



Preliminary programme - Oral sessions

Session 1: Thursday, Nov 13th - 9h-11h

Session Title: **Methodology & QA** Chairs: **G Glatting & S Srinivasan**

Invited talk: Dosimetry methodology & terminology (M Bardiès, Montpellier, France)

Abstract	1st Author	Title
25	Andrew Fenwick, Teddington, UK	Establishing Traceability Routes in Nuclear Medicine: The ETrain Project
50	Daniela C. Panciera, Guildford, UK	Lu-177 PSMA Registry: a platform to support clinical decision for patients undergoing molecular radiotherapy
123	Lenka Vávrová, Würzburg, Germany	Quantitative SPECT Harmonisation: Analysis of cross-vendor phantom data from the EARL 177Lu SPECT/CT Accreditation pilot
24	Maria Luisa Belli, Medola, Italy	FMEA (Failure Mode and Effects Analysis) for 177Lu marked PSMA and DOTATATE/TOC therapies for risk treatment assessment
51	Anna-Lena Theisen, Würzburg, Germany	Uncertainty analysis of vertebral activity quantification in SPECT/CT imaging after [177Lu]Lu-DOTATATE therapy using a physical phantom and simulations
80	Ann McCann, Dublin, Ireland	Optimisation of 177Lu post therapy CZT SPECT/CT dosimetry scan duration using qualitative and quantitative metric analysis
70	Selma Curkic Kapidzic, Lund, Sweden	Automated image segmentation for quantification of tumour burden in 177Lu-PRRT patients
121	Zaina Hurani, St Herblain, France	Improving Lesion Quantification in ¹⁷⁷ Lu-PSMA Therapy Through Adaptive Segmentation of SPECT Images
9	Emma Wikberg, Gothenburg, Sweden	Threshold-based Segmentation Method for Liver Tumors after [177Lu]Lu-DOTA-TATE Therapy
12	Johan Gustafsson, Lund, Sweden	177Lu-SPECT with natural voxels for management of partial-volume effects

Session 2: Thursday, Nov 13th - 14h-16h

Session title: Patient dosimetry and clinical trials

Chairs: K Chuamsaamarkkee & L Strigari

Invited talk: Clinical trials with dosimetry (K Sjögreen-Gleisner, Lund, Sweden & Y Dewaraja, Ann Arbor, USA)

Abstract	1st Author	Title	
48	Nicolas Varmenot, St Herblain, France	Landscape of clinical trials in molecular radiotherapy	
47	Jan Taprogge, Sutton, UK	INSPIRE – A prospective observational study of radiation dosimetry for radioiodine treatment of thyroid cancer	
69	Carlo Chiesa, Milan, Italy	¹²⁴ I PET dosimetry to optimize ¹³¹ I therapy of metastatic differentiated thyroid cancer: an ongoing phase II trial	
5	Matteo Bagnalasta, Milan, Italy	Radioembolization of hepatocellular carcinoma with ⁹⁰ Y glass microspheres: an earlier administration day unexpectedly improves tumour control probability	
118	Meike W.M. van Wijk, Nijmegen, The Netherlands	MRI-based dosimetry for image-guided ¹⁶⁶ Ho-TARE, insights in methodology and preliminary results from the EMERITUS-2 trial	
76	Frida Westerbergh, Gothenburg, Sweden	Development of Terbium-161 SPECT/CT Protocols in Support of Two Early-Phase Clinical Trials: Towards Accurate Post-Therapeutic Dosimetry	
114	Claudia Morsink, Nijmegen, The Netherlands	Dosimetry comparison of [177Lu]Lu-rhPSMA-10.1 and [177Lu]Lu-PSMA-617 in prostate cancer patients	
46	Peter Frøhlich Staanum, Aarhus, Denmark	Standard vs. kidney dosimetry-based activity prescription in PRRT: Current status of the DOBATOC trial	
127	Monika Kvassheim, Oslo, Norway	Tumour-to-kidney absorbed dose ratios for potential alpha-emitter DOTATATE therapies	
84	Georgios Limouris, Athens, Greece	PRRT Efficacy of ¹¹¹ In-DTPA-Octreotide Auger and Internal Conversion Electron Emission after Intra-arterial Implementation in Liver Metastasized Colorectal NETs	

