**ICPerMed Workshop
Advancing Personalised Medicine through
Technology Development**

November 14-15, 2023

Museum Santa Maria della Scala
Siena, Italy

Presentation of Speakers

Opening Session

Fabrizio Landi
Fondazione TLS, Italy

Fabrizio Landi is born in Siena in 1953. He graduated in bioengineering at the Milan Polytechnic.

After an experience at a Bayer Group company, he started the Strategic Plan for the Ansaldo biomedical project, that later become Esaote. He has been one of the members of the management since the company start and, from 2006, the Esaote's CEO, supporting the growth of the company from 0 up to sales of more than 340 Mio€.

In 2013, he left Esaote to pursue other personal initiatives. Presently, he is an independent member of the Board of Directors of 3 Menarini companies, the major Italian Life Sciences Group and of a few other Life Science Companies.

From 2012 up to 2019, he has been member of the Board of the CRF Bank, part of Intesa Sanpaolo Group.

Since May 2014 up to May 2020, he has been member of the Board of Directors of Leonardo, the major Italian Aerospace & Defence Group. Since May 2014, he has been President of Toscana Life Science (TLS) Foundation, a Life Sciences Accelerator/incubator, Healthcare technology promoter and Research institute based in Siena.

In 2015 he co-founded Panakes Partners SGR, an investment company, based in Milan, focused to Life Sciences Venture Capital activities: at Panakes he currently serves as President and Managing Partner for V/C Funds, dedicated to Biotech & Medtech. He is President of some organisations of Confindustria, the Italian Manufacturers' Association, and V. P. of FR&I, a non-for-profit organisation focused to Tech Transfer activities in Italy.

Indridi Benediktsson
European Commission, Belgium

Dr Indridi Benediktsson studied biology at the Free University in Berlin, Germany, where he got his diploma and doctorate degrees in molecular genetics and biotechnology.

He worked on research projects, student supervision and teaching at universities and research institutions in Germany, Iceland, and Argentina. The work included studies on plant and animal genetics and biotechnology.

Dr Benediktsson joined the Directorate General for Research and Innovation, DG RTD, of the European Commission in 1996, where he was responsible for the sector of plant, animal and microbial biotechnology and biodiversity.

In 2002, he moved to the directorate for Health Research, where he was responsible for high throughput technologies in gene expression and proteomics.

From 2006 to 2012, he was in charge of international collaboration across the health research theme.

From 2013 to 2016, he worked in the International Cooperation directorate of DG RTD where he was in charge of research cooperation in all disciplines between the EU and Latin America

and the Caribbean (CELAC) as well as bilateral research cooperation with individual countries of South-America.

In 2016, he returned to the Health directorate to oversee policy and support for personalised medicine research, including its international aspect. He was responsible from the Commission side for several networks in the area as well as setting up the European Partnership for Personalised Medicine which starts at the end of 2023.

Keynote speakers

Kari Stefansson
deCODE genetics, Iceland

Kari Stefansson is a founder and CEO of the Icelandic biotechnology company deCODE genetics. He pioneered the use of population genetics in the study of human diversity. The population approach he advanced in Iceland has served as a model for large scale genome projects around the world.

Before founding deCODE in 1996, Dr. Stefansson was a professor of neurology, neuropathology and neuroscience at Harvard Medical School.

Dr. Stefansson is an International Member of the US National Academy of Sciences, he is a member of the European Molecular Biology Organisation (EMBO) and he is the recipient of the American Society of Human Genetics (ASHG) William Allan Award, the European Society of Human Genetics Award, the Anders Jahre Award, the Federation of European Biomedical Societies Sir Hans Krebs Medal, the European Heart Association Gold Medal, the World Glaucoma Association Award, the American Alzheimer's Association's Inge Grundke-Iqbal Award, the Wallace H. Coulter Distinguished Award, International KFJ Award from Rigshospitalet in Denmark, and the Jakobus Award.

