



UNIVERSITÀ DI PISA

**PhD Program in Clinical and Translational Sciences**

Coordinator: Prof. Mauro Pistello

**PhD Program in Clinical Physiopathology**

Coordinator: Prof. Massimo Chiarugi

**PhD Week 2023**

# **Navigating the Future in Healthcare Science**



**May 3<sup>rd</sup> – 5<sup>th</sup>, 2023**

Centro Congressi “Le Benedettine”

*Piazza S. Paolo a Ripa D'Arno, 16, 56125 Pisa*



# UNIVERSITÀ DI PISA

May 3<sup>rd</sup>, 2023

**08.30 - 09.15 *Welcome and opening remarks***

**Riccardo Zucchi**, *Rector of the University of Pisa*

**Emanuele Neri**, *President of the School of Medicine*

**Angelo Gemignani**, *Director of Surgical, Medical and Molecular Pathology and Critical Care Medicine*

**Aldo Paolicchi**, *Director of Translational Research*

**Stefano Taddei**, *Director of Clinical and Experimental Medicine*

**09.15 - 10.30 *Old and novel opportunities after the PhD degree***

*Chairs: Massimo Chiarugi and Mauro Pistello, Coordinators PhD Courses*

**Outlook on PhD courses**

*Bernardo Tellini, Pro-Rector of Research Doctorate, University of Pisa*

**Entrepreneurial opportunities in life science**

*Federica Draghi, Chief Executive Officer Xgen Venture*

**Round Table**

**10.30 - 11.00 *Coffee break***

**11.00 – 13.00 *Endocrinology, Metabolism, Cardiovascular Medicine, and Cardiology***

*Chairs: Stefano Del Prato and Raffaele De Caterina, University of Pisa*

**Precision medicine in diabetes**

*Paul W. Franks, Novo Nordisk Fonden, Hellerup, Denmark*

**Precision Epigenetics in Cardiovascular Precision Medicine**

*Francesco Paneni, Universitätsspital Zürich, Klinik für Kardiologie, Zürich*

**Precision Medicine in Endocrinology: new insights in the treatment of Graves' orbitopathy**

*Michele Marinò, University of Pisa*

**13.00 - 14.00 *Lunch***



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## 14.00 - 16.00 *Guided Poster Session*

*Chairs: Francesco Latrofa, Andrea Natali, Alessandro Antonelli & Michela Ferrucci, Mario Miccoli, Filippo Giorgi*

## 16.00 – 18.00 *Bio-Psychology and Neurosciences*

*Chairs: Angelo Gemignani and Gabriele Siciliano, University of Pisa*

### **Transcriptional derepression as a cause of a genetic disease: the case of FSHD muscular dystrophy**

*Davide Gabellini, Gene Expression and Muscular Dystrophy Unit, Division of Genetics and Cell Biology, IRCCS San Raffaele, Milan*

### **Protein folding pathways in neurodegeneration: new avenues across physiology and therapy**

*Emiliano Biasini, Dept. Cellular, Computational and Integrative Biology - CIBIO, University of Trento*

### **Psychophysiological correlates of meditation sciences**

*Andrea Piarulli, Department of Surgical, Medical and Molecular Pathology and Critical Care Medicine, University of Pisa*

### **Slow oscillation in sleep as model for neural plasticity**

*Giulio Bernardi, IMT School for Advanced Studies Lucca*

May 4<sup>th</sup>, 2023

## 08.30 - 10.30 *Artificial Intelligence and Metaverse*

*Chairs: Stefano Berrettini and Ugo Faraguna, University of Pisa*

### **Human-centered Artificial Intelligence**

*Dino Pedreschi, University of Pisa*

### **VR/AR applications for healthcare systems: opportunities and challenges**

*Lucio Lamberti, Scientific Director Metaverse Marketing Lab – Politecnico di Milano, School of Management*

