H. Hietala, M. Jørgensen, P. Kramer, I. Kristensen, K. Lehtio, H. Magelssen, M. Vestmø Maraldo, K. Marienhagen, U. Martinsson, S. Peters, S. Plaude, D. Sendiuliene, B. Smulders, J.M. Søbstad, L. Vaalavirta, A. Vestergaard, B. Timmermann, Y. Lassen-Ramshad
- 17:05 **Cardiac substructure avoidance in lung cancer using photon vs proton radiotherapy: A planning study** OC - 0633  
K. Banfill (United Kingdom), J. Wood, F. Charlwood, D. Lines, V. Rompokos, C. Hiley, M. van Herk, C. Faivre-Finn, M. Schmitt, A. Salem, A. McWilliam
- 17:15 **Lymphocyte Sparing Radiation Therapy for stage III NSCLC: a dosimetric study** OC - 0634  
P. Fernandes (Belgium), Y. Jourani, W. Birkfellner, F. Charlier, A. Ferreira, G. Van de Ven, L. Moretti, E. Fardeau, D. Van Gestel, N. Reynaert

17:25 **Breast IMRT or 3D-CRT planning? A decision-making framework using convolutional neural networks** OC - 0635

P. Gallego Franco (Spain), J. Pérez-Alija, J. Chimeno, M. Lizondo, N. Jornet, C. Ansón, A. Latorre, M. Barceló, N. García, H. Vivancos, M. Adrià, A. Ruiz, P. Carrasco, E. Ambroa

17:35 **Utilising diffusion-weighted MRI for isotoxic dose escalated radiotherapy for glioblastoma** OC - 0636

Y. Pang (United Kingdom), M. Kosmin, Z. Li, X. Deng, X. Li, Y. Zhang, B. Ding, G. Royle, S. Manolopoulos

Track: Physics

**Proffered papers: Proffered papers 39: Outcome modelling 2**

Monday, 30 August 2021 16:45 - 17:45

Room 2.2

16:45 **Thoracic dose patterns associated with radiation induced lymphopenia in patients treated for NSCLC** OC - 0637

S. Monti (Italy), L. Cella, T. Xu, R. Mohan, Z. Liao, G. Palma

16:55 **Integrated radiogenomics analyses for outcome prognosis in patients with locally advanced HNSCC** OC - 0638

A. Rabasco (Germany), A. Zwanenburg, A. Linge, F. Lohaus, M. Grosser, G. Baretton, G. Kalinauskaitė, I. Tinhofer, N. Guberina, M. Guberina, P. Balermipas, J. von der Grün, U. Ganswindt, C. Belka, J.C. Peecken, S.E. Combs, S. Böcke, D. Zips, M. Baumann, E.G. Troost, M. Krause, S. Löck

17:05 **Towards personalised treatment for prostate cancer: biology improves image-based data mining models** OC - 0639

J. Shortall (United Kingdom), E. Vasquez Osorio, A. McWilliam, A. Green, A. Choudhury, P. Hoskin, C. West, B. Lane, T. Elumalai, N. Thiruthaneeswaran, B. Bibby, R. Rodrigues Pereira, M. van Herk

17:15 **Dose-density interaction predicts local relapse and distant metastasis following lung SABR** OC - 0640

A. Davey (United Kingdom), M. van Herk, C. Faivre-Finn, J. Lilley, F. Sun, K. Franks, A. McWilliam

17:25 **Radiation pneumonitis in thoracic cancer patients: multi-center voxel-based analysis** OC - 0641

G. Palma (Italy), S. Monti, R. Pacelli, Z. Liao, J.O. Deasy, R. Mohan, L. Cella

17:35 **A radiomics based prognostic model for patients with head and neck squamous cell carcinoma** OC - 0642

S. Keek (The Netherlands), F. Wesseling, H. Woodruff, J. van Timmeren, I. Nauta, T. Hoffmann, S. Cavaliere, G. Calareso, S. Primakov, R. Leijenaar, L. Licitra, M. Ravanelli, K. Scheckenbach, T. Poli, D. Lanfranco, M. Vergeer, R. Leemans, R. Brakenhoff, F. Hoebbers, P. Lambin

Track: RTT

**Proffered papers: Proffered papers 40: Advances in RT planning**

Monday, 30 August 2021 16:45 - 17:45

N103

- 16:45 **New VMAT non-coplanar solutions for mono-isocentric radiosurgery of multiple brain metastases** OC - 0643  
*L. Kuijper (The Netherlands), P. Van Duijvenvoorde, R. Kossen, B.J. Slotman, J. Cuijpers*
- 16:55 **Hippocampal sparing radiotherapy for Low Grade Glioma** OC - 0644  
*A. Williamson (United Kingdom), P. Houston, J. Paterson, A. James, P. McLoone, S. Nowicki*
- 17:05 **Head and neck radiotherapy on the MR-Linac: a multicentre planning challenge on MRIdian-platform** OC - 0645  
*M. Chamberlain (Switzerland), J. Krayenbühl, J.E. van Timmeren, L. Wilke, N. Andratschke, S. Tanadini-Lang, H. Garcia Schüler, M. Guckenberger, P. Balermipas*
- 17:15 **Automatic tool for head and neck patient referral based on dose prediction with deep learning** OC - 0646  
*M. Huet Dastarac (Belgium), A.M. Barragán-Montero, S. Michiels, S. Teruel Rivas, E. Sterpin, J. Lee*
- 17:25 **Improved robustness in oesophageal cancer treatment by diaphragm based position verification** OC - 0647  
*S. Visser (The Netherlands), L.A. den Otter, C. O.Ribeiro, E.W. Korevaar, S. Both, J.A. Langendijk, C.T. Muijs, N.M. Sijtsema, A. Knopf*
- 17:35 **Dose escalation is feasible in short course radiotherapy of rectal cancer – a planning study** OC - 0648  
*L. Devlin (United Kingdom), B. Hunter, H. Chemu, P. McLoone, R. Valentine, P. Cornelious, A. Duffton, S. O’Cathail*

Track: Young

**Networking session: Networking + Quiz**

Monday, 30 August 2021 16:45 - 17:45

N104

**Chair: Ludwig Dubois**

Track: Physics

**Poster highlights: Poster Highlights 24: Imaging acquisition and processing**

Monday, 30 August 2021 16:45 - 17:45

Online Stream 1

- 16:45 **Left-ventricular MRI navigation: a novel approach for motion-free thoracic and cardiac radiotherapy** PH - 0649  
*A. van Lier (The Netherlands), O. Akdag, S. Mandija, P. Borman, E. Alberts, M. Fast*

- 16:53 **Real-time multi-resolution image reconstruction for MR-guided prostate radiotherapy** PH - 0650  
*P. Borman (The Netherlands), T. Bruijnen, T. Schakel, B. Raaymakers*
- 17:01 **MRI-based tumour localisation after clip placement for proton beam therapy of uveal melanoma** PH - 0651  
*J. Beenakker (The Netherlands), M. Jaarsma-Coes, T. Ferreira, M. Marinkovic, M. Rodrigues, Y. Klaver, K. Vu, B. Verbist, G. Luyten, C. Rasch*
- 17:09 **Synthetic CT from MRI with deep learning: Assessing the clinical impact of generated errors** PH - 0652  
*E. Alvarez Andres (France), A. Gasnier, C. Veres, F. Dhermain, S. Corbin, F. Auville, B. Biron, A. Vatonne, T. Henry, T. Estienne, M. Lerousseau, L. Fidon, E. Deutsch, N. Parajos, C. Robert*
- 17:17 **Deep learning based auto-segmentation: how much training data do we really need?** PH - 0653  
*J. Kleijnen (The Netherlands), J. Penninkhof, H. Akhiat, M. Hoogeman, S. Petit*
- 17:25 **End-to-end head & neck tumor auto-segmentation using CT/PET and MRI without deformable registration** PH - 0654  
*J. Ren (Denmark), J.A. Nijkamp, J.G. Eriksen, S.S. Korreman*
- 17:33 **Filling in the allegedly unknown: Detection and inpainting of interpolation artifacts in 4DCT images** PH - 0655  
*F. Madesta (Germany), T. Sentker, T. Gauer, R. Werner*

Track: Clinical

**Poster highlights: Poster Highlights 25: Prostate**

Monday, 30 August 2021 16:45 - 17:45

Online Stream 2

- 16:45 **Prediction of toxicity after prostate cancer RT: the value of a SNP-interaction polygenic risk score** PH - 0656  
*T. Rancati (Italy), M. Massi, N. Franco, B. Avuzzi, D. Azria, A. Choudhury, A. Cicchetti, D.R. Dirk, A. Dunning, R. Elliott, F. Ieva, S. Kerns, M. Lambrecht, A. Manzoni, A. Paganoni, B. Rosenstein, P. Seibold, E. Sperk, C. Talbot, A. Vega, L. Veldeman, P. Zunino, A. Webb, J. Chang-Claude, C. West*
- 16:53 **Single-Fraction versus Double-Fraction HDR boost for high-risk prostate cancer: long-term outcomes** PH - 0657  
*A. Goñi Ramirez (Spain), B. De Paula Carranza, P. Fernández Gonzalo, E.M. Sáenz de Urturi, N. Bultó Boqué, M. Egiguren Bastida, M. Pagola, D.I. Ortiz de Urbina, D. Roura, J. Belloso, G. Garmendia, A. Ayete Andreu, V. Pastor Sanchis, A. Bartrés Salido, N. Suarez, M. Erzilbengoa, J. Rosa Nieto*
- 17:01 **Impact of brachytherapy boost on toxicity, functional and cancer outcomes for prostate cancer** PH - 0658  
*Abstract withdrawn*

- 17:09 **Metastasis-free survival after salvage radiotherapy in post-operative prostate cancer patients in the PSMA PET/CT era – a bi-institutional, retrospective analysis** PH - 0659  
*N. Schmidt-Hegemann (Germany), A.L. Grosu , J. Ruf, C. Gratzke , S. Adebahr, C. Stief, P. Bartenstein, C. Belka, M. Li , C. Trapp, P. Rogowski, C. Zamboglou*
- 17:17 **Independent role of dose-escalation and prophylactic WPRT in salvage RT after radical prostatectomy** PH - 0660  
*C. Cozzarini (Italy), A. Magli, D. Cante, B. Noris Chiorda, F. Munoz, A. Faiella, E. Olivetta, S. Marco Andrea, C. Piva, B. Avuzzi, L. Ferella, A. Pastorino, A. Fodor, C. Deantoni, N. Fossati, G. Gandaglia, G. Sanguineti, R. Valdagni, C. Fiorino, A. Briganti, F. Montorsi, N. Di Muzio*
- 17:25 **survival analysis of brachytherapy alone vs. EBRT in unfavorable intermediate-risk prostate cancer** PH - 0661  
*N. Andruska (USA), B. Fischer-Valuck , R. Carmona , T. Agabalogun, R. Brenneman, H. Gay, J. Michalski, B. Baumann*
- 17:33 **Clinical parameters and nomograms for predicting lymphnode metastasis detected with 68Ga-PSMA-PET/CT** PH - 0662  
*C. Onal (Turkey), G. Ozyigit, E. Oymak, O.C. Guler, P. Hurmuz, B. Tilki, M. Reyhan, M. Tuncel, F. Akyol*



**Tuesday**  
**31 August**  
**2021**



Track: Interdisciplinary

**Teaching lecture: The 4 Rs of radiobiology revisited in hypofractionated radiotherapy**

Tuesday, 31 August 2021 08:30 - 09:10

N101-102

**Chair: TBC**

08:30 **The 4 Rs of radiobiology revisited in hypofractionated radiotherapy**

SP - 0663

M. Joiner (USA)

Track: Interdisciplinary

**Teaching lecture: Clinical need vs technology push in innovation**

Tuesday, 31 August 2021 08:30 - 09:10

**Chair: Ben Slotman**

08:30 **Clinical need vs technology push in innovation**

SP - 0664

D. Verellen (Belgium)

Track: Clinical

**Teaching lecture: Multi-modality treatment of soft tissue sarcoma**

Tuesday, 31 August 2021 08:30 - 09:10

Room 1

**Chair: TBC**

08:00 **Multi-modality treatment of soft tissue sarcoma**

SP - 0665

C. Le Pechoux (France), A. Levy

Track: Clinical

**Teaching lecture: Distracting techniques for paediatric/AYA/adult radiotherapy**

Tuesday, 31 August 2021 08:30 - 09:10

**Chair: TBC**

08:30 **Distracting techniques for paediatric/AYA/adult radiotherapy**

SP - 0666

L. Claude (France)

*Track: Physics*

**Teaching lecture: The medical device regulation and its implications for (your own) medical hard and software**

Tuesday, 31 August 2021 08:30 - 09:10

Room 2.1

**Chair: TBC**

08:30 **The Medical Device Regulation (EU 2017/745) and its implications for (your own) medical hard and software**

SP - 0667

*E. Roelofs (The Netherlands)*

*Track: Physics*

**Teaching lecture: Physics perspective of stereotactic cardiac ablation**

Tuesday, 31 August 2021 08:30 - 09:10

Room 2.2

**Chair: Raphaël Moeckli**

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08:30 **Physics perspective of stereotactic cardiac ablation**

SP - 0668

*O. Blanck (Germany)*

*Track: RTT*

**Teaching lecture: Health literacy: The cornerstone of the patient's understanding of radiotherapy**

Tuesday, 31 August 2021 08:30 - 09:10

N103

**Chair: TBC**

08:30 **Health literacy: The cornerstone of the patient's understanding of radiotherapy**

SP - 0669

*A. Stewart-Lord (United Kingdom)*

*Track: Interdisciplinary*

**Symposium: RBE in proton therapy**

Tuesday, 31 August 2021 09:15 - 10:30

N101-102

**Chair: Hans Langendijk**

**Co-chair: Ala Yaromina**

09:15	<b>RBE from the biological site</b> <i><u>B.S. Sørensen (Denmark)</u></i>	SP - 0670
09:33	<b>The clinical impact of a variable RBE</b> <i><u>H. Paganetti (USA)</u></i>	SP - 0671
09:51	<b>RBE from a physical point of view</b> <i><u>A. Lühr (Germany)</u></i>	SP - 0672
10:09	<b>LET-guided treatment planning</b> <i><u>D. Wagenaar (The Netherlands)</u></i>	SP - 0673

*Track: Interdisciplinary*

**Symposium: Surface-guided radiotherapy**

Tuesday, 31 August 2021 09:15 - 10:30

**Co-chair: Elisabeth Steiner**

**Chair: Philipp Freislederer**

09:15	<b>Implementing SGRT in the clinic</b> <i><u>N. Weitkamp (Switzerland)</u>, S. Perryck, C. Linsenmeier, R. Dal Bello</i>	SP - 0674
09:40	<b>The challenge of surface-guided radiotherapy - When, and when not, to use it?</b> <i><u>V. Batista (Germany)</u></i>	SP - 0675
10:05	<b>Surface-guided radiotherapy for breast cancer in deep inspiration breath hold</b> <i><u>K.T. Beer (Switzerland)</u></i>	SP - 0676

*Track: Clinical*

**Debate: Is it primetime for stereotactic radiotherapy for localised high-risk prostate cancer?**

Tuesday, 31 August 2021 09:15 - 10:30

Room 1

**Chair: TBC**

**Chair: Karin Haustermans**

09:15	<b>For the motion</b> <u>T. Zilli (Switzerland)</u>	SP - 0677
09:35	<b>Against the motion</b> <u>A. Tree (United Kingdom)</u>	SP - 0678
09:55	<b>For the motion (rebuttal)</b> <u>T. Zilli (Switzerland)</u>	SP - 0679
10:05	<b>Against the motion (rebuttal)</b> <u>A. Tree (United Kingdom)</u>	SP - 0680
10:15	<b>Discussion</b>	

*Track: Clinical*

**Symposium: Radiotherapy in oesophageal cancer**

Tuesday, 31 August 2021 09:15 - 10:30

**Chair: TBC**

**Co-chair: Astrid van Lier**

09:15	<b>To operate or not after neoadjuvant chemoradiation</b> <u>M. Nilsson (Sweden)</u>	SP - 0682
09:40	<b>The role of proton therapy in the treatment of esophageal cancer</b> <u>S. Lin (USA)</u>	SP - 0683
10:05	<b>How to deal with respiratory and cardiac movement?</b> <u>L. Hoffmann (Denmark), P.R. Poulsen, M. Nordmark, A. Hegener, M.L. Ehmsen, T.B. Nyeng, C.M. Lutz, T. Ravkilde, J. Bertholet, I. Kruhlikava, M. Dufour, H. Mortensen, M. Alber, D.S. Møller</u>	SP - 0684

*Track: Physics*

**Debate: Hype or Hope? This house believes that the application of radiomics will significantly improve clinical outcome of radiotherapy by 2025**

Tuesday, 31 August 2021 09:15 - 10:30

Room 2.1

**Chair: Uwe Oelfke**

**Chair: To be confirmed**

09:15	<b>For the motion</b> <i><u>A. Traverso (The Netherlands)</u></i>	SP - 0685
09:35	<b>Against the motion</b> <i><u>A. Hope (Canada)</u></i>	SP - 0686
09:55	<b>For the motion (rebuttal)</b> <i><u>A. Traverso (The Netherlands)</u></i>	SP - 0687
10:05	<b>Against the motion (rebuttal)</b> <i><u>A. Hope (Canada)</u></i>	SP - 0688
10:15	<b>Discussion</b>	

*Track: Physics*

**Symposium: COVID-19: Lessons learned from a medical physics perspective**

Tuesday, 31 August 2021 09:15 - 10:30

N103

**Co-chair: TBC**

**Chair: Marianne Aznar**

09:15	<b>How did the first wave affect medical physics practice in Europe? ESTRO survey</b> <i>J. Bertholet, M. Aznar, C. Garibaldi, D. Thwaites, E. Gershvevitsh, D. Thorwarth, D. Verellen, B. Heijmen, C. Hurkmans, L. Muren, K. Røe Redalen, F. Siebert, M. Schwarz, W. Van Elmpt, D. Georg, N. Jornet, <u>C. Clark (United Kingdom)</u></i>	SP - 0690
09:30	<b>Managing medical physics services COVID-19 in a regional hospital</b> <i><u>M. Saez-Beltran (Nicaragua)</u></i>	SP - 0691
09:50	<b>Managing medical physics services COVID-19 in a large academic department</b> <i><u>L. Spiazzi (Italy)</u></i>	SP - 0692
10:10	<b>Virtual VMAT QA prospective validation: towards measurement-free patient-specific quality assurance</b> <i><u>P. Wall (USA)</u>, E. Hirata, O. Morin, G. Valdes, A. Witztum</i>	SP - 0693
10:20	<b>Can remote planning be as efficient as on-site and become a definitive shift since COVID19?</b> <i><u>M. Colomer (Spain)</u>, D. Amat, A. López, G. Frontera, U. Gallardo, M. Parcerisa, R. Pujol, A. Peralta, T. Ramírez, D. Navarro, J. García-Miguel, T. Valdivielso, Á. Infestas, M. Lizondo, E. Ambroa</i>	SP - 0694

Track: RTT

**Symposium: The use of telehealth in radiotherapy**

Tuesday, 31 August 2021 09:15 - 10:30

N103

**Co-chair: Aneta Borkowska**

**Chair: TBC**

- 09:15 **Experience of using telehealth for individualised supportive care and follow-up in radiotherapy** SP - 0695  
*P.K. Møller (Denmark), H. Pappot, U. Bernchou, T. Schytte, K.B. Dieperink*
- 09:40 **Using an app to monitor patients' side effects: The Sympro Trial** SP - 0696  
*E. Veldhuijzen (The Netherlands)*
- 10:05 **Efficiency in remote treatment planning** SP - 0697  
*V. Jóhannesson (Sweden)*

Track: Interdisciplinary

**Symposium: State-of-the-art in prostate cancer**

Tuesday, 31 August 2021 11:00 - 12:15

N101-102

**Chair: Peter Hoskin**

**Co-chair: Piotr Wojcieszek**

- 11:00 **The biological basis of heterogeneity in prostate cancer** SP - 0698  
*R. Bristow (UK)*
- 11:20 **Radiotherapy for localised prostate cancer - How many modalities do we need? (30 mins)** SP - 0699  
*A. Loblaw (Canada)*
- 11:50 **What really matters: Health system vs science** SP - 0700  
*TBC*

Track: Interdisciplinary

**Symposium: MR Linacs - Do we really know what are we doing?**

Tuesday, 31 August 2021 11:00 - 12:15

**Co-chair: Luca Boldrini**

**Chair: Uwe Oelfke**

- |       |   |           |
|-------|---|-----------|
| 11:00 | <b>Clinical indications to MR Linac: SBRT and long-course treatment</b><br><u>F. Lagerwaard (The Netherlands)</u> | SP - 0701 |
| 11:25 | <b>Online adaptive therapy: From CBCT to MRI and the other way around</b><br><u>U. Oelfke (UK)</u>                | SP - 0702 |
| 11:50 | <b>MR Linac RTT - A brand new professional figure?</b><br><u>D. de Jonge (The Netherlands)</u>                    | SP - 0703 |

Track: Clinical

**Symposium: The evolving role of elective nodal irradiation in 2021 in head and neck, lung, breast and prostate cancer**

Tuesday, 31 August 2021 11:00 - 12:15

Room 1

**Chair: Ursula Nestle**

**Co-chair: Stefano Arcangeli**

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|-------|--|-----------|
| 11:00 | <b>No ENI based on randomised evidence in NSCLC and SCLC</b><br><u>S. Ramella (Italy), C. Greco, M. Fiore, E. Ippolito</u>         | SP - 0704 |
| 11:18 | <b>Elective nodal irradiation still part of the standard treatment in head and neck cancer</b><br><u>V. Grégoire (France)</u>      | SP - 0705 |
| 11:36 | <b>Pelvic nodal irradiation or no nodal pelvic irradiation in prostate cancer, that is the question</b><br><u>A. Pollack (USA)</u> | SP - 0706 |
| 11:54 | <b>Adjuvant nodal irradiation in breast cancer</b><br><u>A. Kirby (United Kingdom)</u>   | SP - 0707 |



Track: Clinical

**Symposium: Recent developments in the treatment of rectal cancer**

Tuesday, 31 August 2021 11:00 - 12:15

**Co-chair: Sebastian Meltzer**

**Chair: Vincenzo Valentini**

- 11:00 **What radiotherapy dose do we need to achieve clinical complete response in early and advanced tumours?** SP - 0708  
A. Appelt (United Kingdom)
- 11:18 **Radiosensitisation and systemic treatment to increase clinical complete response** SP - 0709  
E. Fokas (Germany)
- 11:36 **Clinical experiences on total neoadjuvant therapy in rectal cancer** SP - 0710  
C. Mariinen (The Netherlands)
- 11:54 **Personalised approaches towards organ preservation - Where are we now?** SP - 0711  
M.A. Gambacorta (Italy)

Track: Physics

**Symposium: Proving the clinical benefit of 15 years of IGRT**

Tuesday, 31 August 2021 11:00 - 12:15

Room 2.1

**Chair: Ludvig Muren**

**Co-chair: TBC**

- 11:00 **Heart sparing for lung radiotherapy** SP - 0712  
E. M. Vasquez Osorio
- 11:15 **Proving the clinical benefit of 15 years of IGRT: modelling of toxicity for prostate radiotherapy** SP - 0713  
C. Fiorino (Italy)
- 11:30 **Focal boosting in prostate cancer: The FLAME/hypoFLAME experience** SP - 0714  
U. van der Heide (The Netherlands)

11:45 **IGRT for head and neck** SP - 0715  
M. Tomsej (Belgium)

12:00 **MRI guided Brachytherapy** SP - 0716  
C. Kirisits (Austria)

*Track: Physics*

**Symposium: Novel technology for treatment delivery and modulation: Flash, microbeams and spatio-temporal fractionation**

Tuesday, 31 August 2021 11:00 - 12:15

Room 2.2

**Co-chair: Michele Zeverino**

**Chair: Wouter van Elmpt**

11:54 **Spatially fractionated radiotherapy** SP - 0717  
Y. prezado (France)

11:00 **Targeting the Physics, but missing the Biology** SP - 0718  
N. Suchowerska (Australia)

11:18 **FLASH radiotherapy** SP - 0719  
R. Moeckli (Switzerland)

11:36 **Microbeam radiotherapy** SP - 0720  
M. Krisch (France)

*Track: RTT*

**Symposium: The impact of immobilisation/positioning in advanced radiotherapy**

Tuesday, 31 August 2021 11:00 - 12:15

N103

**Co-chair: To be confirmed**

**Chair: Colleen Dickie**

11:00 **Patient positioning and immobilisation for advanced radiation therapy** SP - 0721  
L. Mullaney (Ireland)

11:25 **Online adaptive radiotherapy - Is traditional immobilisation necessary?** SP - 0722  
S. Conijn (The Netherlands)

11:50 **Immobilisation for proton in abdomen** SP - 0723  
J. Thiele (Germany)

*Track: Interdisciplinary*

**Plenary session: Closing Debate: X-ray guided adaptive radiotherapy will make MR-linac obsolete**

Tuesday, 31 August 2021 12:20 - 13:20

Room 2.1

**Chair: Anna Kirby**

**Chair: Ben Slotman**

12:20 **For the motion** SP - 0724  
D. Sjöström (Denmark)

12:35 **Against the motion** SP - 0725  
TBC

12:50 **Rebuttal for the motion** SP - 0726  
P. Hoskin (UK)

13:05 **Rebuttal against the motion** SP - 0727  
TBC

# Poster Discussions



Track: Clinical

Poster discussions: Poster discussion 1: Breast

-		Online
10:00	<b>Significance of liver metastasis volume in breast cancer treated with stereotactic body radiotherapy</b> <i>E. Oymak (Turkey), O.C. Güler, C. Önal</i>	PD - 0728
10:00	<b>Underutilization of adjuvant radiation after nipple-sparing mastectomy</b> <i>W. Talcott (USA), G.N. Marta, M.S. Moran</i>	PD - 0729
10:00	<b>Convolutional Neural Network to predict Deep Inspiration Breath Hold eligibility using Chest X-Ray</b> <i>K.S. Chufal (India), I. Ahmad, M.I. Sharief, A. Dwivedi, R. Bajpai, A.A. Miller, R.L. Chowdhary, K. Bhatia, M. Gairola</i>	PD - 0730
10:00	<b>Improvement of a deep learning based automatic delineation model using anatomical criteria</b> <i>T. Brion (France), E. Karamouza, L. De Vitry, A. Lombard, T. Roque, N. Paragios, G. Auzac, A. Lamrani-Ghaouti, N. Bonnet, E. Limkin, M. Ung, S. Bockel, D. Pasquier, S. Wong, H. trialists, S. Achkar, S. Rivera</i>	PD - 0731
10:00	<b>Can we reduce clinician intervention in breast target volume auto-segmentation approvals?</b> <i>C. Welgemoed (United Kingdom), E. Spezi, D. Gujral, R. McLauchlan, E. Aboagye</i>	PD - 0732
10:00	<b>Tolerance of adjuvant moderate hypofractionated whole breast RT with simultaneous integrated boost</b> <i>L. Hoeng (Switzerland), O. Unterkirchere, A. Kaefer, S. Abbeel, C. Glanzmann, G. Studer</i>	PD - 0733

Track: Clinical

Poster discussions: Poster discussion 2: CNS

-		Online
10:00	<b>Validating Brain Metastases Velocity for survival prediction in patients treated with radiosurgery</b> <i>M. Mayinger (Switzerland), K. Borsky, J. Kraft, S. Frei, L.S. Stark, J. van Timmeren, S. Tanadini-Lang, M. Guckenberger, N. Andratschke</i>	PD - 0734
10:00	<b>Time-dependent machine learning survival prediction model of brain metastases with MRI radiomics</b> <i>S.J.C. Crête (Canada), N.B. Campbell, R. Hu, J. Peoples, M. Yan, T. Olding, K. Tyryshkin, A.L. Simpson, F. Ynoe de Moraes</i>	PD - 0735

10:00	<b>Interval between MRI and SRS is associated with local control in lung squamous cell brain metastasis</b> <i>J.W. Ho (United Kingdom), L. Aznar-Garcia, J. Christian, P. Patel</i>	PD - 0736
10:00	<b>Diagnosis-Specific Graded Prognostic Assessment in Patients Receiving Stereotactic Irradiation</b> <i>N. Ota (Japan), K. Yasui, T. Asao, M. Shioi, K. Hayashi, Y. Ito, S. Maki, T. Onoe, H. Ogawa, H. Harada, H. Asakura, S. Murayama, S. Deguchi, K. Mitsuya, N. Hayashi, T. Nishimura</i>	PD - 0737
10:00	<b>Radiosurgery in brain metastases: single vs multifraction treatment</b> <i>A. Rese (Italy), M. Conte, F. Pastore, G. Ciaglia, A. Pepe, D. Toledo, G. Panelli, F. Francomacaro, V. Iorio</i>	PD - 0738
10:00	<b>PET-imaging integration in recurrent glioblastoma treatment planning: impact on patient outcomes</b> <i>A. Robertson (Germany), I. Yakushev, D. Bernhardt, S. Combs</i>	PD - 0739

Track: Clinical

**Poster discussions: Poster discussion 3: Oligometastatic disease**

-		Online
10:00	<b>Real-world patient &amp; treatment characteristics of oligometastatic disease: results of OligoCare</b> <i>M. Guckenberger (Switzerland), U. Ricardi, M. Scorsetti, P. Balermipas, Y. Lievens, F. Alongi, L. Livi, P. Braam, B.A. Jereczek-Fossa, K. Stellamans, L. Verbeke, H. Peulen, K. Khanfir, S. Ramella, T. Zilli, X. Geets, H. Hemmatazad, G.B. Ivaldi, I. Ratos, P. Jeene, B. Fournier, C. Fortpied, P. Ost</i>	PD - 0740
10:00	<b>Application of the ESTRO/EORTC oligometastatic disease classification system to current evidence</b> <i>D. Nevens (Belgium), A. Jongen, I. Kindts, C. Billiet, P. Deseyne, I. Joye, Y. Lievens, M. Guckenberger</i>	PD - 0741
10:00	<b>Prognostic Value of The ESTRO EORTC Classification System of Oligometastatic Disease</b> <i>J. Willmann (Switzerland), E. Vlaskou Badra, S. Adilovic, M. Ahmadsei, S.M. Christ, M.C. Mayinger, M. Guckenberger, N. Andratschke</i>	PD - 0742
10:00	<b>Treatment patterns for adrenal metastases in the era of MR-guided stereotactic ablative radiotherapy</b> <i>C. van Vliet (The Netherlands), F. Schneiders, A. Engelsman, S. Hashemi, I. Bahce, C. Haasbeek, A. Bruynzeel, F. Lagerwaard, M. Palacios, A. Becker-Commissaris, B. Slotman, C. Dickhoff, S. Senan</i>	PD - 0743
10:00	<b>Phase II trial of SBRT and androgen deprivation for oligometastases in prostate cancer.</b> <i>A.J. Conde-Moreno (Spain), F. Lopez-Campos, A. Hervas, V. Morillo, A. Mendez, M.D.M. Puertas, J. Valero Albarrán, A. Gomez De Iturriaga, M. Rico, M.L. Vazquez de</i>	PD - 0744

la Torre, M.P. Samper Ots, L.A. Perez Romasanta, J. Pastor Peidro, C. Ibañez, F. Ferrer, A. Zapatero, J. Anchuelo, A. Rodriguez, F. Garcia-Piñon, C. Ferrer

10:00 **Outcomes & predictors of progression: SBRT for lymph node oligorecurrent prostate cancer on PSMA-PET** PD - 0745

A. Werensteijn-Honingh (The Netherlands), A. Wevers, M. Peters, P. Kroon, M. Intven, W. Eppinga, I. Jürgenliemk-Schulz

Track: Physics

Poster discussions: Poster discussion 4: Automated planning

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Online

10:00 **Autoplanning and Personalized treatment planning automation in prostate cancer** PD - 0746

S. Cilla (Italy), C. Romano, V.E. Morabito, P. Viola, G. Macchia, M. Buwenge, S. Cammelli, L. Strigari, A.G. Morganti, V. Valentini, F. Deodato

10:00 **Knowledge-based approach for DVH prediction in robotic spine SBRT.** PD - 0747

S. Broggi (Italy), R. Castriconi, A. Tudda, C. Deantoni, A. Fodor, B. Longobardi, L. Perna, P. Mangili, N.G. Di Muzio, A. Del Vecchio, C. Fiorino

10:00 **iCycle-Eclipse: a novel approach to automated multi-criterial treatment planning** PD - 0748

K. Fiellanger (Norway), L.B. Hysing, B.J.M. Heijmen, H.E.S. Pettersen, I.M. Sandvik, T.H. Sulen, S. Breedveld, L. Rossi

10:00 **Tangential VMAT and IMRT for WBI compared using automated multi-criterial treatment planning** PD - 0749

L. redapi (Italy), L. rossi, L. marrazzo, J. J.Penninkhof, S. pallotta, B. Heijmen

10:00 **When your MR Linac is down: can an automatised pipeline bail you out of trouble?** PD - 0750

L. Placidi (Italy), D. Cusumano, A. Alparone, L. Boldrini, G. Chiloiro, A. Romano, M. Nardini, V. Valentini, L. Indovina

10:00 **The effect of organ-at-risk contour variations on automatically generated treatment plans for NSCLC** PD - 0751

F. Vaassen (The Netherlands), C. Hazelaar, R. Canters, S. Peeters, S. Petit, W. van Elmpt

Track: Physics

Poster discussions: Poster Discussion 5: Optimising and generating CT images

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Online

10:00 **Synthetic CT generation from cone-beam CT using deep-learning for breast adaptive radiotherapy** PD - 0752

X. Wang (China), W. Jian, X. Zhou, H. Meng, Y. Chen, G. Yang, S. Zhang, Z. Wang, X. Tan, Z. Dai

10:00	<b>Unsupervised AutoConfidence estimation for deep-learning synthetic-CT in MR-only liver radiotherapy</b>	PD - 0753
	<i><u>M. Nix (United Kingdom), D. Bird, M. Tyyger, B. Al-Qaisieh</u></i>	
10:00	<b>Automatic synthetic-CT generation from unpaired T2w pelvis MRIs using ensembled self-supervised GANs</b>	PD - 0754
	<i><u>A. Lombard (France), K. Shreshtha, M. Nachbach, T. Roque, D. Thorwarth, N. Paragios</u></i>	
10:00	<b>Training modality conversion models with small data and its application to MVCT to kVCT conversion</b>	PD - 0755
	<i><u>S. Ozaki (Japan), S. Kaji, K. Nawa, T. Imae, A. Aoki, T. Nakamoto, T. Ohta, Y. Nozawa, A. Haga, K. Nakagawa</u></i>	
10:00	<b>In-vivo assessment of tissue parameters with intra- and inter-patient variation using dual-energy CT</b>	PD - 0756
	<i><u>N. Peters (Germany), A. Kieslich, P. Wohlfahrt, C. Hofmann, C. Richter</u></i>	
10:00	<b>Low dose cone beam CT for paediatric image-guided radiotherapy: how much dose is enough?</b>	PD - 0757
	<i><u>A. Bryce-Atkinson (United Kingdom), R. De Jong, T. Marchant, G. Whitfield, M.C. Aznar, A. Bel, M. van Herk</u></i>	

Track: Radiobiology

**Poster discussions: Poster discussion 6: Normal tissues and Immune-radiobiology**

-		Online
10:00	<b>Fraction Size Sensitivity (<math>\alpha/\beta</math> ratios) For Late Genitourinary Toxicities After Prostate EBRT</b>	PD - 0758
	<i><u>D. Brand (United Kingdom), S. Brüningk, A. Wilkins, O. Naismith, A. Gao, I. Syndikus, D. Dearnaley, N. van As, E. Hall, S. Gulliford, A. Tree</u></i>	
10:00	<b>Immune and cell cycle differentially expressed pathways underlie late skin radiotherapy toxicity</b>	PD - 0759
	<i><u>E. Aquado Flor (Spain), M.J. Fuentes-Raspall, R. Gonzalo, C. Alonso, T. Ramon y Cajal, D. Fisas, A. Seoane, Á. Sánchez Pla, J. Giral, O. Díez, S. Gutiérrez-Enríquez</u></i>	
10:00	<b>Radiation induced heart fibrosis: Radiation mediated interplay between macrophages and fibroblasts</b>	PD - 0760
	<i><u>Q. Huang (Germany), J. Kraske, F. Glatting, L. Li, T. Walle, B. Zou, A. Tietz-Dalfuß, S. Trinh, D. Albrecht, R. Lopez Perez, P. Huber</u></i>	
10:00	<b>Radiation-induced anti-tumor immunogenicity in pancreatic cancer cells – protons vs. X-rays</b>	PD - 0761
	<i><u>S. Kerschbaum-Gruber (Austria), A. Falkner, K. Stasny, L. Komornik, K. Schwarz, S. Demaria, D. Georg</u></i>	