He was chosen by Time magazine as one of the 100 most influential men of the year for 2007, chosen 2007 by Newsweek as one of the 10 most important biologists of the 21 century, chosen by BusinessWeek as one of the stars of Europe in 2000 at the forefront of change, on the Reuter's/Thompson's list of the world's 10 most cited scientists of 2010, Clarivate Analytics 2016, 2017 and 2018 Highly Cited Researcher Cross-Field.

Matthias Schwab
Institut für Klinische Pharmakologie, Germany

Prof Matthias Schwab is professor and chair of Clinical Pharmacology, and heads the Department of Clinical Pharmacology, University of Tuebingen and the Dr Margarete Fischer-Bosch Institute of Clinical Pharmacology at the Bosch Health Campus Stuttgart, Germany.

He studied medicine, holds board certifications in Paediatrics and in Clinical Pharmacology. Since 2018, he is Adjunct Professor of the Departments of Clinical Pharmacology and Biochemistry at the Yerevan State Medical University, Armenia.

Dr Schwab's research focuses on pharmacological genome research (e.g. ADME genes) and its importance for personalised medicine. He is interested in the application of innovative Omics technologies, including epigenetic and metabonomic aspects related to cancer therapies, and is involved in the implementation of pharmacogenomics (PGx) into clinics. He served as PI for academically initiated drug trials and holds leading roles or participated in (inter-) national funding programmes (e.g. EU-ITN Fighting Drug Failure, EU-IMI Connet4Children, EU-Horizon2020 Ubiquitous PGx).

Dr Schwab received numerous awards (e.g. Galenus von Pergamon Award, Robert-Pfleger Research Award), is member of the German National Academy of Sciences Leopoldina and

the Academy of Sciences and Literature, Mainz. He published more than 400 peer reviewed articles and he was listed several times as Clarivate Analytics Highly Cited Researcher. He serves as (Section-) Editor-in-Chief for Pharmacogenet Genom, Genom Med and Drug Res.

Francesco Dotta University of Siena, Italy	Prof. Francesco Dotta graduated in Medicine and Specialized in Endocrinology and Metabolism at University of Rome "La Sapienza". Post-doctoral research fellow at the Joslin Diabetes Centre - Harvard medical School, Boston, USA, under the supervision of Prof. George Eisenbarth. Investigator and then Associate Professor of Endocrinology, University of Rome "La Sapienza", Italy. In 2003 prof. Dotta moved to Siena, initially as Associate Professor and then as Full Professor of Endocrinology and Metabolic Diseases at University of Siena, and Director of the Diabetes Unit at Siena University Hospital. Since 2018. Prof. Dotta is Chairman of the Dept. of Medicine, Surgery and Neurosciences at University of Siena. Professor Dotta's research interests focus on the characterization of diabetes-associated islet autoimmune response, on the identification of mechanisms responsible of beta cell damage and, more recently, on the identification of circulating biomarkers for diabetes diagnosis, staging and patient stratification. His research has contributed: a) to the discovery of beta-cell enteroviral infection in a subset of type 1 diabetic patients; b) to the observation that modulation of gut immune system through specific bacteria represent a potential strategy for beta-cell protection; c) to the identification of specific signatures of circulating microRNAs associated to specific diabetic patients endotypes. Dr. Dotta is author of more than 230 publications in peer reviewed international journals.
Simon Travers Hyrax Biosciences, South Africa and Ireland	Simon Travers started his career in academia with a number of positions in Ireland before moving to South Africa in 2010 to take up an associate professor position at the South African National Bioinformatics Institute (SANBI) at the University of the Western Cape. His research interests were primarily focused on studying the molecular evolution of viruses using bioinformatics. While at UWC he transitioned to more applied research focusing on the development of software to remove barriers from the deployment of sequencing-based diagnostics at scale. Hyrax Biosciences was spun out from this work and for a number of years Simon held dual positions before moving take up a full-time position of the CEO of Hyrax Biosciences in 2019. Since transitioning, he has overseen the growth of the company from university spinout to a small company with a global impact.