Session 3: Friday, Nov 14th - 8h-10h

Session title: **Software for patient dosimetry** Chairs: **S Peters & K Sjögreen Gleisner**

Invited talk: QA, standardisation of dosimetry including risk assessment (A Denis-Bacelar, Teddington, UK)

Abstract	1st Author	Title
40	Jonathan Gear, Sutton, UK	A Joint EANM/EFOMP Dosimetry Tender Document for Software Evaluation and Procurement
16	Roberta Matheoud, Novara, Italy	COMPARISON OF dosimetric assessments in 90Y-MICROSPHERE THERAPY IN HCC: preliminary results
52	Alexander Pavlyuk, London, UK	Salivary Gland Dosimetry for Patients Receiving Lu-177 PSMA and I-131 Nal: An Impact Analysis of Differing Dosimetry Approaches and Software Solutions
60	Susana Veloza-Awad, Montpellier, France	Clinical application of PLANET® Dose V3.2 on Single-Time-Point dosimetry in patients treated with [177Lu]Lu-DOTA-TATE
62	Nathan Sinsoilliez, Alès, France	A Proposition of a Modular Digital Twin Pipeline for Dosimetry Protocol Optimization in Molecular Radiotherapy
105	Alexandre Pignard, Fontenay aux Roses, France	Development of a Bayesian network for a comprehensive uncertainty assessment in personalized dosimetry after targeted radionuclide therapy
34	Gunjan Kayal, New York, USA	MIRDrpt simplified dosimetry and bioeffect modelling for ¹⁷⁷ Lu (-DOTATATE and -PSMA) – a standardized dosimetry calculation toolkit
95	Erin McKay, Sydney, Australia	OpenDose Core: a library for implementing model-based internal dosimetry calculations
124	Kacper Piątek, Gliwice, Poland	OpenDose website: web interface for model-based internal dosimetry calculations
92	Susana Veloza-Awad, Montpellier, France	The OpenDose 3D Roadmap

Session 4: Friday, Nov 14th - 14h-16h

Session title: Absorbed dose effect relationships

Chairs: C Chiesa & J Brosch-Lenz

Invited talk: Radiobiology including absorbed dose-effect relationship (L Strigari, Bologna, Italy)

Abstract	1st Author	Title	
19	Jan Taprogge, Sutton, UK	Correlation between absorbed dose and response in thyroid cancer patients treated with radioiodine – A systematic review	
64	Michelle Andersson, Bruxelles, Belgium	Mechanistic Prediction of Nephrotoxicity in Radiopharmaceutical Therapy Using a Preclinical Nephron Substructure NTCP Model	
126	David Adam, Baltimore, USA	Semi-Quantitative I-123 SPECT Suggest Subtherapeutic Absorbed Dose in Recurrent Thyroid Cancer Patients and Highlight Need for Individualized I-131 Therapy	
42	Ludovic Ferrer, St Herblain, France	Are Trabecular Bone Volume and Trabecular Metabolic Activity on [18F]FDG PET/CT predictive of Hematological Toxicity in PSMA Therapy?	
28	Alexandre Pignard, Fontenay aux Roses, France	Personalized dosimetric workflow for 177Lu-PSMA treatments considering the cross-irradiation from bone metastases to red bone marrow	
58	Susana Veloza-Awad, Montpellier, France	Bone marrow patient-specific dosimetry for [177Lu]Lu-DOTA-TATE therapy	
119	Chiara Ingraito, Milan, Italy	INVESTIGATION OF THE PREDICTIVE VALUE OF PRE-THERAPY 68Ga-DOTATOC PET/TC IN 177Lu-DOTATATE PEPTIDE RECEPTOR RADIONUCLIDE THERAPY DOSIMETRY	
99	K Hébert, Montpellier, France	Abstract title: Impact of Simplified Post-Therapy Dosimetry Protocols in [177Lu]Lu-DOTATATE PRRT on absorbed doses results and clinical outcomes	
59	Lore Santoro, Montpellier, France,	Feasibility and challenges of a cumulative dosimetry using different dosimetry software after External Beam Radiotherapy (EBRT) and Molecular Radiotherapy (MRT) treatments	
104	Ann McCann, Dublin, Ireland	The re-irradiation paradigm, considerations and challenges in the inclusion of MRT in the equation, as demonstrated through a case study	

