

TOTAL-BODY PET2022 IN-PERSON – 24TH SEPTEMBER 2022**PRELIMINARY AGENDA**

8:00	Welcome desk opens
PRE-CONFERENCE SESSIONS START	
THEME: TOTAL-BODY PET CURRENT STATUS & NEW CONCEPTS FOR DATA ANALYSIS	
9:30 – 11:00	Total-Body PET: commissioning, operations and users experiences Chairs: TBC
<i>15-20 min</i>	Asia's Total-Body PET experience Hongcheng Shi, Shanghai Institute of Medical Imaging, Shanghai, China
<i>15-20 min</i>	Australia's Total-Body PET experience Steven Meikle, The University of Sydney, Australia
<i>15-20 min</i>	Europe's Total-Body PET experience Kuangyu Shi, University of Bern, Switzerland
<i>15-20 min</i>	US's Total-Body PET experience Ramsey Badawi, UC Davis, USA
11:00 – 12:00	Imiomics and whole-body analysis principles Chairs: TBC
<i>30 min</i>	A concept for holistic whole body imaging data analysis, Imiomics Robin Strand, Uppsala University, Sweden
<i>30 min</i>	Radiomics in medical imaging—"how-to" guide TBC
12:00 – 13:00	Lunch and networking
13:00 – 15:00	Systems biology and connectome analysis methods and interpretation Chairs: TBC
<i>30 min</i>	"Network correlation analysis: principles and applications" Tom Freeman, The Janssen Pharmaceutical Companies of Johnson & Johnson, UK
<i>30 min</i>	Fundamentals of systems biology approach and connectome analysis TBC
PRE-CONFERENCE SESSIONS ENDS	
THEME: TOTAL-BODY PET CURRENT STATUS & NEW CONCEPTS FOR DATA ANALYSIS	
15:00 – 17:00	Opening of Total-Body PET 2022 Coffee break/welcome; Posters and Exhibition opens
17:00-17:10	Welcome Moira Whyte (Vice-Principal and Head of the College of Medicine and Veterinary Medicine, University of Edinburgh, UK)
17:10 – 18:10	Opening session Chairs: TBC
<i>20 min</i>	"Total-body PET past, present and future of instrumentation" Stefaan Vandenberghe, Ghent University, Belgium
<i>20 min</i>	"Total-body PET imaging: transforming the role of PET in oncology" Patricia Price, Imperial College London, UK
<i>20 min</i>	"Whole person research: Prospects and Role for MI" Helene Langevin, NCCIH, USA
Welcome reception at McEwan Hall, Edinburgh, UK	

TOTAL-BODY PET2022 IN-PERSON – 25TH SEPTEMBER 2022**- MORNING SESSIONS -
PRELIMINARY AGENDA**

8:00	Welcome desk re-opens Posters and Exhibition opens
9:20 – 10:00	ESMI-Plenary Lecture Chairs: TBC
<i>30 min (key note)</i>	Kinetic modelling challenges in Total-Body PET imaging Adriaan Lammertsma, Amsterdam University Medical Centre, Netherlands
10:00 – 11:00	Session 1 Instrumentation Chairs: TBC
<i>15 min (invited)</i>	Total-Body PET rodent imaging Roel van Holen, Ghent University, Belgium
<i>15 min (invited)</i>	Clinical and research opportunities with PennPET Explorer Joel Karp, University of Pennsylvania, USA
<i>15 min (invited)</i>	EXPLORER and Beyond: Challenges and Opportunities for Total-Body Human Imaging Simon Cherry, UC Davis, USA
<i>15 min (invited)</i>	First in-vivo positronium imaging of humans with a portable J-PET scanner - on the way to total-body positronium imaging Pawel Moskal, Jagiellonian University, Poland
11:00 – 11:40	Coffee break
11:40 – 12:30	Session 1 Instrumentation (part 2) Chairs: TBC
<i>10 min (proffered)</i>	Fast Monte Carlo simulation for optimizing axially extended time-of-flight PET systems Stephen Moore, University of Pennsylvania, USA
<i>10 min (proffered)</i>	Ultra-dense and Fast Ceramic Scintillators for Total Body PET Scanners Sun Il Kwon, UC Davis, USA
<i>10 min (proffered)</i>	Efficient patient throughput and detector usage in low cost efficient Monolithic High resolution Walk-through Flat Panel Total Body PET Stefaan Vandenberghe, Ghent University, Belgium
<i>2 min – Pitch (proffered)</i>	A semi-monolithic DOI-encoding sub-200ps detector tailored for total-body PET Florian Mueller, RWTH Aachen University, Germany
<i>2 min – Pitch (proffered)</i>	Impact of the Acceptance Angle on Image Quality for the Biograph Vision Quadra Total Body PET/CT Scanner Fabian Schmidt, Eberhard Karls University of Tübingen, Germany
<i>2 min – Pitch (proffered)</i>	High Sensitivity Molecular Imaging: a Total-Body PET with TOF and DOI capabilities Andrea Gonzalez-Montoro, Universitat Politècnica de València, Spain
12:30 – 14:00	Lunch, site visit (Surgeons' Anatomy Museum / Edinburgh Imaging) and posters