Session: Technologies in Personalised Medicine

Carlotta Masciocchi
Gemelli Generator, Italy

Carlotta Masciocchi, graduated in Biomedical Engineering at Università Campus Biomedico, Rome, in 2012, and got a PhD in Oncological Sciences at the School of Medicine of the Università Cattolica S. Cuore of Rome in 2019.

She has been involved in national and international projects reading Radiomics, Machine Learning and Distributed Learning applications in Radiotherapy and Oncology and she is currently project implementation manager of the Gemelli Generator Real World Data facility where she supports the monitoring activities.

She focuses her research activity on the development of standardised collection of clinical data, privacy-preserving algorithms, predictive models and data analysis.

She is currently involved in RE-one Horizon 2020 project (RE-SAMPLE) and she teaches Machine Learning (Master in Big Data and Value Generation in Biomedical Research and Clinical Practice -UCSC).

Frédéric Dayan
ExactCure, France

Frédéric Dayan is the founder of ExactCure, a company that aims at simulating your personalised response to drugs thanks to Artificial Intelligence.

His dream is to build your perfect avatar in your smartphone. Imagine how this virtual copy of yourself could help you optimise your health!

Frédéric is a former Research & Development team leader at Dassault Systèmes. He is expert in modelling for Life Sciences. He received two Doctorates (Pharmaceutical Science + Cancer Research PhD), and a Physics Engineering diploma from the "Ecole de Physique et de Chimie de Paris".

After an academic career in biomodelling at the University, he decided to manage teams in private R&D. Now he has created his own company in order to bring his vision to life: a world where patients and health professionals benefit from cutting-edge technologies in modelling and simulation.

Silvio Weber
Miltenyi Biotec, Germany

Silvio Weber is the Scientific Director of the Industrial Workflow Development Team at Miltenyi Biotec being responsible to provide automated Cell and Gene Therapy procedures on the CliniMACS Prodigy for industrial customers.

Silvio has more than 15 years of R&D experience in various fields of cell biology, including Immunology, Regenerative Medicine and Pharmacology. After joining Miltenyi, Silvio has been coordinating custom-tailored development of automated processes for T-cell mediated Immunotherapy, Stem Cell Engineering and other innovative Cell and Gene Therapy approaches using the Miltenyi Biotec CliniMACS Prodigy platform.

Silvio holds a Diploma degree in Biochemistry from the University of Bielefeld and a Doctoral degree in Biochemistry from the University of Kiel.

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Session: Research and regulatory perspective for technology development

Johannes Haubold
University Hospital Essen,
Germany

Dr. med. Johannes Haubold is senior physician in charge of clinical AI integration in the Institute for Diagnostic and Interventional Radiology and Neuroradiology at the University Hospital Essen and medical team leader in the SHIP.AI team in the Institute for Artificial Intelligence in Medicine. His research focuses on non-invasive image-based tumour decoding and virtual sequencing. In addition to the development of new algorithms in his research areas, his tasks include the clinical integration and evaluation of AI applications.

Marlene Thomas
F. Hoffmann-La Roche,
Switzerland

Dr Marlene Thomas studied Biochemistry at the University of Bayreuth and holds a PhD in Cancer Cell Biology.

She joined Roche in 2008 and started her career in cancer research, and clinical/biomarker development.

At Roche Pharma Germany, she was heading the Medical Affairs Personalised Healthcare team. She and her team managed translational research studies, covered the entire early Roche Biomarker, genomic profiling services and companion diagnostics portfolio across disease areas in close collaboration with the German Diagnostics affiliate to ensure market implementation and customer readiness.

Moving to the Roche global organisation in 2017, she joined the department of personalised healthcare as Senior International Scientific Director and led the International Medical Team for Foundation Medicine. In this role, Marlene was responsible for implementing genomic profiling services and added value services such as the international Molecular Tumour Board.