Session 5: Saturday, Nov 15th - 8h-10h

Session title: Al and modelling Chairs: S Gnesin & Y Dewaraja

Invited talk: Emerging approaches for optimizing molecular radiotherapy (J Brosch-Lenz, Bethesda, USA)

Abstract	1st Author	Title
30	Julian Leube, Würzburg, Germany	DL-SC: A Deep Learning-Based Scatter Correction Method for Quantitative ¹⁷⁷ Lu SPECT/CT Imaging
31	Mathis Maurel-Audry, Bordeaux, France	Development of a deep learning-based automatic segmentation tool for total tumour volume delineation in imaging of metastatic prostate cancer
6	Mattias Sandström, Uppsala, Sweden	Precision and accuracy in one-point kidney dosimetry for NET patients receiving later-session 177Lu-DOTATATE therapy
61	Deni Hardiansyah, Depok, Indonesia	PET-based single-time-point dosimetry using a physiologically-based pharmacokinetic model, machine learning, and a non-linear mixed effects model for [177Lu]Lu-PSMA-I&T Therapy
68	Veronika Zolkina, Groningen, Netherlands	Population-Based Pharmacokinetic Modelling of Zr-89 Labelled Antibodies Using Non-Linear Mixed-Effects Approaches for Optimized Imaging and Quantification
36	Valentina Vasic, Ulm, Germany	Prediction of [177Lu]Lu-DOTA-TATE time-integrated activity using PBPK modelling and pre-therapeutic [68Ga]Ga-DOTA-TATE PET/CT
38	Valentina Vasic, Ulm, Germany	Global sensitivity analysis with correlated input parameters in a whole-body PBPK model for [¹¹¬Lu]Lu-DOTA-TATE therapy
39	Elham Yousefzadeh-Nowshahr, Ulm, Germany	Intra-Patient Global Sensitivity Analysis of a PBPK Model for ¹⁷⁷ Lu-labelled PSMA Therapy: Impact of Parameter Correlation
49	Samira Kamrani, Würzburg, Germany	Deep Learning-Based Partial Volume Correction for Quantitative ¹⁷⁷ Lu SPECT/CT Imaging: Cross-Scanner Transfer Learning Approach
57	Ludovic Ferrer, Saint-Herblain, France	Towards More Personalized Bone Marrow Dosimetry Using Deep Learning-Based Segmentation Tools

Session 6: **Saturday, Nov 15th - 14h-16h** Session title: **Preclinical & miscellaneous**

Chairs: P Minguez Gabiña & G Flux

Invited talk: Regulatory developments (C Chiesa, Milano, Italy)

Abstract	1st Author	Title	
11	Albin Alvers, Gothenburg, Sweden	Pre-clinical physiologically based pharmacokinetic (PBPK) modelling of PSMA radioligands	
23	Justine Henriot, Leuven, Belgium	Assessing the generalizability of a preclinical PBPK model for DOTA-TATE-based radiopharmaceuticals: applications to 161Tb, 177Lu, and 68Ga	
100	Alberto Arzenton, Padua, Italy	Computed dosimetry for the preclinical assessment of silver-111 in the context of the ISOLPHARM project	
107	Gustavo Costa, Ulm, Germany	Development of a PBPK-Based Mouse Digital Twin for Individualised Dosimetry of [177Lu]rhPSMA-10.1 Therapy	
109	Brian Miller, Tucson, USA	Simultaneous Alpha- and Beta-Particle Digital Autoradiography for Evaluating Co-Therapy and Diagnostic Uptake: Pre-Clinical Studies with Ac-225, Lu-177, and PET Tracers	
55	Nicolas Varmenot, St Herblain, France	Evaluation of post-injection urinary excretions in a cohort of patients treated with 177Lu-PSMA PRRT	
113	Elena Solfaroli Camillocci, Rome, Italy	Validation of a Wearable Individual Dose Monitoring System for Molecular Radiotherapy Using a Custom Dynamic NEMA Phantom	
116	Denis E. Bergeron, Gaithersburg, USA	Preparation of 225Ac phantoms by gravimetric drop-on-demand inkjet deposition and imaging by digital autoradiography	
27	Ramona Bouwman, Petten, the Netherlands	Distribution predictions of alpha-emitting radiopharmaceuticals and detached radionuclides	
98	Georgios Limouris, Athens, Greece	Comparison and Evaluation of n.c.a. 111In-DTPA-Phe1-Octreotide vs. n.c.a. 177Lu-[DOTA0, Tyr3] TATE] in (GEP-NENs) Treated Patients	





