

CONTENTS

Cited in: Chemical Abstracts, Excerpta Medica (EMBASE), Current Contents (Clinical Medicine; Life Sciences), Index Medicus (MEDLINE), Current Awareness in Biological Sciences (CABS), Full text available on ScienceDirect®

FLASH Radiotherapy & Particle Therapy conference, FRPT2021

FLASH Radiotherapy & Particle Therapy conference, FRPT2021

M.-C. Vozenin, A. Schüller, M. Dutreix, K. Kirkby, M. Baumann, R.P. Coppes, D. Thwaites (Switzerland, Germany, France, UK, the Netherlands, Australia) 167

Combining FLASH and spatially fractionated radiation therapy: The best of both worlds
T. Schneider, C. Fernandez-Palomo, A. Bertho, J. Fazzari, L. Iturri, O.A. Martin, V. Trappetti, V. Djonov, Y. Prezado (France, Switzerland, Australia) 169

Pencil beam scanning proton FLASH maintains tumor control while normal tissue damage is reduced in a mouse model
B.S. Sørensen, M.K. Sitarz, C. Ankjærgaard, J.G. Johansen, C.E. Andersen, E. Kanouta, C. Grau, P. Poulsen (Denmark) 178

FLASH with carbon ions: Tumor control, normal tissue sparing, and distal metastasis in a mouse osteosarcoma model
W. Tinganelli, U. Weber, A. Puspitasari, P. Simoniello, A. Abdollahi, J. Oppermann, C. Schuy, F. Horst, A. Helm, C. Fournier, M. Durante (Germany, Italy) 185

Commentary on the article: Sørensen BS et al., Pencil beam scanning proton FLASH maintains tumor control while normal tissue damage is reduced in a mouse model
L.J. Dubois (The Netherlands) 191

Changes in Radical Levels as a Cause for the FLASH effect: Impact of beam structure parameters at ultra-high dose rates on oxygen depletion in water
J. Jansen, E. Beyreuther, D. García-Calderón, L. Karsch, J. Knoll, J. Pawelke, M. Schürer, J. Seco (Germany) 193

Comparing radiolytic production of H₂O₂ and development of Zebrafish embryos after ultra high dose rate exposure with electron and transmission proton beams
H. Kacem, S. Psoroulas, G. Boivin, M. Folkerts, V. Grilj, T. Lomax, A. Martinotti, D. Meer, J. Ollivier, B. Petit, S. Safai, R.A. Sharma, M. Togno, M. Vilalta, D.C. Weber, M.-C. Vozenin (Switzerland, United States) 197

Design and validation of a dosimetric comparison scheme tailored for ultra-high dose-rate electron beams to support multicenter FLASH preclinical studies
P.G. Jorge, S. Melemenidis, V. Grilj, T. Buchillier, R. Manjappa, V. Viswanathan, M. Gondré, M.-C. Vozenin, J.-F. Germond, F. Bochud, R. Moeckli, C. Limoli, L. Skinner, H.J. No, Y.F. Wu, M. Surucu, A.S. Yu, B. Lau, J. Wang, E. Schüller, K. Bush, E.E. Graves, P.G. Maxim, B.W. Loo Jr, C. Bailat (Switzerland, USA) 203

FLASH radiotherapy treatment planning and models for electron beams
M. Rahman, A. Trigilio, G. Franciosini, R. Moeckli, R. Zhang, T.T. Böhlen (USA, Italy, Switzerland) 210

Treatment planning considerations for the development of FLASH proton therapy
B. Rothwell, M. Lowe, E. Traneus, M. Krieger, J. Schuemann (United Kingdom, Sweden, Germany, USA) 222

Trade-off in healthy tissue sparing of FLASH and fractionation in stereotactic proton therapy of lung lesions with transmission beams
S. Habraken, S. Breedveld, J. Groen, J. Nuyttens, M. Hoogeman (The Netherlands) 231