Moving on to global Medical Affairs Oncology in 2021, her team focuses on Integrated Healthcare Solutions, which includes new diagnostic strategies and digital health solutions, supporting clinical decision making and the evidence needed to implement those into clinical practice and accelerate confidence and use by patients and healthcare systems.

Since March 2023, Marlene leads the exUS commercial business for Foundation Medicine services.

Saheli Datta Burton
UCL-STS, United Kingdom

Saheli Datta Burton is a lecturer (teaching) in Science Policy at the Department of Science and Technology Studies, University College London (UCL-STS). She is interested in the governance of emerging technologies with a focus on the political-economic and geostrategic shaping of data-driven health and digital technology policy.

Prior to this, Saheli was a Research Fellow for the Geopolitics of Industrial Internet-of-Things Standards (GISt) project funded the UK's PETRAS National Centre of Excellence for IoT Systems Cybersecurity, based at the UCL's Department of Science, Technology, Engineering and Public Policy working in collaboration with the Standards Teams at the UK's Department of Digital Culture, Media and Sport (UK DCMS).

Her recent works include the book The Elephant and the Dragon in Contemporary Life Sciences. A Call for Decolonising Global Governance published in 2022 and a forthcoming monograph on Critical Approaches to Personalised Medicine with Routledge.

She is a Visiting Research Fellow at the Department of Politics, University of Vienna (2018-present) and Editorial Board member of the Journal of Science & Technology Studies, European Association for the Study of Science and Technology (EASST) (2019-present).

She holds a PhD and MSc from King's College London, London, UK; a BA (economics) from Columbia University, New York, USA and a Newton Fellowship (2015).

Session: Collaboration of research and healthcare providers to foster innovation

Dr Hermann Nabi, PhD, HDR, is a researcher in and the Deputy Director of the Oncology division at the Quebec City University Hospital Research Centre and an Associate Professor of Epidemiology at the Department of social and preventive medicine at the Faculty of medicine of Université Laval, Canada. Prior to joining the Center and Université Laval, Prof. Nabi was the Head of the Research Department of Social and Human Sciences, Epidemiology, Public Health at the French National Cancer Institute (INCa) in Paris. His research team's work focuses on precision medicine.

With advances in genomics and the advent of new molecular biology technologies and artificial intelligence, precision medicine is attracting a lot of attention and has become an area of strong international competition. However, despite the large volume and unprecedented rate of genes or biomarker discoveries, relatively few have reached the clinic or contributed to improving populations' health. This relatively poor performance could be explained by the fact that only a small proportion (about 3%) of all published global research addresses issues related to the integration of genomics innovations into health and disease prevention.

For this reason, the ultimate goal of Dr. Nabi's team is to generate evidence to facilitate a successful and responsible integration of precision medicine innovations into prevention and healthcare, particularly for cancer.

Hermann Nabi
QUHC, Canada

Jean-François Mangin is the director of the methodological research unit of Neurospin (70 fellows), the ultra-high field neuroimaging centre of the CEA. This unit bridges between high-field physicists and computer scientists working on population imaging.

He is also the funding director of the CATI national platform dedicated to multicentre neuroimaging, which has supported over 40 clinical studies across France and Europe during the last 15 years (>15000 patients involved). Relying on a growing network of about 100 harmonised imaging facilities, the platform monitors acquisitions and performs centralised image analysis from a wide portfolio.

He has been heavily involved in the human brain project, the flagship of the European community, since its launch. He was awarded in 2020 one of the 40 Artificial Intelligence Chairs from the French national AI program. His primary scientific interest lies in designing computer vision systems for the complex structures embedded in neuroimaging data. His goal is to alleviate the limitations of the neuroscientist's biological vision.

His primary target is the automatic recognition of the sulci of the human cerebral cortex. His team has developed several generations of dedicated systems, which have been distributed to the community through the BrainVISA platform (http://brainvisa.info/).