Preliminary programme - Sister societies sessions

AAPM session

Thursday, Nov 13th - 12-13h

Chairs: L Struelens and P Covens

Update from the AAPM RPT committee (J Clements & S Srinivasan)

AAPM Invited talk: Alpha bio-effect modelling and small scale dosimetry (R Hobbs, Baltimore, USA)

EURADOS session

Thursday, Nov 13th - 16h30-17h30

Chairs: J Clements & R Hobbs

Update from EURADOS (L Struelens)

EURADOS Invited talk: External exposure from nuclear medicine patients: a computational approach to assess risk at very short

distances (P Covens, Brussels, Belgium)

EANM session

Friday, Nov 14th - 10-11h

Chairs: R Barbee & A Kesner Update from EANM (C Stokke)

EANM Invited talk: A European clinician's perspective on the application of internal dosimetry (F Cicone, Catanzaro, Italy)

SNMMI session

Saturday, Nov 15th - 10-11h

Chairs: C Stokke & F Cicone Update from SNMMI (R Barbee)

SNMMI Invited talk: MIRDsoft (A Kesner, New York, USA)





ePoster presentation session (1)

Session 1: Thursday, Nov 13th - 11h30-12h

Chair: M Cremonesi

Abstract	1st Author	Title
91	Adnane Zerguit, Bordeaux, France	Integration of experimental and inter-user uncertainties in the quantification of 177Lu in SPECT/CT images for molecular radiotherapy absorbed dose calculation
89	Junnan Bao, Würzburg, Germany	Evaluating the accuracy of different absorbed dose estimation methods for kidney and bone marrow dosimetry in [177Lu]Lu-DOTATATE therapy
87	Stanislas Miet, ICO, France	Could post-infusion 177Lu-PSMA dosimetry be an explanation for the therapeutic response of lesions? A feasibility study
85	Peter Frøhlich Staanum,Denmark	Comparison of tumour segmentation methods for dosimetry in [177Lu]Lu-PSMA I&T treated patients with metastatic castration resistant prostate cancer
78	Alvaro Daniel Cruz Cortes, Mexico	Comparison of absorbed dose using calculation algorithms and manual methods with patients treated with 177Lu-iPSMA, 177Lu-DOTATOC, 131I-Nal and Y-90 glass spheres
75	Katja Smits, Gothenburg, Sweden	Comparison of Peripheral Blood and SPECT-Derived Aortic Activity Concentration in Patients Treated with [177Lu]Lu-DOTATOC
17	Teresa Monserrat, Asturias, Spain	Correlations between blood count and absorbed dose in red bone marrow in [177Lu]Lu-DOTA-TATE treatments
128	Maryam Rahbaran, Canada	Validation of 177Lu-PSMA-617 parotid dosimetry using Monte Carlo simulations in a 3D-printed patient realistic phantom
74	Carsten Kattinger, Berlin, Germany	Comparison of Multicompartment and Voxel-Based Planing Approaches for Dosimetry in SIRT
18	Benoît Collette, ULB, Belgium	Feasibility of a one-day protocol combining 166Ho-PLLA simulation and 99mTc-BrIDA hepatobiliary scintigraphy, and predictive added-value of 99mTc-BrIDA hepatobiliary scintigraphy combined with personalized dosimetry in selective internal radiotherapy





ePoster presentation sessions (2)