Advanced pencil beam scanning Bragg peak FLASH-RT delivery technique can enhance lung cancer planning treatment outcomes compared to conventional multiple-energy proton PBS techniques
S. Wei, H. Lin, J. Isabelle Choi, C. Shi, C.B. Simone II, M. Kang (USA) 238

Reviews

Assessing the role of radiotherapy in patients with refractory or relapsed high-grade B-cell lymphomas treated with CAR T-cell therapy
H.S. Ababneh, J.S. Abramson, P.C. Johnson, C.G. Patel (United States) 65

A systematic review of clinical studies on variable proton Relative Biological Effectiveness (RBE)
T.S.A. Underwood, A.L. McNamara, A. Appelt, J.S. Haviland, B.S. Sørensen, E.G.C. Troost (UK, United States, Denmark, Germany) 79

Systematic review of adjuvant external beam radiotherapy for hepatocellular carcinoma following radical hepatectomy
L. Wang, L. Qiu, Q. Ke, H. Ji, J. Wu (China) 101

H&N and Skin (HNS) GEC-ESTRO Working Group critical review of recommendations regarding prescription depth, bolus thickness and maximum dose in skin superficial brachytherapy with flaps and customized moulds
V. Gonzalez-Perez, A. Rembielak, J.L. Guinot, R. Jaber, V. Lancellotta, R. Walter, A. Zuchora, A. Budrukkar, G. Kovács, I. Jürgenliemk-Schulz, F.-A. Siebert, L. Tagliaferri (Spain, United Kingdom, Iran, Italy, Germany, Ireland, India, the Netherlands) 122

Clinical Trials

Impact on xerostomia for nasopharyngeal carcinoma patients treated with superficial parotid lobe-sparing intensity-modulated radiation therapy (SPLS-IMRT): A prospective phase II randomized controlled study
H. Huang, J. Miao, X. Xiao, J. Hu, G. Zhang, Y. Peng, S. Lu, Y. Liang, S. Huang, F. Han, X. Deng, C. Zhao, L. Wang (China) 1

Central Nervous System

Quantifying the post-radiation accelerated brain aging rate in glioma patients with deep learning
S.I. Huisman, A.T.J. van der Boog, F. Cialdella, J.J.C. Verhoeff, S. David (The Netherlands) 18

Development and validation of a prognostic gene expression signature for lower-grade glioma following surgery and adjuvant radiotherapy
D.C. Qian, J.A. Marascio, R. Tobillo, J.W. Lorenz, N.S. McCall, S.G. Neill, K.B. Hoang, J.J. Olson, B.R. Eaton, H.-K.G. Shu, J. Zhong (United States) 93