- 10:00 **Abscopal effect by ablative RT on lung metastases in an oligoprogressive tumor model** PD - 0762  
*E. Firat (Germany), G. Niedermann*
- 10:00 **Role of the immune system in anti-tumoral response to proton minibeam radiation therapy** PD - 0763  
*A. Bertho (France), E. Brisebard, M. Juchaux, C. Gilbert, C. Lamirault, A. Patriarca, L. De Marzi, F. Pouzoulet, Y. Prezado*

Track: Clinical

Poster discussions: Poster discussion 7: Prostate

- Online
- 15:30 **Quality of life, toxicity, and PSA control after 50 Gy SBRT to the dominant intraprostatic nodule** PD - 0764  
*M. Cloitre, M. Valerio, B. Roth, D. Berthold, T. Tawadros, J. Meuwly, L. Heym, F. Duclos, S. Viguier-Carrin, V. Vallet, J. Bourhis, F. Herrera (Switzerland)*
- 15:30 **Bowel bother and function after RT for prostate cancer : the prospective QoL Pros-IT CNR study** PD - 0765  
*S.M. Magrini (Italy), M. Noale, A. Bruni, L. Triggiani, M. Buglione, F. Bertoni, L. Frassinelli, R. Montironi, R. Corvo, V. Zagonel, A. Porreca, P. Bassi, M. Gacci, G.N. Conti, S. Maggi*
- 15:30 **Impact of treatment and clinical factors on worsening of functional scales after prostate cancer RT** PD - 0766  
*A. Cicchetti (Italy), N. Joseph, A. Choudhury, B. Avuzzi, R. Valdagni, T. Rancati, P. Seibold, J. Chang-Claude, D. Azria, A. Vega, A. Webb, C. Talbot, R. Elliott, E. Sperk, D. De Ruysscher, L. Veldeman, M. Lambrecht, C. West*
- 15:30 **Predictors of urinary incontinence 2 years after RT with different intents for prostate cancer** PD - 0767  
*C. Cozzarini (Italy), G. Sanguineti, V. Vavassori, F. Munoz, B. Avuzzi, E. Garibaldi, D. Cante, J.M. Waskiewicz, A. Magli, A. Faiella, E. Villa, L. Ferella, M. Gatti, B. Noris Chiorda, C. Piva, P. Ferrari, T. Rancati, F. Badenchini, G. Girelli, E. Moretti, R. Valdagni, A. Bresolin, N. Di Muzio, C. Fiorino*
- 15:30 **Treatment-related toxicity of prostate bed versus whole pelvis post-prostatectomy radiation therapy** PD - 0768  
*M. Parry (United Kingdom), A. Sujenthiran, J. Nossiter, M. Morris, B. Berry, P. Cathcart, N. Clarke, H. Payne, J. van der Meulen, A. Aggarwal*
- 15:30 **Patient-reported acute intestinal toxicity and impact on patient QoL after WPRT for prostate cancer** PD - 0769  
*B. Noris Chiorda (Italy), F. Munoz, G. Sanguineti, D. Cante, J.M. Waskiewicz, B. Avuzzi, V. Vavassori, M. Gatti, G. Girelli, A. Magli, A. Pastorino, L. Ferella, A. Faiella, C. Piva, P. Ferrari, E. Villa, B. Farina, E. Moretti, T. Rancati, F. Badenchini, A. Bresolin, R. Valdagni, N. Di Muzio, C. Fiorino, C. Cozzarini*

Track: Clinical

Poster discussions: Poster discussion 8: Head and Neck

-		Online
15:30	<b>Validation of USPIO-enhanced MRI to guide nodal irradiation in head and neck cancer patients</b> <i>D. Driessen (The Netherlands), T. Dijkema, S. Pegge, P. Zámečník, I. van Engen-van Grunsven, W. Weijs, R. Takes, T. Scheenen, H. Kaanders</i>	PD - 0770
15:30	<b>Correlation of cfDNA with response in carcinoma of head and neck treated with chemoradiotherapy</b> <i>S. Parida (India), M. Rastogi, A.K. Gandhi, S. Sapru, N. Husain, R. Khurana, R. Hadi, S.P. Mishra, A. Srivastava, A. Bharati, S. Srivastava</i>	PD - 0771
15:30	<b>DW-MRI changes in swallowing structures during RT as a biomarker for dysphagia in HNC patients</b> <i>S. Stieb (USA), A.S. Mohamed, S. Ahmed, K. Wahid, R. He, A.S. Garden, S.J. Frank, D.I. Rosenthal, G.B. Gunn, K.A. Hutcheson, S.Y. Lai, C.D. Fuller</i>	PD - 0772
15:30	<b>Update of the results of single vocal cord irradiation for early-stage glottic cancer</b> <i>L. Tans (The Netherlands), M. Dorr, A. Al-Mamgani, S.L. Kwa, A. Sewnaik, F. Keskin-Cambay, R. Nout, W. Heemsbergen</i>	PD - 0773
15:30	<b>Impact of sarcopenia on acute radiotherapy-induced toxicity in head and neck cancer patients</b> <i>E. Karavolia (The Netherlands), M.I. van Rijn-Dekker, L. Van den Bosch, J.G. van den Hoek, E. Oldehinkel, T.W. Meijer, J.A. Langendijk, R.J. Steenbakkers</i>	PD - 0774
15:30	<b>External validation of photon-derived NTCP models for acute toxicity in head and neck proton therapy</b> <i>L. Van den Bosch (The Netherlands), A. van der Schaaf, H.P. van der Laan, J.G. van den Hoek, T.W. Meijer, E. Oldehinkel, R.J. Steenbakkers, J.A. Langendijk</i>	PD - 0775

Track: Physics

Poster discussions: Poster discussion 9: Image guided protocols

-		Online
15:30	<b>A Bayesian approach to evaluate the impact of change in IGRT protocol using real world data</b> <i>I. Fornaçon-Wood (United Kingdom), H. Mistry, C. Johnson-Hart, J.P.B. O'Connor, C. Faivre-Finn, G. Price</i>	PD - 0776
15:30	<b>Uterus motion in cervical cancer patients during external beam radiotherapy</b> <i>T. Berger (United Kingdom), L.U. Fokdal, M.S. Assenholt, N.B. Jensen, W.H. Nailon, J.C. Lindegaard, K. Tanderup</i>	PD - 0777

- 15:30 **Dosimetric impact of CBCT-frequency in adjuvant breast cancer radiotherapy** PD - 0778  
Y. Junker (Germany), K.J. Borm, M. Düsberg, S.E. Combs
- 15:30 **Fiducial motion relative to tumor bed in partial breast irradiation and risk of geographical miss** PD - 0779  
N. Hoekstra (The Netherlands), S. Habraken, A. Swaak - Kragten, J. Pignol, M. Hoogeman
- 15:30 **Geometrical study of the feasibility of fiducial-less lymph node SBRT with Cyberknife** PD - 0780  
D. Sevillano (Spain), C. de la Pinta, A. Fonseca, J.D. Garcia-Fuentes, R. Colmenares, B. Capuz, R. Morís, M. Cámara, F. Orozco, P. Retorta, P. Galiano, M.J. Béjar, D. Prieto, F. García-Vicente
- 15:30 **Validation of optical surface/thermal imaging and X-ray positioning accuracy for SRS treatments** PD - 0781  
V. da Silva Mendes (Germany), M. Reiner, S. Corradini, M. Niyazi, C. Belka, G. Landry, P. Freislederer

Track: Physics

**Poster discussions: Poster discussion 10: The interface of physics and radiobiology**

- Online
- 15:30 **Predicting bRFS after salvage post-prostatectomy RT with a “one-size-fits-all” TCP-based formula** PD - 0782  
M. Olivieri (Italy), A. Magli, D. Cante, B. Noris Chiorda, F. Munoz, A. Faiella, E. Olivetta, M.A. Signor, C. Piva, B. Avuzzi, L. Ferella, A. Pastorino, S. Broggi, A. Fodor, C. Deantoni, T. Rancati, G. Sanguineti, R. Valdagni, N. Di Muzio, C. Cozzarini, C. Fiorino
- 15:30 **Automated sarcopenia assessment in the neck and survival analysis in head and neck cancer patients** PD - 0783  
H. Warr (United Kingdom), O. Murray, D. McSweeney, A. McWilliam, A. Green
- 15:30 **Predicting toxicity after RT for head and neck cancer: combining dosimetry with a biomarker** PD - 0784  
T. Rancati (Italy), S. Deneuve, T. Bastogne, M. Duclos, P. Bois, P. Bachmann, L. Nokovitch, P. Roux, D. Girodet, M. Puopart, P. Zrounba, L. Claude, L. Ferella, E. Orlandi, N. Foray, S. Perreira
- 15:30 **Personalized fractionation of ultracentral lung tumors using modeled outcomes from treated patients** PD - 0785  
A. Iyer, I. Chen (USA), M. Thor, A. Wu, A. Apte, A. Rimner, D. Gomez, J. Deasy, A. Jackson
- 15:30 **Spatiotemporal fractionation schemes for the treatment of multiple brain metastases** PD - 0786  
N. Torelli (Switzerland), J. Unkelbach

- 15:30 **Is dosed averaged LET the best RBE descriptor for proton therapy?** PD - 0787  
*F. Kalholm (Sweden), N. Bassler, I. Toma-Dasu*

Track: Physics

**Poster discussions: Poster discussion 11: Quality assessment of complex techniques**

- Online

- 15:30 **First results from the national network for quality assurance of MR images in RT in Denmark** PD - 0788  
*S.W. Hasler (Denmark), J.F. Kallehauge, R.H. Hansen, C.M. Nilsson, D.T. Arp, H.D. Nissen, J.M. Edmund, F. Mahmood*

- 15:30 **A global quality index for prostate SBRT with and without SIB: a multiplanning study** PD - 0789  
*E. Villaggi (Italy), S. Russo, V. Hernandez, C. Moustakis, O. Blanck, M. Esposito, N. Hardcastle, R. de Blas Piñol, J. Saez, R. Doro, L. Masi, L. Strigari, S. Strolin, M.D. Falco, V. Silvestri, B. Nardiello, S. Broggi, A. Savini, M. Stasi, P. Mancosu*

- 15:30 **TBI and TSI techniques in Belgium and the Netherlands – current clinical practice** PD - 0790  
*P. Koken (The Netherlands), L. Murrer*

- 15:30 **VMAT plan complexity in dose painting** PD - 0791  
*A.M. Acosta Roa (Norway), P. Lønne, M.G. Guren, E. Malinen, T.P. Hellebust*

- 15:30 **Complexity-based traffic light protocol for VMAT plans deliverability using log file analysis** PD - 0792  
*S. Cilla (Italy), P. Viola, V.E. Morabito, C. Romano, M. Craus, G. Macchia, E. Scirocco, M. Buwenge, S. Cammelli, V. Valentini, A.G. Morganti, F. Deodato*

- 15:30 **Which metric quantifies dose fall-off for SRS treatments of brain lesions?** PD - 0793  
*T. Nano (USA), D. Capaldi, C. Chuang, L. Wang, S. Soltys, S. Braunstein, L. Ma*

Track: RTT

**Poster discussions: Poster discussion 12: Patient-centred radiotherapy services**

- Online

- 15:30 **Effectiveness of Dynamic Prioritization for patient scheduling: A Discrete-Event Simulation Model** PD - 0794  
*M. Gurjar (Sweden), J. Lindberg, E. Abel, C. Olsson*

15:30	<b>Futile palliative radiotherapy at the end of life.</b>	PD - 0795
	<i>C. Iglesias Melero (Spain), N.A. Linares Mesa, M. Ruza Sarrasín, S.B. Garduño Sánchez, J.M. Rico Pérez</i>	
15:30	<b>Auditing prescribing practice in Advanced Practitioner Therapeutic Radiographers (RTTs)</b>	PD - 0796
	<i>M. McCloskey (United Kingdom), J. Malpass, R. Davies, M. Mant, P. Treasure, A. Webster</i>	
15:30	<b>Large scale implementation of standardized neurocognitive testing in clinical routine practice</b>	PD - 0797
	<i>C. Offermann (The Netherlands), C. Zegers, J. Dijkstra, F. Hoebbers, I. Compter, D. de Ruyscher, M. Anten, W. van Elmpt, D. Eekers</i>	
15:30	<b>Development and results of a patient-reported treatment experience questionnaire on a 1.5 T MR-Linac</b>	PD - 0798
	<i>H. Barnes (United Kingdom), S. Alexander, L. Bower, J. Ehlers, C. Gani, T. Herbert, R. Lawes, P. Krause Møller, T. Morgan, M. Nowee, G. Smith, B. van Triest, N. Tyagi, L. Whiteside, H. McNair</i>	
15:30	<b>Radiation therapy and implanted cardiac devices: education for radiation therapists and nurses</b>	PD - 0799
	<i>K. Kafka-Peterson (USA), E. Cavcic, H. Hernandez</i>	

Track: Clinical

**Poster discussions: Poster discussion 13: CNS 2**

-		Online
10:00	<b>Radiotherapy in IDH wild-type multifocal high-grade glioma</b>	PD - 0800
	<i>D. Fleischmann (Germany), R. Schön, S. Corradini, R. Bodensohn, I. Hadi, J. Hofmaier, R. Forbrig, N. Thon, M. Dorostkar, C. Belka, M. Niyazi</i>	
10:00	<b>Spatial distribution of post-radiation lesions in diffuse glioma: a voxel-wise analysis</b>	PD - 0801
	<i>A. van der Boog (The Netherlands), S. David, A. Steennis, J.W. Dankbaar, T. Snijders, P. Robe, J. Verhoeff</i>	
10:00	<b>Radionecrosis and intracranial stereotactic radiosurgery</b>	PD - 0802
	<i>S. Fernández (Spain), S. Guardado, G. Pozo, R. D'Ambrosi, S. Pedraza, C. Ramón, C. Martín-Arriscado, M.Á. Cabeza, E. Cabello, M.Á. Pérez Escutia, J.F. Pérez-Regadera</i>	
10:00	<b>LINAC-Hypofractionated Stereotactic Radiation Therapy in Five Fractions for Vestibular Schwannoma</b>	PD - 0803
	<i>A. Gawish (Germany), A. Mpotsaris, I. Sandalcioglu, K.P. Stein, T. Brunner, B. Röllich</i>	

10:00 **Therapeutic use of Linac-based SRS in the treatment of malignant spasticity** PD - 0804  
*L. Nicosia (Italy), P. Romanelli, F. Ferrari, F. Marchioretto, M. Zamperini, A. De Simone, R. Ruggieri, F. Alongi, R. Avesani*

10:00 **Diffusion kurtosis imaging and white matter injury after radiotherapy of adults with brain tumours** PD - 0805  
*C. Skinnerup Byskov (Denmark), L. Haldbo-Classen, A. Harbøll, S. Nørhøj Jespersen, J. Folsted Kallehaug*

Track: Clinical

**Poster discussions: Poster discussion 14: Prostate 2**

- Online

10:00 **HDR-BT + SBRT for prostate cancer. QoL and toxicity analysis in a prospective phase II trial.** PD - 0806  
*D. Büchser (Spain), A. Bilbal, E. Mayrata, F. Perez, J.M. Espinosa, I. Valverde, B. Santos, F. Casquero, A. Gomez-Iturriaga*

10:00 **MRI-Guided focal boost to intraprostatic lesion using VMAT in prostate cancer. A Phase II Trial.** PD - 0807  
*A. Zapatero (Spain), M. Roch, P. Castro Tejero, D. Büchser, C. Martin de Vidales, S. Gonzalez, P. Rodríguez Carnero, M.T. Murillo*

10:00 **Patterns of failure in Ga68-PSMA PETCT at rising PSA post radical radiotherapy for prostate cancer** PD - 0808  
*S. Sood, P. Pathare, P. Maitre, A. Agarwal, V. Rangarajan, V. Murthy (India)*

10:00 **4-year PSA to predict relapse risk after low dose rate brachytherapy for prostate cancer** PD - 0809  
*D. Noble (United Kingdom), E. Doyle, G. Tramonti, A. Law, A. Sundaramurthy, J. Brush, J. Keanie, C. Wood, P. Drewell, W. Keough, D. McLaren*

10:00 **Salvage Therapies for PSMA PET/CT-positive nodal-only recurrent prostate cancer: Impact on survival, functional outcomes and health-related quality of life** PD - 0810  
*N. Schmidt-Hegemann (Germany), C. Trapp, P. Rogowski, C. Eze, J. Milow, A. Buchner, M. Li, H. Ilhan, V. Wenter, C.G. Stief, C. Belka, A. Kretschmer*

10:00 **Radiation-induced prostate swelling during SBRT of the prostate** PD - 0811  
*A. Vanhanen (Finland), P. Reinikainen, M. Kapanen*

Track: Clinical

**Poster discussions: Poster discussion 15: Gynaecological (endometrium, cervix, vagina, vulva)**

- Online

- 10:00 **Brachytherapy of locally advanced cervical cancer using the hybrid applicator Venezia™ - results** PD - 0812  
S. Saicic (Germany), F. Walter, M. Rottler, J. Well, L. Nierer, K.-M. Niyazi, C. Belka, S. Corradini
- 10:00 **Metabolic and texture analysis for predicting prognosis in locally advanced squamous cervix cancer.** PD - 0813  
S. Pedraza (Spain), A.P. Seiffert, P. Sarandeses, B. Muñoz-Lopez, E.J. Gómez, P. Sánchez-González, J.F. Perez-Regadera
- 10:00 **Prediction of treatment response in patients with advanced cervical cancer using mid-PET/MRI** PD - 0814  
R. Vojtišek (Czech Republic), J. Baxa, P. Kovářová, P. Hošek, E. Sukovská, R. Tupý, J. Ferda, J. Fínek
- 10:00 **Prognostic role of early FDG-PET/CT in locally advanced cervical carcinoma (LACC) patients** PD - 0815  
G. Vullo (Italy), V. De Sanctis, D. Anzellini, G. Facondo, R.C. Sigillo, D. Prosperi, D. Riolo, M.F. Osti
- 10:00 **Retrospective validation of coverage probability based SIB-N in LACC: a mono-institutional analysis** PD - 0816  
A. Kedves (Hungary), C. Glavak, G. Antal, G. Toller, Z. Volgyi, A. Faour, B. Petrasj, A. Gulyban, F. Lakosi
- 10:00 **Months and severity Score(MOSES)- A new approach to summarize adverse events in oncological trials** PD - 0817  
N. Ranjan, S. Chopra (India), A. Mangaj, S. Kannan, T. Dora, R. Engineer, U. Mahantshetty, L. Gurram, P. Mittal, J. Ghosh, A. Maheshwari, T. Shylasree, S. Gupta

Track: Physics

**Poster discussions: Poster discussion 16: Deep-learning for dose prediction and planning**

- Online
- 10:00 **Dose prediction with deep learning: the effect of data quality and quantity in the model's accuracy** PD - 0818  
A. Barragan (Belgium), M. Thomas, G. Defraene, S. Michiels, K. Haustermans, J. Lee, E. Sterpin
- 10:00 **Dose mimicking by deep learning based fluence prediction: one model for different class solutions** PD - 0819  
L. Vandewinckele (Belgium), S. Willems, M. Lambrecht, F. Maes, W. Crijs
- 10:00 **DeepDoseOpt: End-to-End VMAT Pelvis Dose Prediction & Treatment Planning Inference** PD - 0820  
J. Dedieu (France), K. Shreshtha, A. Lombard, N. Bus, S. Martinot, R. Fick, N. Paragios

10:00	<b>Artificial Intelligence based planning of HDR prostate brachytherapy: first clinical experience.</b>	PD - 0821
	<i><u>D. Barten (The Netherlands)</u>, A. Bouter, N. van Wieringen, B. Pieters, K. Hinnen, G. Westerveld, S. Maree, M. van der Meer, T. Alderliesten, P. Bosman, Y. Niatsetski, A. Bel</i>	
10:00	<b>Bespoke vs machine learned: can expert Pareto navigated treatment planning be modelled?</b>	PD - 0822
	<i><u>I. Foster (United Kingdom)</u>, P. Wheeler, E. Spezi, J. Staffurth, A. Millin</i>	
10:00	<b>Development of artificial intelligence based treatment planning for locally advanced breast cancer</b>	PD - 0823
	<i><u>D. van de Sande (The Netherlands)</u>, H. Bluemink, E. Kneepkens, N. Bakx, E. Hagelaar, M. Sharabiani, C. Hurkmans</i>	

Track: Physics

**Poster discussions: Poster discussion 17: New technologies in image guidance**

-		Online
10:00	<b>Automatic validation of organ at risk delineations based on machine learning</b>	PD - 0824
	<i><u>C. Brink (Denmark)</u>, U. Bernchou, I. Hazell, V.N. Hansen, A. Bertelsen, E.L. Lorenzen, N. Gyldenkerne, R. Zukauskaitė, J. Johansen, C.R. Hansen</i>	
10:00	<b>Contribution of PET and CT Images to Machine Learning for Contouring GTVs in Head and Neck Cancer</b>	PD - 0825
	<i><u>A. Theliani (United Kingdom)</u>, K. A. Vallis, M. Mark J. Gooding</i>	
10:00	<b>Super-resolution ultrasound and MRI imaging for monitoring breast tumour response to radiotherapy</b>	PD - 0826
	<i><u>M. Morris (United Kingdom)</u>, M. Toulemonde, V. Sinnott, S. Allen, K. Downey, N. Tunariu, C. Lucy, L. Gothard, G. Hopkinson, E. Scurr, E. Harris, M. Tang, M. Blackledge, N. Somaiah</i>	
10:00	<b>Development of target-optimized CBCT imaging to reduce imaging dose and improve image quality</b>	PD - 0827
	<i><u>N. Lackner (The Netherlands)</u>, B. van der Heyden, I.M. Messner, P. Steininger, A. Zechner, A. Ableitinger, M. Stock, G. Fonseca, F. Verhaegen</i>	
10:00	<b>Low-cost optical surface capture as CT replacement in 3D printed radiotherapy surface mould creation</b>	PD - 0828
	<i><u>M. Bolt (United Kingdom)</u>, K. Wells, J. Willsmore</i>	
10:00	<b>Multimodal anthropomorphic abdomen phantom with real-time breathing motion for IGRT</b>	PD - 0829
	<i><u>C. Stengl (Germany)</u>, A. Weidner, F. Dinkel, S. Dorsch, A. Runz, G. Echner</i>	



Track: Radiobiology

Poster discussions: Poster discussion 18: Tumour-radiobiology

-		Online
10:00	<b>GPD1 high expression in glioblastoma stem cells confers radiation resistance</b> <i>C. Xu (Germany), M. Bonrouhi, M. Roscher, M.J. Besso, R. Lange, W.W. Hadiwikarta, H. Liu, I. Kurth, M. Baumann</i>	PD - 0830
10:00	<b>Elucidating colony growth in vitro by machine-learning based quantification of time-lapse image data</b> <i>R. Koch (Germany), E. Bahn, M. Alber</i>	PD - 0831
10:00	<b>Revisiting DNA repair biomarkers identification strategy for Head and Neck cancers</b> <i>S. Sauvaigo (France), G. Muggioli, S. Libert, B. Treillard, A. Lauret, G. Alfonse, P. Philouze, P. Ceruse, C.A. Righini, C. Rodriguez-Lafrasse</i>	PD - 0832
10:00	<b>Exploiting tumor DNA repair status with the novel hypoxia-activated DNA alkylating agent CP-506</b> <i>A. van der Wiel (The Netherlands), A. Yaromina, N. Lieuwes, R. Biemans, J. Theys, L. Dubois, P. Lambin</i>	PD - 0833
10:00	<b>Radiotherapy versus radiochemotherapy in HPV positive and negative HNSCC xenograft models</b> <i>C. Valentini (Germany), N. Ebert, K. Lydia, S. Loeck, M. Krause, M. Baumann</i>	PD - 0834
10:00	<b>Bone-tropic circulating tumor cell population in mCRPC patients under ablative radiotherapy</b> <i>D. Klusa (Germany), F. Lohaus, H. Neubauer, A. Franken, M. Rivandi, B. Polzer, D. Husman, M. Kücken, T. Hölscher, I. Kurth, M. Krause, M. Krause, A. Dubrovskaja, M. Baumann, C. Peitzsch</i>	PD - 0835

Track: Clinical

Poster discussions: Poster discussion 19: Lower GI (colon, rectum, anus)

-		Online
15:30	<b>Watch-and-wait strategy : Where is a limit? Results from the pooled two prospective studies</b> <i>L. Pietrzak (Poland)</i>	PD - 0836
15:30	<b>Delta radiomic features and early regression index for rectal cancer response prediction in MRgRT</b> <i>L. Boldrini (Italy), D. Cusumano, G. Chiloiro, P. Yadav, G. Yu, A. Romano, A. Piras, L. Placidi, S. Broggi, L. Indovina, M.A. Gambacorta, M.F. Bassetti, Y. Yang, C. Fiorino, V. Valentini</i>	PD - 0837

- 15:30 **Rectal cancer volume delineation between morphological and functional images: CT, T2/DWI-MRI, PET-CT** PD - 0838  
*C. Rosa (Italy), F.C. Di Guglielmo, L. Gasparini, L. Caravatta, M. Di Tommaso, G. Martino, P. Castaldi, D. Genovesi*
- 15:30 **Outcomes for 193 rectal cancer patients receiving contact brachytherapy for organ preservation** PD - 0839  
*A. Stewart (United Kingdom), H. Minnaar, C. Jordan, S. Rossides, L. Wang, R. Ragnakumaran, N. Patel, A. Franklin*
- 15:30 **Preoperative chemoradiotherapy in older patients with rectal Cancer: a multicenter phase II trial** PD - 0840  
*W. Liu (China), Y. Tang, J. Jin, N. Li, J. Wang, Y. Cheng, S. Wang, Y. Li, X. Wang*
- 15:30 **Definitive therapy for anal cancer with synchronous metastases** PD - 0841  
*K. Wind (Denmark), L. Riber, B. Mayland Havelund, E. Serup-Hansen, C. Kronborg, A. Jakobsen, K. Garm Spindler*

Track: Clinical

Poster discussions: Poster discussion 20: Lung 1

- Online
- 15:30 **Prophylactic cranial irradiation in patients with small cell lung cancer in the Netherlands** PD - 0842  
*M. Tomassen (The Netherlands)*
- 15:30 **Individual treatment effect estimation in the presence of unobserved confounding for lung cancer** PD - 0843  
*W. van Amsterdam (The Netherlands), J. Verhoeff, N. Harlianto, G. Bartholomeus, A. Manas Puli, P. de Jong, T. Leiner, A. van Lindert, R. Eijkemans, R. Ranganath*
- 15:30 **Sarcopenia evolution in stage III lung cancer treated with photon or proton chemo-radiotherapy** PD - 0844  
*A. Angrisani (Italy), D. Hattu, L. Hendriks, S. Peeters, B. Reymen, J. Van Loon, K. Verhoeven, L. In 't Ven, J. Dhont, D. De Ruysscher*
- 15:30 **Stereotactic radiotherapy for oligometastatic NSCLC: results from the multicenter CORE consortium.** PD - 0845  
*S. Badellino (Italy), H. Chen, I. Poon, D. Erler, M. Levis, R. Dagan, M. Foote, A.V. Louie, K.J. Redmond, T. Biswas, A. Sahgal, U. Ricardi*
- 15:30 **Tumor match and adaptive radiotherapy reduce risk of radiation pneumonitis and increase survival** PD - 0846  
*D.S. Møller (Denmark), C.M. Lutz, M. Alber, A.A. Khalil, M.I. Holt, H.H. Schmidt, A.L. Appelt, M.M. Knap, L. Hoffmann*

- 15:30 **Dose escalation in locally advanced NSCLC: comparing outcomes in adenocarcinoma and squamous cell carcinoma** PD - 0847  
S. Abel (USA), P. Renz, A. Colonias, M. Raj, R. Wegner

Track: Clinical

Poster discussions: Poster Discussion 21: Urology - non prostate

- Online

- 15:30 **Stereotactic body radiotherapy for poor surgical candidates with primary renal cell carcinoma** PD - 0848

Y.Y. Jo (Korea Republic of)

- 15:30 **Concomitant Nivolumab and RT in metastatic kidney cancer. Benefit of ablative vs palliative approach** PD - 0849

G. Francolini (Italy), V. Di Cataldo, B. Detti, M. Loi, P. Ghirardelli, V. Vavassori, L. Nicosia, F. Alongi, L. Triggiani, S. La Mattina, A.G. Allegra, E. Scoccimarro, M. Aquilano, S. Lucidi, M. Valzano, A. Peruzzi, I. Morelli, M. Mariotti, V. Salvestrini, G. Stocchi, L.P. Ciccone, I. Desideri, L. Livi

- 15:30 **Adjuvant radiotherapy after cystectomy for patients with bladder cancer: a phase II trial.** PD - 0850

V. Fonteyne (Belgium), P. Dirix, C. Van Praet, C. Berghen, M. Albersen, S. Junius, N. Liefhooghe, L. Noé, G. De Meerleer, P. Ost, K. Decaestecker

- 15:30 **Clinical outcomes of online adaptive RT and conventional RT for muscle invasive bladder cancer.** PD - 0851

J. Yeh (Australia), F. Foroudi, K.H. Tai, M. Bressel, T. Kron

- 15:30 **Recommendations and clinical validation of inguinal CTV delineation in penile cancer** PD - 0852

R. Mittal (India), V. Murthy, R. Krishnatry, P. Maitre

- 15:30 **Experience of penile brachytherapy in Zambia – building a case for HDR in constrained environments** PD - 0853

D. Lombe (Zambia), B. M'ule, K. Mwala, M. Phiri

Track: Physics

Poster discussions: Poster discussion 22: Managing intra-fraction motion

- Online

- 08:00 **Deep inspiration breath hold in radiation therapy of gastric lymphomas: a phase 2 trial.** PD - 0854

P. Petersen (Denmark), L.A. Rechner, L. Specht

08:00	<b>First patient experience with real-time EPID-based breath hold monitoring during breast radiotherapy</b> <i>E. Vasina (Australia), P. Greer, J. Baeza Ortega, T. Kron, J. Ludbrook, D. Thwaites, J. Lehmann</i>	PD - 0855
08:00	<b>Comparison of intrafraction motion when using two distinct systems to perform DIBH in lung SBRT.</b> <i>A. Prado Barragán (Spain), D. Zucca Aparicio, M.Á. De la Casa de Julian, L. Alonso Iracheta, J. Martí, P. García de Acilu, J. García, P. Fernández Letón</i>	PD - 0856
08:00	<b>Real-time intrafraction prostate motion during dose-escalated linac-based SBRT</b> <i>D. Panizza (Italy), S. Trivellato, G. Montanari, V. Pisoni, V. Faccenda, P. Caricato, M.C. Daniotti, R. Lucchini, E. De Ponti, S. Arcangeli</i>	PD - 0857
08:00	<b>Impact of immobilization on intrafraction motion during CBCT-linac based SBRT of PCa metastases</b> <i>J. Janssen (The Netherlands), C. Brouwer, H. van Herpt, S. Both, H. Langendijk, S. Aluwini</i>	PD - 0858
08:00	<b>Intra-fractional motion in frameless stereotactic radiosurgery and how to deal with it</b> <i>M. Todorovic (Germany), M. Grohmann, C. Petersen</i>	PD - 0859

Track: Physics

**Poster discussions: Poster discussion 23: MR-guided radiotherapy**

-		Online
15:30	<b>Kidney motion and motion velocity during inhale and exhale prolonged breath-holding (~5min)</b> <i>L. Ewals (The Netherlands), Z. van Kesteren, M. Parkes, M. Stevens, J. van den Aardweg, G. van Tienhoven, A. Bel, I. van Dijk</i>	PD - 0860
15:30	<b>Intrafraction pancreatic tumor motion patterns during ungated MR-guided SBRT with abdominal corset</b> <i>G. Grimbergen (The Netherlands), H. Eijkelenkamp, H. Heerkens, B. Raaymakers, M. Intven, G. Meijer</i>	PD - 0861
15:30	<b>Automatic PTV margin determination for midposition-based lung SBRT planning on the Unity MR-linac</b> <i>H. Ligtenberg (The Netherlands), S. Hackett, L.G. Merckel, L. Snoeren, C. Kontaxis, C. Zachiu, G. Bol, J.J. Verhoeff, M.F. Fast</i>	PD - 0862
15:30	<b>Preliminary dosimetric report of 1.5-T MR-guided daily-adaptive SBRT for lymph-nodal oligometastases</b> <i>F. Cuccia (Italy), M. Rigo, D. Gurrera, L. Nicosia, R. Mazzola, V. Figlia, N. Gaj-Levra, F. Ricchetti, G. Attinà, E. Pastorello, A. De Simone, S. Naccarato, G. Sicignano, R. Ruggieri, F. Alongi</i>	PD - 0863

- 15:30 **Case reports demonstrating the clinical rationale for in vivo portal dosimetry on the Unity MR-linac** PD - 0864  
*B. Vivas Maiques (The Netherlands), I. Olaciregui Ruiz, A. Mans, T. Janssen, J. Kass*
- 15:30 **The delta index: a novel metric to assess dose accumulation uncertainty in MR-guided radiotherapy** PD - 0865  
*M. van den Dobbelsteen (The Netherlands), S. Hackett, J. Verhoeff, L. Merckel, C. van Es, L. Snoeren, C. Kontaxis, M. Fast*

Track: RTT

**Poster discussions: Poster discussion 24: Radiotherapy planning and quality assurance**

- Online

- 15:30 **100% Peer Review in Radiation Oncology. Is it feasible?** PD - 0866  
*E. Martin Garcia (Spain), F.J. Celada-Álvarez, M.J. Pérez-Calatayud, M. Rodríguez-Plá, O.A. Prato-Carreño, D. Farga-Albiol, O. Pons-Llanas, S. Roldán-Ortega, E. Collado-Ballesteros, Y. Bernisz-Díaz, F.J. Martínez-Arcelus, J. Chimeno, N. Carrasco-Vela, J. Gimeno, F. Lliso, V. Carmona, J.C. Ruiz, J. Pérez-Calatayud, A.J. Conde-Moreno, A. Tormo*
- 15:30 **Development of a Radiotherapy Quality Assessment Tool** PD - 0867  
*D. meqias (United Kingdom), Y.M. Tsang*
- 15:30 **Comparison of segmentation algorithms for organs at risk delineation on head-and-neck CT images** PD - 0868  
*M. Costea (France), M. Biston, V. Grégoire, D. Saruut*
- 15:30 **influence of chest geometry on treatment technique selection for breast cancer radiotherapy** PD - 0869  
*D. Mychko (Belarus), P. Dziameshka*
- 15:30 **Dosimetric comparison of Cranium SRS among VMAT, Tomotherapy and three Cyberknife techniques** PD - 0870  
*K.F. Cheng (China), O.T.H. Lam*
- 15:30 **A Quantum-Inspired Tensor Network for Optimizing Radiotherapy Plans** PD - 0871  
*S. Cavinato (Italy), T. Felser, M. Fusella, M. Paiusco, S. Montangero*

Track: Clinical

Poster discussions: Poster discussion 25: Lung 2

-		Online
10:00	<b>Second In-field course of stereotactic body radiotherapy for thoracic tumors: a multicentre analysis</b> <i>C. John, R. Dal Bello, N. Andratschke, M. Guckenberger, J. Boda-Heggemann, E. Gkika, F. Mantel, H.M. Specht, C. Stromberger, F. Zehentmayr, O. Blanck, <u>P. Balermpas (Switzerland)</u></i>	PD - 0872
10:00	<b>Daily online adaption in MR-guided pulmonary SBRT: niche or new standard?</b> <i><u>S. Regnery (Germany)</u>, C. Buchele, F. Weykamp, P. Hoegen, T. Eichkorn, T. Held, C. Rippke, S. Klüter, J. Rademacher, J. Debus, S. Adeberg, J. Hörner-Rieber</i>	PD - 0873
10:00	<b>Impact of dose and prescription method in SBRT of NSCLC. A pooled analysis of 2 prospective trials.</b> <i><u>E. Gkika (Germany)</u>, S. Adebahr, G. Radicioni, J. Exner, E. Haehl, S. Spohn, A. Rühle, C. Zamboglou, N. Nicolay, T. Sprave, R. Wiehle, D. Baltas, U. Nestle, A. Grosu</i>	PD - 0874
10:00	<b>Novel Classification and Longitudinal Analysis of Radiation-Induced Lung Parenchyma Damage</b> <i><u>E. Chandy (United Kingdom)</u>, A. Szmul, A. Stavropoulou, J. Jacob, D. Landau, C. Veiga, S. Gulliford, J. Fenwick, J. Wilson, M. Hawkins, C. Hiley, J. McClelland</i>	PD - 0875
10:00	<b>First-failure prediction model for locally advanced non-small cell lung cancer - External validation</b> <i><u>C.M. Lutz (Denmark)</u>, M.M. Knap, D.S. Møller, L. Hoffmann, A.A. Khalil, K.E. Håkansson, G. Persson, S. Bentzen, L. Nygård, I. Vogelius</i>	PD - 0876
10:00	<b>Radiological prediction model of lung radiation pneumonitis based on dose line segmentation</b> <i><u>P. Yang (China)</u>, X. Peng, H. Jin, Y. Jin, J. Cheng, H. Elhalawani, J. Liu, J. Wang, A. Mohamed, Y. Shi, C. Fuller</i>	PD - 0877