Session 2: Friday, Nov 14th - 16h30-17h

Chair: M Brambilla

Abstract	1st Author	Title
82	Niamh McArdle, Dublin, Ireland.	Establishing a scatter window correction technique for CZT gamma cameras for improved LSF accuracy
81	Niamh McArdle, Dublin, Ireland.	Development of a Partial Volume Effect (PVE) correction framework for incorporation into personalised dosimetry approaches towards improved SIRT dose planning
29	Staffan Jacobsson Svärd, Uppsala, Sweden	Recovery coefficients for concentration-based 177Lu dosimetry of small objects
53	Amelie Gehring, Würzburg, Germany	Including Multi-Stage Reconstructions to Improve Deep Learning-based Partial-Volume Correction in 177Lu SPECT Imaging
77	Lydia J Wilson, USA	Quantitative discrepancies in dosimetry: A voxel-wise comparison of Monte Carlo and S-value-based radiopharmaceutical dose estimations
65	Noor Ameelia A Majid, Malaya, Malaysia	A pilot study on absolute quantification of SPECT/CT imaging for Actinium-225 at low count rates
72	Eduardo Rios Sanchez, France	Correlation Between SPECT/CT-Derived TMTV Metrics and Biological Response in 177Lu-PSMA Therapy: Insights from a Multicentric Study
63	Annika Kassanke, Berlin, Germany	Fast Enough to Matter: Shortened SPECT Protocols for Accurate Dosimetry in Lu-177 PSMA Therapy
71	Vappu Reijonen, Helsinki, Finland	PSMA-PET based dose planning for Lu-177-PSMA therapy: speculation in retrospect





ePoster presentation sessions (3)

Session 3: Nov 15th - 11h30-12h

Chair: A Denis-Bacelar

Abstract	1st Author	Title
117	Loredana Barresi, Aviano, Italy	Feasibility and Safety of 90Y Radioembolization (TARE) Retreatment Guided by Voxel-Based Dosimetry and Post-Therapy Imaging: a Case Study
73	Evgenia, Alamani, Greece	Fostering Stakeholder's Engagement in Theragnostics: The Role of the Greek Atomic Energy Commission
22	Nadège Anizan, Bordeaux, France	Standardisation and development of dosimetric approaches for trials sponsored by the French Urogenital Tumour Study Group (GETUG) for external beam radiotherapy and molecular radionuclide therapy
66	Markus Galler, Berlin, Germany	A Radiobiological Model for Studying Tumor Control Probability in Targeted Radionuclide Therapies:
110	Konstantinos Chatzipapas, Delft, Netherlands	Quantification of cellular damage using advanced computational techniques
111	Anna Sarnelli, Italy	Avidination for RadionuclideTHerapy in Nonpalpable Breast Cancer (ARTHE): Dosimetry of a New Locoregional Approach
101	Aurora Leso, Italy	Radiobiology experiments with 111Ag for the ISOLPHARM project
122	Keryn Gresco, Needham, U.S.A.	212Pb Human dosimetry estimates derived from 203Pb SPECT imaging of an integrin-targeting peptide and the impact of 212Bi disassociation on kidney dose
45	Vanessa Marques, Coimbra, Portugal	Can [64Cu]Cu-PSMA-I&T improve diagnosis and pre-therapeutic dosimetry in prostate cancer?





ePosters (1)

The following ePosters will be presented during the breaks on 2 screens installed in the Foyer

Abstract	1st Author	Title
8	Mohammad Abuqbeitah, Türkiye	Cure Rate of Dosimetry-based 131I Therapy in Hyperthyroidism Management
10	Ezgi Ilan, Sweden	Assessment of uncertainty in kidney concentration at multiple time points following PRRT with 177Lu-DOTATATE
13	Elisa Richetta, Italy	Red marrow dosimetry with imaging method: a new approach for 131I and 177Lu dose-toxicity correlations
14	Viridiana Hernández García, Mexico	Automation of clinical reporting of dosimetry calculations and uncertainties for MRT.
15	Krisanat Chuamsaamarkkee, Thailand	Clinical Implementation and Voxel Dosimetry of ¹⁶¹ Tb-PSMA Therapy in mCRPC: First Experience in Southeast Asia
20	Anas Al-Balushi, Oman	Clinical and Dosimetrical Analysis of Furosemide Use in [177Lu]Lu-PSMA Therapy: A Case Report from SQCCCRC, Oman
21	Anas Al-Balushi, Oman	Dosimetry Analysis in [177Lu]Lu-PSMA Therapy with Different Dialysis Timings and Its Impact on Non-Target Organs: A Case Report from SQCCCRC, Oman
26	Hannah Sharman, UK	Reproducibility and Feasibility of Dosimetry in Multi-Centre Studies: Inter-Operator Variability
32	Rangsee Songprakhon, Thailand	DOSIMETRY FACTORS OF ABSORBED DOSE CALCULATION IN BONE MARROW USING IMAGE QUANTIFICATION FOR WELL-DIFFERENTIATED THYROID CANCER PATIENTS WHO UNDERGOING RADIOIODINE-131
35	Sergio Ángel García García, Mexico	Characterization and commissioning of a dosimetry clinical software for molecular radiotherapy