### **AI and Wearables: A Maturing Field**

*Luca Foschini - CEO Sage Bionetworks, Founder Evidation Health*

### **Round Table**

## 10.30 - 11.00 *Coffee break*



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## 11.00 - 13.00 **Precision Medicine in Oncology**

*Chairs: Sara Galimberti and Gianluca Masi, University of Pisa*

### **From histology to a novel mutational approach in pathological diagnosis**

*Rossella Bruno - University of Pisa*

### **Precision medicine in the clinic: exploiting the present to drive the future**

*Caterina Vivaldi - University of Pisa*

### **Digital Innovation in oncology**

*Daniele Di Ianni - Roche*

### **Digital pathology and artificial intelligence for precision medicine**

*Albino Eccher - Verona University Hospital*

## 13.00 - 14.00 **Lunch**

## 14.00 - 16.00 **Guided Poster Session**

*Chairs: Clara Ugolini, Cristian Scatena, Guido Bocci & Emilia Ghelardi, Alessandra Salvetti, Maria Franzini*

## 16.00 - 18.00 **The human body as an ecosystem**

*Chairs: Giovanna Batoni and Alessandro Celi, University of Pisa*

### **Modelling the microbiome and microbiome-host interactions**

*Alessio Mengoni, University of Florence*

### **Person-to-person transmission landscape of the human microbiome**

*Mireia Valles-Colomer, University of Trento*

### **COVID vaccines: immunological advances and public health**

*Paola Migliorini, University of Pisa*

### **Vaccine effectiveness**

*Caterina Rizzo, University of Pisa*



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May 5<sup>th</sup>, 2023

08.30 - 10.30 **Digital Health**

*Chairs: Emanuele Neri and Lorenzo Ghiadoni, University of Pisa*

**Big Data in Healthcare**

*Corrado Priami, University of Pisa*

**Artificial Intelligence to Process Big Data**

*Paolo Ferragina and Giuseppe Prencipe, University of Pisa*

**Artificial Intelligence in Medical Imaging**

*Giovanni Donato Aquaro, University of Pisa*

**Imaging Biobanks**

*Gayane Aghakhanyan, University of Pisa*

**Applications of natural language processing in radiology**

*Lorenzo Faggioni, University of Pisa*

**Discussion**

10.30 - 11.00 **Coffee break**

11.00 – 13.00 **Surgery, Anesthesiology, Imaging, Simulation and Planning**

*Chairs: Massimo Chiarugi and Marco Lucchi, University of Pisa*

**Precision Surgery**

*Ugo Boggi, University of Pisa*

**Machine Intelligence Approach in Anaesthesiology**

*Francesco Forfori, University of Pisa*

**Future trends in robotic surgery**

*Arianna Menciassi, Sant'Anna Pisa*

**In situ Bioprinting: The future of 3D biofabrication inside the human body**

*Giovanni Vozzi, University of Pisa*

**Future in Robotic Surgery**

*Laura Ferro, Surgical Intuitive*

13.00 - 14.00 **Lunch**



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## **14.00 - 16.00 *Guided Poster Session***

*Chairs: Mario Miccoli, Fabio Vistoli, Serena Danti, Fabiola Paiar, Giandomenico Biancofiore, Gabriele Materazzi, Alessandro Celi*

## **16.00 - 17.30 *Navigating the Future of Italian and European Research***

*Chairs: Benedetta Mennucci, Vice-Rector for the Promotion of Research  
Giovanni F. Gronchi, Vice-Rector for Cooperation and International Relations, University of Pisa*

## **PNRR and the Italian Research**

*Rosario Rizzuto, Past-Rector, University of Padua*

## **Horizon Europe, Research and Innovation in the Health Domain**

*Livio Stefanelli, Former Directorate General Research of the European Commission*

## **Round Table**

*Moderator: Vittoria Raffa, Delegate for Research Promotion in Life Science, University Pisa*

## **17.30 - 18.00 *PhD Awards and Closing Ceremony***