TOTAL-BODY PET2022 IN-PERSON – 25TH SEPTEMBER 2022
- AFTERNOON SESSIONS -
PRELIMINARY AGENDA

14:00 – 15:40	Session 2 Emerging applications I Chairs: TBC
<i>15 min (invited)</i>	Translational oncology and total-body PET imaging to visualize the effects of immunotherapy Derk Jan A. de Groot, University Medical Centre Groningen, Netherlands
<i>15 min (invited)</i>	Musculoskeletal total-Body PET imaging Abhijit Chaudhari, UC Davis, USA
<i>10 min (proffered)</i>	CD8-Targeted Total-Body PET Imaging of T Cells in Patients Recovering from COVID-19 Negar Omidvari, UC Davis, USA
<i>10 min (proffered)</i>	Total-body dynamic PET/CT imaging of ¹¹C-Methionine in multiple myeloma Yumei Chen, Shanghai Jiaotong University, People's Republic of China
<i>10 min (proffered)</i>	Feasibility of only delayed imaging for ⁶⁸Ga-PSMA PET/CT: initial clinical experience of total-body PET/CT in patients Yumei Chen, Shanghai Jiaotong University, People's Republic of China
<i>2 min – Pitch (proffered)</i>	Image quality variation along the axial field-of-view of the Biograph Vision Quadra total-body PET/CT system for ¹⁸F Ivo Rausch, Medical University of Vienna, Austria
<i>2 min – Pitch (proffered)</i>	Yttrium-90 post-radioembolization protocol optimization with a long axial field-of-view positron emission tomography Konstantinos Zeimpekis, University of Bern, Switzerland
<i>2 min – Pitch (proffered)</i>	Human skeletal energy networks identified with positron emission tomography imaging Karla Suchacki, University of Edinburgh, UK
15:40 – 16:20	Coffee break
16:20 – 17:10	Cross-engagement session: big data tools, platforms and innovation Chairs: TBC
<i>10 min (invited)</i>	The human connectome project: a retrospective on how to collect, analyse and share big imaging datasets David C. Van Essen, Washington University, USA
<i>10 min (invited)</i>	Latest advances in deep learning techniques applied to large PET imaging datasets Irene Buvat, Institute Curie Research Center, France
<i>10 min (invited)</i>	How super-computers can help mine big datasets: the EPCC experience Mark Parsons, University of Edinburgh, UK
Round table discussions	
17:10 – 18:30	Industry sponsored session