ePosters (2)

The following ePosters will be presented during the breaks on 2 screens installed in the Foyer

Abstract	1st Author	Title
37	Evgenia Alamani, Greece	Regulatory Challenges in Theragnostics: A competent authority's perspective
41	Silvano Gnesin, Switzerland	Monte Carlo investigation of red bone marrow dosimetry in 177Lu therapy of metastatic prostate cancer patients
43	Mantvydas Merkis, Lithuania	177Lu-PSMA administration using large volume infusion pump, radiopharmaceutical multidose injector and gravity method: comparative analysis
44	Jonathan Gear, UK	Rekindling I-131 Dosimetry for Hyperthyroidism in the UK: A Case Series
54	Danial Seifimakrani, Iran	A Non-Invasive Al Model Combining PET/CT Radiomics and EBV DNA for Precision Prediction of Lymph Node Metastasis in Nasopharyngeal Carcinoma
67	Laure Vergnaud, France	Single-time-point dosimetry in vertebrae for 177Lu therapies: does using dose-rate maps improve accuracy?
79	Georgios Limouris, Greece	Tandem Surgery and PRRT with 177Lu-DOTA-NOC Efficacy after Intra-arterial Implementation in Liver Metastasized Vipoma NETs
83	Stefanos Margis, Netherlands	S-value based dosimetry for in-vitro assays: Effects of geometry, cell distribution, Monte Carlo code and radionuclide selection
86	Francesco Manna, Italy	Development of a dosimetry protocol using Hermes software and a CZT-based gamma camera
88		Comparison of dosimetric versus fixed-dose approaches for I-131 therapy in the treatment of Grave's Disease





ePosters (3)

The following ePosters will be presented during the breaks on 2 screens installed in the Foyer

Abstract	1st Author	Title
90		Implementation of Quantitative SPECT/CT in Clinical Practice: Protocol Optimization and Validation for Dosimetric Applications
93	Amit Nautiyal, UK	Comparative assessment of modern dosimetry tools for the most reliable personalised organ-level dosimetry in 177Lu-based molecular radiotherapy
96	Peter Yazdi, Canada	Framework for Theranostic Digital Twins Generation and Virtual Theranostic Trials
103	Eike Rathsmann, Germany	Release Criteria for Therapies with 177Lu-labeled Radiopharmaceuticals
108	Federico Dalmasso, Italy	Impact of acquisition and reconstruction parameters on image calibration factors and recovery coefficients for 177Lu SPECT/CT
112	Judith Reisdorf, Germany	Feasibility analysis of dosimetric planning for [Lu177]PSMA radionuclide therapies using whole-body PET/CT
115	Foteini Stromatia, Greece	Intaking therapeutic Radioisotopes prior to the patient's connection to the dialyzer: does radioprotection needed?
120	Prakhar Singh, India	A Systematic Review on Therapeutic Potential of Radium-223, Astatine-211 and Lead-212/Bismuth-212 in Targeted Alpha Therapy





CPD session

Friday Nov 14th 11h30-13h Statistics in MRT dosimetry

Convenors: M Brambilla, M Cremonesi & L Strigari

Sponsor sessions

Sponsor session 1: Thursday, Nov 13th - 17h30-19h - Session chair E Koutsouveli

Sponsor session 2: Friday, Nov 14th - 17h-18h30 - Session chair B Byrne

Full programme of the Sponsor session to be announced

Round table

Saturday Nov 15th - 12h-13h

Round table topic and participants to be announced

Convenors: C Chiesa, P Minguez Gabiña & K Sjögreen-Gleisner