Iatrogenic influence on prognosis of radiation-induced contrast enhancements in patients with glioma WHO 1–3 following photon and proton radiotherapy T. Eichkorn, J.W. Lischalk, E. Sandrini, E. Meixner, S. Regnery, T. Held, J. Bauer, E. Bahn, S. Harrabi, J. Hörner-Rieber, K. Herfarth, J. Debus, L. König (Germany, USA)	133
Prognostic significance of lab data and performance comparison by validating survival prediction models for patients with spinal metastases after radiotherapy H.-K. Yen, M.-H. Hu, H. Zijlstra, O.Q. Groot, H.-C. Hsieh, J.-J. Yang, A.V. Karhade, P.-C. Chen, Y.-H. Chen, P.-H. Huang, Y.-H. Chen, F.-R. Xiao, J.-J. Verlaan, J.H. Schwab, R.-S. Yang, S.-H. Yang, W.-H. Lin, F.-M. Hsu (Taiwan, Netherlands, United States)	159
Gastrointestinal Cancers	
Simulated computed tomography-guided stereotactic adaptive radiotherapy (CT-STAR) for the treatment of locally advanced pancreatic cancer J.P. Schiff, A.T. Price, H.B. Stowe, E. Laugeman, R.-I. Chin, C. Hatscher, E. Pryser, B. Cai, G.D. Hugo, H. Kim, S.N. Badiyan, C.G. Robinson, L.E. Henke (USA)	144
Head and Neck Cancers	
Evaluation of risk-tailored individualized selection of radiation therapy target volume for head and neck carcinoma of unknown primary Hamza Ghatasheh, Shao Hui Huang, Jie Su, Wei Xu, Scott V. Bratman, John Cho, Meredith Giuliani, Ezra Hahn, Andrew Hope, John Kim, Brian O'Sullivan, Jolie Ringash, John Waldron, Douglas B. Chepeha, Jonathan C. Irish, David P. Goldstein, Anna Spreafico, Li Tong, John R. de Almeida, Ali Hosni (Canada)	56
Organs at risk dose constraints in carbon ion radiotherapy at MedAustron: Translations between LEM and MKM RBE models and preliminary clinical results S. Grosshagauer, P. Fossati, M. Schafasand, A. Carlino, K. Poljanc, T. Radakovits, M. Stock, E. Hug, P. Georg, M. Pelak, J. Góra (Austria)	73
Disease outcome and associated factors after definitive platinum based chemoradiotherapy for advanced stage HPV-negative head and neck cancer R.H. de Roest, M. van der Heijden, F.W.R. Wesseling, E.J. de Ruiter, M.W. Heymans, C. Terhaard, M.R. Vergeer, J. Buter, L.A. Devriese, J.P. de Boer, A. Navran, A. Hoeben, C. Vens, M. van den Brekel, R.H. Brakenhoff, C.R. Leemans, F. Hoebbers (The Netherlands)	112
Intrathoracic Cancers	
A traffic light protocol workflow for image-guided adaptive radiotherapy in lung cancer patients D. Hattu, J. Mannens, M. Öllers, J. van Loon, D. De Ruyscher, W. van Elmpt (The Netherlands)	152
Genitourinary Cancers	
Accurate prediction of long-term risk of biochemical failure after salvage radiotherapy including the impact of pelvic node irradiation C. Cozzarini, M. Olivieri, A. Magli, D. Cante, B. Noris Chiorda, F. Munoz, A. Faiella, E. Olivetta, C. Deantoni, A. Fodor, M.A. Signor, E. Petrucci, B. Avuzzi, L. Ferella, A. Pastorino, E. Garibaldi, M. Gatti, L. Rago, T. Statuto, T. Rancati, A. Briganti, F. Montorsi, R. Valdagni, G. Sanguineti, N.G. Di Muzio, C. Fiorino (Italy)	26
Gynaecological Cancer	
Palliative radiotherapy in cancers of female genital tract: Outcomes and prognostic factors Sri Harsha Kombathula, Anthea Cree, Priya V. Joshi, Nesrin Akturk, Lisa H. Barraclough, Kate Haslett, Ananya Choudhury, Peter Hoskin (United Kingdom)	42
Physics	
Knowledge-based multi-institution plan prediction of whole breast irradiation with tangential fields A. Tudda, R. Castriconi, G. Benecchi, E. Cagni, A. Cicchetti, F. Dusi, P.G. Esposito, M. Guernieri, A. Ianiro, V. Landoni, A. Mazzilli, E. Moretti, C. Oliviero, L. Placidi, G. Rambaldi Guidasci, T. Rancati, A. Scaggion, V. Trojani, C. Fiorino (Italy)	10
<i>In vivo</i> assessment of tissue-specific radiological parameters with intra- and inter-patient variation using dual-energy computed tomography N. Peters, A. Kieslich, P. Wohlfahrt, C. Hofmann, C. Richter (Germany)	34
A case-control study of linear energy transfer and relative biological effectiveness related to symptomatic brainstem toxicity following pediatric proton therapy L.F. Fjæra, D.J. Indelicato, A.H. Handeland, K.S. Ytre-Hauge, Y. Lassen-Ramshad, L.P. Muren, C.H. Stokkevåg (Norway, USA, Denmark)	47
Letters to the Editor	
A neuropathic component of tumor-related pain as a predictor of good response to palliative radiotherapy T. Saito, N. Nakamura, N. Oya (Japan)	17
High dose rate brachytherapy for anal cancer: A review of a systematic review R. Chow, C.B. Simone II (USA, Canada)	33