Conference dinner at National Museum of Scotland, Edinburgh, UK

TOTAL-BODY PET2022 IN-PERSON – 26TH SEPTEMBER 2022

- MORNING SESSIONS - PRELIMINARY AGENDA

8:00 – 9:20	Welcome desk re-opens Posters and Exhibition opens
9:20 – 10:00	Plenary Lecture Chairs: TBC
<i>30 min (key note)</i>	Systems biology and noninvasive imaging of atherosclerosis Zahi A. Fayad, Icahn School of Medicine, Mount Sinai, USA
10:00 – 11:10	Session 3 Emerging applications II Chairs: TBC
<i>15 min (invited)</i>	The heart-brain axis Frank Bengel, Hannover Medical School, Germany
<i>15 min (invited)</i>	The gut-brain axis Nicola Pavese, Newcastle University, UK
<i>15 min (invited)</i>	Applied systems biology: whole body dynamics in small animals and humans Marcus Hacker, Medical University Vienna, Austria
<i>10 min (proffered)</i>	ENHANCE-PET: A software framework to explore inter-organ metabolic networks in total-body [¹⁸F]FDG-PET Daria Ferrara, Medical University of Vienna, Austria
<i>2 min – Pitch (proffered)</i>	SAFIR: Total-body small animal PET inserts for quantitative kinetic studies of fast processes Pascal L. Bebie, ETH Zurich, Switzerland
<i>2 min – Pitch (proffered)</i>	Positron Emission Particle Tracking (PEPT) for Biomedical Applications with Total-Body PET: Implementation and Characterisation in Preclinical PET Laurence Vass, King's College London, UK
11:10 – 11:40	Coffee break
11:40 – 12:30	Session 4 Methodology Chairs: TBC
<i>10 min (proffered)</i>	Total-body PET parametric imaging using Deep Patlak: a deep-learning kinetic modeling method inspired by the Patlak plot Guobao Wang, UC Davis, USA
<i>10 min (proffered)</i>	A fully-automated motion correction tool for dynamic total-body [¹⁸F]FDG-PET/CT studies: FALCON - Fast algorithms for motion correction Sebastian Gutschmayer, Medical University of Vienna, Austria
<i>10 min (proffered)</i>	Motion-frozen and Motion-corrected Total-Body Parametric Reconstruction with Deep Learning-based Data-driven Methods Jinyi Qi, UC Davis, USA
<i>2 min – Pitch (proffered)</i>	Comparison of ultra-low-dose and standard-dose, total-body [¹⁸F]FDG-PET/CT acquisitions in healthy volunteers and lung cancer patients Daria Ferrara, Medical University of Vienna, Austria
<i>2 min – Pitch (proffered)</i>	Comparison between aorta and carotid artery image derived input functions for kinetic analysis of cerebral glucose consumption Laura Providência, University Medical Center Groningen, Netherlands
<i>2 min – Pitch (proffered)</i>	A fully-automated, tracer independent, diffeomorphic framework for total-body PET/CT normative database generation for system-level assessment of human physiology Sebastian Gutschmayer, Medical University of Vienna, Austria
<i>2 min – Pitch (proffered)</i>	Development of In-house Stringent Protocols and Phantoms for Quality Assurance of a Clinical and Research Total-Body PET Scanner Benjamin Spencer, UC Davis, USA
12:30 – 14:00	Lunch, site visit (Surgeons' Anatomy Museum / Edinburgh Imaging) and posters

TOTAL-BODY PET2022 IN-PERSON – 26TH SEPTEMBER 2022
- AFTERNOON SESSIONS -
PRELIMINARY AGENDA

14:00 – 14:50	Cross-engagement session: whole and total-body medicine Chairs: TBC
<i>10 min (invited)</i>	“Whole-body cardiovascular research: current approaches and future opportunities” David Newby, University of Edinburgh, UK
<i>10 min (invited)</i>	“Total-Body PET imaging: first experiences in infection imaging of ICU patients” Andor Glaudemans, University of Groningen, Netherlands
<i>10 min (invited)</i>	“Microphysiological systems – emulating human systemic multi-organ interactions for preclinical research” Thi Phuong, TissUse, Germany
<i>Round table discussions</i>	
14:50 – 15:30	Closing session Chairs: TBC
<i>30 min</i>	“Total-Body PET imaging: current and future applications” Terry Jones, UC Davis, USA
END of Conference	