Track: Clinical

Poster discussions: Poster discussion 26: Upper GI (oesophagus, stomach) 1

-		Online
10:00	<b>Reduction of post-operative toxicity in esophageal cancer patients after model based proton therapy</b> <i><u>C. Muijs (The Netherlands)</u>, M. Dieters, V.E. Mul, A.G. Niezink, A. Schaaf van de, N.M. Sijtsema, S. Visser, P. Klinker, B. Etten van, E. Korevaar, J.A. Langendijk</i>	PD - 0878
10:00	<b>Clinical outcomes of neoadjuvant chemoradiation in oesophageal cancer</b> <i><u>K.S. Chufal (India)</u>, I. Ahmad, A.A. Miller, R. Bajpai, R.L. Chowdhary, A.K. Pahuja, J.S. Sethi, M. Gairola</i>	PD - 0879

- 10:00 **Could 18-FDG PET/CT radiomics features predict outcomes in locally advanced esophageal cancer?** PD - 0880  
*L. Lefebvre, J. Henriques, A. Falcoz, A. Meurisse, G. Crehange, L. Boldrini, N. Dinapoli, D. Vernerey, R. Gatta, B. De Bari (Switzerland)*
- 10:00 **Deep learning dose prediction as a tool to evaluate treatment complications based on NTCP models** PD - 0881  
*C. Draquet (Belgium), A. Barragan-Montero, S. Michiels, G. Defraene, M. Thomas, K. Haustermans, J. Lee, E. Sterpin*
- 10:00 **PET radiomics for predicting PFS in patients with esophageal cancer who are treated with CRT** PD - 0882  
*N. Takahashi (Japan), R. Umezawa, T. Yamamoto, K. Takeda, Y. Ishikawa, Y. Suzuki, K. Kishida, S. Teramura, K. Jingu*
- 10:00 **Impact of unintentional splenic scatter on lymphocytes during and post stomach cancer chemoradiation** PD - 0883  
*Y.H.E. Chuk (Hong Kong (SAR) China), K.C.M. Cheung, J.C.H. Chow, K.M. Cheung, J.C.H. Chan, C.W.Y. Yip, F.K.H. Lee, K.H. Wong*

Track: Clinical

**Poster discussions: Poster discussion 27: Palliation**

- Online

- 10:00 **Educational intervention to improve the rate of single fraction radiotherapy prescriptions** PD - 0884  
*C.M. Donati (Italy), E. Nardi, E. Galietta, M.L. Alfieri, G. Siepe, A. Zamagni, M. Buwenge, G. Macchia, F. Deodato, S. Cilla, M. Ferro, L. Strigari, S. Cammelli, F. Cellini, A.G. Morganti, A.G. Morganti*
- 10:00 **Quality of Life improvement in patients with bone metastases undergoing palliative radiotherapy** PD - 0885  
*V. Cañón (Spain), A. Gómez-Iturriaga, F. Casquero, D. Rades, A. Navarro, O. del Hoyo, V. Morillo, P. Willisch, J.L. López-Guerra, A. Illescas-Vacas, R. Ciervide, L. Martinez-Indart, J. Cacicedo*
- 10:00 **30-Day Mortality after Palliative Radiation Therapy for Painful Bone Metastases** PD - 0886  
*M. Vázquez Varela (Spain), A.A. Geng, J. Garre, E. Recalde, M. Altabas, A. Giraldo, V.M. Reyes, X. Maldonado, B. Navalpotro, M. Ramos, R. Vergés, S. Benavente, S. Micó, R. Granada, J. Giral*
- 10:00 **VMAT Radiotherapy boost in oligometastatic patients with Spinal Metastases: a dose escalation study** PD - 0887  
*D. Pezzulla (Italy), G. Macchia, S. Cilla, M. Boccardi, A. Re, P. Bonome, V. Picardi, M. Ferro, C. Romano, M. Buwenge, S. Cammelli, V. Valentini, V. Valenti, A. Morganti, F. Deodato*
- 10:00 **How timely is timely when it comes to palliative radiotherapy? 14 days or is it Urgent Plus?** PD - 0888  
*L. Bedford (United Kingdom), J. Walther, U. Barthakur, A. Davis, S. Donickey*

10:00 **Hemostatic radiotherapy for bleeding control in gynecological tumors** PD - 0889  
*M. Valero (Spain), V.J. Duque, J.A. Domínguez, T. Muñoz*

*Track: Physics*

**Poster discussions: Poster discussion 28: 4DCT for planning**

- Online

10:00 **A novel approach to validate the accuracy of Mid-Position images calculated from 4DCT data** PD - 0890  
*F. Ghareeb (Portugal), J. Stroom, M. Pereira, D. Boukerroui, M.J. Gooding, C. Greco*

10:00 **Cardio-respiratory ITV for cardiac radioablation in case of ventricular tachycardia** PD - 0891  
*J. Bellec (France), L. Rigal, N. Jaksic, P. Caille, M. Lederlin, C. Lafond, R. Martins, R. De Crevoisier, A. Simon*

10:00 **Patient specific evaluation of breathing motion induced interplay effect** PD - 0892  
*M. Varasteh, A. Mohammad Ali (United Kingdom), S. Esteve, F. Göpfert, P. Jeevanandam, A.R. Hounsell, C.K. McGarry, C. K McGarry*

10:00 **Probabilistic lung tumour target definition from 4DCT data: A motion model based approach** PD - 0893  
*B. Eiben (United Kingdom), E. Chandy, A. Abravan, V. Rompokos, H. Grimes, D. D'Souza, A. Poynter, M. van Herk, J.R. McClelland*

10:00 **The impact of beam setup on robustness and organs-at-risk dose in IMPT for lung cancer patients** PD - 0894  
*S. Visser (The Netherlands), R. Wijsman, D. Wagenaar, C. O.Ribeiro, A. Knopf, J.A. Langendijk, E.W. Korevaar, S. Both*

10:00 **Dose to heart substructures in esophageal cancer patients: Comparison between photon and protons** PD - 0895  
*N.S. Ubbesen (Denmark), M. Nordmark, M.L. Milo, L. Hoffmann, T.B. Nyeng, D.S. Møller*

*Track: Physics*

**Poster discussions: Poster discussion 29: Accuracy in computing dose**

- Online

10:00 **Dosimetric leaf gap and leaf trailing effect in a double-stacked multi-leaf collimator** PD - 0896  
*V. Hernandez (Spain), J. Saez, A. Angerud, R. Cayez, C. Khamphan, D. Nguyen, L. Vieillevigine, V. Feygelman*

10:00 **Experimental validation of absorbed dose-to-medium reporting algorithms in heterogeneous media** PD - 0897  
*A. Delbaere (France), T. Younes, M. Chauvin, J. Labour, V. Fonteny, L. Simon, G. Fares, L. Vieillevigine*



- 10:00 **Experimental determination of detector specific lateral dose response functions in proton beams** PD - 0898  
*J. Kretschmer (Germany), L. Brodbek, H.K. Looe, E. van der Graaf, M.J. van Goethem, H. Kiewiet, C. Meyer, B. Poppe, S. Brandenburg*
- 10:00 **Report dose-to-medium in clinical trials; a consensus from the Global Harmonisation Group** PD - 0899  
*S. Kry (USA), J. Lye, C. Clark, N. Andratschke, A. Dimitriadis, D. Followill, R. Howell, M. Hussein, M. Ishikawa, S. Kito, T. Kron, J. Lee, J. Michalski, A. Monti, N. Reynaert, P. Taylor, K. Venables, Y. Xiao, J. Lehmann*
- 10:00 **Improving the modelling of Elekta Agility MLC in RayStation** PD - 0900  
*M. Hussein (United Kingdom), A. Angerud, J. Saez, E. Bogaert, M. Barry, I. Silvestre Patallo, D. Shipley, C. Clark, V. Hernandez*
- 10:00 **Is it possible to predict QA failures using plan complexity metrics?** PD - 0901  
*S. Russo (Italy), G. Della Gala, S. Bettarini, A. Ghirelli, M. Esposito, S. Pini, H.O. Ghafour, V. Hernandez*

Track: Physics

**Poster discussions: Poster discussion 30: Challenges and technology of proton-therapy**

- Online
- 10:00 **Do we need a precise proton machine-specific delivery sequence to assess the interplay effect?** PD - 0902  
*X. Ding (USA), L. Zhao, G. Liu, W. Zheng, J. Shen, A. Lee, Y. Di, R. Deraniyagala, C. Stevens, X. Li, S. Tang*
- 10:00 **Gel dosimetry-based range evaluation as quality assurance tool for adaptive proton radiotherapy** PD - 0903  
*S. Neppi (Germany), C. Kurz, D. Köpl, I. Yohannes, M. Schneider, D. Bondesson, M. Rabe, C. Belka, O. Dietrich, G. Landry, K. Parodi, F. Kamp*
- 10:00 **Limitation of van Herk's recipe in robust optimization of clinical IMPT for head and neck cancer** PD - 0904  
*J. Rojo Santiago (The Netherlands), S.J. Habraken, D. Lathouwers, Z. Perkó, M.S. Hoogeman*
- 10:00 **Pencil Beam Proton Flash Therapy, the challenge of scanning.** PD - 0905  
*A. Pin (Belgium), L. Hotoiu, S. Deffet, E. Sterpin, R. Labarbe*
- 10:00 **A static device for novel fast beam delivery techniques in proton therapy** PD - 0906  
*K. Nesteruk (USA), A. Lomax, A. Bolsi, D. Meer, S. van de Water, M. Schippers*

- 10:00 **Modeling the first proton arc delivery sequence and investigating its efficiency improvement** PD - 0907  
*X. Ding (USA), G. Liu, L. Zhao, D. Yan, R. Deraniyagala, C. Stevens, X. Li*

Track: Clinical

Poster discussions: Poster discussion 31: Metastatic Prostate

- Online
- 15:30 **PSA Progression and survival in mCRPC patients treated with abiraterone or enzalutamide** PD - 0908  
*F. Lopez Campos (Spain), D. Lorente, C. Llacer Pérez, A. Gómez-Iturriaga, I. Henríquez-López, P. Peleteiro, M. Ramirez-Backhaus, J. Navarro-Castellón, R. Lozano, N. Romero, P. Gajate, C. Ana, J. Gómez, S. Álvarez, J. Molina-Cerrillo, L. Pelari, A. Hernández-Corrales, V. Morillo, R. García, C. Ferrer-Albiach, E. Castro, D. Olmos*
- 15:30 **Outcomes of metastasis-directed treatment of bone oligometastatic disease in prostate cancer** PD - 0909  
*P. Rogowski (Germany), N. Schmidt-Hegemann, C. Trapp, R. Shi, R. von Bestenbostel, J. Ma, C. Belka, M. Li*
- 15:30 **Radical radiotherapy in lymph node or bone metastatic prostate cancer: a single institution series** PD - 0910  
*C.L. deantoni (Italy), A. Fodor, C. Cozzarini, R. Tummineri, A. Sanchez Galvan, S. Villa, S. Baroni, G. Mandurino, P. Pacifico, R. Castriconi, C. Fiorino, N.G. Di Muzio*
- 15:30 **Real world utilization of radical local therapy in metastatic castrate sensitive prostate cancer** PD - 0911  
*S. Malone (Canada), C. Wallis, B. Shayegan, S. Morgan, F. Saad, S. Hotte, K. Chan, L. Park-Wyllie, S. Roy*
- 15:30 **Outcome of PSMA-PET/CT based salvage radiotherapy for nodal recurrence after radical prostatectomy** PD - 0912  
*P. Rogowski (Germany), C. Trapp, R. von Bestenbostel, M. Li, U. Ganswindt, P. Bartenstein, C. Stief, C. Belka, N. Schmidt-Hegemann*
- 15:30 **Local treatment to the primary tumor and PSA changes as prognostic factors in mCRPC** PD - 0913  
*F. Lopez Campos (Spain), D. Lorente, C. Llacer-Pérez, I. Henríquez, P. Peleteiro, A. Gómez-Iturriaga, M. Ramírez-Backhaus, S. Álvarez, T. Alonso-Gordoa, J. Molina-Cerrillo, C. Vallejo, A. Hervás, J. Navarro-Castellón, J. Gómez, V. Morillo, R. Lozano, N. Romero-Laorden, R. García, A. Hernández-Corrales, L. Pelari, C. Ferrer-Albiach, S. Sancho, E. Castro, D. Olmos*

Track: Clinical

Poster discussions: Poster discussion 32: Upper GI (pancreas, liver) 2

- Online
- 15:30 **The role of locoregional RT in BCLC stage C hepatocellular carcinoma patients treated with sorafenib** PD - 0914  
*W.I. Chang (Korea Republic of), B.H. Kim, E.K. Chie*

- 15:30 **SABR as a bridge therapy for HCC patients awaiting liver transplant** PD - 0915  
L. spinelli (Italy), R. Carlevato, V. Chiofalo, E. Gallio, S. Gaia, G. Rizza, R. Faletti, L. Molinaro, M.G. Papotti, R. Romagnoli, G.M. Saracco, P. Fonio, G.C. Iorio, A.S. Guarneri, U. Ricardi
- 15:30 **role of adjuvant chemoradiotherapy in perihilar bile duct cancer** PD - 0916  
C. Lee (Korea Republic of), K. Kim, H. Kim, W. Kwon, J. Jang, K. Lee, D. Oh, K.B. Lee, E.K. Chie
- 15:30 **Twelve-year's experience in SBRT for liver metastases, long-term results and prognostic factors.** PD - 0917  
O. Hernando-Reguejo (Spain), C. Rubio, X. Chen, E. Sanchez, M. Lopez, R. Alonso, A. Montero, R. Ciervide, B. Alvarez, J. Valero, M. Garcia-Aranda, J. Garcia, P. García de Acilu, D. Zucca, L. Alonso, M.A. De la Casa, J. Marti, A. Prado, M. Nuñez, M. Izquierdo, K. Rossi, C. Cañadillas, M.J. Salamanca, F. Padilla, P. Fernandez
- 15:30 **Stereobody radiotherapy vs chemoradiation in elderly with locally advanced pancreatic cancer.** PD - 0918  
F. Bertini (Italy), A. Arcelli, M. Buwenge, G. Macchia, A. Guido, G. Tolento, F. Deodato, S. Cilla, V. Scotti, M.E. Rosetto, I. Djan, S. Parisi, G.C. Mattiucci, F. Cellini, M. Fiore, P. Bonomo, L. Belgioia, R.M. Niespolo, P. Gabriele, M. Di Marco, N. Simoni, R. Mazarotto, A.G. Morganti, S. Cammelli
- 15:30 **An accurate pretreatment evaluation improves outcomes in LAPC:a single centre review on 104 patients** PD - 0919  
M. Fiore (Italy), G.M. Petrianni, P. Trecca, G. D'Ercole, A. Coppola, L.E. Trodella, R. Coppola, S. Ramella

Track: Clinical

Poster discussions: Poster discussion 33: Miscellaneous

- Online
- 15:30 **Patients' preferences on breast cancer side effects communication: implications for a decision aid** PD - 0920  
H. Hasannejadasl (The Netherlands), L. Boersma, C. Richel, M. Schuurman, R. Fijten, C. Roumen
- 15:30 **Long-term quality of life of surviving elderly head-and-neck cancer patients after (chemo)radiation** PD - 0921  
A. Rühle (Germany), E. Haehl, T. Kalckreuth, R. Stoian, T. Sprave, C. Zamboglou, E. Gkika, A. Knopf, A. Grosu, N. Nicolay
- 15:30 **Neoadjuvant Chemotherapy, Radiotherapy and Interferon-β in Paediatric Nasopharyngeal Cancers** PD - 0922  
S. KAMER (Turkey), M. Öztürk, E. Ataseven, H. Öviz, B. Kadioglu, B. Balci, D. Kizmazoglu, M. Kantar, Y. ANACAK

15:30 **Increasing access to highly specialized radiation treatments: the example of pediatric brachytherapy** PD - 0923  
*C. Chargari (France), C. Haie-Meder, S. Espenel, M. Ben-Arush, S. Bolle, A. Borjesson, M. Cesen, A. Costa Lago, A. Desfachelles, B. De Moerloose, D. Valck, N. Dos Reis Farinha, N. Francotte, H. Glosli, G. Guillen Burrieza, S. Helfre, S. Irtan, A. Kattamis, A. Lacerda, A. Levy, L. Lyngsie, L. Mansuy, E. Mascard, W. Mlynarski, D. Orbach, C. Owens, P. Philippe-Chomette, A. Peek, B. Pizer, C. Pluchart, A.G. Rognlien, A. Rome, S. Sarnacki, A. Safwat, A. Schiavetti, J. Serre, C. Verite, N. Von der Weid, P. Wendtland, M. Wysocki, D. Valteau-Couanet, E. Deutsch, V. Minard-Colin, H. Martelli, F. Guérin*

15:30 **Machine learning (ML) for predicting patient-reported symptoms during breast and prostate RT** PD - 0924  
*J. Kononen (Finland), J. Ekström, S. Mentu, V. Kataja, L. Lang, H. Virtanen, M. Metso-Lintula, T. Joensuu, C. von Briel*

15:30 **An European cross-cultural analysis of worsening of functional scales in prostate cancer patients after RT** PD - 0925  
*A. Cicchetti (Italy), N. Joseph, P. Seibold, B. Avuzzi, R. Valdagni, A. Webb, D. De Ruysscher, M. Lambrecht, E. Sperk, R. Elliott, C. Talbot, L. Veldeman, J. Chang-Claude, A. Choudhury, A. Vega, D. Azria, T. Rancati, C. West*

Track: Physics

**Poster discussions: Poster discussion 34: Deep-learning for auto-contouring**

- Online

15:30 **Large scale analysis of the clinical implementation of deep learning contouring in the thorax region** PD - 0926  
*F. Vaassen (The Netherlands), R. Canters, I. Lubken, J. Mannens, W. van Elmpt*

15:30 **MRI-based deep learning auto-contouring for organs-at-risk in gynecological brachytherapy** PD - 0927  
*P. Gonzalez (The Netherlands), A. Mans, E. Schaake, M. Nowee, U. van der Heide, R. Simões*

15:30 **Deep learning-based classification for standardization of prostate cancer RT structure annotations** PD - 0928  
*C. Jamtheim Gustafsson (Sweden), M. Lempart, J. Swärd, E. Persson, T. Nyholm, J. Scherman*

15:30 **Volumes and doses by various ways to define rectum in radiotherapy: clinical, standardized, and AI** PD - 0929  
*C. Olsson (Sweden), R. Suresh, S. Akram, J. Niemelä, A. Valdman*

15:30 **Comparison of automated segmentation techniques for magnetic resonance images of the prostate** PD - 0930  
*M. Pepa (Italy), J.L. Isaksson, M. Zaffaroni, P.E. Summers, G. Marvaso, G. Lo Presti, S. Raimondi, S. Gandini, S. Volpe, D.P. Rojas, D. Zerini, Z. Haron, P. Pricolo, S. Alessi, F.A. Mistretta, S. Luzzago, F. Cattani, O. De Cobelli, E. Cassano, M. Cremonesi, M. Bellomi, R. Orecchia, G. Petralia, B.A. Jereczek-Fossa*

- 15:30 **Deep learning-based tumor segmentation of endoscopy images for rectal cancer patients** PD - 0931  
L. Weishaupt (Canada), A. Thibodeau Antonacci, A. Garant, K. Singh, C. Miller, T. Vuong, S.A. Enger

Track: Physics

Poster discussions: Poster discussion 35: New delivery techniques

- Online

- 15:30 **Scintillator characterization in an electron FLASH beam: first experiences** PD - 0932  
V. Vanreusel (Belgium), A. Gasparini, A. Giammanco, M. Pacitti, M. Cociorb, E. D'Agostino, G. Felici, D. Verellen

- 15:30 **Microbeam radiotherapy planning for a clinical lung tumor case** PD - 0933  
J. Winter (Germany), K.M. Kraus, M. Ahmed, S.E. Combs, J.J. Wilkens, S. Bartzsch

- 15:30 **Spatial modulation enhances the effects of radiation on cancer cells.** PD - 0934  
L. Rogers (Australia), B. Chen, K. Liu, D. McKenzie, N. Suchowerska, A. Kwan

- 15:30 **The evaluation of a spatially fractionated radiotherapy technique for large tissue sarcomas** PD - 0935  
G. Borzov (Israel), A. Nevelsky, R. Bar-Deroma, S. Billan, M. Lutsyk

- 15:30 **A two-beams approach for organs-at-risk sparing in ocular passive proton therapy** PD - 0936  
E. Fleury (The Netherlands), P. Trnková, C. van Rij, E. Kiliç, A. Zolnay, K. Spruijt, J. Pignol, M. Hoogeman

- 15:30 **Reference dosimetry in image guided preclinical irradiators with a small volume ionization chamber** PD - 0937  
I. Silvestre Patallo (United Kingdom), D. Maughan, R. Carter, A. Nisbet, G. Schettino, G. Schettino, A. Subiel

Track: RTT

Poster discussions: Poster discussion 36: Image-guided radiotherapy

- Online

- 15:30 **impact of an atlas on radiographer inter-observer contour variation in prostate radiotherapy** PD - 0938  
A. Clough (United Kingdom), R. Hales, J. Parker, J. McMahon, L. Whiteside, L. McHugh, L. Davies, J. Sanders, R. Benson, C. Nelder, A. Choudhury, C. Eccles

- 15:30 **Feasibility of MR-guided tomotherapy on cranial & head-and-neck cases** PD - 0939  
W.W. Fung (Hong Kong (SAR) China), S.Y. Man, W.C. Leung, K.F. Cheng, O.L. Wong, J. Yuan, G. Chiu, K.Y. Cheung, S.K. Yu

- 15:30 **CBCT-guided online adaptive radiotherapy: implementation of an RTT-led workflow** PD - 0940  
*D. Daal (The Netherlands), L. Haverkate, L. ten Asbroek-Zwolsman, L. Zwart, E. van Dieren, E. de Wit*
- 15:30 **Feasibility of prostatic calcifications tracking using 4D transperineal ultrasound (TPUS).** PD - 0941  
*W.K. leung (New Zealand), E.P.P. Pang, S.K.T. Cheung, W.H. Mui, B.B.W. Wo, H. Liu, J.C.W. Siang, J.K.L. Tuan, T.W.K. Tan, W.L. Nei, M.L.C. Wang, M.A.B. Atan, J.Y.H. Chai, J.M. Loh, A.W.T. Kor, L.H. Lip, G.K. Low, C.H.A. Liu, K.C. Lee*
- 15:30 **Intrafraction error analysis of homemade mouth-bite masks in linac-based SRS for brain metastasis** PD - 0942  
*V. Pisoni (Italy), S. Trivellato, S. Corbetta, A. Masperi, E. Ierman, S.P. Bianchi, R. Lucchini, D. Panizza, S. Arcangeli*
- 15:30 **Set-up reproducibility in an adult brain tumour cohort using Varian 2d-3d co-registration software** PD - 0943  
*S. Moinuddin (United Kingdom), S. Petkar, M. Kermali, K. Indramohan, E. Wilson, N. Fersht, M. Kosmin*

# Digital Posters



- Correlation on G8 score with sarcopenia is a prognostic factor for OS in patients with HNC** PO - 0944  
*K. Zhelev (Bulgaria), Z. Zahariev, D. Katsarov, I. Mihaylova, N. Conev, I. Donev*
- The prognostic value of RDW, NLR, and PLR in radiotherapy for oropharyngeal cancer** PO - 0945  
*E. Staniewska (Poland), B. Tomasik, R. Tarnawski, M. Miszczyk*
- Treatment outcomes of carcinoma buccal mucosa treated with definitive accelerated radiotherapy** PO - 0946  
*C.T. Kainickal (India), G. Babu, R.R. Kumar, M. Rafi, A. M.P, L.M. Nair, F. N, P. George, R. K*
- Indications for chest computed tomography in the extension study of HNC** PO - 0947  
*J. Pachón Ibáñez (Spain), B. Quintana Ángel, A. Wals Zurita, J. Saavedra Bejarano*
- Impact of HPV status on normal tissue toxicities experienced by head & neck cancer patients** PO - 0948  
*X. Ray (USA), W. Sumner, L. Sutton, P. Sanghvi, I. Deichaite, V. Moiseenko*
- Comparison between simultaneous integrated boost IMRT and sequential IMRT in head and neck cancers** PO - 0949  
*P. Ahlawat (India), M. Gairola, M.I. Sharief, S. Tandon, S. Purohit, N. Sachdeva, T. Singh, K. Dobriyal, A. Krishnan*
- Comparison between two-dose levels versus three-dose levels IMRT in head and neck cancers** PO - 0950  
*P. Ahlawat (India), S. Tiwari, M. Gairola, S. Tandon, S. Purohit, K. Dobriyal, T. Singh, A. Krishnan*
- Effects of COVID-19 during radio(chemo)therapy in head and neck cancer patients** PO - 0951  
*A. Bandurska-Lugue (Poland), T. Winiecki, M. Żmijewska-Tomczak, R. Poźniak-Balicka, A. Adamska, T. Bajon, D. Borowczak, P. Milecki, J. Kaźmierska*
- A dynamically updating individualized survival prediction modelling tool for oral cancer** PO - 0952  
*I. Mallick (India), P. Roy, S. Saha, I. Arun, P. Arun, R. Sharan, K. Manikantan, P. Jain, L. Zameer, S. Chatterjee*



- Impact of human papilloma virus on treatment outcomes in oropharyngeal cancer in India** PO - 0953  
*N. Sachdeva (India), P. Ahlawat, M. Gairola, S. Tandon, S. Purohit, M.I. Sharief, K. Dobriyal, T. Singh, A. Krishnan*
- REPORT; REirradiation and PD-1 blockade On Recurrent squamous cell head and neck Tumors** PO - 0954  
*Å. Bratland (Norway), H.A. Eide, J.A. Kyte*
- Tumor volume and ADC changes during the time course of RT on a 1.5T MR-Linac in HNC** PO - 0955  
*S. Boeke (Germany), J. Habrich, M. Nachbar, C. Gani, S. Butzer, J. Boldt, C. Marks, D. Zips, K. Nikolaou, F. Schick, D. Thorwarth*
- Radiotherapy in fragile elderly head and neck cancer patients: a single centre experience** PO - 0956  
*I. Luciani (Italy), C. Pisani, L. Masini, V. Destefanis, S. Berretta, E. Ferrara, G. Loi, M. Krengli*
- Organ-preservation in Post-Cricoid and Upper-Esophagus (PCUE) cancers: Seeking optimum outcomes** PO - 0957  
*S. Sinha (India), S. Ghosh Laskar, M. Singh, A. Budrukhar, N. Mummudi, M. Swain, J.P. Agarwal, T. Gupta, V. Murthy, K. Prabhash, A. Joshi, V. Noronha, V. Patil, N. Menon*
- Comparison of CCRT and RT alone after Induction Chemotherapy for Hypopharyngeal Cancer** PO - 0958  
*M. Wan (China), D. Zhao, B. Zheng, S. Xiao, Y. Sun, W. Wang*
- A study correlating type of tobacco use with dosimetry of parotids in H&N patients treated with IMRT** PO - 0959  
*N. Patil (India), S. Lewis, U. V, A. Reddy, A. Singh, P. Augustine, S. Chauhan, K. Sharan*
- Long-term outcome of IMRT-SIB and chemotherapy in nasopharyngeal carcinoma in a non-endemic area** PO - 0960  
*I. Linares Galiana (Spain), N. Garcia Exposito, M. Plana, J. Brenes, M. Oliva, J. Nogues, M. Cos, L. Rodriguez, J. Tornero, P. Mora, A. Lozano*
- Role of depth of infiltration (DOI) as independent prognostic factor in pT1--T2 N0 oral tongue SCC** PO - 0961  
*M. Augugliaro (Italy), D. Alterio, M. Tagliabue, P. D'urso, S. Volpe, R. Bruschini, A. Farneti, G. Marvaso, I. Turturici, S. Riccio, B.A. Jereczek-Fossa, G. Sanguineti, M. Ansarin*
- Evaluation of anxiety and depression in head and neck cancer patients during radiotherapy** PO - 0962  
*M.U. Karim (Pakistan), B.M. Qureshi, A. Hafiz, N. Ali, S. Abrar, H. Iftikhar, A.N. Abbasi*

- How to optimize prognosis prediction of nasopharyngeal carcinoma in the era of modern radiotherapy?** PO - 0963  
*O. Nouri (Tunisia), W. Mnejja, N. Fourati, F. Dhouib, W. Siala, I. Charfeddine, A. Khanfir, L. Farhat, J. Daoud*
- Survival outcomes of hypopharyngeal SCC versus cervical oesophageal SCC** PO - 0964  
*D. Guiral (United Kingdom), S.Y. Lim, W. Park*
- Vitamin D, vitamin B12 and acute toxicity in head and neck cancer patients undergoing radiotherapy.** PO - 0965  
*G. Fanetti (Italy), J. Polesel, F. Matrone, I. Turturici, C. Gobitti, S. Alfieri, V. Lupato, F.B. La Torre, E. Fratta, E. Muraro, M.T. Casarotto, R. Guerrieri, V. Giacomarra, A. Steffan, E. Vaccher, G. Franchin*
- Sarcopenia as prognostic marker in elderly HNSCC patients undergoing (chemo-)radiation** PO - 0966  
*E. Haehl (Germany), L. Alvino, A. Rühle, T. Sprave, A. Grosu, N.H. Nicolay*
- Factors associated with feeding tube requirement in Oropharyngeal Cancer treated with IMRT.** PO - 0967  
*O. Monaghan (Ireland), N. O'Dwyer, M. Dunne, J. Nugent, N. Coughlan, A. Nolan, F. Gilbert, A. Glynn, F. Duane, C. Parkes, S. Brennan*
- ongoing head and neck contour peer review improves quality of radiotherapy targets** PO - 0968  
*L. McGee (USA), J. Rwigema, M. Halyard, T. DeWees, J. Gagneur, S. Patel*
- Evaluation of the use of reirradiation in head and neck recurrent cancer or second primary tumor.** PO - 0969  
*L. Gutiérrez Bayard (Spain), M.C. Salas Buzón, R. Rodriguez Sanchez*
- Impact nutritional intervention in patients with head and neck cancer receiving radiotherapy.** PO - 0970  
*L. Gutiérrez Bayard (Spain), S. Sayago Gil, C. Muñoz Higuera*
- Locally advanced oropharyngeal cancer: a dynamic nomogram** PO - 0971  
*F. De Felice (Italy), L. Humbert-Vidan, M. Lei, A. King, T. Guerrero Urbano*
- Pre-treatment haemoglobin as a surrogate marker for survival in head & neck squamous cell carcinoma** PO - 0972  
*S. Tandon (India), M. Gairola, P. Ahlawat, S. Purohit, P. Umesh, A. Krishnan*

<p><b>Locoregional treatment of primary tumor in synchronous metastatic HNSCC: A retrospective study</b></p> <p><i>E. Tang (France), T. Nguyen, N. Haddy, B. Schwartz, C. Even, P. Blanchard, P. Gorphe, Y. Tao, F. Ferrand</i></p>	<p>PO - 0973</p>
<p><b>Comparing delineation techniques in radiotherapy of node positive head and neck squamous cell cancer</b></p> <p><i>C. Brooks (United Kingdom), M. Powell, A. Sibtain</i></p>	<p>PO - 0974</p>
<p><b>ICT Plus Simultaneous Modulated Accelerated Radiation Therapy in Non-operative SCCH/L</b></p> <p><i>B. Cai (China), L. Ma, L. Meng, J. Mo, S. Xu, B. Qu, F. Liu</i></p>	<p>PO - 0975</p>
<p><b>Adjuvant (chemo)radiotherapy in HNSCC patients: Outcome prediction with comorbidity risk scores</b></p> <p><i>S.N. Marschner (Germany), C. Maihöfer, R. Späth, N. Kienlechner, L. Schüttrumpf, P. Baumeister, J. Hess, H. Zitzelsberger, A. Friedl, U. Ganswindt, C. Belka, F. Walter</i></p>	<p>PO - 0976</p>
<p><b>Comparison of therapy outcomes between 2-dimensional radiotherapy and IMRT for early glottic cancer</b></p> <p><i>S. Purohit (India), P. Ahlawat, M. Gairola, S. Tandon, M.I. Sharief, N. Sachdeva, T. Singh, K. Dobriyal, A. Krishnan</i></p>	<p>PO - 0977</p>
<p><b>Low-dose radiotherapy as a chemosensitizer of neoadjuvant chemotherapy for LA-NPC: a phase II trial</b></p> <p><i>M. Feng (China), Q. Yin, Y. Qi, L. Li, M. Lan, X. Lai, M. Fan, J. Zhang, F. Li, W. Wang, J. Lang</i></p>	<p>PO - 0978</p>
<p><b>Tumour volume as prognostic factor for recurrent head and neck cancers treated with re-irradiation</b></p> <p><i>P. Ahlawat (India), M. Gairola, S. Tandon, S. Purohit, N. Sachdeva, M.I. Sharief, T. Singh, K. Dobriyal, A. Krishnan</i></p>	<p>PO - 0979</p>
<p><b>Predicting toxicity after Head-and-Neck cancer RT: synergist role of biological markers &amp; dosimetry?</b></p> <p><i>E. Orlandi (Italy), M. Duclos, N.A. Iacovelli, E. Berthel, S. Deneuve, A. Cavallo, R. Valdagni, T. Rancati, S. Pereira</i></p>	<p>PO - 0980</p>
<p><b>Wide histological spectrum of sinonasal malignancies and survival outcomes - An Institutional review</b></p> <p><i>P. Umesh (India), S. Tandon, M. Gairola, P. Ahlawat, S. Purohit, K. Dobriyal</i></p>	<p>PO - 0981</p>
<p><b>early efficacy prediction of NPC based on 3D-ADC during radiotherapy: a phase II prospective study</b></p> <p><i>M. Feng (China), L. Yan, X. Du, H. Wang, J. Ren, M. Wang, Q. Yin, X. Lai, L. Li, M. Lan, S. Lu, Y. Huang, F. Li, X. Xu, W. Wang, J. Lang</i></p>	<p>PO - 0982</p>

- early prediction of parotid gland function based on ADC during radiotherapy for NPC: a phase II study** PO - 0983  
*M. Feng (China), H. Wang, J. Yin, J. Ren, J. Lang*
- Impact of anterior commissure involvement in early glottic cancer treated with radical IMRT** PO - 0984  
*P. Ahlawat (India), M. Gairola, S. Purohit, S. Tandon, N. Sachdeva, M.I. Sharief, T. Singh, K. Dobriyal, A. Krishnan*
- Treatment outcome of 33 versus 35 fractions among nasopharyngeal carcinoma using helical approach** PO - 0985  
*M. Cruz (Philippines), M.A.R. Agustin, M. Valenzuela*
- Radiotherapy versus Surgery in Early Stage HPV-positive Oropharyngeal Cancer** PO - 0986  
*D. KIM (Korea Republic of), H. Wu, J.H. Kim, S. Ahn, E. Chung, K. Eom, Y.H. Jung, W. Jeong, T. Kwon, S. Kim, C.W. Wee*
- Evaluation of swallowing function using PSS-HN scale for head-neck cancer patients undergoing IMRT** PO - 0987  
*P. Mukherjee (India), S. Agarwal, N. Kalyani, M. Roy, A. Doshi, S. Kommineni, R. Patel*
- Preliminary evaluation of head and neck malignancies with carbon ion radiotherapy at Osaka HIMAK** PO - 0988  
*A. Hasegawa (Japan), M. Chatani, O. Suzuki, M. Anzai, Y. Imai, T. Fujii*
- Predictive factors for chemoradiotherapy-induced oral mucositis: Human papillomavirus influence** PO - 0989  
*Á. Fernández Forné (Spain), M.J. García Anaya, M.D. Toledo Serrano, M. Muñoz Lupiáñez, J.A. Medina Carmona, J. Gómez-Millán Barrachina*
- Treatment package time and Hb in head and neck SCC treated with surgery and post-operative RT** PO - 0990  
*C. Blake (United Kingdom), B. Hunter, Z. Awad, D. Gujral*
- Impact of low muscle quality in patients with head and neck cancer undergoing chemoradiation** PO - 0991  
*L. Bardoscia (Italy), P. Ciammella, G. Besutti, E. Bonelli, A. Botti, M. Pellegrini, F. Vigo, A. Rosca, G. Timon, S. Cozzi, M.P. Ruggieri, C. Iotti*
- Outcomes and toxicities of curative reirradiation for head and neck carcinomas** PO - 0992  
*A. Beddok (France), C. Saint-Martin, C. Ala Eddine, L. Champion, S. Krhili, A. Chilles, L. Catteau, F. Goudjil, S. Sefkili, M. Amessis, D. Peurien, O. Choussy, C. Le Tourneau, R. Dendale, I. Buvat, G. Créhange, V. Calugaru*