Jean-François Mangin
CEA/Neurospin, France

Robert Doczi
Genomate Health, Hungary

Trained as a molecular biologist, Robert Doczi obtained a PhD in genetic regulation at Szt. István University (Hungarian University of Agriculture and Life Sciences). He was a postdoc at Vienna Biocentre (Austria), then a Marie Curie Fellow at Royal Holloway, University of London (UK) and then a principal investigator at the Hungarian Academy of Sciences. In his academic career his main research interest was cellular signalling, focused on mitogen-activated protein kinases.

In 2018 he joined Oncompass, a precision oncology company, where he became involved in various projects related to precision oncology software development.

Currently, he is head of Research at Genomate Health, the technology spin-out company of Oncompass. Here, he is responsible for R&D projects for developing and clinically validating a digital drug assignment system to facilitate and improve clinical decisions for personalised oncology treatments.

Session: ICPerMed 'Best Practice in Personalised Medicine' Recognition 2022-2023

Laura Valinotto CEDIGEA, Argentina	Dr. Valinotto holds a MSc. degree in Biotechnology and is a Researcher of the National Scientific and Technical Research Council (CONICET) working at the Centre for Research in Genodermatosis and Epidermolysis Bullosa (CEDIGEA). In 2009, while working on her PhD Thesis at the Virology lab of Dr. Ricardo Gutiérrez Children's Public Hospital in Buenos Aires, Argentina, she started volunteering to perform molecular diagnosis in children with clinical signs of Epidermolysis Bullosa (EB). After five years, she contributed to the launch of CEDIGEA, a centre of the University of Buenos Aires. She continues working at CEDIGEA, studying the molecular epidemiology of EB and other genodermatoses in Argentina and neighbouring countries. She is in charge of the technical issues of molecular diagnosis and variant analysis, scientific communications, resources managing and promoting the use of new technologies to study rare diseases.
Mireia Seuma Institute for Bioengineering of Catalonia, Spain	Mireia is a former PhD student at the Institute for Bioengineering of Catalonia at Benedetta Bolognesi's lab, and is interested in understanding how genetic variation impacts pathogenic self-assembly. During her PhD, she used Deep Mutational Scanning to quantify the effect of thousands of variants in the amyloid beta peptide - involved in Alzheimer's disease - on amyloid fibril nucleation. The resulting Atlas for amyloid provides important mechanistic insights into amyloid nucleation, and at the same time, provides a quantitative resource for clinical variant interpretation in dementia, opening the way for better stratified clinical trials and guiding the development of targeted, mutation-specific, therapeutic approaches for dementia. Mireia has recently moved to the MRC Laboratory of Molecular Biology in the UK to start her postdoc in synthetic biology.
Nurulamin Noor University of Cambridge, United Kingdom	Nuru is a Clinical Lecturer in Gastroenterology based at the University of Cambridge in the UK. He was the Clinical Research Fellow and Principal Investigator for the PROFILE Trial, one of the largest academic trials in the field of Inflammatory Bowel Disease (IBD) ever performed from the United Kingdom and indeed one of the largest around the world - using a novel biomarker-stratified, trial design and with a focus on pragmatic and decentralised delivery. He is interested in getting faster answers using efficient trial designs, particularly in the setting of IBD and other similar immune-mediated inflammatory diseases (IMIDs).

Moderators

Ejner Moltzen
Innovation Fund Denmark, Denmark

A medicinal chemist by training, Ejner Moltzen worked in research and development at H. Lundbeck A/S in a range of scientific, managerial, and strategic positions for almost 30 years. He has been heavily involved with running efficient drug discovery projects, both in terms of delivering candidates for clinical trials and optimising the related processes.

He was also responsible for alliance management within R&D, contributing to company collaborations and public-private partnerships, and representing Lundbeck in engagement with the European Federation of Pharmaceutical Industries Associations and the Innovative Medicines Initiative.