- Malnutrition by GLIM criteria is a risk factor for survival of NPC patients undergoing radiotherapy** PO - 0993  
*M. Wan (China), D. Zhao, B. Zheng, S. Xiao, Y. Sun*
- Correlation of PDL1-Tumor Infiltrating Lymphocytes in Carcinoma Oropharynx with toxicity & response** PO - 0994  
*S. Srivastava (India), M. Rastogi, A.K. Gandhi, K. Sahni, N. Husain, R. Khurana, R. Hadi, S. Sapru, S.P. Mishra, A. Srivastava, A. Bharati, S. Parida*
- Locally advanced nasopharyngeal carcinoma treated with a mixed beam (photons-protons) radiotherapy.** PO - 0995  
*I. Turturici (Italy), G. Marvaso, D. Alterio, E. D'Ippolito, B. Vischioni, S. Ronchi, M. Bonora, V. Vitolo, E. Mastella, G. Magro, P. Franco, M. Krengli, P. Fossati, R. Ricotti, S. Gandini, S. Comi, A.M. Camarda, E. La Rocca, S. Volpe, M. Tagliabue, E. Verri, E. Orlandi, B.A. Jerezek-Fossa, R. Orecchia*
- Dose guided surgery and its impact on the surgical management of mandibular osteoradionecrosis** PO - 0996  
*N. West (United Kingdom), N. Willis, J. Adams, M. Kennedy, G. Jenkins, M.S. Iqbal, Z. Davidson*
- Lack of CTV\_P2 is not associated with a detrimental outcome in oropharyngeal cancer: a cohort study** PO - 0997  
*L.P. Ciccone (Italy), M. Zani, E. Scoccimarro, M. Aquilano, M. Banini, L. Caprara, M. Mariotti, V. Salvestrini, C. Becherini, I. Desideri, L. Marrazzo, S. Pallotta, L. Livi, P. Bonomo*
- Dosimetric predictors of patient-reported taste alteration in head and neck cancer: a cohort study** PO - 0998  
*E. Scoccimarro (Italy), L.P. Ciccone, S. Caini, M. Aquilano, A. Peruzzi, C. Becherini, L. Livi, I. Desideri, P. Bonomo*
- Financial difficulties during chemo-radiotherapy for nasopharyngeal carcinoma: A prospective study** PO - 0999  
*N. Fourati (Tunisia), Z. Fessi, S. Zouari, F. Dhouib, W. Siala, I. Charfeddine, A. Khanfir, W. Mnejja, J. Daoud*
- Any impact of COVID-19 pandemic on the features of the Head and Neck (HN) cancer patients?** PO - 1000  
*B. Yanes, S. Slimani, N. Lardon, S. Pellissier, A. Auteri, M. Hotz, A. Stern, Y. Jaquet, B. De Bari (Switzerland)*
- The effect of switching to carboplatin chemo-RT for cycle 2 in cisplatin-ineligible HNSCC patients** PO - 1001  
*J. Price (United Kingdom), I. Fornacon-Wood, D. Thomson, L. Lee, A. Sykes, K. Garcez, G. Price, A. McPartlin*

<b>Variability of pretherapeutic FDG PET/CT parameters in patients with head and neck cancers</b>	PO - 1002
<i><u>F. Lucia (France)</u>, A. Vu, V. Bourbonne, O. Pradier, R. Abgral, U. Schick</i>	
<b>Implementation of the routine collection of PROMs for patients with Head and Neck cancer</b>	PO - 1003
<i><u>L. Pascal (United Kingdom)</u>, M. Van Hemelrijck, T. Guerrero Urbano, M. Lei</i>	
<b>Prevalence and distribution of cervical lymph node metastases in HPV+ and HPV- oropharyngeal cancer</b>	PO - 1004
<i><u>L. Bauwens (France)</u>, V. Gregoire</i>	
<b>Intensity-modulated radiotherapy for oropharyngeal carcinoma: oncologic and functional outcomes</b>	PO - 1005
<i><u>A. Nakajima (Japan)</u>, S. Hiraoka, M. Yoshimura, Y. Matsuo, T. Mizowaki</i>	
<b>Nutritional intervention in head and neck cancer patients undergoing (chemo-)radiotherapy</b>	PO - 1006
<i>A. Löser, J. Abel, L. Kutz, A. Finger, F. Greinert, M. Sommer, L. Krause, G. Matnjani, R. Schwarz, S. Brackrock, A. Krüll, <u>C. Petersen (Germany)</u>, C. Carl</i>	
<b>Radiotherapy with delayed accelerated hyperfractionated boost for node negative hypopharynx cancer</b>	PO - 1007
<i><u>T. Fujisawa (Japan)</u>, A. Motegi, S. Zenda, H. Hojo, M. Nakamura, Y. Hirano, H. Hirata, R. Vijay Parshuram, K. Matsuura, T. Shinozaki, R. Hayashi, T. Akimoto</i>	
<b>Lymph node ratio dependent utilization of postoperative radiotherapy in T1-2N1 oral cavity carcinoma</b>	PO - 1008
<i><u>J. Wang (China)</u></i>	
<b>definitive radiotherapy for squamous cell carcinoma of the external auditory canal</b>	PO - 1009
<i><u>K. Kikuchi (Japan)</u>, R. Nakamura, K. Shiga, T. Segawa, H. Oikawa, H. Ariga</i>	
<b>Re-irradiation for head and neck cancer: Cumulative dose and the correlation to carotid blowout</b>	PO - 1010
<i><u>A. Embring (Sweden)</u>, E. Onjukka, C. Mercke, I. Lax, A. Berglund, S. Børnedal, B. Wennberg, E. Dalqvist, S. Friesland</i>	
<b>Efficacy of PD-1 inhibition in recurrent Head and Neck cancer. A national prospective cohort study.</b>	PO - 1011
<i><u>S. Sjøby (Denmark)</u>, A. Gothelf, N. Gyldenkerne, J. Bentzen, K. Nowicka-Matus, T. Tramm, J.G. Eriksen</i>	

<b>proposal of new N stage scheme and comparison between seven N schemes in nasopharyngeal carcinoma</b>	PO - 1012
<i>W. Peng (China), C. Hu, T. Xu, X. Zhou</i>	
<b>Mastication, swallowing and salivary flow in patients with HNC; objective tests versus PROs</b>	PO - 1013
<i>J. Vermaire (The Netherlands), C. Raaijmakers, I. Verdonck-de Leeuw, F. Jansen, C. Terhaard, C. Speksnijder</i>	
<b>Prognosis classifier for elderly head-and-neck squamous cell carcinoma patients</b>	PO - 1014
<i>A. Rühle (Germany), C. Stromberger, E. Haehl, C. Senger, A.E. Falkenstein, R. Stoian, C. Zamboglou, A. Knopf, A. Grosu, N. Nicolay</i>	
<b>Prospective evaluation of anatomical changes of salivary glands during MRI-guided ART for HNC</b>	PO - 1015
<i>J. van Timmeren (Switzerland), M. Bogowicz, M. Chamberlain, S. Ehrbar, R. Dal Bello, H. Garcia Schüler, J. Krayenbuehl, L. Wilke, N. Andratschke, M. Guckenberger, S. Tanadini-Lang, P. Balermipas</i>	
<b>External validation of a nomogram for chemoirradiation in stage 2 nasopharyngeal carcinoma with IMRT</b>	PO - 1016
<i>P.L. Yip (Hong Kong (SAR) China), P. Chan, K. Cheung, C. Chow, W. Lai, H. Lee, K. Lam, C. Chiang, C. Wong, M. Poon, M. Tong, K. Au, W. Ng, K. Ngan, A. Lee, Y. Tung</i>	
<b>Outcome of proton therapy for salivary gland cancer and NTCP risk analysis for xerostomia/dysphagia</b>	PO - 1017
<i>N. Bachmann (Switzerland), M. Walsler, C. Tully, A. Köthe, D. Leiser, N. Bizzocchi, D.C. Weber</i>	
<b>Dose Escalation in Advanced Floor of the Mouth Cancer Using a Combination of IMRT and SRT Boost</b>	PO - 1018
<i>T. Blazek (Czech Republic)</i>	
<b>Influence of glutamine in mucositis secondary to antineoplastic therapies in head and neck cancer.</b>	PO - 1019
<i>A. Torres García (Spain), Á. Fernández Forné, M.C. Cruz Muñoz, F.J. Peracaula Espino, M. Acuña Mora</i>	
<b>Cochlea sparing optimized radiotherapy for nasopharyngeal carcinoma</b>	PO - 1020
<i>E. Vu (Switzerland), E. Lamaj, J. van Timmeren, C. Leonardi, I. Pytko, L. Marc, M. Guckenberger, P. Balermipas</i>	
<b>Postoperative Radiotherapy in the Management of Advanced or Recurrent Differentiated Thyroid Cancer</b>	PO - 1021
<i>H. Ryu (Korea Republic of), H. Wu, K.E. Lee, E.-. Chung, S. Ahn, Y.J. Park</i>	

**Local-control efficacy of EBRT on well-DTC bone metastases: single center real-life experience** PO - 1022

*E. Lodi Rizzini (Italy), D. Vallerossa, C. Scampoli, E. Tabacchi, V. Laghi, L. Cavallini, E. Scirocco, E. Deraco, S. Cammelli, M. Boriani, A.L. Angelini, F. Romani, G.P. Frezza, A.G. Morganti, F. Monari*

**Impact of 18F-FDG-PET/CT in the management of suspected RAI refractory DTC persistence/recurrence** PO - 1023

*E. Lodi Rizzini (Italy), L. Zanoni, E. Tabacchi, A. Repaci, C. Scampoli, D. Vallerossa, V. Laghi, L. Cavallini, N. Razganiayeva, R. Cardano, E. Scirocco, S. Cammelli, G.P. Frezza, A.G. Morganti, S. Fanti, F. Monari*

**Survival outcomes for p16+ oropharyngeal squamous cell carcinoma based on HPV status** PO - 1024

*S. Robinson (United Kingdom), J. Towler, R. Kitson, D. Saleh, H.C. Younan, S. Mukhopadhyay, J. Weir, D. Gujral*

**Outcomes of re-irradiation of relapsed intracranic lesions with stereotactic radiotherapy** PO - 1025

*R. Tummineri (Italy), A. Fodor, A. Sanchez Galvan, S.L. Villa, S. Baroni, G. Mandurino, P. Pacifico, C.L. Deantoni, F. Zerbetto, A.M. Deli, S. Broggi, A. Del Vecchio, N.G. Di Muzio*

**Re-irradiation with concurrent Nivolumab in locally recurrent Head and Neck Cancer** PO - 1026

*J. von der Grün (Germany), A. Altay-Langguth, P. Balermipas, C. Brandts, S. Balster, S. Ghanaati, R. Winkelmann, I. Burck, F. Rödel, D. Martin, C. Rödel*

**Radioiodine therapy guided by 124I-PET/CT in metastatic DTC: long-term follow-up data** PO - 1027

*E. Lodi Rizzini (Italy), V. Allegri, L. Zanoni, E. Tabacchi, V. Laghi, L. Strigari, A. Repaci, C. Scampoli, D. Vallerossa, E. Deraco, L. Cavallini, F. Bertini, S. Cammelli, G.P. Frezza, A.G. Morganti, S. Fanti, F. Monari*

**Inter-correlations between various high-risk pathological factors in squamous cell carcinoma tongue** PO - 1028

*P. Ahlawat (India), A. Krishnan, M. Gairola, S. Tandon, S. Purohit, N. Sachdeva, M.I. Sharief, K. Dobriyal, T. Singh*

Track: Clinical

Digital Poster: CNS

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**STUPP protocol and hypofractionated RT for glioblastoma in clinical practice** PO - 1029

*G. Sara (Spain), I. Clara, L. Nuria*



- Homogeneous field radiotherapy in adults medulloblastoma. Report of four cases.** PO - 1030  
I. Paquey Garrido (Spain), E. Montero Perea, M. Perucha Ortega, D.M. Muñoz Carmona, P. Romero Pareja
- Tumour volume influences local control and overall survival following Stereotactic Radiosurgery** PO - 1031  
S. Lynch (United Kingdom), M. Varasteh, E. Russell, J. Harney, D. Conkey, A. Cole, S. Osman, T. Flannery, K. Prise, A. O'Neill, C. McGarry
- Effects of SRS in patients affected with brain metastases from NSCLC: a single institution report** PO - 1032  
I. Chiovatero (Italy), C. Mantovani, A. Vella, G.C. Iorio, E. Orlandi, M. Cerrato, C. Cavallin, S. Badellino, A. Gastino, E.M. Cuffini, M. Levis, U. Ricardi
- Molecular profile and early MRI changes after chemoradiation in high grade diffuse astrocytoma** PO - 1033  
R. Basu Achari (India), L. Goyal, S. Chakraborty, M. Arunsingh, B. Arun, S. Das, T. Bhattacharyya, I. Mallick, S. Chatterjee, J. Chatterjee, S. Dhara, N. Ghosh, J. Mukhopadhyay
- Hypofractionated Radiotherapy and Simultaneous Boost in radically inoperable cases with Glioblastoma** PO - 1034  
F. Gregucci (Italy), I. Bonaparte, A. Surgo, R. Carbonara, M.P. Ciliberti, G. Masiello, R. Tucciariello, M. Caliandro, A. Fiorentino
- Re-Irradiation with high-dose stereotactic radiotherapy for recurrent High-grade Gliomas** PO - 1035  
A. Mousli (Luxembourg), V. Bocquet, B. Frederick, C. Louis, S. Biver, S. Philippi, P. Nickers, M. Untereiner, G. Vogin
- Malignant** PO - 1036  
Y. Takase (Japan), M. Kawamura, R. Nakahara, J. Itoh, Y. Oie, M. Okumura, T. Kamomae, Y. Itoh, T. Ono, S. Naganawa
- Hypofractionated radiation therapy for non-elderly patients with glioblastoma** PO - 1037  
D. Tomasini (Italy), L. Triggiani, S. Pedretti, M.L. Bonù, L. Costa, L. Pegurri, L. Romano, N. Singh, S. Lamattina, E. Pastorello, G. Facheris, O. Turla, P. Borghetti, M. Buglione di Monale e Bastia, S.M. Magrini
- Radiotherapy with Temozolomide for Pediatric Glioblastoma: A single institute retrospective analysis.** PO - 1038  
K. Ratanchandani (India), S. Kunikullaya, A. Parikh, M. Mehta, S. Patel, V. Shivhare, S. Rath, V. Modi, H. Jain, D. Anand, N. Bathija
- Stereotactic radiotherapy with single-isocenter in multiple brain metastases** PO - 1039  
P. Matteucci (Italy), S. Silipigni, C.G. Rinaldi, I. Ridolfi, P. Falco, M. Fiore, E. Ippolito, S. Ramella

- Brain metastasis recurrence for SRS in non-previously radiated patients** PO - 1040  
A. La Rosa de los Ríos (Spain), L. Arribas, M. Chust, V. Crispin, J.L. Guinot, B. Quiles, S. Canos, Y. Murria, E. Arana, M.J. Perez
- Skull base chordomas and chondrosarcomas: Trento Protontherapy Centre early experience** PO - 1041  
M. Cianchetti (Italy), D. Amelio, B. Rombi, S. Vennarini, D. Scartoni, I. Giacomelli, A. Turkaj, F. Dionisi, M. Amichetti
- Dose-response-toxicity relationship to treatment in patients treated with Cerebral SBRT.** PO - 1042  
L. Sonera-Marcos (Spain), R.P. PEDRO, M. Elena, M. David M
- The influence of the conformity index of stereotactic radiotherapy for single brain metastasis** PO - 1043  
K. Makita (Japan), Y. Hamamoto, O. Nishizaki, M. Kataoka, T. Manabe, T. Kido
- Stereotactic radiosurgery for meningioma: a single institution retrospective analysis** PO - 1044  
O. Houlihan (Ireland), G. Rangaswamy, M. Dunne, L. Fennell, C. Skourou, C. Faul, D. Fitzpatrick
- Wholebrain vs radiosurgery/fractionated stereotactic radiationtherapy: experience in our center.** PO - 1045  
A. Alayón Afonso (Spain), M. Montero Feijoo, J. Olivera Vegas, J. Ayerbe García, I. Azinovic Gamo, S. Gomez Tejedor, L. Guzmán Gómez, J. Luna Tirado, C. Díaz Silvera, J. Vara Santos, A. Nieto Riveiro, A. Martínez Felipe, M. Perez Cobo, W. Vásquez Rivas
- Multifraction stereotactic radiotherapy for brain metastases: initial experience.** PO - 1046  
S. Heylen (Belgium), M. Lambrecht, G. Defraene, B. Vanstraelen, A. Nulens, L. Estera Tilea, J. Daisne, P. Berkovic
- Prospective evaluation of 167 brain metastases in Indian patients treated with robotic radiosurgery** PO - 1047  
S. K (India), R. Kamath, A. Gupte, A. Sasidharan, P. K U, A. R, H. Nair, A. E H, D. Dutta
- FluorEthyl-I-Tyrosine PET in glioma radiotherapy planning: an isotoxic dose prescription approach** PO - 1048  
C. Delli Paoli (Italy), M. Esposito, B. Grilli Leonulli, I. Laghai, G. Muscas, M. Betti, M. Perna, V. Baldazzi, A. Konze, A. Della Puppa, S. Sestini, S. Russo, S. Scoccianti
- Hypofractionated stereotactic reirradiation in patients with high-grade gliomas** PO - 1049  
M. López González (Spain), R. Ciervide, O. Hernando, E. Sanchez, A. Montero, M. García-Aranda, B. Alvarez, X. Chen-Zhao, R. Alonso, J. Valero, P. Fernandez-Leton, C. Rubio

- 11C-Methionine-PET scan for target delineation in patients treated with IMPT for CNS tumors.** PO - 1050  
S. Martín Pastor (Spain), F.A. Calvo Manuel, A. Garcia-Consuegra, J. Serrano Andreu, J. Arbizu Lostao, J. Gállego Pérez De Larraya, L.H. González Quarante, P. Domínguez Echávarri, J.I. Echeveste, M. Cambeiro Vázquez, R.R. Maria , J. Aristu Mendioroz, V.M. Suarez Vega
- Proton versus photon craniospinal irradiation in Pediatric patients with high-risk medulloblastoma** PO - 1051  
A. Lassaletta (Spain), E. Panizo, F. Vazquez, F.J. Serrano, E. Carceller, C. Gonzalez-San Segundo, J. Aristu, F. Calvo
- Cyberknife stereotactic radiotherapy for vestibular schwannomas :a single institution experience** PO - 1052  
H. Ghassan (Belgium), N. Jansen, P. Coucke
- Validation of Modified Combs criteria in Indian cohort for re-irradiation in recurrent gliomas** PO - 1053  
H. NAIR (India), D. Dutta, R. Rajan, D. Menon, N. S K, A. E H
- Skull base meningiomas treated with Radiosurgery/Fractionated Stereotactic Radiotherapy** PO - 1054  
M. Rodriguez (Spain), M. Rico , A. Barco , L. Rosas, E. Burillo, E. Martinez
- Fractionated stereotactic radiotherapy in optic nerve meningioma** PO - 1055  
L. Paisán (Spain), M.R. Magallón Sebastián, M.I. García Berrocal, J. Romero Fernández, I. Zapata Paz, B. Gil Haro, R. Benlloch Rodríguez , J.F. Obeso Herrero, O. Engel, A. Valcárcel Díaz, S. Santana Jiménez, P. Sarrión Rubio de la Torre
- The use of Auto-Segmentation tools to assess the SUV-isocontour in FET-PET to GTV delineation** PO - 1056  
A. Gawish (Germany), M. Walker, M. Kreißl, B. Röllich, T. Brunner
- Stereotactic radiosurgery of postoperative resection cavity for brain metastases** PO - 1057  
F. Sousa (Portugal), B. Castro, A. Aguiar, J. Rodrigues, T. Viterbo, J. Lencart, A. Soares, T. Ramos, A. Pires, S. Conde
- Should we include surgical tracts and scars in the CTV of High-grade gliomas?** PO - 1058  
O. Santa Cruz (Switzerland), S. Slimani, L. Hirschi , C. Tamburella, P. Weber, D. Dragusanu, D.B. Berardino
- LINAC-based radiosurgery for brain metastasis: patterns of recurrence and predictors of response** PO - 1059  
B. Castro (Portugal), F. Sousa, J. Rodrigues, J. Lencart, T. Viterbo, T. Ramos, A. Pires, A. Aguiar, A. Soares, M. Lobão, S. Conde

- Cranial radiotherapy as salvage treatment in relapsed primary CNS lymphomas** PO - 1060  
*M. Volpini (Canada), J. Song, R. Samant, D. MacDonald, V. Nair*
- Acute relative lymphopenia is associated with poor survival in GBM following postoperative chemo-RT** PO - 1061  
*S. Arcangeli (Italy), R. Mapelli, C. Julita, S.P. Bianchi, R. Lucchini, M. Midulla, F. Puci, J. Saggi, S. Trivellato, D. Panizza, E. De Ponti*
- Stereotactic Radiosurgery for Brain Metastases from Renal Cell Carcinoma: A retrospective study** PO - 1062  
*G. Rangaswamy (Ireland), O. Houlihan, J. Nicholson, H. O'Driscoll, M. Dunne, C. Skourou, C. Faul, D. Fitzpatrick*
- Multicenter study for breast cancer brain metastasis: Role of whole-brain radiotherapy (KROG 1612)** PO - 1063  
*J.S. Kim (Korea Republic of), K. Kim, W. Jung, K.H. Shin, S. Im, H. Kim, Y.B. Kim, J.S. Chang, J.H. Kim, D.H. Choi, Y.H. Park, D.Y. Kim, T.H. Kim, B.O. Choi, S. Lee, S. Kim, J. Kwon, K.M. Kang, W. Chung, K.S. Kim, W.S. Yoon, J. Cha, Y.K. Oh, I.A. Kim*
- Corneal and hippocampal dose in brain radiosurgery related with location: A phantom dosimetric study** PO - 1064  
*P. Vias (India), S. Goyal, R. Singh, R. Madan, V. Singla*
- Overall survival of patients treated with repeated courses of stereotactic radiation therapy** PO - 1065  
*L. Kuntz (France), P. Meyer, C. Le Fèvre, C. Mazzara, A. Keller, C. Renaud, G. Noel, D. Antoni*
- Quality and efficiency of automated organ at risk delineation on MRI in the brain** PO - 1066  
*J. Crouzen (The Netherlands), J. Zindler, R. Wiggeraad, M. Mast, S. Lemmouy, C. Gadellaa-van Hooijdonk, S. van Geen, S. Hutschemaekers, M. Kiderlen, J. Roos, S. de Vet, N. van der Voort van Zyp, A. Petoukhova*
- Exploratory analysis of serial 18F-Fluciclovine PET and mpMRI during chemoradiation for glioblastoma** PO - 1067  
*K. Fatania (United Kingdom), R. Frood, M. Tyyger, S. Fernandez, D.L. Buckley, L. Murray, A. Scarsbrook, S. Short, S. Currie*
- SRS in brain metastases from breast cancer: a single-centre retrospective study** PO - 1068  
*R. Ching-López (Spain), M. Zurita, P. Vargas, R. del Moral, J. Expósito Hernández*
- Multiple Brain Metastases concomitantly treated with robotic SRS/SRT** PO - 1069  
*A. Sanchez Galvan (Italy), A.M. Deli, A. Fodor, R. Tummineri, S.L. Villa, S. Baroni, G. Mandurino, P. Pacifico, C.L. Deantoni, N. Slim, F. Zerbetto, C. Fiorino, S. Broggi, A. Del Vecchio, S. Arcangeli, N.G. Di Muzio*

**The potential implications of proton planning technique for LET-related changes on MRI** PO - 1070

A. Bertolet (USA), R. Abolfath, D. Carlson, R.A. Lustig, C. Hill-Kayser, A. Michelle, A. Carabe

**Hypofractionated stereotactic radiotherapy of brain metastases: a retrospective analysis.** PO - 1071

L. Marco (Italy), M. Trignani, G. Ingresso, F.C. Di Guglielmo, G. Centofanti, D. Fasciolo, V. Bini, D. Genovesi, C. Aristei

**FSR for arterio-venous malformations: a single-centre retrospective study.** PO - 1072

R. Ching-López (Spain), S. Rodríguez, P. Vargas, M. Zurita, R. del Moral, J. Expósito

**Feasibility of the APRICOT-trial: identifying MRI biomarkers for radiation-induced cognitive changes** PO - 1073

E. van Grinsven (The Netherlands), A. Bhogal, J. Guichelaar, J. Siero, H. Hoogduin, M. van Zandvoort, J. Verhoeff, M. Philippens

Track: Clinical

Digital Poster: Haematology

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**Is the mean heart dose the best predictor of cardiac toxicity after Hodgkin Lymphoma irradiation?** PO - 1074

R. Moujahed (Tunisia), M. Ben Rejeb, S. Ghorbel, A. Hamdoun, Z. Naimi, M. Bohli, L. Kochbati

**Bridging Radiotherapy prior to Brexucabtagene Autoleucel CAR T-Cell Therapy in Mantle Cell Lymphoma** PO - 1075

N. Figura (USA), A. Sim, S. Dahiya, F. Lutfi, A. Rapoport, P. Mohindra, A. Dohm, J. Chavez, B. Shah, F. Khimani, A. Lazaryan, M. Davila, C. Bachmeier, T. Nishihori, H. Liu, S. Kim, F. Locke, M. Jain, T. Robinson

**Hypofractionated Total Marrow Irradiation in second allogeneic hematopoietic stem cell transplantats** PO - 1076

S. Vagge (Italy), D. Esposito, D. Tramontano, R. Corvò, E. Angelucci, A. Dominietto

**Population-based study on the association between autoimmune disease and lymphoma in Korea** PO - 1077

J.S. Kim (Korea Republic of), I.H. Kim, J.M. Byun, J.H. Chang

**HDR brachytherapy for treatment of primary cutaneous lymphoma at complex sites and curved surfaces** PO - 1078

V. Sim (United Kingdom), I. De Francesco, S. Whittaker, F. Child, M. Wain, S. Aldridge, E. Jones, K. Freeman, S. Morris

**Do you use RT as part of bridging therapy for the treatment of DLBCL with CAR-T cells?** PO - 1079

C. Prieto Prieto (Spain), S. Sequero López

**Low-dose radiotherapy (4 Gy) in the treatment of marginal zone B- cell lymphomas** PO - 1080

M. Cerrato (Italy), E. Orlandi, A. Vella, S. Bartoncini, G.C. Iorio, D. Bongiovanni, F. Capriotti, C. Boccomini, F. Vassallo, C. Cavallin, V. De Luca, F.R. Giglioli, U. Ricardi, M. Levis

**Effectiveness and tolerability of radiotherapy for patients with diffuse large cell B-cell lymphoma** PO - 1081

I. Hadi (Germany), S.N. Hartoyo, R. Bodensohn, M. Dreyling, M. Niyazi, C. Belka, M. Li

**Predicted cardiac and second cancer risks following treatment for Hodgkin lymphoma in Ireland** PO - 1082

O. Houlihan (Ireland), G. Ntents, D.J. Cutter, P. Daly, C. Gillham, O. McArdle, F.K. Duane

Track: Clinical

Digital Poster: Breast

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**Effects of socioeconomic factors on prognosis of breast cancer in patients younger than forty years.** PO - 1083

H. Alkış (Turkey), D. Çağlayan Küçük, A. Kuzhan

**Radiotherapy with simultaneous integrated boost for breast cancer: acute toxicity outcomes** PO - 1084

I. Ratosa (Slovenia), M. Anzic, A. Gojkovic Horvat, M. Ivanetic Pantar, D. Golo, J. Gugic, M.S. Paulin Kosir, T. Marinko

**Longitudinal assessment of immune infiltrate in breast cancer treated with neoadjuvant radiotherapy** PO - 1085

R. Robinson (United Kingdom), I. Roxanis, F. Sobhani, K. Zormpas-Petridis, H. Steel, S. Anbalagan, A. Sommer, L. Gothard, A. Khan, F. MacNeill, A. Melcher, Y. Yuan, N. Somaiah

**Identification of highly expressed genes in high risk breast cancer using bioinformatic analysis** PO - 1086

S. Ghasemi (Iran Islamic Republic of), M. Mobasheri, S.R. Mahdavi, H. Mirzaee

**Hypofractionated radiotherapy for breast cancer orbital lesion: a multicentric series of 35 patients** PO - 1087

I. Desideri (Italy), L.P. Ciccone, G. Piperno, M. Augugliaro, B.A. Jereczek-Fossa, P. Navarria, L. Dominici, M. Scorsetti, V. Salvestrini, G. Riva, V. Di Cataldo, L. Visani, M. Loi, I. Meattini, L. Livi

- Cardiac conduction system exposure during breast radiotherapy : evaluation of IMRT and protontherapy** PO - 1088  
P. Loap (France), A. Fourquet, Y. Kirova
- Long-term follow-up of a single-center neuroendocrine breast cancer cohort** PO - 1089  
P. Loap (France), F. Laki, P. Beuzeboc, A. Fourquet, Y. Kirova
- Tumor bed boost volume delineation and planning post-oncoplasty following multidisciplinary approach** PO - 1090  
T. Wadasadawala (India), J. Manjali, G. Chitkara, R. Pathak, P. Thakkar, S. Joshi, R. Krishnamurthy, N. Nair, V. Parmar, R. Sarin
- Positive axillary non-sentinel nodes predictors in breast cancer patients after neoadjuvant therapy** PO - 1091  
E. La Rocca (Italy), C. Arrobio, F. Colombo, S. Gandini, M. Zaffaroni, V. Galimberti, S. Kahler-Ribeiro-Fontana, S. Dicuonzo, D.P. Rojas, M.C. Leonardi, R. Orecchia, B.A. Jereczek-Fossa
- Gated Radiotherapy with deep inspiration breath-hold in left-sided breast cancer** PO - 1092  
O. Micke (Germany), K. Kisters, U. Schäfer, R. Mücke
- Evaluating cardiac structures exposure in deep inspiration breathhold radiotherapy for breast cancer** PO - 1093  
G. abdessatar (Tunisia), R. Moujahed, M. Ben Rejeb, A. Hamdoun, J. Yahyaoui, Z. Naimi, L. Kochbati
- Deep Breath Inspiration Hold Radiotherapy: innovative organ preservation technique. Our experience.** PO - 1094  
S. Falivene (Italy), V. Nardone, M. Mormile, P. Frallicciardi, M. Cozzolino, F.M. Giugliano, C. Guida
- Reducing overall treatment time, a pilot RCT of neo-adjuvant radiotherapy in early breast cancer** PO - 1095  
V. Vakaet (Belgium), H. Van Hulle, G. Braems, K. Vandecasteele, W. De Neve, H. Denys, L. Veldeman
- Safety of concurrent TDM-1 and radiotherapy for patients with residual HER2-positive breast cancer** PO - 1096  
C. Becherini (Italy), G. Stocchi, L. Visani, M.C. De Santis, R.R. Colciago, S. Pedretti, S.M. Magrini, M. Nuzzo, D. Genovesi, L.A. Ursini, A. Bonanni, E. Ippolito, S. Ramella, F. De Renzi, A. Fontana, P. Vitucci, L. Angelini, C. Orsatti, I. Desideri, V. Scotti, L. Orzalesi, M. Bernini, L. Sanchez, J. Nori, S. Bianchi, I. Meattini, L. Livi

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- Adjuvant Involved Field versus Elective Nodal Irradiation for N2 NSCLC: a dosimetric study** PO - 1188  
*M. Mohammed (Lebanon), A. Mkanna, P. Ramia, D. Mahmoud, L. Hilal, F. Olleik, M. Dagher, Z. Ayoub, W. Jalbout, B. Shahine, F. Geara, B. Youssef*
- Stereotactic radiotherapy for lung oligometastases from colorectal cancer** PO - 1189  
*A. Fodor (Italy), C.L. Deantoni, R. Tummineri, C. Fiorino, I. Dell'Oca, M. Mori, S. Broggi, M. Pasetti, L. Perna, S.L. Villa, G. Mandurino, A. Sanchez Galvan, S. Baroni, P. Pacifico, A. Del Vecchio, N.G. Di Muzio*
- Lung lesions treated with CyberKnife: An Indian single centre experience** PO - 1190  
*A. Sasidharan (India), R. Kamath, P. KU, A. R, S. K Reddy, H. Nair, A. E H, D. Dutta*
- Immunotherapy and radiation (iRT) in a 'Real-life' setting. Analysis on safety and effectiveness** PO - 1191  
*A. Angrisani (Italy), C. Greco, E. Ippolito, B. Santo, S. Gentile, P. Falco, M. Miele, M. Fiore, S. Ramella*
- Safety analysis of Stereotactic Body Radiotherapy 8 fractions of 7,5 Gy for Ultracentral Lung Tumors** PO - 1192  
*E. Baena (Spain), A. Mañes, M. Villalobos, B. Gutiérrez, A. Arellano, S. Moreno, E. Luquera, J. Molero, A. Melero, S. Villà, J. Jové*
- The impact of driver mutations on the pathologic response to Chemoradiation (CRT) in LA-NSCLC** PO - 1193  
*S. appel (Israel), J. Bar, Y.R. Lawrence*

- A predictive model for OS in patients treated with Stereotactic Radiotherapy for early-stage NSCLC** PO - 1194  
*P. Borghetti (Italy), G. Costantino, V. Santoro, M. Sepulcri, M. Maddalo, D. Greco, F. Frassine, P. Vitali, E. Pastorello, S. La Mattina, G. Volpi, J. Imbrescia, S.M. Magrini*
- Residual MTV after chemoradiotherapy ± immune checkpoint inhibition for inoperable stage III NSCLC** PO - 1195  
*J. Taugner (Germany), M. Unterrainer, L. Käsmann, C. Eze, W. Kunz, A. Tufman, N. Reinmuth, C. Belka, F. Manapov*
- Role of prophylactic cranial irradiation in limited and extensive-stage small cell lung cancer** PO - 1196  
*Y.J. Lim (Korea Republic of), C. Song, H.J. Kim*
- Plan complexity as an independent outcome predictor of lung cancer patients treated with SBRT** PO - 1197  
*C. Li (China), J. Shen, A. Shi, Y. Zhang (Corresponding Author)*
- Changes in radical radiotherapy for lung cancer patients in the UK during the COVID-19 pandemic.** PO - 1198  
*W. Croxford (United Kingdom), K. Banfill, I. Fornacon-Wood, A. Britten, C. Carson, M. Hatton, K. Thippu Jayaprakash, A. Jegannathen, P. Keng Koh, N. Panakis, C. Peedell, A. Pope, C. Powell, C. Stilwell, B. Thomas, V. Wood, S. Yun Zhou, G. Price, C. Faivre-Finn*
- Cardiac disease and tumour below T7 confer poorer prognosis following radical radiotherapy for NSCLC** PO - 1199  
*A. Colori (United Kingdom), M. Hawkins, A. Mitchell, C. Hiley, S. Dubash, U. Johnson, J. Fenwick, R. Mendes, D. Carnell, J. Wilson*
- Development and validation of two Australian models to predict 2-year survival in stage I-III NSCLC** PO - 1200  
*S. Vinod (Australia), N. Lee, J. Shafiq, M. Field, C. Fiddler, S. Varadarajan, S. Gandhidasan, E. Hau*
- Importance of coronary calcium score in patients with locally advanced non-small cell lung cancer** PO - 1201  
*A. Olloni (Denmark), A. Olloni, A. Diederichsen, O. Hansen, C. Brink, T. Schytte*
- Proton Beam Therapy for Stage I and Lymph Node-Negative Stage IIA Non-Small Cell Lung Cancer** PO - 1202  
*T. Asao (Japan), K. Yasui, N. Ota, M. Shioi, K. Hayashi, S. Maki, Y. Ito, T. Onoe, H. Ogawa, H. Asakura, S. Murayama, T. Nishimura, T. Takahashi, Y. Ohde, H. Harada*
- lung-perfusion-spect contribution in lung cancer radiotherapy planning process** PO - 1203  
*S. Baroni (Italy), I. Dell'Oca, R. Tummineri, A. Sanchez Galvan, F. Borroni, S.L. Villa, G. Mandurino, P. Pacifico, A. Chiara, M. Pasetti, N. Slim, E.G. Vanoli, A. Del Vecchio, S. Arcangeli, N.G. Di Muzio*