In 2016, he left Lundbeck to establish Somami Consulting ApS, a consultancy company focused on providing support for R&D projects, operations, alliance management, strategy and policy initiatives, collaboration contracts, and project evaluations.

He supports both public agencies and private enterprises, nationally and internationally, and works with Innovation Fund Denmark as the agency's lead representative on international activities relating to personalised medicine. He is currently the elected Chair of ICPerMed (https://www.icpermed.eu/), an EU-funded European initiative to promote implementation of personalised medicine and has been heavily involved in developing the concept of the upcoming European Partnership for Personalised Medicine.

Gianni D'Errico
Foundation Tuscany Life Sciences, Italy

Gianni D'Errico is head of Project Management Office at Toscana Life Sciences, the main regional player in the biomedical field and policy support in Tuscany Region. He is also vice chair of the International Consortium for Personalised Medicine.

He obtained his degree cum laude in International Relations at Federico II University in Napoli, with a major in international economics. He obtained his Post Graduate master's degree in Project Management in Rome and a certification in Intellectual Property Management at University of Bonn (DE). He is also an EMBA laureate at Bologna Business School (University of Bologna). He started his professional experience in Brussels managing R&D projects within FP7 Programme in the Energy and Environment Sector.

In 2013, he moved in Slovenia where he gained an extensive experience on the R&D project in Health and Biotech sectors for the main international players (Novartis, Sandoz, Lek, Merck, Millipore, Karlsruhe Institute of Technology, etc.).

In 2015, he moved to Milan where he held the position of the European Funding Officer at Regional Foundation for Biomedical research (15 Million €/year to fund biomedical research).

In July 2018, he moved in Florence where he works as Head of Project Management Office at Toscana Life Sciences, within the Office for the valorisation of health research (UVaR) at the DG health of Tuscany Region.

Hemma Bauer Federal Ministry of Science, Research and Economy, Austria	Dr Hemma Bauer holds a Master of Microbiology in the University Vienna, a PhD of Molecular biology in the University Vienna and a degree in nursing. In 2006, Hemma Bauer entered to work for the Austrian Ministry of Education, Science and Research and since 2010 she is Head of Unit for Life Sciences within the Section of Research and International Relations in the Ministry. Her responsibilities are research policies and support of Life Sciences and medical research on national level as well as alignment with European and international programmes/initiatives. As such she is member of various European and international committees (e.g. Programme Committee Health, IMI, EDCTP, BBMRI, EMBL, IARC/WHO).
Chiara Ciccarelli Italian Ministry of Health, Italy	Chiara is an International Relations Officer at the Italian Ministry of Health. She works at the Directorate General for Research and Innovation in Healthcare since 2021 and is in charge of the management of all the international biomedical research initiatives in which the directorate is involved in. On behalf of the Ministry, she is part of the ICPerMed Secretariat and of the future European Partnership for Personalised Medicine. To date, among the 25 initiatives she deals with, she is also part of the Coordinating Team of the European Partnership Transforming Health and Care Systems (THCS).
Monika Frenzel French National Research Agency (ANR), France	Dr Monika Frenzel, International Coordinator in the Biology and Health department of the French National Research Agency (L'Agence Nationale de la Recherche, ANR), represents ANR in several transnational collaborations and international funding programmes, particularly in the field of Personalised Medicine, i.e. the CSA ICPerMed Secretariat and ICPerMed itself, the ERA-Net on Personalised Medicine, ERA PerMed (appointed chair for five consecutive years) and the CSA EU-Africa PerMed. Dr Monika Frenzel was highly involved in the preparations of the European Partnership for Personalised Medicine, EP PerMed, notably as co-lead of the Drafting Group (development of the Draft proposal of the EP PerMed and the Strategic Research and Innovation Agenda for Personalised Medicine, SRIA for PM, 2023) and the Writing Group (EP PerMed proposal development). Monika Frenzel completed her PhD in Physical Biochemistry and Radiation Biology and worked as researcher in the field of cytogenetics and cohort studies.