**Adjuvant immunotherapy after concurrent chemoradiotherapy for stage 3 NSCLC, outcomes from a large cancer centre** PO - 1204

*F. Sun (United Kingdom), H. Mason, K. Franks, M. Teo, P. Dickinson, K. Clarke, P. Jain*

Track: Clinical

Digital Poster: Upper GI (oesophagus, stomach, pancreas, liver)

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**Factors predicting pathological response after neoadjuvant chemoradiation in oesophageal cancer** PO - 1205

*K.S. Chufal (India), I. Ahmad, R. Bajpai, A.A. Miller, R.L. Chowdhary, K. Bhatia, M. Gairola*

**SBRT in pancreatic cancer - a single institution experience** PO - 1206

*A. Secerov Ermenc (Slovenia), N. Dobnikar, I. Oblak, A. Jeromen Peressutti*

**Stereotactic radiotherapy and MR-guided adaptive techniques for locally advanced pancreatic cancer** PO - 1207

*T. Ermongkonchai (Australia), R. Khor, V. Muralidharan, N. Tebbutt, K. Lim, N. Kutaiba, S.P. Ng*

**Stereotactic MR-guided online adaptive radiation therapy for management of pancreatic malignancies** PO - 1208

*T. Zoto Mustafayev, G. Ugurluer, G. Gungor, B. Atalar, A. Serkizyan, M.U. Abacioglu, F. Agaoglu, M. Sengoz, K. Guven, E. Ozyar (Turkey)*

**SIB-SIP SBRT for locally advanced pancreatic cancer: clinical and dosimetric analysis.** PO - 1209

*J. peinado serrano (Spain), J. Peinado Serrano, P. Romero Pareja, F.A. Derecho Torres, I. Gallego, D. Muñoz Carmona*

**Is SBRT safe in carcinoma pancreas having duodenal infiltration?** PO - 1210

*R. Engineer (India), J. Poddar, A. Anoop, V. Ostwal, A. Ramaswamy, R. Mhatre, S. Shrikhande*

**Intraluminal brachytherapy boost in esophageal cancer: A single institute retrospective analysis.** PO - 1211

*N. Bathija (India), H. Rathod, S. Kunikullaya, A. Parikh, M. Mehta, S. Patel, V. Shivhare, S. Rath, V. Modi, H. Jain, D. Anand, K. Ratanchandani*

**Outcome of adjuvant hypofractionated radiotherapy concomitant to chemotherapy in bile duct carcinoma** PO - 1212

*N. SLIM (Italy), P. Pacifico, P. Passoni, R. Tummineri, M. Ronzoni, F. Pedica, C. Fiorino, A.M. Deli, A. Casadei Gardini, S. Cascinu, F. De Cobelli, L. Aldrighetti, N.G. Di Muzio*

- Radiomics in the assessment of response after pancreatic SBRT: a pilot study** PO - 1213  
*C. De La Pinta (Spain), M. Muñoz, C. Picón, R. Fuentes, C. Guillén, D. Sevillano, M. Martín, I. Mayorga Ruiz, P. Moreno Ruiz, A. Jiménez Pastor, J.M. Molina Villar, S. Sancho García*
- Toxicity profile of adjuvant hypofractionated Image-Guided Radiotherapy in biliary tract carcinoma** PO - 1214  
*N. Slim (Italy), P. Pacifico, P. Passoni, R. Tummineri, M. Ronzoni, F. Pedica, C. Fiorino, A.M. Deli, A. Casadei Gardini, S. Cascinu, F. De Cobelli, L. Aldrighetti, N.G. Di Muzio*
- Indian experience of 100 HCC patients with portal vein thrombosis treated with robotic radiosurgery** PO - 1215  
*D. Dutta (India), S.K. Reddy, Y. Sreenija, H.M. Nair, A. Sasidharan, A. Gupte, R. Kannan, S.G. Pottayil, A. Edappattu, S. S*
- Outcomes and prognostic factors in neoadjuvant chemoradiotherapy for resectable esophageal cancer** PO - 1216  
*R. Benlloch Rodríguez (Spain), A. Valcárcel Díaz, M. López Valcárcel, J. Romero Fernández, S. Córdoba Largo, J.L. Lucena de la Poza, M.D. Chaparro Cabezas, M. Hernández Miguel, B. Gil Haro, S. Santana Jiménez, O. Engel, J.F. Obeso Herrera, C. De La Fuente*
- Clinical outcomes after stereotactic ablative radiotherapy in locally advanced cholangiocarcinoma** PO - 1217  
*A.U. Larsen (Denmark), E.S. Worm, E.M. Tabaksblat, M. Høyer, B. Weber, H.R. Mortensen*
- Online adaptive MR-guided SBRT for unresectable upper abdominal malignancies using a 1.5T MR-linac** PO - 1218  
*L. Daamen (The Netherlands), S. de Mol van Otterloo, I. van Goor, H. Eijkelenkamp, B. Erickson, W. Hall, H. Heerkens, G. Meijer, Q. Molenaar, H. van Santvoort, L. Verkooijen, M. Intven*
- Utility of MRI-guided adaptive radiotherapy for pancreatic cancer: Baskent University experience** PO - 1219  
*G. Yavas (Turkey), C. Yavas, G. Arslan, E. Efe, C. Onal*
- Prospective evaluation of Child Pugh score as a tool for assessment of acute toxicity in liver SBRT** PO - 1220  
*Y. Sreenija (India), S. K, H. Nair, A. Sasidharan, S.G. Pottayil, A. E H, S. Sadasivan, S. S, D. Dutta*
- Proton beam radiotherapy in pancreatic cancer: a systematic review** PO - 1221  
*L. Cavallini (Italy), A. Arcelli, A. Guido, M. Buwenge, B. Rombi, F. Bertini, L. Strigari, S. Strolin, C. Bellarosa, C.M. Donati, S. Bisello, E. Scirocco, M. Ferioli, G. Macchia, D. Pezzulla, M. Amichetti, A.G. Morganti, S. Cammelli*

- Robotic Stereotactic Radiosurgery for locally advanced pancreatic cancer-Local control and tolerance** PO - 1222  
C. Silva (Portugal), M. Amorim, M.A. Costa, C. Fardilha, J. Gagean, J. Vale, R. Guedes, P. Genésio, P. Vieira, P. Costa
- Prognostic factors affecting survival in gastric cancer patients in Albania: A retrospective study** PO - 1223  
F. Kraja (Albania), J. Dervishi, A. Hoti, E. Karaulli, I. Akshija, E. Hafizi, S. Ademi, E. Cuedari, H. Kolani, A. Dibra, E. Celiku, B. Kraja
- SBRT as a part of the multimodal management of intermediate and advanced hepatocellular carcinoma** PO - 1224  
A.A. Mohamed (Germany), K. Gester, M. Eble
- Hypofractionated radiotherapy after induction chemotherapy for advanced pancreatic cancer** PO - 1225  
P. Passoni (Italy), S. Broggi, N. Slim, B. Longobardi, M. Mori, U. Peretti, M. Macchini, G. Orsi, G. Balzano, R. Castoldi, M. Falconi, A. Del Vecchio, G.M. Cattaneo, C. Fiorino, S. Cascinu, M. Reni, N.G. Di Muzio
- Inhomogeneous dose escalation in pancreatic SBRT:feasibility and impact of anatomical configuration** PO - 1226  
M. Loi (Italy), R. Doro, S. Lucidi, P. Bonomo, G. Simontacchi, D. Greto, A. Allegra, V. Di Cataldo, G. Francolini, I. Bonucci, L. Livi, L. Masi
- Impact of inflammation using blood parameters in HCC patients treated with SBRT** PO - 1227  
G. Radicioni (Germany), J.H. Exner, S. Adebahr, E. Haehl, S. Spohn, A. Rühle, C. Zamboglou, N.H. Nicolay, T. Sprave, A. Grosu, E. Gkika
- Stereotactic-body-radiotherapy (SBRT) as radiaci treatment for pancreatic-neuroendocrine-tumors** PO - 1228  
M. López González (Spain), E. De Vicente, H. Duran, S. Prados, O. Hernando-Requejo, E. Sánchez, Y. Quijano, R. Ciervide, B. Alvarez, M. Garcia-Aranda, X. Chen Zhao, R. Alonso, J. Valero, C. Rubio
- ALBI & IBI score could help in deciding for or against a radioablative therapy in patients with HCC.** PO - 1229  
P. Hass (Germany), T.B. Brunner, A. Gawish, D. Ott
- 18F-FDG PET-CT as prognosis factor after neoadjuvant chemoradiotherapy in esophageal cancer** PO - 1230  
B. Moura Fernandes (Portugal), D. Correia, I. Félix Pinto, S. Couto Gonçalves, I. Nobre Góis, J. Casalta Lopes, A. Barros, M. Borrego
- Response to neoadjuvant RCT as a predictor for overall survival in therapy of esophageal cancer** PO - 1231  
S. Kirste (Germany), F. Mohammad, M. Murnik, J. Höppner, A. Grosu, N. Nicolay

- Magnetic resonance-guided stereotactic body radiotherapy of liver tumors: Initial clinical experience and patient-reported outcomes** PO - 1232  
*F. Weykamp (Germany), P. Hoegen, S. Klüter, K. Renkamp, L. König, K. Seidensaal, S. Regnery, J. Liermann, C. Rippke, S.A. Koerber, C. Buchele, J. Debus, J. Hörner-Rieber*
- Real world results of CTRT in Ca esophagus: Can SCOPE-1 results be replicated outside trial setting?** PO - 1233  
*R. Sasidharan (India), T. Bhattacharyya, V. H Lal, I. Mallick, M. ArunSingh, S. Chakraborty, R. Basu Achari, S. Chatterjee*
- Chemoradiation in unresectable non metastatic biliary cancers: an updated systematic review** PO - 1234  
*S. Bisello (Italy), S. Bisello, D. Vallerossa, A. Benini, V. Panni, F. Bertini, A. Galuppi, A. Guido, G. Macchia, F. Deodato, S. Cilla, V. Picardi, F. Romani, M. Buwenge, A.G. Morganti, S. Cammelli*
- Feasibility and early clinical experience of online adaptive MR-guided radiotherapy of liver tumors** PO - 1235  
*P. Rogowski (Germany), R. von Bestenbostel, F. Walter, K. Straub, L. Nierer, G. Landry, M. Reiner, C. Kurz, C.J. Auernhammer, C. Belka, M. Niyazi, S. Corradini*
- Stereotactic body radiotherapy in unresectable intrahepatic cholangio-carcinoma: a systematic review** PO - 1236  
*S. Bisello (Italy), F. Bertini, G. Tolento, M. Renzulli, F. Medici, A. Benini, D. Vallerossa, G. Macchia, F. Deodato, S. Cilla, F. Cellini, L. Strigari, A. Angelini, G. Brandi, S. Cammelli, A.G. Morganti, M. Buwenge*
- Dose-escalated neoadjuvant chemoradiotherapy for oesophageal or oesophagogastric junction carcinoma** PO - 1237  
*V. Duque Santana (Spain), F. Lopez-Campos, M. Martin-Martin, L. Pelari Mici, A. Hernandez Corrales, M. Valero Perena, S. Sancho Garcia*
- Volumetric modulated arc therapy is superior to intensity modulated radiotherapy for liver sparing in stereotactic body radiotherapy for hepatocellular carcinoma** PO - 1238  
*Y. Kundel (Israel), Y. Korzets, M. Weinstock-Sabbah, A. Moor, N. Gordon, D. Bragilovski, S. Stemmer, A. Popovtzer, B. Brenner, E. Fenig, A. Allen*
- <sup>99m</sup>Tc-macroaggregated albumin SPECT/CT in HCC treated with Selective Internal Radiation Therapy** PO - 1239  
*E. Lodi Rizzini (Italy), V. Laghi, L. Cavallini, E. Deraco, D. Vallerossa, C. Scampoli, C. Bellarosa, S. Cammelli, S. Strolin, L. Strigari, R. Golfieri, S. Fanti, G.P. Frezza, A.G. Morganti, F. Monari*
- Complete pathological response after high dose radiotherapy for locally advanced esophageal cancer.** PO - 1240  
*O. Hernando-Reguejo (Spain), M. Lopez, X. Chen, R. Alonso, E. Sanchez, A. Montero, R. Ciervide, B. Alvarez, J. Valero, M. Garcia, D. Zucca, J. Garcia, P. Garcia de Azilu, L. Alonso, M.A. De la Casa, A. Prado, J. Marti, P. Fernandez Leton, M. Nuñez, M. Izquierdo, K. Rossi, C. Cañadillas, C. Rubio*

**Optimising splenic dose with PBT and VMAT for distal oesophageal cancer** PO - 1241  
*O. Nicholas (United Kingdom), A. Saplaouros, J. Lambert, G. Fegan, R. Hugtenburg, S. Gwynne*

Track: Clinical

Digital Poster: Lower GI (colon, rectum, anus)

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**Image-based deep learning model for predicting pathological response in rectal cancer using post-chemoradiotherapy magnetic resonance imaging** PO - 1242

*J. Kim (Korea Republic of), B. Jang, C. Song, S.H. Jeon, S. Kang, Y.J. Lee*

**Is there a role for perioperative radiotherapy in surgically resected stage IV rectal cancer?** PO - 1243

*J. Kwon (Korea Republic of), J. Kim, B.H. Kim*

**Severe surgical morbidity after chemoradiotherapy conformational-3D versus IMRT for rectal cancer** PO - 1244

*M. Martin (France), N. Giraud, M. Capdepont, C. Sarrade, A. Viaouet, D. Smith, E. Terrebonne, N. Frulio, A. Rullier, Q. Denost, E. Rullier, V. Vendrely*

**Intensity Modulated Radiotherapy versus 3D radiotherapy for rectal cancer: prospective phase 2 study** PO - 1245

*O. Yariv (Israel), J. Kindler, M. Weinstock- Sabbah, R. Ben-Hur, O. Icht, D. Reinhorn, N. Arad, T. Shochat, Y. Kundel*

**Prediction of response to neo-adjuvant chemoradiotherapy using radiomics in rectal cancer** PO - 1246

*F. Lucia (France), A. Bordron, V. Bourbonne, E. Rio, B. Badic, O. Miranda, O. Pradier, M. Hatt, D. Visvikis, U. Schick*

**Radiochemotherapy in anal cancer, what is the optimal dose? A single institutional experience** PO - 1247

*N. Giannini (Italy), A. Gonnelli, G. Gadducci, S. Montrone, A. Sainato, B. Manfredi, F. Pasqualetti, C. Laliscia, G. Malfatti, E. Calistri, R. Morganti, F. Paiar*

**Preoperative radiotherapy with Intensity-Modulated SIB for rectal cancer: a systematic review** PO - 1248

*A. Surgo (Italy), R. Carbonara, F. Gregucci, M.P. Ciliberti, I. Bonaparte, A. fiorentino*

**Lateral Pelvic Nodal Boost During Short Course Radiation Therapy for Locally Advanced Rectal Cancer** PO - 1249

*C. Hassanzadeh (USA), F. Fallahian, G. Low, A. Roy, R. Chin, K. Pedersen, M. Mutch, S. Glasgow, L. Henke, S. Badiyan, H. Kim*

- The utility of short-course radiotherapy (SCRT) for watch-and-wait strategy (w&w) in rectal cancer** PO - 1250  
*K. Paciorek (Poland)*
- Upfront surgery vs. neoadjuvant chemoradiation in upper rectal cancers** PO - 1251  
*R. Engineer (India), J. Poddar, D. Pandey, A.L. Desouza, S. kumar, V. Ostwal, A. Ramaswamy, A. Saklani*
- Chemoradiation for anal cancer: correlation of hematologic toxicity and dose to pelvic bone marrow.** PO - 1252  
*E. Ferrara (Italy), I. Luciani, M. Zannetti, F. Mastroleo, A. Brignoli, B. Mattio, L. Turri, L. Vigna, E. Mones, G. Loi, M. Krengli*
- Influence of radiation treatment technique on outcome and toxicity in anal cancer.** PO - 1253  
*M.C. Fernandez Fernandez (Spain)*
- Watch and wait strategy for rectal cancer : preliminary results** PO - 1254  
*V. Vendrely (France), M. Boubaddi, T. Cauvin, N. Frulio, Q. Denost, E. Rullier*
- prospective study of safety and response in moderately hypofractionated chemoradiation rectal cancer** PO - 1255  
*D. G R (India), H. Nair, R. Madhavan, D. Dutta*
- Local excision followed by radiotherapy or chemoradiotherapy for early stage rectal adenocarcinoma.** PO - 1256  
*S. Santana Jimenez (Spain), J. Romero Fernández, M. Hernández Miguel, A. Sánchez Movilla, I. Alonso Sebastián, R. Benlloch Rodríguez, S. Córdoba Largo, J.F. Obeso Herrera, A. Herreros de Tejada, J. Santiago García, M. López Valcarcel, B. Gil Haro, P. Sarrión Rubio de La Torre, L. Paisán Palacio*
- A radiomic signature model to predict chemoradiation-induced change in CD8+ cells in rectal cancer** PO - 1257  
*Y.J. Lim (Korea Republic of), S.H. Jeon, E.K. Chie*
- Pragmatic and effective use of short course radiotherapy for stage IV rectal cancer** PO - 1258  
*M. Higgins (Ireland)*
- Increased SII and low Hb level are associated with poor OS in rectal cancer after preoperative CRT** PO - 1259  
*Y. Lin (Taiwan)*



<p><b>Neutrophil and platelet-to-lymphocyte ratio as prognostic factors in locally advanced rectal cancer</b></p> <p><i>V. Duque Santana (Spain), F. Lopez-Campos, M. Martin-Martin, A. Hernandez Corrales, L. Pelari Mici, M. Valero Perena, S. Sancho Garcia</i></p>	<p>PO - 1260</p>
<p><b>Predictive model of 2yDFS during MR guided RT neoadjuvant chemoradiotherapy in LARC patients</b></p> <p><i>G. Chiloiro (Italy), F. Preziosi, L. Boldrini, D. Cusumano, A. Romano, L. Placidi, J. Lenkowicz, N. Dinapoli, M.A. Gambacorta, V. Valentini</i></p>	<p>PO - 1261</p>
<p><b>Outcomes in locally recurrent rectal cancer treated with reirradiation stereotactic ablative radiotherapy (SABR)</b></p> <p><i>R. Muirhead (United Kingdom), K. Aitken, J. Holmes, M. Harrison, D. Harji, S. O'Cathail, C. Taylor, M. Wing</i></p>	<p>PO - 1262</p>
<p><b>Exclusive radiotherapy in early stage anal cancer - outcomes, patterns and predictors of relapse</b></p> <p><i>A. Briens (France), C. Neuzillet, F. Huguet, E. Rivin Del Campo, V. Guimas, E. Fallet, S. Garcia Molina, E. François, L. Montagne, U. Schick, P. Lesueur, L. Siphroudis, J. Edeline, J. Castelli, R. de Crevoisier, A. Lièvre, K. Gnep</i></p>	<p>PO - 1263</p>
<p><b>Predictive factors of pathological response to neoadjuvant chemoradiotherapy in rectal cancer</b></p> <p><i>P. trecca (Italy), M. Fiore, L.E. Trodella, G. Petrianni, G. D'Ercole, M. Caricato, R. Coppola, S. Ramella</i></p>	<p>PO - 1264</p>
<p><b>Neoadjuvant rectal and Clavien-Dindo scores in Locally Advanced Rectal Cancer</b></p> <p><i>M. Montero Feijoo (Spain), S. Qian Zhang, J.J. Barambio Buendía, J.L. Dominguez Tristancho, J. Vara Santos, J. Luna Tirado, L. Guzmán Gómez, A. Alayon Afonso, A. Nieto Rivero, M.A. García Castejón, A.M. Martinez Felipe, I. Azinovic</i></p>	<p>PO - 1265</p>
<p><b>Induction chemotherapy in bulky HPV-negative anal canal cancer</b></p> <p><i>F. De Felice (Italy), A. Fallarino, F. Iafrate, V. Maiuri, G. Galloni, G. Turriziani Colonna, R. De Pietro, G. Chiarello, C. Marchetti, N. Bulzonetti, D. Musio, V. Tombolini</i></p>	<p>PO - 1266</p>
<p><b>Using decision tree methodology to predict overall survival in locally advanced rectal cancer</b></p> <p><i>F. De Felice (Italy), L. Belgioia, D. Musio, A. Bacigalupo, S. Vagge, V. Tombolini, R. Corvò</i></p>	<p>PO - 1267</p>
<p><b>Predicting the benefit of stereotactic body radiotherapy of colorectal cancer metastases</b></p> <p><i>S. Lindberg (Sweden)</i></p>	<p>PO - 1268</p>
<p><b>C-Reactive Protein as predictive factor for response to chemoradiotherapy in Rectal Cancer</b></p> <p><i>F.A. Lima Aires (Portugal), E.D. Rodrigues Pinto, M. Reis Lima Marques, M.G. Pinto</i></p>	<p>PO - 1269</p>

**Neoadjuvant short-course hyperfractionated accelerated radiotherapy for rectal cancer** PO - 1270

*H. Doi (Japan), H. Yokoyama, M. Fujiwara, S. Harui, A. Kakuno, H. Yanagi, Y. Hishikawa, N. Yamanaka, N. Kamikonya*

**Dose-escalated pencil beam proton therapy for reirradiation of pelvic recurrences from rectal cancer** PO - 1271

*C. Kronborg (Denmark), H.S. Rønde, J.F. Kallehaug, M.G. Guren, K.G. Spindler*

**Volumetric Modulated Arc Therapy with Simultaneous Integrated Boost in Carcinoma of the Anal Canal** PO - 1272

*L. Deantonio (Switzerland), G. Borgonovo, A. Richetti, M.C. Valli*

**Title: Impact of HPV infection in anal carcinoma patients treated with definitive chemo-radiation** PO - 1273

*G. Veillon Contreras, I.D. Perrot Rosenberg (Chile), J.A. Solis Campos, B. Tudela Staub, G. Lazcano Alvarez, J. Olivares Gonzalez*

**Impact of pretreatment anemia in patients with rectal cancer treated with chemoradiotherapy** PO - 1274

*R.M. Niespolo (Italy), S. Terrevazzi, R. Colciago, A. Romeo, M. Midulla, F. Puci, P. Pacifico, S. Arcangeli*

**Potential for Isotoxic Re-Irradiation SABR in Locally Recurrent Rectal Cancer** PO - 1275

*M. Robinson (United Kingdom), S. O’Cathail, A. Duffton, K. Aitken, R. Muirhead*

**Differential Response of FDG Uptake in Pelvic Bone Marrow to Concurrent Chemoradiotherapy** PO - 1276

*M. Robinson (United Kingdom), R. Muirhead, K. Chu, C. Jacobs, S. Ng, M. Hawkins*

**Practice of Radiation Therapy for Anal Cancer in Austria –A Survey on behalf of the ÖGRO-GIT** PO - 1277

*S. Gerum (Austria), W. Iglseder, R. Schmid, K. Peterka, T. Knocke Abulesz, P. Harl, S. Schwaiger, I. Reiter, J. Sallinger, C. Venhoda, G. Kurzweil, M. Poetscher, R. Jäger, B. Celedin, P. Clemens, F. Sedlmayer, F. Roeder*

Track: Clinical

Digital Poster: Gynaecological (endometrium, cervix, vagina, vulva)

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**Uterine Perforation During Image-Guided Adaptive Brachytherapy in Cervical Cancer Patients** PO - 1278

*G. Yavas (Turkey), C. Yavas, G. Inan, M. Duzova, O.V. Gul, H. Basaran*

- 68Gy EQD2 constraint for G2-vaginal shortening in post-operative endometrium. preliminary results** PO - 1279  
*A. Rovirosa (Spain), Y. Zhang, G. Gomez, C. Ascaso, A. Herreros, B. Fornes, J. Rochera, J. Mases, A. Biete, A. Torné*
- Albumin-to-alkaline phosphatase ratio is not a predictor of survival in cervical cancer patients** PO - 1280  
*C. Onal (Turkey), M. Gultekin, G. Yavas, E. Oymak, S. Yuce Sari, O.C. Guler, E. Yigit, F. Yildiz*
- The prognostic significance of the albumin and globulin levels in cervical cancer patients** PO - 1281  
*C. Onal (Turkey), E. Oymak, O.C. Guler*
- Single Institution Outcomes for CT Guided Brachytherapy for Cervical Cancer** PO - 1282  
*M.T. Elahi (United Kingdom), J. Morgan, A. Stillie, M. Zahra*
- Does Radiotherapy planning factors impact para-aortic recurrence in IIC1 cervical cancer patients?** PO - 1283  
*Abstract withdrawn*
- MR-guided radiotherapy of gynecologic cancer – preliminary outcome data from a small cohort study** PO - 1284  
*A. Ør Knudsen (Denmark), G. Nyvang, P. Krause Møller, U. Bernchou, A. Smedegaard Bertelsen, T. Schytte*
- Postoperative high dose rate brachytherapy in endometrial cancer: three versus six fractions.** PO - 1285  
*L. Cardoso (Spain), L. Gómez, P. Alonso, S. Pena, M. Herrera, P. Valencia, A. Casado, M. Martín, I. Solís, M. Iglesias, D. Rodríguez, M.D.C. Salas, M.L. Del Valle, Á. Del Castillo, J.F. Gutiérrez, M. Sánchez, P. Diezhandino*
- Prognostic factors for non-endometrioid carcinoma** PO - 1286  
*J.A. Domínguez Rullán (Spain), T. Muñoz Miguelañez, M. Martín Sánchez, S. Sancho García*
- Target Deformation and Intrafraction Motion Errors in LRCTV for MR-guided Cervix Cancer Radiotherapy** PO - 1287  
*I.Z. Tan (United Kingdom), B. Tocco, S. Court, D.C.S. Tang, D. McQuaid, I. White, S. Lalondrelle*
- Sequential external beam RT boost with two simultaneous dose levels in advanced cervical cancer** PO - 1288  
*C. Mariucci (Italy), L. Vicenzi, S. Costantini, C. Di Carlo, F. Cucciarelli, M. Valenti, G. Mantello*

- Comparison of MRI Assessment and Clinical Evaluation of Disease Extent in Carcinoma Cervix Patients** PO - 1289  
S. Pradhan (India), R. Ranjan, A. Verma, T.B. Singh, L.M. Aggarwal, R. Singh
- Effect of radiotherapy in addition to surgery in early stage endometrial cancer** PO - 1290  
D. Medenwald (Germany), L. Susan, C. Gottschick, V. Dirk
- Can we safely lower the RT dose with the use of high dose PF for advanced cervical cancer?** PO - 1291  
M. Kawamura (Japan), R. Nakahara, S. Ishihara, Y. Oie, Y. Takase, M. Okumura, J. Ito, T. Ono, Y. Itoh, S. Naganawa
- Results of two interventional radiotherapy (brachytherapy) schedules for endometrial cancer** PO - 1292  
V. Lancellotta (Italy), G. Macchia, A. Salvati, L. Di Maio, E. Placidi, P. Cornacchione, R. Autorino, M. Campitelli, B. Fionda, A. Nardangeli, C. Casà, M. Ferioli, N. Di Napoli, G. Scambia, L. Tagliaferri
- Dosimetric predictors of brachytherapy in cervical cancer: an experience from a developing country** PO - 1293  
E. MANEA (Romania), A. Munteanu, A. Constantin, A.D. Zara, I. Butuc, M. Oprisan, L. Miron
- Timing to assess the clinical response after chemoradiotherapy in locally advanced cervical cancer** PO - 1294  
R. AUTORINO (Italy), V. Lancellotta, M. Campitelli, A. Nardangeli, M.G. Ferrandina, N. Bizzarri, B. Gui, L. Russo, M. Ferioli, L. Tagliaferri, G. Macchia, M.A. Gambacorta
- Stereotactic ablative body radiotherapy boost for cervical cancer when brachytherapy is not feasible** PO - 1295  
T.H. Lee (Korea Republic of), I.A. Kim, J. Kim, C. Song, Y.B. Kim, K. Kim, J.H. No, D.H. Suh, J. Chung, K. Eom
- Usage of PET/CT as a post-treatment surveillance strategy in locoregionally advanced cervical cancer** PO - 1296  
N. Cihoric (Switzerland), H. Astrid Elisabeth, S. Imboden, D. Aebbersold, M. Blatti, A. Tsikkinis, L. Kristina
- Machine Learning Identifies Predicators of Disease-Free Survival in Patients with Cervical Cancer** PO - 1297  
E. Yoshida, W. Arbelo Gonzalez (USA), G. Valdes, E. Hirata, O. Morin, I. Hsu
- Parameters predicting intestinal toxicity in cervical cancer patients with adjuvant radiotherapy** PO - 1298  
B. Xu (China)

- Outcomes of cervical cancer patients treated with hybrid CT-X Ray based intracavitary applications.** PO - 1299  
P. Sawant (India), L. Gurrarn, J. Mathew, M. J, S. Chopra, D. A, Y. Ghadi, J. Ghosh, S. Gupta, S. Gulia, S. TS, A. Maheshwari, U. Mahantshetty
- Stereotactic Body Radiation Therapy for oligometastatic lymph-nodal relapses in gynecological cancer** PO - 1300  
G. Mandurino (Italy), A. Fodor, S.L. Villa, S. Baroni, A. Sanchez Galvan, R. Tummineri, P. Pacifico, F. Zerbetto, C.L. Deantoni, P. Mangili, A. Del Vecchio, S. Arcangeli, N.G. Di Muzio
- The role of 18F-FDG PET/CT and pelvic mri after concurrent chemo-radiotherapy** PO - 1301  
V. Lancellotta (Italy), R. Autorino, M. Campitelli, A. Nardangeli, B. Gui, V. Rufini, G. Ferrandina, N. Bizzarri, L. Tagliaferri, V. Valentini, G. Macchia, M.A. Gambacorta
- Intraoperative electron radiation after salvage surgery in gynecological cancers and sarcomas** PO - 1302  
G. oses gonzalez (Spain), D. Muñoz-Guglielmetti, C. Cases, A. Biete, T.D. Barreto, A. Roviroso, A. Herreros, J. Saez, M. Mollà
- FDG-PET/CT and MRI in the radiotherapy treatment planning of locally advanced cervix cancer** PO - 1303  
R. Autorino (Italy), V. Lancellotta, M. Campitelli, A. Nardangeli, M.G. Ferrandina, N. Bizzarri, B. Gui, V. Rufini, M. Ferioli, L. Tagliaferri, G. Macchia, M.A. Gambacorta
- Acute hematological and metabolical side effects of chemoradiotherapy for inoperabl cervical cancer** PO - 1304  
E.D. Nasuhbeyoglu (Turkey), S. Alanyali, B.A. Aras, Z. Ozsaran
- Radiation Therapy for Stage IVB Uterine Cervical Cancer with Supraclavicular Lymph Nodes Metastases** PO - 1305  
Y. Mukai (Japan)
- apatinib plus capecitabine in patients of recurrent/metastatic and persistent cervical cancer** PO - 1306  
J. Li (China), W. Mao, F. Li, L. Ran, J. Chang, F. Mei, L. Hu, Y. Du, X. Tian, L. Shan, M. Liu, Y. Chen, J. Mu, Y. Qin, S. Yin, N. Liang
- Extended nodal radiotherapy for relapsed gynecologic tumors with PET/CT-guided SIB** PO - 1307  
S.L. Villa (Italy), A. Fodor, R. Tummineri, F. Zerbetto, C.L. Deantoni, S. Baroni, A. Sanchez Galvan, G. Mandurina, P. Pacifico, P. Mangili, A. Del Vecchio, S. Arcangeli, N.G. Di Muzio
- Image-guided helical/volumetric IMRT in vulvar cancer: results of a mono-institutional experience** PO - 1308  
R. Tummineri (Italy), A. Fodor, F. Zerbetto, A. Sanchez Galvan, S.L. Villa, S. Baroni, G. Mandurino, P. Pacifico, C. Deantoni, P. Mangili, A. Del Vecchio, N.G. Di Muzio

**IMRT in vulvar cancer: dismal outcomes from a retrospective single-center analysis.** PO - 1309

*M. Ferioli (Italy), A.M. Perrone, A. Galuppi, L. Strigari, F. Romani, M. Buwenge, A. Arcelli, D. Vallerossa, S. Bisello, M. Boriani, G. Macchia, F. Deodato, S. Cilla, D. Pezzulla, V. Panni, P. De Iaco, A.G. Morganti, S. Cammelli*

**Salvage (re)radiation in oligo-recurrent and oligo-metastatic cervical cancer** PO - 1310

*S. Chopra (India), B. Kalra, J. Mulani, J. Swamidas, J. Jain, L. Gurram, J. Ghosh, S. Rath, S. Gulia, P. Mittal, U. Mahantshetty, S. Gupta*

**MR-guided SBRT boost for patients with recurrent gynecological cancers ineligible for brachytherapy** PO - 1311

*I. Hadi (Germany), R. von Bestenbostel, S. Schönecker, K. Straub, L. Nierer, R. Bodensohn, M. Reiner, G. Landry, C. Belka, M. Niyazi, S. Corradini*

**Quality of life in locally advanced cervical cancer: brachytherapy vs surgery after chemoradiation.** PO - 1312

*M. Ferioli (Italy), A. Galuppi, M. Buwenge, A.M. Perrone, F. Deodato, A. Re, S. Cilla, E. Deraco, E. Galletta, N. Razganiyeva, M. Boriani, S. Cammelli, P. De Iaco, A.G. Morganti, G. Macchia*

**Evaluation of CBCT-based auto-segmentation for online adaptive radiotherapy in cervical cancer** PO - 1313

*C. Shelley (United Kingdom), M. Bolt, R. Hollingdale, C. South, E. Adams, A. Stewart*

**Magnetic Resonance guided radiotherapy (MRgRT) in Gynaecological cancer: targets and gains** PO - 1314

*M. Ingle (United Kingdom), I. White, J. Chick, J. Mohajer, A. Dunlop, H. McNair, T. Herbert, H. Barnes, G. Smith, S. Lalondrelle*

**Treatment toxicities of cervical cancer with or without HIV infection in Botswana 2013-2020** PO - 1315

*S. Tuli (USA), J. George, B. Monare, M. Bvochora-Nsingo, K. Lichter, S. Chiyapo, D. Balang, L. Bazzett-Matabele, S. Shin, N. Zetola, S. Grover*

Track: Clinical

Digital Poster: Prostate

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**Stereotactic radiotherapy in recurrent prostate cancer after postoperative or definitive irradiation** PO - 1316

*G. Francolini (Italy), M. Loi, V. Di Cataldo, B. Detti, G. Stocchi, A.G. Allegra, C. Bellini, M. Aquilano, L.P. Ciccone, M. Mariotti, V. Salvestrini, E. Scoccimarro, M. Valzano, G. Simontacchi, P. Bonomo, S. Lucidi, I. Desideri, I. Meattini, L. Livi*

**Prostate Cancer Patient Reported Outcome After Cyberknife Robotic Radiosurgery** PO - 1317

*S. Exner (Germany), F. Fehlauer*

- salvage treatment outcomes in lymph node-positive prostate cancer patients after surgery** PO - 1318  
D. Kim (Korea Republic of), J. Kim, S.K. Hong, S. Byun, S.E. Lee
- Early Health Economic Analysis of 1.5T MRI-guided Radiotherapy for Localized Prostate Cancer** PO - 1319  
C. Hehakaya (The Netherlands), J.R. van der Voort van Zyp, B.G. Vanneste, J.P. Grutters, D.E. Grobbee, H.M. Verkooijen, G.W. Frederix
- Infectious Risk After Prostatic Transrectal Fiducial Marker Implantation in Radiation Therapy** PO - 1320  
T. Reynaud (Canada), I. Ben Aicha, D. Carignan, C. Pelchat, C. Fiset, W. Foster, A. Martin, E. Vigneault
- A Simple Method to Visualize and to Spare the Ureters During SBRT for Oligo Metastatic Patients** PO - 1321  
*Abstract withdrawn*
- Clinical outcome of MRI based high-dose-rate brachytherapy for prostate cancer** PO - 1322  
S. Buus (Denmark), H.A.S. Hansen, S. Rylander, S.B. Hokland, K. Tanderup, L.N. Bentzen
- Low toxicity in LDR brachytherapy boost with real time intraoperative planning in prostate cancer** PO - 1323  
M. Barrado (Spain), E. Villafranca Iturre, A. Sola Galarza, I. Visus Fernández de Manzano, P. Navarrete Solano, N. Fuentemilla Urio, S. Pellejero Pellejero, A. Galbete Jiménez, M.A. Rodríguez Mendizabal, L.O. Rosas Gutierrez, A. Barco Gómez, E.G. Martínez López
- Dose-volume correlation of pelvic bone normal tissue and hematocrit in patients with prostate cancer** PO - 1324  
P. Papanikolaou (USA), G. Swanson, S. Stathakis, M. Fakhreddine, P. Mavroidis
- Factors that influence urinary incontinence correction results after prostatectomy and radiotherapy** PO - 1325  
N.A. Linares Mesa (Spain), M. Ruza Sarrasín, Y. Ramírez Castilla, J.M. Rico Pérez, M.F. Lorenzo Gómez
- Dosimetric and clinical impact of rectal spacers in patients undergoing VMAT-IGRT in prostate cancer** PO - 1326  
E. O'Neill (Ireland), M. Samuji, P.J. Kelly
- Prostate cancer radiotherapy in a COVID-19 pandemic year: experience of a Chilean public hospital** PO - 1327  
H. Letelier (Chile), C. Herrera Bovet

- VMAT-SIB boost to the dominant intraprostatic lesion: preliminary results of a dose escalation trial** PO - 1328  
P. Bonome (Italy), G. Macchia, M. Ferro, S. Cilla, C. Romano, A. Re, V. Picardi, M. Boccardi, D. Pezzulla, S. Cammelli, M. Buwenge, L. Tagliaferri, A.G. Morganti, A. Morganti, V. Valentini, F. Deodato
- Longterm Biochemical Recurrence-Free Survival after PSMA-PET/CT-Based Salvage Radiotherapy** PO - 1329  
S. Adebahr (Germany), C. Zamboglou, J. Ruf, C. Gratzke, S. Kirste, S. Spohn, C. Stief, P. Bartenstein, C. Belka, M. Li, C. Trapp, P. Rogowski, A. Grosu, A. Grosu, N. Schmidt-Hegemann
- Radiotherapy toxicity in prostate cancer patients with bilateral hip prostheses** PO - 1330  
A. Fischer (United Kingdom), P. Hoskin
- SBRT prostate cancer boost of 9 Gy, prospective phase II trial.** PO - 1331  
F. Ferrer Gonzalez (Spain), A. Pont, R. De Blas, A. Boladeras, O. Garin, N. Garcia Expósito, M. Stefanovic, M. Garcia Marqueta, M. Juarez, M. Olivas, L. Armijos, M. Alonso Becerra, A. Alvarez, A. Slocker, M. Ventura, M. Castells, E. Merino, F. Suarez, C. Gutiérrez, J. Delgado, E. Zardoya, D. Najjari, C. Picon, M. Ferrer, F. Guedea
- OLI-P trial: pattern of progression after radiotherapy in PSMA-PET positive METs of prostate cancer** PO - 1332  
T. Hölscher (Germany), M. Baumann, J. Kotzerke, M. Wirth, C. Thomas, D. Zips, S. Löck, M. Krause, F. Lohaus
- Efficacy of stereotactic radiation therapy for the treatment of nodal oligorecurrent prostate cancer** PO - 1333  
S. Cozzi (Italy), L. Bardoscia, D.S. Solla, G. Timon, A. Botti, B. Gladys, F. Vigo, P. Ciammella, C. Iotti
- Early Salvage Radiotherapy In the post RADICALS-RT Era: The Gap From Trials to Reality** PO - 1334  
M. sanchez (Chile)
- PSMA-PET impact on post-prostatectomy recurrences multidisciplinary management: focus on RT** PO - 1335  
V. Chiofalo (Italy), G.C. Iorio, I. Bonavero, R. Parise, R. Carlevato, S. Bartoncini, V. Richetto, F. Ceci, S. Grimaldi, S. Dall'Armellina, D. Deandreis, B. Lillaz, M. Oderda, P. Gontero, A. Guarneri, U. Ricardi
- Salvage HDR brachytherapy for localised recurrent prostate cancer after primary irradiation** PO - 1336  
M. Stankiewicz (Poland), P. Wojcieszek, P. Lelek, T. Krzysztofiak, S. Kellas-Slecza



- Long follow up of late toxicity after hypofractionated postoperative radiation in prostate cancer** PO - 1337  
*J. Valero (Spain), M. Izquierdo Merchán, Á. Montero Luis, O. Hernando Requejo, X. Chen, E. Sanchez Saugar, B. Álvarez Rodríguez, M. Núñez Báez, R. Ciérvide Jurio, M.D.L.O. García-Aranda Pez, M. López González, P. Fernández Letón, J. Martí Asenjo, A. Prado Barragán, R.M. Alonso, K.D. Rossi Coronado, C. Rubio Rodríguez*
- Does frailty influence treatment intent in men with non-metastatic prostate cancer?** PO - 1338  
*K. Connors (United Kingdom), A. Vickers, R. Conroy, C. Coyle, A. Hudson, J. Logue, M. Serra, A. Tran, H. Mistry, J. Wylie, A. Choudhury, Y.P. Song*
- Estimated late toxicities with pelvic nodal irradiation in prostate cancer: Protons vs Tomotherapy** PO - 1339  
*S. Sundar (India), S. Chilukuri, K. Patro, M. Sawant, R. S, M. Arjunan, D. Sharma, R. Jalali*
- Prostate cancer reirradiation with stereotactic V-MAT IGRT : interim analysis of a phase II trial.** PO - 1340  
*A. Di Marzo (Italy), F. Trippa, P. Anselmo, L. Draghini, F. Arcidiacono, S. Terenzi, M. Italiani, M. Muti, M. Casale, S. Fabiani, E. Maranzano*
- SBRT for Japanese patients with prostate cancer: prediction of acute genitourinary toxicities** PO - 1341  
*M. Ito (Japan), Y. Takase, J. Suzuki, T. Matsunaga, H. Takahashi, A. Takeuchi, S. Adachi, S. Abe, Y. Oshima, K. Ohtakara, Y. Yoshioka, K. Suzuki, T. Okuda*
- Trends and predictors of worsening at RT end of anxiety and depression during RT for prostate cancer** PO - 1342  
*D. Cante (Italy), B. Avuzzi, J.M. Waskiewicz, A. Faiella, E. Villa, L. Ferella, E. Garibaldi, A. Magli, B. Noris Chiorda, G. Girelli, E. Olivetta, C. Piva, M. Gatti, P. Ferrari, E. Moretti, G. Sanguineti, V. Vavassori, F. Munoz, T. Rancati, F. Badenchini, A. Bresolin, R. Valdagni, N. Di Muzio, C. Fiorino, C. Cozzarini*
- Dose-escalated stereotactic radiotherapy for prostate cancer: A feasibility study using a rectal spacer and urethral sparing** PO - 1343  
*R. Lewin (Israel), I. Bar-Orian, N. Honig, L. Tsvang, M. Ben-Ayun, I. Weiss, Z. Symon*
- Preliminary results of Phase II trial on Carbon-ion boost followed by IMRT for high risk PCa** PO - 1344  
*F. Patti (Italy), G. Marvaso, M. Pepa, B. Vischioni, M. Zaffaroni, S. Comi, D. Zerini, M. Augugliaro, S. Russo, F. Valvo, T. Giandini, B. Avuzzi, R. Valdagni, O. De Cobelli, F. Cattani, E. Orlandi, B.A. Jereczek-Fossa, R. Orecchia*
- Symptoms affecting Emotional, Systemic and Social Domains 2 years after RT for prostate cancer** PO - 1345  
*E. Garibaldi (Italy), A. Faiella, E. Villa, A. Magli, D. Cante, B. Avuzzi, J.M. Waskiewicz, L. Ferella, B. Noris Chiorda, G. Girelli, A. Pastorino, C. Piva, M. Gatti, P. Ferrari, A. Maggio, E. Olivetta, G. Sanguineti, V. Vavassori, F. Munoz, T. Rancati, F. Badenchini, A. Bresolin, R. Valdagni, N. Di Muzio, C. Fiorino, C. Cozzarini*

- Systematic Review of Salvage Reirradiation Options for Locally Recurrent Prostate Cancer** PO - 1346  
*J. Zhong (United Kingdom), F. Slevin, A. Scarsbrook, M. Serra, A. Choudhury, P. Hoskin, S. Brown, A. Henry*
- Prostate cancer RT pattern of practice in Italy between 2004-2011: an analysis by the AIRO database** PO - 1347  
*A. Bruni (Italy), E. Mazzeo, L. Triggiani, L. Frassinelli, A. Guarneri, S. Bartoncini, P. Antognoni, S. Gottardo, D. Greco, S. Borghesi, S. Nanni, G. Ingrosso, R.M. D'Angelillo, B. Detti, G. Francolini, A. Magli, A. Guerini, S. Arcangeli, L. Spiazzi, U. Ricardi, F. Lohr, S.M. Magrini*
- Urethral sparing increases the therapeutic ratio in dose escalated hypofractionated radiotherapy** PO - 1348  
*S. Spohn (Germany), I. Sachpazidis, R. Wiehle, B. Thomann, A. Sigle, P. Bronsert, J. Ruf, M. Benndorf, N. Nicolay, T. Sprave, A. Grosu, D. Baltas, C. Zamboglou*
- Separation and rectal dosimetry with a pre-rectal spacer inserted during prostate HDR brachytherapy** PO - 1349  
*R. Davda (United Kingdom), D. Sandys, W. Kinnaird, M. Boutros, D. Heffernan Ho, D. Pendse, A. Mitra, C. Allen, H. Payne*
- SBRT for localized prostate cancer: there is still a role for androgen deprivation therapy?** PO - 1350  
*M.L. Bonù (Italy), A. Magli, F. Tonetto, E. Moretti, G. De Giorgi, L. Spiazzi, M. Trovò, D. Tomasini, S.M. Magrini, L. Triggiani*
- Patterns of local relapse following tumor-targeted dose escalation for localized prostate cancer** PO - 1351  
*J. Padayachee (Canada), N. Sanmamed, J. Lee, Z. Liu, A. Berlin, T. Craig, B. Lao, A. Rink, A. Bayley, C. Catton, A. Sundaramurthy, W. Foltz, A. McPartlin, S. Ghai, E. Atenafu, M. Gospodarowicz, P. Warde, J. Helou, S. Raman, C. Ménard, P. Chung*
- Rectal spacing hydrogel - significant improvements in LDR prostate brachytherapy dosimetry** PO - 1352  
*S. Mehta (United Kingdom), S. Khaksar, C. Perna, S. Otter, C. Mikropoulos, M. Cunningham, S. Uribe-Lewis, J. Uribe, S. Langley*
- Postoperative hypofractionated RT for prostate adenocarcinoma: results from a large series** PO - 1353  
*L. Nicosia (Italy), C. Vitale, F. Cuccia, V. Figlia, N. Giaj-Levra, R. Mazzola, F. Ricchetti, M. Rigo, R. Ruggieri, S. Cavalleri, F. Alongi*
- Time Dependence of PSADT prognostic threshold in men treated with post-prostatectomy salvage RT** PO - 1354  
*C. Cozzarini (Italy), A. Magli, D. Cante, L. Andreoli, A. Pastorino, A. Faiella, A. Fodor, C. Deantoni, F. Zerbetto, F. Tonetto, B. Noris Chiorda, C. Piva, E. Olivetta, B. Avuzzi, G. Gandaglia, N. Fossati, C. Fiorino, G. Sanguineti, R. Valdagni, A. Briganti, F. Montorsi, N. Di Muzio*

- Finding safe dose-volume constraints for re-irradiation of intraprostatic prostate cancer relapse.** PO - 1355  
M. Augugliaro (Italy), M. Pepa, D. Zerini, G. Marvaso, R. Cambria, V. Bagnardi, S. Frassoni, F. Pansini, D.P. Rojas, F. Colombo, C.I. Fodor, F. Cattani, B.A. Jereczek-Fossa
- Dose constraints validation in moderate hypofractionation in localized prostate cancer** PO - 1356  
X. Maldonado (Spain), M. Altabas, J. Garre, M. Vazquez, S. Magriña, A. Delgado, N. Docampo, A. Geng, M. Hermida, D. Sanchez-Artuño, J. Giralt
- LDR-Brachytherapy vs SBRT: PSA kinetics and toxicity outcomes in localized prostate carcinoma** PO - 1357  
M. Cerrolaza (Spain), A. Mendez, M.D.M. Puertas, C. García, S. Flamarique, C. Escuin, V. Navarro, A. Lanuza, D. Villa, B. Garcia, M. Tejedor
- Does brachytherapy boost improve biochemical control in intermediate and high-risk prostate cancer?** PO - 1358  
M. Miszczyk (Poland), I. Jabłońska, T. Krzysztofiak, Ł. Magrowski, W. Majewski, R. Suwiński, O. Masri, J. Ciepał, G. Depowska, M. Gmerek, E. Nowicka, P. Wojcieszek
- PORT impact on biochemical recurrence in pN1 PCa patients: establishing the appropriate RT timing** PO - 1359  
G. Marvaso (Italy), F.A. Mistretta, I. Sabatini, S. Luzzago, M. Catellani, E. Di Trapani, G. Cozzi, R. Bianchi, G. Cordima, M. Ferro, D. Bottero, D.V. Matei, G. Musi, B.A. Jereczek-Fossa, O. De Cobelli
- Are the practices of Radiation oncologists harmonious for hormone therapy in prostate cancer?** PO - 1360  
N. Fourati (Tunisia), W. Mnejja, M. Frikha, F. Dhouib, M. Kallel, W. Siala, J. Daoud
- Patterns of care for intermediate-risk prostate cancer – results from an online survey** PO - 1361  
V. Mareco (Portugal), M.C.D. Silva, A.N. Abrunhosa-Branquinho, J. Pisco, S. Saraiva, M.F.D. Pina
- The prognostic value of PI-RADS score in ultra-hypofractionated radiotherapy for prostate cancer.** PO - 1362  
M. Miszczyk (Poland), Ł. Magrowski, J. Rembak-Szynkiewicz, P. Rajwa, A. Namysł-Kaletka, A. Paradyś, A. Napieralska, G. Woźniak, G. Głowacki, M. Stąpór-Fudzińska, L. Miszczyk
- Prediction of urinary toxicity after prostate cancer RT: long term evaluation** PO - 1363  
T. Rancati, A. Cicchetti, E. Gioscio, B. Avuzzi (Italy), B. Noris Chiorda, R. Valdaghi, E. Garibaldi, D. Cante, V. Vavassori, G. Girelli, C. Degli Esposti, C. Iotti, C. Fiorino, C. Cozzarini

<b>Bleeding Risk after Prostate SBRT in Men on Baseline Anticoagulant/Antiplatelet Therapy</b>	PO - 1364
<i>A. Pepin (USA), S. Shah, M. Pernia, S. Lei, M. Ayoob, M. Danner, T. Yung, B. Collins, S. Suy, N. Aghdam, S. Collins</i>	
<b>Real time dynamic LDR Brachytherapy boost to external beam radiotherapy in prostate cancer</b>	PO - 1365
<i>S. Forner (United Kingdom), E. Xing, S. Ravindra, A. D'Souza, F. Leach, S. Nagpal, T. Guerrero Urbano, V. Mullassery, O. Elhage, R. Popert, S. Morris</i>	
<b>Pattern of recurrence after SBRT in prostate cancer patients with nodal pelvic relapse</b>	PO - 1366
<i>G. Francolini (Italy), C. Bellini, V. Di Cataldo, B. Detti, A. Bruni, G. Alicino, L. Triggiani, S. La Mattina, R.M. D'Angelillo, C. Demofonti, R. Mazzola, F. Cuccia, F. Alongi, M. Aquilano, A.G. Allegra, L.P. Ciccone, G. Stocchi, V. Salvestrini, B. Guerrieri, L. Livi</i>	
<b>Hypofractionated radiotherapy in prostate cancer older than 70 years</b>	PO - 1367
<i>M.D.C. Salas Buzon (Spain), C. Muñoz Higuera, R. Rodríguez Sánchez, S. Sayago Gil, J. Alcantara Muñoz</i>	
<b>What is clinically important in the pathology specimen for radical radiotherapy in prostate cancer?</b>	PO - 1368
<i>W. Majewski (Poland), D. Lange, A. Stanek-Widera, B. Itrych, T. Krzysztofiak, M. Jarzab, M. Oczko-Wojciechowska, R. Tarnawski</i>	
<b>HDR Brachytherapy Monotherapy in patients with Low/Intermediate-risk Prostate Cancer</b>	PO - 1369
<i>E. Moreno Olmedo (Spain), G. Nagore, V. Suárez Gironzini, C. Minguez, E. Gómez, A. Garcia, V. Ciapa, I. Marrone, E. López</i>	
<b>Updated prospective study of MR-guided focal salvage HDR brachytherapy for recurrent prostate cancer</b>	PO - 1370
<i>H. Chung (Canada), M. Corkum, A. Loblaw, C. Tseng, J. Murgic, A. Ravi, M. Davidson, M. Wronski, M. Haider, G. Morton</i>	
<b>SALVAGE-EXTERNAL BEAM RADIOTHERAPY (S-EBRT) FOR RECURRENT PROSTATE CANCER AFTER LDR-BRACHYOTHERAPY</b>	PO - 1371
<i>O. Muñoz Muñoz (Spain), B.D. DELGADO LEON, P. CABRERA ROLDAN</i>	
<b>First institutional analysis between ultra vs moderate hypofractionated regimens in prostate cancer</b>	PO - 1372
<i>G. Ferraris (Argentina), P. Andrada, A. Gomez Palacios, L. Alvarado, F. Eduardo, L. Causa, F. Diego, D.V. Maria Fernanda</i>	
<b>Targeted biopsies are redundant in mp-MRI and PSMA-PET proven radiorecurrent prostate cancer</b>	PO - 1373
<i>M. Peters (The Netherlands), M. van Son, M. Rasing, J. Lagendijk, M. Moerland, S. van de Pol, W. Eppinga, T. Jonges, F. Wessels, B. de Keizer, J. Noteboom, J. van der Voort van Zyp</i>	

- MR-guided SBRT for localized prostate cancer: the first results from the MOMENTUM study** PO - 1374  
*F. Teunissen (The Netherlands), T. Willigenburg, A. Tree, W. Hall, S. Choi, A. Choudhury, J. Christodouleas, J. de Boer, E. de Groot-van Breugel, L. Kerkmeijer, F. Pos, D. Vesprini, H. Verkooijen, J. van der Voort van Zyp*
- Feasibility of neurovascular sparing MR-guided adaptive radiotherapy for prostate cancer** PO - 1375  
*F. Teunissen (The Netherlands), R. Wortel, J. Hes, T. Willigenburg, J. de Boer, R. Meijer, H. van Melick, H. Verkooijen, J. van der Voort van Zyp*
- Preliminary mono-institutional report of prostate/prostate bed SBRT re-irradiation** PO - 1376  
*F. Cuccia (Italy), L. Nicosia, R. Mazzola, V. Figlia, N. Giaj-Levra, F. Ricchetti, M. Rigo, C. Vitale, G. Attinà, E. Pastorello, S. Corradini, R. Ruggieri, F. Alongi*
- Dosimetric study of scanning method for prostate cancer patients in comparison with wobblers and VMAT** PO - 1377  
*M. Takaqi (Japan), Y. Hasegawa, K. Tateoka, Y. Takada, M. Hareyama*
- Metastasis-directed therapy for oligorecurrent prostate cancer: a pooled analysis** PO - 1378  
*P. Ost (Belgium), A. Berlin, S. Siva, D. Reynders, R. Phillips, R. Glicksman, F. Faroudi, V. Fonteyne, M. Deek, P. Chung, D. Murphy, P. Tran*
- Patient- vs. physician reported morbidity following radiotherapy of high-risk prostate cancer** PO - 1379  
*S.E. Petersen (Denmark), S. Hansen, P.M. Petersen, H. Lindberg, M. Moe, J.B. Petersen, L.P. Muren, M. Høyer, L. Bentzen*
- Adjuvant radiotherapy of prostate cancer: a risk stratification system based on prognostic factors** PO - 1380  
*S. Bisello (Italy), A. Arcelli, F. Deodato, N. Dominsky, G. Tarantino, M. Ntreta, S. Cilla, G. Siepe, L. Cavallini, D. Pezzulla, A.R. Alitto, A. Re, S. Cammelli, A. Cortesi, A. Romeo, G.P. Frezza, A.G. Morganti, G. Macchia, M. Buwenge*
- Toxicity outcomes of salvage versus adjuvant radiotherapy for prostate cancer using VMAT and IMRT** PO - 1381  
*D. Fasciolo (Italy), D. Fasciolo, C. Rosa, M. Marchione, M. Borgia, M. Lucarelli, A. Vinciguerra, A. Augurio, L. Caravatta, D. Genovesi*
- A systematic review regarding outcomes and toxicities of re-irradiation for prostate cancer** PO - 1382  
*C. Rosa (Italy), F. Munoz, F. Fiorica, L. Caravatta, L. Ferella, L. Boldrini, B. Fionda, A.R. Alitto, A. Nardangeli, F. Dionisi, A. Pontoriero, S. Arcangeli, A. Di Marzo, V. Donato, M. Massaccesi*

- Radiation therapy with curative intention in men with de novo metastatic prostate carcinoma** PO - 1383  
*A. Montero (Spain), O. Hernando, V. Cañon, D. Guevara, J. Valero, X. Chen-Zhao, P. Garcia, E. Sanchez, D. Zucca, M. Lopez, R. Ciervide, M. Garcia-Aranda, J. Garcia, M. de la Casa, B. Alvarez, R. Alonso, M. Nuñez, M. Izquierdo, K. Rossi, C. Cañadillas, P. Fernandez-Leton, C. Rubio*
- Salvage radiotherapy for locally recurrent prostate cancer after high-intensity focused ultrasound** PO - 1384  
*N. Jullian (Belgium), R. Diamand, A. Mattlet, S. Poeta, K. Limani, A. Peltier, D. Van Gestel, F. Otte*
- PSA bounce and biochemical failure analysis in low dose rate iodine-125 prostate brachytherapy boost** PO - 1385  
*N. Bultó Boqué (Spain), A. Goñi Ramírez, B. de Paula Carranza, E.M. Sáenz de Urturi Albisu, M. Pagola Divasson, D.I. Ortiz de Urbina Ugarte, J. Rosa Nieto, A. Ayete Andreu, M. Erzilbengoa Izaguirre, V. Pastor Sanchís, A. Bartrés Salido, N. Suárez Álvarez*
- Treatment compliance to linac-based prostate SBRT using real-time electromagnetic tracking** PO - 1386  
*R. Lucchini (Italy), D. Panizza, V. Vernier, S. Trivellato, S. Arcangeli*
- Diffusion MRI as an early response marker in management of high-risk non-metastatic prostate cancer** PO - 1387  
*M. Stancliffe (United Kingdom), R. Davda, H. Payne, A. Mitra, U. McGovern, D. Pendse*
- 1.5 T MR-guided SBRT for oligorecurrent prostate cancer: preliminary report of feasibility and PROMs** PO - 1388  
*F. Cuccia (Italy), R. Mazzola, V. Figlia, M. Rigo, L. Nicosia, N. Gaj-Levra, F. Ricchetti, C. Vitale, G. Attinà, E. Pastorello, G. Di Paola, A. De Simone, D. Gurrera, S. Naccarato, G. Sicignano, R. Ruggieri, F. Alongi*
- Interrater agreement in contouring the neurovascular bundle and internal pudendal artery for MRgRT** PO - 1389  
*F. Teunissen (The Netherlands), R. Wortel, F. Wessels, S. van de Pol, M. Rasing, A. Claes, J. de Boer, R. Meijer, H. van Melick, H. Verkooijen, J. van der Voort van Zyp*
- Intra-fraction prostate motion during stereotactic irradiation in 1st irradiation and re-irradiation** PO - 1390  
*A. Taillez (France), A.M. Bimbai, T. Lacornerie, M. Le Deley, E.F. Lartigau, D. Pasquier*
- Curative radiotherapy of prostate cancer: a risk stratification system based on prognostic factors** PO - 1391  
*S. Bisello (Italy), A. Arcelli, F. Deodato, N. Dominsky, G. Tarantino, M. Ntreta, S. Cilla, G. Siepe, L. Cavallini, D. Pezzulla, A.R. Alitto, S. Cammelli, A. Cortesi, A. Romeo, G.P. Frezza, A.G. Morganti, G. Macchia, M. Buwenge*

**Salvage radiotherapy of prostate cancer: a risk stratification system based on prognostic factors** PO - 1392

*S. Bisello (Italy), A. Arcelli, F. Deodato, N. Dominsky, G. Tarantino, M. Ntreta, S. Cilla, G. Siepe, L. Cavallini, D. Pezzulla, A.R. Alitto, A. Re, S. Cammelli, A. Cortesi, A. Romeo, G.P. Frezza, A.G. Morganti, G. Macchia, M. Buwenge*

**ARTO (NCT03449719), quality of life monocentric report after stereotactic treatment and abiraterone** PO - 1393

*G. Francolini (Italy), V. Di Cataldo, B. Detti, S. Lucidi, E. Scoccimarro, M. Mariotti, A. Peruzzi, B. Guerrieri, P. Garlatti, M. Loi, M. Mangoni, I. Desideri, I. Meattini, L. Livi*

**Stereotactic body radiotherapy for prostate cancer lymph node metastases: a systematic review** PO - 1394

*A. Zamagni (Italy), M. Bonetti, M. Buwenge, M. Ntreta, G. Tolento, S. Cammelli, C.M. Donati, E. Lodi Rizzini, M. Boccardi, A. Re, F. Deodato, S. Cilla, G. Macchia, A.G. Morganti*

**Post-prostatectomy ultra-hypofractionated SBRT: preliminary results of a phase II trial** PO - 1395

*A. Montero (Spain), O. Hernando, J. Valero, X. Chen-Zhao, J. Marti, A. Prado, E. Sanchez, M. Lopez, R. Ciervide, M. Garcia-Aranda, B. Alvarez, R. Alonso, P. Garcia, M. Nuñez, J. Palma, M. Izquierdo, K. Rossi, C. Cañadillas, P. Fernandez-Leton, C. Rubio*

**CBCT-guided online adaptive radiotherapy: results of the first fifty prostate cancer patients** PO - 1396

*L. Zwart (The Netherlands), L. ten Asbroek, E. van Dieren, S. Koch, F. Ong, A. Bhawanie, E. de Wit, J. Dasselaar*

**Differences between various rectal volumes and implications for patient-reported rectal toxicity** PO - 1397

*N. Pettersson (Sweden), C. Olsson, T. Dang, I. Olsson, A. Valdman*

Track: Clinical

Digital Poster: Urology-non-prostate

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**SRS for brain metastases from renal cell carcinoma; UK tertiary referral centre 5-year experience** PO - 1398

*R. Bowen (United Kingdom), A. Hashmi, J. Lewis, A. Hassani, R. Mohanraj, J. Mott, R. Pearson*

**Vinorelbine in Bladder-Preserving Multimodality Treatment for Muscle-Invasive Bladder Cancer** PO - 1399

*C. Arnold (Austria)*

**Seminal vesicle adenocarcinoma: A systematic review of published literature** PO - 1400

*V. Singla (India), S. Goyal, K. Periasamy, R. Madan, P. Vias*

**Lung metastasis from renal cell carcinoma: SBRT alone or in association with target therapy as a potential treatment option** PO - 1401

F. Zerbetto (Italy), S. Foti, C. Deantoni, M. Pasetti, A. Chiara, T. Roberta, S. Broggi, N.G. Di Muzio

**Retrospective analysis of RCT for bladder cancer – Reflection of the real patient cohort** PO - 1402

R. von Bestenbostel (Germany), C. Baudermann, P. Rogowski, C. Trapp, C. Belka, N. Schmidt-Hegemann, M. Li

**High dose palliative radiotherapy in bladder cancer - A single centre experience from the UK** PO - 1403

M. Jackson (United Kingdom), N. Hannaway, A. Burns, R. Pearson, R. Chandler, J. Frew, A. Azzabi, X. Jiang

**Reduction of margins in bladder cancer treatment to minimize normal tissue irradiation** PO - 1404

I. Bengtson (Sweden), S. Talozzi, A. Gunnlaugsson, J. Scherman, E. Wieslander

**Decision aid for bladder cancer patients choosing between cystectomy and bladder sparing treatment** PO - 1405

J. van Tol-Geerdink (The Netherlands), AG (Toine) van der Heijden, N (Niven) Mehra, HJM (Hanneke) Meijer

Track: Clinical

Digital Poster: Skin cancer/malignant melanoma

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**Paget's disease of scrotum and penis: Case Report of a re-irradiation and Review of the Literature** PO - 1406

A. Sanfratello (Italy), A. Piras, L. Boldrini, M. La Vecchia, V. Venuti, M. Torchia, C. Lotà, C. Rinaldi, M.L. Amari, M. Orlando, L. Zichichi, T. Angileri, A. Daidone

**Radiotherapy in Gorlin Syndrome: Is it an absolute contraindication?** PO - 1407

D. Esteban Moreno (Spain), G. García Álvarez, D. Rivas Sánchez, D. Gonsalves Pieretti, S. Suarez Casanova, I. Castro Rizos, R. Molina Cruz, L.A. Glaría Enríquez, E. López Ramírez

**Establishment of a national database for non-melanoma skin cancer treated with radiotherapy** PO - 1408

J.G. Eriksen (Denmark), Z.G. Zimling, C.K. Lønkvist, A.L. Linnet Nielsen, P. Lassen, K. Nowicka-Matus, N. Gyldenkerne, G. Hanahan, J. Friborg, J. Overgaard, A. Gothelf

**Imaging and blood biomarkers in metastatic melanoma patients treated with immunotherapy.** PO - 1409

S. Burgermeister (Switzerland), G. Hubert, L. Basler, S. Hogan, M. Pavic, M. Bogowicz, D. Vuong, S. Tanadini-Lang, R. Förster, M. Huellner, R. Dummer, M. Levesque, M. Guckenberger



**Hypofractionated radiotherapy in elderly patients with non-melanoma skin cancer: preliminary results** PO - 1410

*B. Floreno (Italy), C. Greco, E. Ippolito, M. Fiore, S. Silipigni, G. D'Ercole, S. Ramella*

**Electronic skin cancer brachytherapy: our experience and first outcomes** PO - 1411

*M. Cerrolaza (Spain), P. Sanagustin, M. Lanzuela, R. Ibañez, A. Campos, S. Flamarique, C. Garcia, C. Escuin, V. Navarro, A. Lanuza*

**Superficial radiotherapy in the treatment of non-melanoma skin cancer** PO - 1412

*M. Cerrolaza (Spain), P. Sanagustin, R. Ibañez, A. Campos, S. Flamarique, C. Garcia, C. Escuin, V. Navarro, A. Lanuza, M. Lanzuela*

**Melanoma brain metastasis: The outcome of WBRT in the era of effective systemic therapy** PO - 1413

*C. Waldstein (Austria), W. Wang, W. Wang, S. Lo, B. Shivalingam, G.B. Fogarty, M.S. Carlino, A.M. Menzies, G.V. Long, A. Hong*

Track: Clinical

Digital Poster: Sarcoma

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**Neoadjuvant or Adjuvant radiotherapy in advanced soft tissue sarcomas: a level playing field?** PO - 1414

*O. Muñoz Muñoz (Spain), A.M. Burgueño Caballero, J. Peinado Serrano, I. Rincon Perez*

**Association of radiomic features with aggressive phenotypes in soft tissue sarcomas** PO - 1415

*A. Datta (United Kingdom), L. Forker, A. McWilliam, H. Mistry, J. Zhong, J. Wylie, C. Coyle, D. Saunders, S. Kennedy, J. O'Connor, P. Hoskin, C. West, A. Choudhury*

**Definitive Photon Radiation Therapy For Adult Unresectable Soft Tissue Sarcoma.** PO - 1416

*B. Allignet (France), W. Waissi, A. Meurgey, A. Bouhamama, M. Karanian, P. Meeus, G. Vaz, F. Gouin, M. Brahmi, A. Dufresne, I. Ray-Coquard, J. Blay, C. Moncharmont, M. Sunyach*

**Impact of preoperative radiotherapy in surgically treated Ewing Sarcoma** PO - 1417

*M. Ganovelli (Italy), G. Frosini, M. Loi, D. Greto, B. Guerrieri, C. Mattioli, C. Cerbai, V. Lorenzetti, D.A. Campanacci, C. Caporalini, F. Muratori, G. Scoccianti, M. Mangoni, L. Livi*

**Preoperative radiotherapy with/without chemotherapy for STS: preliminary assessment and efficiency** PO - 1418

*C. Greco (Italy), P. Falco, I. Ridolfi, S. Gentile, E. Ippolito, M. Fiore, B. Vincenzi, S. Ramella*

- Toxicity outcomes of hypofractionated pencil beam scanning proton beam therapy for spinal Chordomas** PO - 1419  
*N. Burela (India), S. Chilukuri, S. Nangia, K. Patro, N. Mp, U. Gaikwad, S. Sundar, R. Thimma, A. Rajendran, A. Sulaiman, D. Sharma, P.K. Panda, R. Jalali*
- iCARE: sarcoma patient radiotherapy experience during COVID-19** PO - 1420  
*H. McCabe (United Kingdom), I. Nixon, A. Abraham, F. Cowie, H. Reeds*
- MR-guided SBRT for primary cardiac sarcomas** PO - 1421  
*L. Boldrini (Italy), R. von Bestenbostel, A. Romano, L. Placidi, K. Straub, L. Nierer, M. Reiner, M. Niyazi, V. Valentini, C. Belka, S. Corradini*
- Perioperative HDR brachytherapy and EBRT: a winning combo for soft tissue sarcomas** PO - 1422  
*X. Chen-Zhao (Spain), Á. Montero, J. de las Heras, B. Álvarez, I. Barrientos, A. Prado, R. Ciérvide, M. López, M. García-Aranda, E. Ortiz, M. Gutiérrez, E. Sánchez, O. Hernando, M.Á. De la Casa, J. Valero, R. Alonso, P. Fernández-Letón, C. Rubio*
- Preoperative radiotherapy and concurrent chemotherapy in advanced soft tissue sarcomas.** PO - 1423  
*A.M. Burqueño Caballero (Spain), Ó. Muñoz Muñoz, J. Peinado Serrano, I. Rincón Pérez*
- Combination of pre- and postoperative radiotherapy for soft tissue sarcomas: is it feasible?** PO - 1424  
*S. Novikov (Russian Federation), G. Gafton, M. Ebert, E. Fedosova, J. Melnik, G. Zinoviev, A. Artemyeva, S. Kanaev*
- the effect of hypofractionated radiotherapy combined with PD-1 blockade for metastatic sarcoma** PO - 1425  
*L. XUE (China), X. Wang, K. Xin, Q. Wang, B. Liu, R. Li*
- Role of 22q12 translocation as a predictor of metastasis and decreased survival in Ewing sarcoma** PO - 1426  
*B. Guerrieri (Italy), C. Mattioli, M. Loi, D. Greto, M. Ganovelli, G. Frosini, V. Lorenzetti, C. Cerbai, D.A. Campanacci, G. Roselli, A. Palomba, A. Tamburini, L. Livi*
- Clinical outcomes of scalp angiosarcoma treated with intensity-modulated radiotherapy** PO - 1427  
*T. Iwai (Japan), S. Okabayashi, R. Ashida, T. Mitsuyoshi, T. Imagumbai, M. Kokubo*
- Adjuvant Radiotherapy on Skin Grafts After Limb-Sparing Surgery in the Treatment of Sarcomas** PO - 1428  
*S. Gonçalves (Portugal), L. Rolim, J. Casalta-Lopes, A. Silva, M. Jacobetty, J. Freitas, R. Fonseca, J. Rodrigues, P. F. Tavares, J. M. Casanova, M. Borrego*

**Long term results of neoadjuvant radiotherapy in soft tissue sarcomas of the extremities** PO - 1429

*A. Cortesi (Italy), E. Galletta, M.L. Alfieri, M. Buwenge, C.M. Donati, S. Bisello, M. Boriani, G. Ghigi, A. Romeo, G. Bianchi, M. Gambarotti, A. Righi, G. Macchia, F. Deodato, S. Cilla, B. Rombi, A.G. Morganti, S. Cammelli*

Track: Clinical

Digital Poster: Paediatric tumours

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**Radiotherapy in Pediatric Rhabdomyosarcoma: Validity of IRS Risk Classification for a Single Center** PO - 1430

*S. Kamer (Turkey), M. Öztürk, E. Ataseven, B. Balci, B. Kadioglu, M. Kantar, D. Kizmazoglu, Y. Anacak*

**An atlas to measure craniofacial growth and facial asymmetry in childhood cancer survivors** PO - 1431

*M. Aznar (United Kingdom), S. Monaghan, A. Bryce-Atkinson*

**Proton-therapy in pediatric patients with central nervous system tumors: a systematic review.** PO - 1432

*B. Rombi (Italy), M. Roggio, L. Ronchi, F. Bertini, L. Cavallini, E. Deraco, F. Medici, M. Amichetti, A.G. Morganti, S. Cammelli*

**TBI as a Component Of Conditioning Regimen in AHCST for Pediatric ALL** PO - 1433

*S. Kamer (Turkey), C. Hidimoglu, S. Hoca, G. Ozek, S. Aksoylar, Y. Anacak*

**Pencil beam scanning Proton therapy for Pediatric and young adults-Preliminary experience from India** PO - 1434

*S. Chilukuri (India), N. Burela, R. Uppuluri, D. Indumathi, P. Panda, R. Raj, T. Raja, D. Sharma, R. Jalali*

**Toxicity And Survival Outcomes In High-Risk Neuroblastoma In Childhood** PO - 1435

*E. Gomis Selles (Spain), P. Cabrera Roldán, B.D. Delgado-León*

**Burden of pediatric oncology in radiotherapy department:A tertiary care center experience from India** PO - 1436

*R. Madan (India), T. Dey, S. Goyal, D. Bansal, A. Trehan, N. Peters, D. Chatterjee, N. Ballari, D. Khosla*

**Endocrine Late- Effects after Childhood and Adolescent Cancer - The Pan-European Registry HARMONIC** PO - 1437

*M.R. Wette, T. Steinmeier, Y. Lin, N. Journy, T. Tran, A. Jackson, S. Bolle, B. Fresneau, Y. Lassen-Ramshad, L. Tram Henriksen, K. Haustermans, L. Brualla, C. Bäumer, C. Demoor-Goldschmidt, J. Thariat, I. Thierry-Chef, B. Timmermann (Germany)*

**Treatment outcome and prognostic factors in paediatric ependymoma** PO - 1438  
*M. Bishr (United Kingdom), F. Carceller, F. Saran, S. Vaidya, K. Powell, J. Stone, C. Chandler, B. Zebian, S. Stapleton, S. Hettige, L. Marshall, H. Mandeville*

Track: Clinical

Digital Poster: Palliation

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**Clinical results of SBRT for spinal metastases using dedicated contouring/planning system** PO - 1439

*V. Figlia (Italy), N. Giaj-Levra, R. Mazzola, M. Rigo, F. Cuccia, L. Nicosia, F. Ricchetti, G. Attinà, E. Pastorello, G. Sicignano, A. De Simone, S. Naccarato, D. Gurrera, R. Ruggieri, F. Alongi*

**Radiotherapy for bone metastases in gynecologic malignancies.** PO - 1440

*N. Bychkova (Russian Federation), E. Khmelevsky*

**Single fraction Lumbopelvic Bone Irradiation with Tomotherapy for widespread bone metastases** PO - 1441

*B. Gil Haro (Spain), S. Santana Jiménez, I. Zapata Paz, R. Molerón Mancebo, R. Rodríguez Romero, P. Sánchez Rubio, J. Velasco Jiménez, R. Benlloch Rodríguez, M. Hernández Miguel, M. López Valcárcel, S. Córdoba Largo, O. Engel, C. De La Fuente Alonso, J. Romero Fernández*

**Fractionated stereotactic radiotherapy (SRS) for brain metastases: a single institution analysis.** PO - 1442

*L. Garnier, L. Lestrade, A. Falcoz, J. Henriques, F. Boulbair, J. Rouvier, D. Vernerey, Y. Hammoud, B. De Bari (Switzerland)*

**Precision analysis of the “teachh” model for decision-making in palliative patients** PO - 1443

*C. Escuin (Spain), M. Cerrolaza, V. Navarro, A. Lanuza, A. Campos, S. Flamarique, C. García, J.M. Ponce, R. Ibañez*

**Determinants of radioresistance and progression-free interval in SBRT-treated spinal metastases** PO - 1444

*M. Aguilano (Italy), S. Lucidi, L. Mauro, G. Francolini, G. Simontacchi, D. Greto, I. Desideri, P. Bonomo, A.G. Allegra, M. Mariotti, L. Masi, R. Doro, I. Bonucci, V. Di Cataldo, M. Mangoni, L. Livi*

**Pediatric palliative radiotherapy: a systematic review** PO - 1445

*L. Ronchi (Italy), C.M. Donati, C.M. Donati, M.C. Mondardini, A. Prete, M.L. Alfieri, B. Rombi, F. Bertini, M. Buwenge, A.G. Morganti, S. Cammelli*

**Teachh model: update of our experience in its management in hospitalized palliative patients** PO - 1446

*C. Escuin (Spain), M. Cerrolaza, V. Navarro, A. Lanuza, C. García, A. Campos, S. Flamarique, J.M. Ponce, R. Ibañez*

Track: Clinical

**Digital Poster: Elderly**

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**Outcome of chemoradiotherapy and radiotherapy alone in elderly patients with esophageal cancer** PO - 1447

*P. Braam (The Netherlands), T. van der Werff, H. Rütten, J. Dortmans, H. Verheul*

**International survey on the standard-of-care for (chemo-)radiation in elderly HNSCC patients** PO - 1448

*E. Haehl (Germany), A. Rühle, S. Spohn, T. Sprave, E. Gkika, C. Zamboglou, A. Grosu, N.H. Nicolay*

**Evaluation of the biological age in PCa patients treated with RT using a geriatric assessment.** PO - 1449

*K. Lukasiak (Austria), B. Stranz, E. Thurner, H. Stranzl-Lawatsch, W. Schippinger, U. Langsenlehner, T. Langsenlehner*

**Oncogeriatric impact evaluation in squamous primary skin cancer treatment response** PO - 1450

*L. Zaragoza Cocero (Spain), M.S. Talaya Alarcón, D. Aldave Yaniz, R. Rubiato Aragon, M.T. Murillo Gonzalez*

Track: Clinical

**Digital Poster: Health services research/health economics**

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**Unintentional effects of societal restrictions during the SARS-CoV-2 pandemic on referral for RT** PO - 1451

*B. Mortensen (Denmark)*

**Single fraction lung SABR implementation in a provincial cancer program during the COVID-19 pandemic** PO - 1452

*Abstract withdrawn*

**Covid-19 pandemic adapted radiotherapy guidelines: are they really followed?** PO - 1453

*E. Galofaro (Italy), C. Malizia, I. Ammendolia, A. Galuppi, A. Guido, M. Ntreta, G. Siepe, G. Tolento, A. Veraldi, E. Scirocco, A. Arcelli, M. Buwenge, M. Ferioli, A. Zamagni, L. Strigari, S. Cammelli, A.G. Morganti*

**Reduction in radiotherapy episodes as a result of the COVID-19 pandemic** PO - 1454

*T. Mee (United Kingdom), N. Defourny, G. Price, N. Burnet, N. Kirkby, K. Kirkby*

**Influence of the pandemic COVID-19 on medical physics practice: A flash survey in Spain** PO - 1455

*M. Adrià-Mora (Spain), J. Pérez-Alija, P. Gallego, C. Ansón, P. Carrasco, J. Chimeno, M. Barceló, N. García-Apellaniz, N. Jornet, A. Latorre, A. Ruiz, H. Vivancos*

- Impact of COVID-19 pandemic to radiotherapy activities: a monoinstitutional evaluation** PO - 1456  
*F. Patani (Italy), E. Arena, C. Di Carlo, S. Costantini, F. Cucciarelli, M. di Benedetto, F. Fenu, C. Mariucci, M. Montisci, V. Panni, L. Vicenzi, M. Valenti, G. Mantello*
- Evaluation of Cancer Patient Satisfaction in a Radiation Therapy department** PO - 1457  
*A. hadhri (Tunisia), S. Yahyaoui, S. zarraa, N. Ghaiet El Fida, M. khalil, C. Nasr*
- The effect of socioeconomic disparities on endometrial cancer survival in Germany** PO - 1458  
*A. Bedir (Germany), S.F. Abera, D. Medenwald, D. Vordermark*
- QUALIFIER: multiprofessionality quality assurance program for endovaginal interventional radiotherapy** PO - 1459  
*C. Casà (Italy), G. Macchia, V. Lancellotta, B. Fionda, E. Placidi, P. Cornacchione, A. Nicoli, A. Salvati, S. Bracci, M. Ferioli, V. Frascino, G.C. Mattiucci, S. Cilla, G. Kovacs, M.A. Gambacorta, L. Tagliaferri*
- Adaptive re-planning with image guided pencil beam scanning proton beam therapy** PO - 1460  
*S. Chilukuri (India), U. Gaikwad, S. Nangia, K. Patro, R. Thiagarajan, N. Mp, S. Sunder, N. Burela, R. Thimma, P. Panda, R. Jalali*
- Impact of the COVID-19 pandemic on Radiation Oncology Departments in Brazil** PO - 1461  
*G.H. Yoshinari Jr (Brazil), H.F. Oliveira, I.M. Veras, W.J. Almeida Jr, N.M. Freitas, M.S. Castilho, A.C.D.A. Pellizzon, F. Erlich, R.J. Affonso Jr., Í.T. De Carvalho, A.C.C. Leite, F.Q. Kuhnen, R.M.X.F. Najas, L.V. Magalhaes, A.A. Rosa*
- Metastatic spinal compression referral patterns during pandemic lockdowns in Kent region UK** PO - 1462  
*S. Adeleke (United Kingdom), L. Dean, R.A. Hakim, R. Lin, H. Zahid, M. Karova, J.R. Galante, W. Kinnaird, K. Taylor, H.A. Payne, R.J. Burcombe*
- Is irradiation of SARS-CoV-2-positive cancer patients safe and feasible in clinical practice?** PO - 1463  
*M. Orazem (Slovenia), B. Zumer, B. Segedin, T. Marinko*
- Impact of COVID-19 on Radiation Oncology, an Austrian Experience** PO - 1464  
*J. Mangesius (Austria), C.R. Arnold, A. Frei, S. Thomas, U. Ganswindt*
- Is local ablative radiotherapy for liver malignancies an alternative to surgical resection?** PO - 1465  
*P. Hass (Germany), M. Walke, A. Gawish, T.B. Brunner*

- Patients' satisfaction during radiotherapy treatment** PO - 1466  
*N. Fourati (Tunisia), R. Trigui, F. Dhouib, L. Farhat, W. Siala, W. Mnejja, J. Daoud*
- Prophylactic use of dexamethasone during cerebral irradiation: Survey in Germany** PO - 1467  
*A. Glowka (Germany), D. Vordermark, H. Mesroglu, D. Medenwald*
- Radiotherapy journey to peripheral centers in Turkey: How far is close enough?** PO - 1468  
*E. Oymak (Turkey), C. Şahin, Z. Akpınar Palabıyık, C. Önal*
- A comprehensive score for financial toxicity in Japanese women: a pilot study before COVID-19 era** PO - 1469  
*C. Makita (Japan), M. Ito, T. Kumano, S. Okada, Y. Kajjura, O. Tanaka, M. Matsuo*
- Fear is not a Barrier to Radiation Therapy in highly educated members of the public** PO - 1470  
*C. Poole (Ireland)*
- Establishing a benchmark of Diversity, Equity and Inclusion in radiation oncology** PO - 1471  
*A. Gasnier (France), B.A. Jereczek-Fossa, B.A. Jereczek-Fossa, M. Pepa, M. Spalek, J. Bertholet, J. Bibault, J. Bibault, L. Mullaney, L. Mullaney, M. Bittner, S. Perryck, S.F. Petit, S.F. Petit, C. Chargari, L. Dubois, P. Franco, P. Franco*
- OnCovid!: a project to ensure continuity and adequate quality of oncological care during the COVID-19 pandemic** PO - 1472  
*M. Verheij (The Netherlands), L. Aziz, P. van Duijvendijk, M. Filipe, N. Goes, R. van Kooten, S. Makineli, R. Tollenaar, A. Witkamp*
- Impact of lock down related to COVID 19 pandemic on travel cost to radiotherapy department** PO - 1473  
*M. bohli (Tunisia), R. Ben Amor, D. Aissaoui, J. Yahyaoui, A. Hamdoun, L. Kochbati*
- breast cancer patient perspective on opportunities and challenges of a genetic test** PO - 1474  
*R.R. Colcaço (Italy), L. Bellardita, M.C. De Santis, S. Frasca, S. Gay, F. Palorini, E. La Rocca, R. Valdagni, T. Rancati, L. Lozza*

Track: Clinical

**Digital Poster: Communication**

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**Systematic prospective data mining in everyday practice – the NHS approach for proton beam therapy** PO - 1475

E.J. Hwang (United Kingdom), N. Burnet, A. Crellin, V. Ahern, D. Thwaites, S. Gaito, Y. Chang, E. Smith

**Covid-19 era and radiotherapy: psychological changes in oncological patients** PO - 1476

M. Caliandro (Italy), F. Gregucci, A. Surgo, R. Carbonara, M.P. Ciliberti, I. Bonaparte, A. Turchiano, A. Fiorentino

**Improving Communication And Accessibility Of The Oncological Patient Through E-Health Tools** PO - 1477

M.D. De Las Peñas Cabrera (Spain), P.M. Samper Ots, E. Amaya Escobar, S. Payano Hernandez, J. Zapatero Ortuño, S. Sastre Gallego

**Sexual concerns in cancer patients in a tertiary center.** PO - 1478

M. Ruza (Spain), Y. Ramírez, N.A. Linares, C. Iglesias, J.M. Rico

**Distress and life satisfaction – Need of psychosocial and spiritual care in head and neck cancer** PO - 1479

O. Micke (Germany), P. Vitek, J. Hübner, A. Büssing, J. Büntzel

**Implementation of a self-administered patient health history questionnaire in a radiation oncology department during COVID-19.** PO - 1480

O. Houlihan (Ireland), M. O'Connell, K. Olden, C. Lyons, K. Rock, A. Flavin

**The “PC-WIRED” study: Patient Centred Evolution of Websites of Italian Radiotherapy Departments** PO - 1481

V. Venuti (Italy), B. Fionda, A. Piras, A. D'Aviero, C. Casà, F. Preziosi, F. Catucci, L. Boldrini, A. Daidone, L. Tagliaferri, M.A. Gambacorta, V. Valentini

Track: Clinical

**Digital Poster: Other**

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**Harmonizing the nomenclature in a radiotherapy department: a quality improvement project** PO - 1482

M.D.C. Lopes (Portugal), T. Ventura, J. Mateus, L. Khouri, T. Serra, F. Alves, P. Alves

**Hypofractionated radiotherapy combined with targeted therapy or immunotherapy: Dutch survey** PO - 1483

E.S. van Aken (The Netherlands), Y.M. van der Linden, C.A. Marijnen, J.V. van Thienen, A.J. de Langen, M.C. de Jong



- Impact of COVID-19 pandemic on Radiation Oncology practice. An overview of recent higher quality reports** PO - 1484  
R. Carbonara (Italy), M.P. Ciliberti, F. Gregucci, A. Surgo, M. Caliandro, R. Tucciariello, G. Masiello, I. Bonaparte, A. Fiorentino
- Radiotherapy for Ledderhose disease: long-term efficacy, side effects and patient-rated outcome** PO - 1485  
A. de Haan (The Netherlands), J. van Nes, P. Werker, J. Langendijk, R. Steenbakkens
- Should the spleen be an organ at risk?** PO - 1486  
C. De La Pinta (Spain), E. Fernández-Lizarbe, D. Sevillano, M. Garví, V. Pino, S. Sancho
- Brachytherapy training survey among Radiation Oncology residents in Europe** PO - 1487  
A. Sturdza (Austria), M. Stephanides, J.G. Eriksen, K. Benstead, P. Hoskin, S. Vlad, A. Escande, S. Corradini, S. Konrad, H. Westerveld, L. Tagliaferri, D. Najjari, K. Konat-Bąska, V. Plesinac Karapandzic, L.T. Tan, R. Nout, B. Peters, K. Tanderup, I. Jürgenliemk-Schulz, M. Kamrava
- Patient's opinion on serving as control in the trials within cohort design – results of a survey** PO - 1488  
M. Verweij (The Netherlands), M. Burbach, R. Gal, A. May, R. van der Graaf, M. Intven, L. Verkooijen
- Radiotherapy in benign pathology: treatment of lymphorrheas** PO - 1489  
V. Cañón (Spain), J. Anchuelo, I. Diaz de Cerio, J. Cardenal, M. Ferri, A. Garcia Blanco, U. Corro, P. Navarrete, P. Galdós, A.L. Rivero, J. Albendea, R. Astudillo, M. Gutierrez, J. Alonso, L. Alonso, H. Vidal, S. Velasco, R. Fabregat, S. Ruiz, M. Garnacho, A.I. Aviles, M.T. Pacheco, P.J. Prada
- The impact of 68Ga-FAPI-PET/CT on (radio-)oncological management for rare diseases** PO - 1490  
S.A. Koerber (Germany), K. Dendl, R. Finck, C. Kratochwil, J. Ristau, S. Adeberg, H. Rathke, M. Röhrich, T. Lindner, K. Herfarth, U. Haberkorn, J. Debus, F.L. Giesel
- A comparison of three commercial AI contouring solutions** PO - 1491  
P. Doolan (Cyprus), S. Charalambous, Y. Roussakis, A. Leczynski, K. Ferentinos, I. Strouthos, E. Karagiannis
- A national survey on oligometastatic disease - perspectives from the clinically working physicians** PO - 1492  
M. Felter (Denmark), A. Ahmed Khalil, E. Serup-Hansen, P. Geertsen, C. F. Behrens, M. Josipovic, G. Persson
- Opening the angle: the role played by National Societies for Radiation Oncology during the COVID-19** PO - 1493  
J. Prades, J.M. Borrás (Spain), J. Bibault, C. Grau, B.A. Jereczek-Fossa, M. Lambrecht, B.J. Slotman, E.G. Troost, Y. Lievens

- Universal testing for SARS-Cov-2 in patients undergoing anticancer treatment.** PO - 1494  
A.E. Guerini (Italy), S.M. Magrini, P. Borghetti, G. Volpi, T. Luca, L. Costa, L. Pegurri, A. Guaineri, J. Imbrescia, E. Ranghetti, A. Premi, A. Donofrio, L. Spiazzi, M. Buglione
- Toxicity and effectivity of SBRT of spine metastases in oligometastatic patients using a SIB concept** PO - 1495  
M. Waltenberger (Germany), C. Strick, K.A. Eitz, S.E. Combs
- Superficial X-Ray Therapy in Keloids after surgery: our experience** PO - 1496  
M. Cerrolaza (Spain), P. Sanagustin, R. Ibañez, A. Campos, S. Flamarique, C. Garcia, C. Escuin, V. Navarro, A. Lanuza
- Stereotactic and hypofractionated radiotherapy associated with immune checkpoints inhibitors** PO - 1497  
D. Anzellini (Italy), V. De Sanctis, M. Valeriani, G. Vullo, G. Facondo, M. Massaro, R.C. Sigillo, M.F. Osti
- Clinical Sensitivity of PROMIS-10 Physical and Mental Quality of Life Domains to Radiation Therapy** PO - 1498  
T. DeWees (USA), F. Abraha, K. Corbin, P. Brown, C. Hallemeier, B. Davis, I. Petersen, J. Martenson, S. Ahmed, K. Olivier, T. Vern-Gross, W. Rule, W. Wong, S. Vora, S. Patel, J. Ashman, S. Schild, D. Trifiletti, C. Vargas, D. Ma
- 1.5T MR-guided daily adaptive radiotherapy: preliminary clinical report of the first 2000 fractions.** PO - 1499  
M. RIGO (Italy), F. Cuccia, V. Figlia, N. Giaj-Levra, R. Mazzola, L. Nicosia, F. Ricchetti, D. Gurrera, A. De Simone, S. Naccarato, G. Sicignano, R. Ruggieri, F. Alongi
- Stereotactic Body Radiation Therapy for oligorecurrent thymoma: a monocentric experience** PO - 1500  
M. Sepulcri (Italy), C. Paronetto, V. Santoro, A. Gorza, F. Gessoni, A. Scaggion, M. Fusella, M. Muraro
- A Promo from PROMO prospective registry (Pencil beam scanning Proton therapy for Moving tumors)** PO - 1501  
S. Chilukuri (India), S. Sundar, A. Mathews, K. Patro, A. Reddy, D. Sharma, S. Nangia, R. Jalali
- Stereotactic body radiotherapy of lymph node metastases under MR-guidance** PO - 1502  
C. Herder-Wagner (Germany), F. Weykamp, S. Regnery, P. Hoegen, C.K. Renkamp, J. Liermann, C. Rippe, S.A. Koerber, L. König, C. Buchele, S. Klüter, J. Debus, J. Hörner-Rieber
- A systematic review on ultra fractionated chemoradiation** PO - 1503  
E. Scirocco (Italy), F. Cellini, A. Zamagni, F. Medici, C. Bellarosa, G. Macchia, F. Deodato, S. Cilla, V. Picardi, L. Strigari, M. Buwenge, S. Rizzo, S. Cammelli, A.G. Morganti

- The effect of psychiatric comorbidities on treatment decisions for - and survival after radiotherapy** PO - 1504  
H. Boersma (The Netherlands), M. Peters, W. Cahn, J.J. Verhoeff
- Phone call triage for patients admission in a radiotherapy department during COVID 19 pandemic** PO - 1505  
B. Santo (Italy), P. Matteucci, A. Carnevale, P. Falco, E. Ippolito, S. Ramella
- Psychological impact of COVID 19 pandemic in cancer patients: a cross sectional observational study** PO - 1506  
B. Santo (Italy), A. Di Donato, F. Giannetti, I. Ridolfi, E. Ippolito, S. Ramella
- Clinical outcomes of bone stereotactic body radiotherapy in patients with oligometastatic cancer** PO - 1507  
S.H.O. Jensen (Denmark), L. Nørgaard Bentzen, E. Schjødt Worm, M. Wang, Y. Lassen-Ramshad, S. Buus
- Nonmalignant skeletal and soft tissue disorders: CT-based contouring atlas for low dose radiotherapy** PO - 1508  
B. Álvarez (Spain), A. Montero Luis, R. Alonso, A. Prado, E. Sanchez, R. Ciervide, M. Lopez, J. Garcia, O. Hernando, J. Valero, X. Chen-Zhao, M. Nuñez, K.D. Rossi, M. Izquierdo, M. Garcia-Aranda, P. Fernandez-Leton, C. Rubio
- Tumours have a sex-relevance to the multifunctional oncoprotein Y-box binding protein-1 (YB-1)** PO - 1509  
S. Croghan (Ireland), P. Rohan, R.P. Manecksha, T.H. Lynch, L. Marignol
- Electrochemotherapy as a radiosensitizer in preclinical and clinical settings: a systematic review.** PO - 1510  
M. Ferioli (Italy), A.M. Perrone, M. Buwenge, A. Arcelli, A. Zamagni, G. Macchia, F. Deodato, S. Cilla, L. Tagliaferri, F. De Terlizzi, P. De Iaco, C. Zamagni, A.G. Morganti
- 50 years of radiotherapy research: evolution, trends and lessons for the future** PO - 1511  
T. Berger (United Kingdom), D.J. Noble, L.E. Shelley, K.I. Hopkins, D.B. McLaren, N.G. Burnet, W.H. Nailon
- Daily adaptive MR-guided SBRT for oligometastatic lymph-nodes:feasibility and preliminary experience** PO - 1512  
M. Rigo (Italy), F. Cuccia, V. Figlia, N. Gaj-Levra, R. Mazzola, L. Nicosia, F. Ricchetti, D. Gurrera, A. De Simone, S. Naccarato, G. Sicignano, R. Ruggieri, F. Alongi
- Radiation-induced cardiac toxicity for oesophageal or oesophagogastric junctional adenocarcinoma** PO - 1513  
L. Pelari (Spain), F. López , V.J. Duque, P. Retorta, A. Hernandez, M. Valero, S. Sancho

- Prospective assessment of employees stress during the COVID-19 pandemic** PO - 1514  
M. Guckenberger (Switzerland), N. Andratschke, P. Balermipas, M. Denner, B. Hilty, S. Tanadini-Lang, L. Wilke, S. Perryck
- Meta-analysis on the influence of radiation-induced lymphopenia on overall survival in solid tumors.** PO - 1515  
P. Damen (The Netherlands), T. Kroese, R. van Hillegersberg, E. Schuit, M. Peters, J. Verhoeff, S. Lin, P. van Rossum
- Prospective evaluation of robotic radiosurgery in Indian patients with oligo-metastases** PO - 1516  
R. Kamath (India), S. K, A. Gupte, Y. Sreenija, P. K U , A. R, A. Sasidharan , H. Nair, A. E H , D. Dutta
- Which impact of the COVID-19 pandemic on residents training in radiotherapy?** PO - 1517  
N. Fourati (Tunisia), D. Aissaoui, F. Dhoub, W. Siala, W. Mnejja, J. Daoud
- Effect of bladder filling protocols on bladder volume variation in the age of adaptive radiotherapy** PO - 1518  
B. Sanderson (United Kingdom), N. Joseph, T. Elumalai, A. Cree, M. van Herk, P. Hoskin, A. McWilliam, Y.P. Song, A. Choudhury
- Efficacy and safety of radiotherapy for Epicondylitis Humeri (EPH)** PO - 1519  
T. Latusek (Poland), D. Gabryś, G. Woźniak, A. Krzywón, A.J. Cortez, L. Miszczyk
- FAPI-PET/CT improves diagnostic staging and radiotherapy planning of Adenoid Cystic Carcinomas** PO - 1520  
M. Syed (Germany), M. Röhrich, F. Giesel, J. Liermann, P. Choyke, H. Kauczor, J. Debus, U. Haberkorn, S. Adeberg
- External validation of a prediction model for timely implementation of innovations in radiotherapy.** PO - 1521  
R. Swart (The Netherlands), M. Jacobs, L. Boersma, M. Behrendt, M. Ketelaars, C. Roumen, R. Fijten
- Pseudoprogression versus true progression in glioblastoma patients : A multiapproach analysis** PO - 1522  
I. SIDIBE (France)
- Real world outcomes in patients with oligometastases treated with SABR - a single centre experience.** PO - 1523  
A. Fatimilehin (United Kingdom), S. Bowen Jones, M. Bewley, R. Hall, C. Harris, P. Whitehurst, N. Bayman, R. Colaco, D. Woolf, G. Radhakrishna

- On how COVID-19 has affected radiation therapy treatments** PO - 1524  
E.M. AMBROA REY (Spain), D. Navarro, T. Valdivielso, M. Lizondo, T. Ramírez, Á. Infestas, J. García-Miguel, Ú. Gallardo, A. Peralta, D. Amat, G. Frontera, A. López, R. Pujol, M. Parcerisa, M. Colomer
- Does online learning in delineation thrive during a Pandemic? The FALCON group experience.** PO - 1525  
C. Valentini (Germany), J. Cacicedo, J. Luis, E. Arrojo, V. Lancellotta, A. Matias, B. Tamaskovics, M. Palmu, E. Rivin del Campo
- Targeted RT study: preliminary results on acute toxicity of targeted therapies and radiotherapy** PO - 1526  
D. Konnerth (Germany), S. Schönecker, D. Reitz, A. Schäfer, M. Niyazi, C. Belka, S. Corradini
- Single-institution analysis of cancer patients treated with multiple courses of repeat radiotherapy** PO - 1527  
M. Ahmadsei (Switzerland), S.M. Christ, L. Wilke, A. Kühnis, E. Vlaskou Badra, J. Willmann, S. Tanadini-Lang, M. Guckenberger
- Mood disorder in cancer patients undergoing radiotherapy during the COVID-19 outbreak** PO - 1528  
V. Nardone (Italy), M.G. Calvanese, S. Falivene, A. Di Biase, A. Reginelli, S. Cappabianca, P. Correale, M.A. Polifrone, C. Guida
- HITRIplus project: building a pan-European heavy ion therapy research community** PO - 1529  
S. Rossi (Italy), M. Cirilli, M. Dosanjh, M. Durante, A. Facoetti, P. Fossati, C. Graeff, T. Haberer, M.V. Livraga, M. Necchi, M. Plesko, L. Rossi, N. Sammut, U. Schoetz, M. Vretenar
- Interobserver variability in GTV contouring in non-spine bone metastases** PO - 1530  
C. De La Pinta (Spain), R. García -Latorre, A. Martínez-Lorca, M. Martín, J.A. Domínguez-Rullán, R. Hernanz, T. Muñoz, E. Fernández-Lizarbe, M. Garvía, V. Pino, C. Vallejo, M. Alarza, A. Hervás Morón, S. Sancho García
- Photon and particle beam radiotherapy for atrial fibrillation: a systematic review** PO - 1531  
J. Franzetti (Italy), S. Volpe, C. Piccolo, M. Pepa, F. Cattani, A.M. Camarda, G. Piperno, C. Carbucicchio, V. Catto, B.A. Jereczek-Fossa
- The elephant in the room: teaching OAR delineation in a FALCON workshop in the autosegmentation era** PO - 1532  
E. Rivin del Campo (France), J. Cacicedo Fernandez de Bobadilla, C. Valentini, N. Andratschke, W. Mohamed, A. Abrunhosa-Branquinho, G. Chiloiro, S. Duke, S. Hol, I. Nobre Góis, G. Meijer, M. Palmu, E. Forde

**Radiotherapy for recurrent keloids: a retrospective review in our centre. Is it worth to treat?** PO - 1533

*M. Colomer (Spain), E. Mur, M. Galdeano, A. López, D. Amat, G. Frontera, U. Gallardo, A. Peralta, M. Parcerisa, R. Pujol, D. Navarro, E. Ambroa, J. García-Miguel, T. Valdivielso, M. Lizondo, Á. Infestas, T. Ramírez*

Track: Physics

**Digital Poster: Adaptive radiotherapy and inter-fraction motion management**

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**Are interfraction variations more crucial than respiratory motion in lung SBRT?** PO - 1534

*C. Huesa-Berral (The Netherlands), C. Juan-Cruz, S. Van Kranen, M. Rossi, J. Belderbos, J.D. Azcona, J. Burguete, J. Sonke*

**Deformable image registration uncertainty for dose accumulation of proton therapy for H&N tumors** PO - 1535

*F. Amstutz (Switzerland), P.G. D'Almeida, F. Albertini, L. Nenoff, D.C. Weber, A.J. Lomax, Y. Zhang*

**Contour-based deformable image registration for dose accumulation in MR-guided radiotherapy** PO - 1536

*U. Bernchou (Denmark), R.L. Christiansen, H.R. Jensen, F. Mahmood, A. Bertelsen, T. Schytte, C. Brink*

**Dose accuracy for Nasopharyngeal Carcinoma patients under MR-guided online adaptive radiotherapy** PO - 1537

*S. Ding (China), H. Liu, B. Wang, Y. Li, B. Liu, X. Huang*

**Inter- and intrafraction organ motion for cervical cancer patients treated on a 1.5T MR-Linac** PO - 1538

*S. Ding (China), H. Liu, B. Wang, Y. Li, B. Liu, Y. Ouyang, X. Huang*

**Daily Plan Verification Before and After Treatment in Prostate Stereotactic Body Radiotherapy** PO - 1539

*E. Kucukmorkoc (Turkey), N. Kucuk, E. Sanli, S. Celebi, D. Canoglu, R. Rzazade, M. Turna, H.B. Caglar*

**Wireless Device for Adaptive Planning Based upon Thermoacoustic Range Estimates-Benchtop Validation** PO - 1540

*S. Patch (USA), M. Naranaswamy*

**Dosimetric impact of tumour regression in carcinoma cervix treated with radical IMRT** PO - 1541

*P. Ahlawat (India)*

- Influence of abdominal air cavities on the dose distribution of daily-adapted plans** PO - 1542  
*F. Belosi (Switzerland), M. Bogowicz, M. Chamberlain, S. Ehrbar, H. Garcia Schüler, J. Krayenbuehl, M. Guckenberger, N. Andratschke, S. Tanadini-Lang, L. Wilke*
- Can deformable registration of CT and CBCT predict plan adaptation need in proton therapy (H&N)?** PO - 1543  
*J. Gora (Austria), A. De Leon, G. Kragl, A. Carlino, M. Stock*
- First experiences of online adaptive radiotherapy of vulvar cancer: Planned vs. realized dosimetry** PO - 1544  
*M. Bak (Denmark), J. Friborg, N. Jensen, F. Kjær-Kristoffersen, T. Nøttrup, H. Roed, H. Mathiesen, M. Sjölin, I. Vogelius*
- Adaptation of dual isocentre plans for cervix treatments on the 1.5T MR-Linac** PO - 1545  
*R. Chuter (United Kingdom), P. Hoskin, A. McWilliam*
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*J. Calvo-Ortega (Spain), J. Casals-Farran*
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<i><u>J. Knutsson (Sweden), G. Johansson, L. Dagertun, M. Olin, A. Siegbahn</u></i>	
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S. Novikov (Russian Federation), P. Krzhivitskiy, A. Valitova, Y. Melnik, J. Bryantceva, I. Akulova, P. Krovrotko, S. Kanaev

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L. Zhao (China), H. Chen, Q. Lin

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H. Tharmalingam (United Kingdom), Y. Tsang, A. McWilliam, R. Alonzi, A. Padhani, A. Choudhury, P. Hoskin

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A. Lastrucci (Italy), L. Fedeli, M. Betti, F. Meucci, E. Serventi, A. Vaiano, D. Fedele, L.N. Mazzoni, R. Ricci, C. Gori, L. Bernardi

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**Non-target dose reduction at phantom study for prostate radiotherapy using TrueBeam and CyberKnife** PO - 1785

*M. Kruszyna-Mochalska (Poland), A. Skrobala, P. Romanski, A. Ryczkowski, W. Suchorska, K. Kulcenty, I. Piotrowski, N. Matuszak, J. Malicki*

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*J. Wulff (Germany), R. Schmidt, C. Bäumer, B. Timmermann, K. Zink*

**The Effect of Reducing CT Dose on Proton Therapy Dose Calculation – Phantom Study** PO - 1787

*M. ELHAMIASL (Belgium), K. Salvo, E. Sterpin, J. Nuyts*

**Estimated risk of radiation-induced cancer after thymoma treatments with proton- or x-ray beams** PO - 1788

*A. Lideståhl (Sweden), G. Johansson, A. Siegbahn, P.A. Lind*

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**Alpha-Beta ratio estimation and radiotherapeutic equivalence of chemotherapy in oesophageal cancer** PO - 1790

*K.S. Chufal (India), I. Ahmad, A.A. Miller, R. Bajpai, R.L. Chowdhary, P. Umesh, K. Bhatia, M. Gairola*

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*G. Valdes (USA), Y. Interian, O. Morin, W. Arbelo*

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*L. Placidi (Italy), D. Cusumano, J. Lenkiewicz, L. Boldrini, V. Valentini*

**Quantifying the oxygen fixation mechanism in charged particle beams** PO - 1793

*F. Van den Heuvel (The Netherlands), A. Vella, F. Fiorini, M. Brooke, M. Hill, T. Maughan*

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M. Leech (Ireland), R. Leijenaar, T. Hompland, J. Gaffney, H. Lyng, L. Marignol

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K.S. Chufal (India), I. Ahmad, A. Dwivedi, R. Bajpai, A.A. Miller, R.L. Chowdhary, M. Gairola

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*M. Krieger (Switzerland), S. Van de Water, M.M. Folkerts, A. Mazal, S. Fabiano, N. Bizzocchi, D.C. Weber, S. Safai, A.J. Lomax*
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<i>C. Rosa (Italy), F.C. Di Guglielmo, L. Gasparini, L. Caravatta, M. Di Tommaso, A. Delli Pizzi, M. D'Annibale, P. Chiacchiaretta, A.M. Chiarelli, P. Croce, D. Genovesi</i>	
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<i><u>J. Perez-Alija (Spain), P. Gallego, M. Barceló, C. Ansón, J. Chimeno, A. Latorre, N. Jornet, N. García, H. Vivancos, A. Ruíz, M. Adrià, P. Carrasco</u></i>	
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<i><u>J. Calvo-Ortega (Spain), M. HERMIDA-LÓPEZ, C. LAOSA-BELLO, S. MORAGUES-FEMENIA, J. CASALS-FARRAN</u></i>	

<b>Introduce a new rotational robust optimized Spot-scanning Proton Arc (SPArc) framework</b>	PO - 1842
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<b>Regression models for predicting plan parameters of two kinds of hybrid plans for stage III NSCLC</b>	PO - 1845
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**Assessment of the influence of shoulder movement on the Vmat plan quality in Head&Neck treatments** PO - 1853

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H. Safiqholi (Iran Islamic Republic of)

**Protocol compliance of two Knowledge Based models in two Geo-Ethnic populations for cervical cancer** PO - 1855

J. Swamidas (India), M. Assenholt, M. Serban, J. Jain, S. Chopra, V. Hande, S. Pradhan, K. Tanderup

**Minimizing dose to brain structures by knowledge-based planning** PO - 1856

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**Retrospective analysis of conformity and gradient indexes of lung SBRT plans** PO - 1857

J. Calvo-Ortega (Spain), E. Puertas, S. Moragues-Femenía, J. Casals-Farran

**Adrenal SBRT: The Effects of a Full and Empty Stomach on Radiation Dose to Organs at Risk** PO - 1858

O. Tanaka (Japan), T. Taniguchi, K. Ono, S. Nakaya, C. Makita, M. Matsuo, T. Kiryu

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P. Hinault (France), P. Hinault, T. Puiseux, A. Sewonu, I. Gardin, P. Gouel, H. Souchay, R. Moreno, D. Gensanne

**Physical vs. biological based VMAT optimization for prostate cancer radiotherapy** PO - 1860

D. Teixeira (Belgium), A. Gulyban, S. Poeta, Y. Jourani, R. Van den Begin, F. Otte, D. Van Gestel, N. Reynaert

<b>Evaluation of VMAT-like planning technique for magnetic resonance guided radiotherapy treatment</b>	PO - 1861
<i><u>L. Placidi (Italy), M. Nardini, D. Cusumano, L. Boldrini, G. Chiloiro, A. Romano, C. Votta, M.V. Antonelli, V. Valentini, L. Indovina</u></i>	
<b>Revisiting whole brain radiotherapy standards: Is it time to abandon opposed lateral fields?</b>	PO - 1862
<i><u>E. Oymak (Turkey), M. Polat</u></i>	
<b>3D in-vivo dosimetry for novel inverse optimized 3D-CRT technique in craniospinal irradiation</b>	PO - 1863
<i><u>F. Biltekin (Turkey), G. Yazici, G. Ozyigit</u></i>	
<b>Dosimetric impact of the segmentation through HU threshold in head and neck treatments</b>	PO - 1864
<i><u>S. Pena Vaquero, L. Cardoso Rubio (Spain), L. Gómez Heras, Á. del Castillo Belmonte, A.E. Hurtado Romero, M.M. Agulla Otero, C. Andrés Rodríguez, D. Miguel Pérez, I. Conles Picos, D. Alonso Hernández, R. Torres Cabrera</u></i>	
<b>Simultaneous integrated boost IMRT versus sequential IMRT in head and neck cancers</b>	PO - 1865
<i><u>M.I. Sharief (India), P. Ahlawat, M. Gairola, T. Erum, S. Tandon, S. Purohit, N. Sachdeva, K.S. Chufal, I. Ahmad, R.L. Chowdhary, V. Antony</u></i>	
<b>Clinical electron beam modulation by plastic samples produced with 3D printing approach</b>	PO - 1866
<i><u>S. Stuchebrov (Russian Federation), A. Bulavskaya, Y. Cherepennikov, A. Grigorieva, D. Kokontsev, A. Loginova, I. Miloichikova</u></i>	
<b>Fully-automated target delineation QA and creation of VMAT/IMRT dose optimization structures</b>	PO - 1867
<i><u>L.H. Praestegaard (Denmark)</u></i>	
<b>First dosimetric assessment of proton minibeam arc radiation therapy</b>	PO - 1868
<i><u>R. Ortiz Catalan (France), L. De Marzi, Y. Prezado</u></i>	
<b>Are distal edge planning guidelines needed in proton PBS treatment planning of brain tumours?</b>	PO - 1869
<i><u>A. Vestergaard (Denmark), J. Kallehaug, P. Lægdsmand, K. Seiersen, B. Smulders, P.W. Nyström, Y. Lassen-Ramshad, M. Høyer, O. Nørrevang, S. Korreman</u></i>	
<b>Pretreatment selection for LAD sparing in personalized breath hold breast radiotherapy</b>	PO - 1870
<i><u>E. Ippolito (Italy), A. Di Donato, M. Marrocco, B. Floreno, F. Giannetti, G. D'Auria, T. Gamucci, S. Ramella</u></i>	



<b>Prospective study on the feasibility of single-fraction SABR for bone and lymph node metastases</b>	PO - 1871
<i>C. Mercier (Belgium), M. Claessens, G. De Kerf, C. Billiet, I. Joye, D. Verellen, P. Ost, P. Dirix</i>	
<b>Implementation of semi-automated restricted IMRT and comparison to 3DCRT and VMAT for breast cancer</b>	PO - 1872
<i>C. Milewski (France), M. Chéve, N. Fournier-Bidoz, M. Lerousseau, E. Deutsch, G. Louvel, S. Rivera, G. Auzac</i>	
<b>HyperArc and CyberKnife dose distribution comparison for 1, 2, and 3 brain metastases radiosurgery</b>	PO - 1873
<i>A. Skrobala (Poland), W. Kijeska, M. Kruszyna-Mochalska</i>	
<b>Impact of Arc length on unilateral dose volume parameters and plan delivery: A Dosimetry study</b>	PO - 1874
<i>P. Agarwal (India), S.D. Pattanaik, D. Epili, A. Mukherji, S. Pradhan</i>	
<b>Commissioning of an MR only dose planning paradigm for use with pelvic cancer patients</b>	PO - 1875
<i>S. McIlroy (Denmark), M. Berg, H. Nissen</i>	
<b>Procedure for total body irradiation (TBI) with Helical Tomotherapy</b>	PO - 1876
<i>C. Ferrer (Spain), C. Huertas, R. Plaza, P. de la Monja, C. Mínguez, D. García, A. Aznar, M. Sáez</i>	
<b>Conformal energy filter optimization for Bragg peak FLASH proton therapy</b>	PO - 1877
<i>S. Deffet (Belgium), K. Souris, R. Labarbe, L. Hotoiu, A. Pin, E. Sterpin</i>	
<b>High quality planning technique for robust optimised VMAT in RayStation for IMC breast radiotherapy.</b>	PO - 1878
<i>A. Bird (United Kingdom), G. Webster</i>	
<b>plan complexity and delivery accuracy of dose escalation to DIL in high-risk prostate cancer</b>	PO - 1879
<i>K.S. Lew (Singapore), A.L.K. Ong, H.Q. Tan, W.Y.C. Koh, K.W. Ang, J.C.L. Lee, J.K.L. Tuan, S.Y. Park</i>	
<b>Dosimetric accuracy of dual isocenter irradiation in magnetic resonance guided radiotherapy system</b>	PO - 1880
<i>L. Placidi (Italy), M. Nardini, D. Cusumano, L. Boldrini, F. Catucci, G. Chiloiro, C. Votta, V. Valentini, L. Indovina</i>	

<b>Automatic VMAT treatment planning for left-sided breast cancer with lymph nodal involvement.</b>	PO - 1881
<i><u>K. Engström (Denmark), C. Brink, M.H. Nielsen, M. Kjellgren, K.L. Gottlieb, I. Hazell, V.N. Hansen, E.L. Lorenzen</u></i>	
<b>A preliminary dosimetric study of multiple brain metastases using HyperArc and RapidArc techniques</b>	PO - 1882
<i><u>Y. Wang (China), Z. Peng, P. Yang, Y. Liu</u></i>	
<b>Evaluation of an automated treatment planning system for head and neck treatment</b>	PO - 1883
<i><u>L. calmels (Denmark), D. Sjöström, Z. Pohl, P. Sibolt</u></i>	
<b>Determining a planning method for delivering Internal Mammary Nodal Chain radiotherapy.</b>	PO - 1884
<i><u>C. Bennett (United Kingdom), R. Bill, J. Kirk, D. Ledsom, K. Williams</u></i>	
<b>Evaluation of a hybrid 3DCRT-VMAT technique for free breathing whole breast RT during COVID-19</b>	PO - 1885
<i><u>G. Antorkas (Cyprus), P. Doolan, K. Ferentinos, N. Zamboglou</u></i>	
<b>Dosimetric Analysis of Sequential IMRT (SeB) Versus SIB for Lymph nodes in Cervical Cancer</b>	PO - 1886
<i><u>D. Aravindakshan (India), L. GURAM, R. HAZARE, S. MOHANTY, S. CHOPRA, R. KINHIKAR, U. MAHANTSHETTY</u></i>	
<b>Auto-segmentation and knowledge-based planning for radiotherapeutic palliation of spine metastases</b>	PO - 1887
<i><u>E. Jones (United Kingdom), C. Napoleone-Filho, C. Sisodia, M. Couper, V. Harris, A. Greener</u></i>	
<b>Dosimetric comparison of heart substructures for left lung cancer with 3 different radiation plans</b>	PO - 1888
<i><u>S. Aytac (Turkey), G. guler avci</u></i>	
<b>A TPS-based approach for single isocenter open-arc Total Body Irradiation in a standard size bunker</b>	PO - 1889
<i><u>E. Villagqi (Italy), A. Terulla</u></i>	
<b>Dosimetric comparison of modern auto-planning solutions for SRS of multiple brain metastases</b>	PO - 1890
<i><u>M. Grohmann (Germany), M. Todorovic, C. Petersen</u></i>	

<p><b>Dosimetric impact of personalized vs PORTEC-4a vagina contouring on postop endometrial brachytherapy</b></p> <p><i>J.P. Rochera Alba (Spain), H.M. Antonio, B. José, R.C. Angeles, B.M. Clara</i></p>	<p>PO - 1891</p>
<p><b>Prediction of PTV coverage for LINAC SABR Prostate 36.25Gy/5# from OARs overlap with PTV</b></p> <p><i>M. Kroiss (United Kingdom)</i></p>	<p>PO - 1892</p>
<p><b>The dosimetric effect of varying seroma during proton and photon therapy in breast cancer patients</b></p> <p><i>E.R. Skarsø (Denmark), L.H. Refsgaard, L.B. Stick, B.V. Offersen, S.S. Korreman</i></p>	<p>PO - 1893</p>
<p><b>Comparison of Intra Operative and Post Implant Plans for Low Dose Rate Prostate Brachytherapy</b></p> <p><i>Ö. Şenkese (Turkey), H. Küçük, E.O. Göksel, E. Tezcanlı, Z. Özen, S. Küçük, G. Kemikler, R. Dişçi, I. Aslay</i></p>	<p>PO - 1894</p>
<p><b>Is the traditional dose prescription concept still relevant in modern SABR?</b></p> <p><i>M. Robinson (United Kingdom), B. George, A. Nash, S. Teoh, A. Gaya, P. Camilleri, S. Mukherjee, J. Good</i></p>	<p>PO - 1895</p>
<p><b>Feasibility of mastication-structure-sparing radiation therapy for head and neck cancer</b></p> <p><i>C. Olsson (Sweden), I. Raunert, N. Pauli, L. Tuomi, C. Finizia, N. Pettersson</i></p>	<p>PO - 1896</p>
<p><b>Prone vs. supine neoadjuvant accelerated partial breast irradiation on an MR-linac: a planning study</b></p> <p><i>M. Groot Koerkamp (The Netherlands), F. van der Leij, T. van 't Westeinde, G. Bol, V. Scholten, R. Bouwmans, S. Mandija, D. van den Bongard, A. Houweling</i></p>	<p>PO - 1897</p>
<p><b>Trade-off between microscopic disease and OARs in automated VMAT planning for head-and-neck cancer</b></p> <p><i>L.P. Kaplan (Denmark), A.I.S. Holm, J.G. Eriksen, B.J.M. Heijmen, S.S. Korreman, L. Rossi</i></p>	<p>PO - 1898</p>
<p><b>Hippocampal Dose Sparing in Nasopharyngeal Carcinoma Patients</b></p> <p><i>C. Abraham (United Kingdom), O. Nicholas, R. Lewis, A. Selby, H. Wong, R. Hugtenburg</i></p>	<p>PO - 1899</p>
<p><b>TPS Scripting to automate the prostate treatment planning process: does it reduce plan quality?</b></p> <p><i>S. Hofer (Italy), M. Maffei, P. Ferrari, J. Waskiewicz, M. Haller</i></p>	<p>PO - 1900</p>

<p><b>A semi-automatic 3D printable bolus design workflow for use in electron radiotherapy of the skin</b></p> <p><i><u>R. van Leeuwen (The Netherlands), T. Lam, P. van Herpen, R. Monshouwer</u></i></p>	<p>PO - 1901</p>
<p><b>Treating left-sided breast patients in breath hold using a real time surface tracking system</b></p> <p><i>Y. Zhao, B. Tang, J. Li, <u>P. Wang (China)</u>, X. Liao, X. Yao, X. Xin, L.C. Orlandini</i></p>	<p>PO - 1902</p>
<p><b>Building and comparing treatment quality assessment algorithms among two different clinics</b></p> <p><i><u>A. Scaggion (Italy)</u>, S. Bresciani, M. Fusella, A. Galla, M.A. Rossato, M. Sepulcri, M. Paiusco, B. El Khouzai</i></p>	<p>PO - 1903</p>
<p><b>Commissioning HyperArc for Single Targets including Benign Tumours</b></p> <p><i><u>D. Egleston (United Kingdom)</u>, R. Brass</i></p>	<p>PO - 1904</p>
<p><b>Combined proton-photon treatment for breast cancer using a fixed proton beamline</b></p> <p><i><u>L. Marc (Switzerland)</u>, S. Fabiano, N. Wahl, C. Linsenmeier, A. Lomax, J. Unkelbach</i></p>	<p>PO - 1905</p>
<p><b>Biologically Adaptive Dose Escalated Radiotherapy in Oropharynx Cancers: A Treatment Planning Study</b></p> <p><i><u>R. Valentine (United Kingdom)</u>, C. Paterson, L. Grocutt</i></p>	<p>PO - 1906</p>
<p><b>The influence of lobe-based optimization on different LN delineations for operable LA-NSCLC patients</b></p> <p><i><u>H. Gu (China)</u>, Z. Xu</i></p>	<p>PO - 1907</p>
<p><b>Inverse planning in Gamma Knife radiotherapy for benign tumors</b></p> <p><i><u>M. Spaniol (Germany)</u>, S. Mai, T. Zakrzewski, M. Ehmann, F. Stieler</i></p>	<p>PO - 1908</p>
<p><b>Improving plan quality and reducing workload for whole breast irradiation: a semi-automatic approach</b></p> <p><i><u>L. Marrazzo (Italy)</u>, S. Calusi, I. Meattini, D. Raspanti, C. Arilli, M. Casati, A. Compagnucci, C. Talamonti, M. Zani, I. Desideri, L. Livi, S. Pallotta</i></p>	<p>PO - 1909</p>
<p><b>Proton therapy in breast cancer: how do different beam arrangements affect linear energy transfer?</b></p> <p><i><u>S. Settatree (United Kingdom)</u>, A. Bertolet, A. Carabe, D. Lines, N. Harrold, E. Harris, A.M. Kirby, S. Gulliford</i></p>	<p>PO - 1910</p>

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- Low-dose irradiation could mitigate osteoarthritis progression by modulating mitochondrial function** PO - 1911  
*B.H. Kim (Korea Republic of), H.C. Bae, J. Kwon, H. Han, H.J. Kim*
- Feasibility study on stereotactic radiotherapy for total pulmonary vein isolation in a canine model** PO - 1912  
*J.H. Chang (Korea Republic of)*
- Effects of Nigella sativa oil and thymoquinone on radiation-induced oxidative stress in rat kidney** PO - 1913  
*H. Alkıs (Turkey), E. Demir, M.R. Taysi, S. Sagir, S. Taysi*
- Early changes in rat heart after high dose irradiation** PO - 1914  
*J.H. Chang (Korea Republic of)*
- Macrophages subpopulations in stereotactic radiation-induced lung injury in mice.** PO - 1915  
*S. Braga-Cohen (France), M. Dos Santos, J. Baijer, F. Milliat, A. François*
- Low-dose lung radiotherapy for COVID-19 pneumonia: preclinical studies in bleomycin pneumonitis** PO - 1916  
*A. Chalmers (United Kingdom), M. Jackson, K. Stevenson, S. Chahal, E. Curley, G. Finney, R. Gutierrez-Quintana, E. Onwubiko, A. Rupp, K. Strathdee, M. MacLeod, C. McSharry*
- Circadian rhythm effects on radiotherapy toxicity** PO - 1917  
*C. Talbot (United Kingdom), A. Webb, E. Harper, D. Azria, A. Choudhury, D. De Ruysscher, A. Dunning, R. Elliott, S. Kerns, M. Lambrecht, T. Rancati, B. Rosenstein, P. Seibold, E. Sperk, A. Vega, L. Veldeman, J. Chang-Claude, C. West, T. Rattay, R.P. Symonds*
- Studying radioinduced damage to microvasculature through 3D in-vitro models** PO - 1918  
*T. Rancati, L. Possenti (Italy), L. Mecchi, A. Cicchetti, C. Arrigoni, D. Petta, S. Bersini, R. El Bezawy, V. Doldi, T. Giandini, C. Stucchi, M.L. Costantino, M. Moretti*

Track: Radiobiology

**Digital Poster: Radiobiology of stem cells (cancer and normal tissue)**

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**Non-thermal plasma enhances the sensitivity to radiation in human colon cancer cells** PO - 1919

X. Zhu (China), Y. Li, Y. Liu

Track: Radiobiology

**Digital Poster: Radiobiology of particles and heavy ions**

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**Inhibition of Wnt signalling by XAV939 enhances radiosensitivity in human cervical cancer HeLa cells** PO - 1920

H. Zhang (China)

Track: Radiobiology

**Digital Poster: Radiation-induced signalling pathways**

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**Radiosensitizing effect of Trabectedin on human soft tissue sarcoma cells** PO - 1921

M. Aquilano (Italy), G. Salvatore, M. Loi, D. Greto, E. Scoccimarro, L.P. Ciccone, G. Stocchi, V. Salvestrini, C. Santini, M. Sottili, M. Mangoni, L. Livi

Track: Radiobiology

**Digital Poster: Tumour microenvironment**

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**Classification of prostate cancer by hypoxia-related histological features in patient samples** PO - 1922

V.E. Skingen (Norway), T. Hompland, U.B. Salberg, C. Sæten Fjeldbo, E. Aarnes, L. Vlatkovic, K.H. Hole, T. Seierstad, H. Lyng

**Exosomes in postoperative wound microenvironment of patients with breast cancer treated with IORT** PO - 1923

K. Kulcenty (Poland), M. Lach, I. Piotrowski, W. Suchorska

**Exploring the association between radiomics and gene expression in bladder cancer: a pilot study** PO - 1924

Y.P. Song (United Kingdom), T. Elumalai, H. Mistry, K. Reeves, B. Lane, M. Dubec, S. Jackson, C. West, P. Hoskin, A. Choudhury, A. McWilliam

**In vitro characterisation of the bacteria-derived hypoxia-selective cytotoxin BE-43547** PO - 1925

M. Busk (Denmark), P. Eggertsen, J. Overgaard, M.R. Horsman, K.M. Jacobsen, T. Tørring, T.B. Poulsen

Track: Radiobiology

**Digital Poster: Immuno-radiobiology**

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**Enhanced local tumour control by combining proton radiation and immunotherapy**

PO - 1926

*M. Horsman (Denmark), S. Nielsen, M. Sitarz, M. Høyer, B. Sørensen*

Track: Radiobiology

**Digital Poster: Radiation and tumour metabolism**

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**Disulfiram radiosensitizes hypoxic human colorectal cancer through inhibition of PHGDH**

PO - 1927

*M. Van De Gucht (Belgium), I. Dufait, H. Jiang, C. Corbet, S. de Mey, H. Wang, H. Vandenplas, K.L. Law, T. Gevaert, O. Feron, M. De Ridder*

**Radiation cooperates with modulation of serine in human hypoxic colorectal cancer cells.**

PO - 1928

*M. Van De Gucht (Belgium), I. Dufait, E. Demesmaeker, H. Jiang, C. Corbet, S. de Mey, H. Vandenplas, K.L. Law, T. Gevaert, O. Feron, M. De Ridder*

Track: Radiobiology

**Digital Poster: DNA damage response**

-

**Identification of DNA repair-based biomarkers related to treatment outcome in head and neck cancers**

PO - 1929

*G. Muggioli (France), S. Libert, B. Treillard, G. Alfonse, P. Philouze, C. Rodriguez-Lafresse, A. Lauret, P. Ceruse, C.A. Righini, S. Sauvaigo*

**Plasmid DNA damages after FLASH vs conventional dose rate irradiations in various oxygen conditions**

PO - 1930

*N. Cherbuin (Switzerland), J. Ollivier, P. Jorge, V. Grilj, F. Chappuis, L. Desorgher, C. Bailat, F. Bochud, J.A. Jorge Pires, M. Vozenin*

**Identifying resistance mechanisms in breast cancer in patient-derived organoids and 3D cell culture**

PO - 1931

*S. Classen (Germany), E. Rahlf, C. Petersen, K. Rothkamm, M. Toulany, N. Cordes, K. Borgmann*

**Cell cycle arrest induced by AsiDNA in normal cells: a possible mechanism for radioprotection?**

PO - 1932

*Abstract withdrawn*

Track: Radiobiology

**Digital Poster: Radiation response biomarkers**

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**Can baseline or Ra-223-induced changes in the plasma predict progressive disease mCRPC patients?** PO - 1933

S. Lunj (United Kingdom), Y.P. Song, A. Hudson, K. Patel, H. Nightingale, T. Smith, P. Hoskin, R. Bristow, C. West, A. Choudhury

**T2w-MRI with pilocarpine administration for monitoring salivary gland function after irradiation** PO - 1934

O. Zlygosteva (Norway), I. S. Juvkam, H. K. Galtung, T. M. Sjøland, N. F. J. Edin, E. Malinen

**Clinical outcomes and radio-biological features correlation in early PCa: an exploratory analysis** PO - 1935

G. Corrao (Italy), G. Marvaso, M. Zaffaroni, C.I. Fodor, S. Volpe, L. Bergamaschi, D. Zerini, A. Vingiani, G. Petralia, S. Alessi, P. Pricolo, G. Renne, R. Orecchia, B.A. Jereczek-Fossa

**Performances of a binary blood assay for predicting radiosensitivity** PO - 1936

S. Deneuve (France), C. Mirjolet, T. Bastogne, M. duclos, P. Retif, P. Zrounba, P.E. Roux, M. Poupart, G. Vogin, N. Foray, S. Pereira

**Tumours have a sex: relevance to the multifunctional oncoprotein Y-box binding protein-1** PO - 1937

L. MariqnoI (Ireland), S. Croghan, P. Rohan, R. Manecksha, T. Lynch

Track: RTT

**Digital Poster: Patient preparation, positioning and immobilisation**

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**Behind the mask: an overview of immobilisation equipment for Surface Guided Radiotherapy** PO - 1938

C. Dunlea (United Kingdom), T. Patel, Y. Ch'ing Chang

**The Effect of BMI on the Positional Error in Radiotherapy with Prone Breast Fixator Placement** PO - 1939

Y. You (China), X. Li, Z. Cui, Y. Yin

**Variation in bladder filling for cervical cancer patients undergoing radical radiotherapy** PO - 1940

C. Nelder (United Kingdom), R. Chuter, J. Berresford, R. Benson, A. Clough, L. McDaid, L. Barraclough, K. Haslett, P. Hoskin, A. Choudhury, A. Choudhury, C.L. Eccles



**Use of Chabner XRT® Radiation Bra in a large-breasted patient: a case report** PO - 1941  
*F. Cucciarelli (Italy), E. Arena, C. Di Carlo, F. Fenu, V. Panni, L. Vicenzi, M. Parisotto, F. Patani, M. Valenti, G. Mantello*

**Application of SGRT in Prone Cervix Positioning** PO - 1942  
*Z. Cui (China), X. Li, J. Xie, J. Zhu, C. Liu, Z. Li, P. Liu, Y. Wang, Y. Yin*

**Radiotherapy for the vulvar region in frog-leg position: improving reproducibility and comfort.** PO - 1943  
*W. De Vos (Belgium), L. Van den Berghe, L. Paelinck, S. Vansteenkiste, B. Depaepe, S. Lauwers, J. Mortier, E. De Rijcke, A. Van Damme, K. Vandecasteele*

**experience of SGRT implementation** PO - 1944  
*D. Mychko (Belarus), E. Zvereva, S. Siamkousky*

**SGRT Positioning Accuracy and Consistency in Mastectomy Patients in terms of ROI and Immobilization** PO - 1945  
*J. Li (China), S. Yu, Y. Du, S. Zhou, H. Yue, M. Wang, J. Yang, H. Wu, T. Li*

Track: RTT

Digital Poster: Imaging acquisition and registration, OAR and target definition

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**An incremental learning-based model for organ at risk in cervical cancer multi-scene radiotherapy** PO - 1946  
*D. Qian (China), Z. Zhang, R. Zhou, R. Wang, S. Wu, S. Wang, Z. Yang*

**catching opportunity from voxel evaluation of follow-up PET/CT imaging in SBRT of lung lesions.** PO - 1947  
*F. Cavallo (Italy), L. Capone, N. Gennuso, G. Abate, G. Grimaldi, S.A. Allegretta, I. Russo, P. Gentile*

**comparison between the use of PET-CT and high-field MRI 3.0T in adenoid cystic carcinoma** PO - 1948  
*L. Anemoni (Italy), A. Mancin, L. Preda, M.S. Cadeo, I.E. Mascayano, S. Tampellini, E. Orlandi*

**Image registration guidelines impact on radiographer inter-observer variability for cervical cancer** PO - 1949  
*R. Benson (United Kingdom), J. Rodgers, C. Nelder, A. Clough, J. Parker, L. Davies, R. Bailey, J. McMahon, H. Kolbe, E. Pitt, B. Dobby, A. Cree, M. Dubec, A. Choudhury, C. Eccles*

**Added value of FDOPA PET to radiotherapy of glioblastoma multiforme: Single institution experience** PO - 1950

D. Sipos (Hungary), Z. Laszlo, Z. Toth, P. Kovacs, A. Gulyban, I. Repa, A. Kovacs, F. Lakosi

**Comparison between the use of PET and MRI 3.0 T in meningiomas** PO - 1951

L. Anemoni (Italy), M.S. Cadeo, A. Mancin, I.E. Mascayano, L. Preda, S. Tampellini, E. Orlandi

**Quantification of MRI distortion in patients with metallic hip prosthesis: a feasibility study** PO - 1952

L. McDaid (United Kingdom), A. Clough, R. Benson, C. Nelder, J. McMahon, M. Aznar, A. Choudhury, S. Jackson, C. Eccles

Track: RTT

Digital Poster: Treatment planning and dose calculation/QC and QA

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**Investigation of the effect of minimized tumor volumes on critical organ doses in GBM radiotherapy** PO - 1953

M.C. Şahin (Turkey), İ. Kaya, İ.D. Cingöz, E. Bozoğlan, K. Manisa, Z.A. Palabıyık, N. Yüceer

**DIBH radiotherapy in left breast cancer: Positional accuracy and assessment of dose reduction to OAR** PO - 1954

H. Hayakawa (Japan), T. Kurita, T. Nagano, S. Okada, C. Makita, Y. Kajiura, M. Matsuo

**OAR dose constraints consensus in hypofractionated breast cancer radiotherapy is urgently needed!** PO - 1955

R. Ben Amor (Tunisia), M. Bohli, D. Aissaoui, J. Yahiaoui, A. Hamdoun, L. Kochbati

**Effect of heart dose reduction by IMRT for postmastectomy radiation therapy** PO - 1956

K. Ono (Japan)

**Monte Carlo-based independent verification of online adaptive SBRT plans for prostate** PO - 1957

S. Moraes-Femenía (Spain), C. Laosa-Bello, J. Calvo-Ortega, J. Casals-Farran

**Parotid gland dose reduction in the hippocampus avoidance whole-brain radiotherapy** PO - 1958

H. Shimizu (Japan), K. Sasaki, T. Aoyama, H. Tachibana, Y. Koide, T. Iwata, T. Kitagawa, T. Kodaira

**Intensity modulated proton therapy plans for left-sided breast cancer patients with pectus excavatum** PO - 1959

*A. Gullhaug (Norway), D. Høynes, V. Vingelsgård, D. Tor-Ove, J. Senum, J.G. Svestad*

Track: RTT

**Digital Poster: Image-guided radiotherapy and verification protocols**

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**Setup error-related dosimetric uncertainties on GTV in SBRT** PO - 1960

*Y. Jeong (Korea Republic of), J.G. Oh, K.K. Lee, S.R. Moon*

**The effect of 4DCT vs. 3DCT simulation on the positioning accuracy for lung cancer radiotherapy** PO - 1961

*Y. Wang (China), P. Yang, Y. Liu*

**Impact of different immobilization systems on setup accuracy for radiotherapy of BCT vs. PMRT** PO - 1962

*P. Yang (China), Z. Peng, D. Li, X. Li, Z. Zhang, Y. Wang, Y. Liu*

**Impact of treatment delivery time on rectal volume and toxicity during SBRT prostate radiotherapy.** PO - 1963

*J. mitchell (United Kingdom), J. Wright, S. Adamson, D. McLaren, B. Nailon*

**Pre- and on-treatment rectal cancer target volume variations for tumor and involved lymph nodes.** PO - 1964

*D.T. Arp (Denmark), A.L. Appelt, M.S. Nielsen, R. Mikalone, L.Ø. Poulsen*

**Investigating the impact of Day Zero SABR appointments and role of the Therapy Radiographer (RTT)** PO - 1965

*A. Webster (United Kingdom), K. Jones, R. Steel*

**Intrafractional organ motion in cervical carcinoma brachyradiotherapy : Dosimetric impacts** PO - 1966

*P. Marolt (Slovenia), R. Hudej, B. Šegedin, H.B. Zobec Logar, M. Kobav*

**Identifying the collision zone in breast radiotherapy verification and isocentre placement** PO - 1967

*J. Motlib (United Kingdom), S.A.A. Moinuddin, S. Wickers*

Track: RTT

**Digital Poster: Motion management and adaptive strategies**

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**Potential reduction of NTCP using plan of the day for bladder cancer** PO - 1968

S. Talozzi (Sweden), I. Bengtsson, N. Svanberg, A. Gunnlaugsson, E. Wieslander, J. Scherman

**The contribution of on-board hybrid MRI for planning optimization: movement analysis of the uterus** PO - 1969

C. Votta (Italy), L. Boldrini, B. Merola, G. Chiloiro, A. Romano, D. Cusumano, G. Turco, M. Bianchi, P. Cornacchione, L. Indovina, M.A. Gambacorta, V. Valentini

**4D-CBCT (Symmetry Elekta X-ray) for ITV generation in thoracic stereotactic radiotherapy** PO - 1970

S. Marcucci (Italy), L. Caravatta, C. Rosa, M. Nuzzo, M. Di Tommaso, M. Taraborrelli, C. Di Carlo, F.C. Di Guglielmo, L. Gasparini, N. Adorante, D. Genovesi

**Patient experience and gating efficiency using a visual tracking system for breath hold during MRgRT** PO - 1971

N. Weitkamp (Switzerland), S. Ehrbar, M. Chamberlain, S. Perryck, T. Rudolf, L. Wilke, H.I. Garcia Schüler, S. Tanadini-Lang, M. Guckenberger, N. Andratschke

**DIBH for mediastinal lymphoma: Implementation and evaluation of a 5-year service** PO - 1972

K. Jones (United Kingdom), A. Webster, G. Ntentas, J. Brady, N.G. Mikhaeel

**Quantification of liver and patient shape changes with abdominal compression on the MR-Linac.** PO - 1973

M. Daly (United Kingdom), R. Benson, R. Chuter, A. Clough, L. McDaid, A. McWilliam, C. Nelder, G. Radhakrishna, A. Choudhury, C. Eccles

**The use of in-vivo dosimetry to detect head and neck cancer patients needing adaptive radiotherapy** PO - 1974

Y.A.C. Fiagan (Belgium), D. Nevens, E. Bossuyt, M. Machiels, I. Chiari, I. Joye, M. Paul, T. Gevaert, D. Verellen

Track: RTT

**Digital Poster: Patient care, side effects and communication**

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**The use of mHealth apps in interactive health literacy – perspectives from healthcare professionals.** PO - 1975

A. Stewart-Lord (United Kingdom), S. Sykes, A. Admani, C. Angell-Wells, R. Williams, Y. Tsang, R. Johnson

- Has the Covid-19 Pandemic increased willingness to engage with remote collection of outcome data?** PO - 1976  
*C. Jackson, L. Allington, Y. Chang, J. McClelland, S. Gulliford (United Kingdom)*
- The importance of psycho-social support during radiotherapy treatments** PO - 1977  
*J. Papp (Hungary), M. Simon, E. Csiki, Á. Kovács*
- Chronic and cosmetic toxicity in patients undergoing radiotherapy and breast reconstruction** PO - 1978  
*J.A. Gomez Ramos (Spain), M. Arenas, F. Castaño, E. Gomez, C. Aparicio, J. Acosta, P. Araguas, B. Malave, M. Pazos*
- The association between radiotherapy doses to bone marrow and fatigue in prostate cancer** PO - 1979  
*A. Alshamrani (United Kingdom), M. Aznar, B. Rowland, P. Hoskin, A. Choudhury, C. Eccles*
- Use of Patient Reported Outcome (PRO) to facilitate patient-centered communication in radiotherapy** PO - 1980  
*A. Kristensen (Denmark), D. Winther, R. Baltzer*
- Dosimetric predefinit factors of acute skin toxicity after hypofractionated breast irradiation** PO - 1981  
*M. bohli (Tunisia), R. Ben Amor, D. Aissaoui, J. Yahyaoui, A. Hamdoun, L. Kochbati*
- Dosimetric and clinical outcome in image guided interstitial brachytherapy for cervical stump cancer** PO - 1982  
*F. Guillemín (France), P. POMMIER, A. SERRE, F. GASSA, N. SANDT, F. LAFAY*
- Radiosurgery (SRS) in spinal metastatic (SM). Result of a hospital center.** PO - 1983  
*R. Rubiato Aragón (Spain), M.S. Talaya Alarcon, D. Hernandez Gonzalez, M.T. Murillo Gonzalez*
- Early toxicity with stereotactic body radiation therapy for prostate cancer** PO - 1984  
*J. Saavedra Bejarano (Spain), M. Rubio Jiménez, G. Campos Rivera, M. Ortiz Seidel, H. Miras del Río, A. Illescas Vacas*
- Long-term results in CNS paediatric tumors: Stereotactic Radiotherapy and Reirradiation** PO - 1985  
*A.G. Rosa (Spain), R. Carmen, H. Ovidio, C. Xin, A. Leyre, G.D.A. Paz, G. Juan, C. Raquel, A. Beatriz, V. Jeannette, O. Marta, M. Isabel, M. Angel, S. Emilio, L. Mercedes, G. Mariola, N. Mónica, G. Susana, S. M<sup>o</sup> Jesús, P. Francisco, L. Blanca*

- Early toxicity with stereotactic body radiation therapy for prostate cancer** PO - 1986  
*J. Saavedra Bejarano (Spain), M. Rubio Jimenez, P. Vicente Ruiz, M. Ortiz Seidel, M. Márquez García-Salazar, A. Illescas Vacas*

Track: RTT

**Digital Poster: Education and training/role development**

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- Developing an in-house adaptive radiotherapy training package for therapeutic radiographers** PO - 1987

*M. Rashid (United Kingdom), S. Reinlo, C. Shelley, L. Conway*

- Designing a radiation therapy technologist training program for online adaptive Radiation Therapy** PO - 1988

*A. Nielsen (Denmark), K. Lundgaard, K. Jacobsen, K. Hansen, K. Søltoft, L. Sten, L. Gullander, P. Sibolt, L. Calmels, L. Andersson, P. Geertsen*

- The impact, challenges and barriers of Advanced and Consultant Practice in therapeutic radiography** PO - 1989

*L. Caulfield (United Kingdom)*

- Remote RTT training in an international context during a global pandemic** PO - 1990

*A. Leong (New Zealand), K. Reid, I. YueYin, C. Smith*

Track: RTT

**Digital Poster: Risk management/quality management**

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- Impact of evaluation-decision form in lung cancer patients receiving stereotactic body radiotherapy** PO - 1991

*R. Bultijnck (Belgium), A. Van Damme, F. Vanhoutte, E. Elamin, K. Vandecasteele, P. Berkovic, M. van Eijkeren, Y. Lievens*

- Development of an application programming interface for quality assurance of card check process.** PO - 1992

*E.P.P. Pang (Singapore), C.S. Wong, F.C.L. Ngoi, Y.B. Omar, S.A. Gan*

- Decision support for radiotherapy resource planning around vacation periods using a simulation model** PO - 1993

*J. Lindberg (Sweden), M. Gurjar, P. Holmström, S. Hallberg, T. Björk-Eriksson, C. Olsson*

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