

San Luigi Gonzaga Hospital, Orbassano, Turin, Italy Candiolo Cancer Institute - IRCCS, Candiolo, Turin, Italy Department of Oncology - University of Turin, Orbassano, Turin, Italy



Chairmen of the Meeting: **Francesco Porpiglia -** Department of Urology, San Luigi Gonzaga Hospital, School of Medicine University of Turin, Orbassano, Italy



12<sup>th</sup> INTERNATIONAL TECHNO-UROLOGY MEETING (TUM) IV GENERATION OF 3D VIRTUAL MODELS: TOWARDS BIOLOGICAL DIGITAL TWINS AND THE SURGICAL PLANNING INTO THE URO-VERSE

29th February - 1st March 2024

Aula Convegni S. Luigi Gonzaga Hospital Orbassano, Turin, Italy



Requested patronage of:



## INTRODUCTION

Dear Friends,

We are delighted to announce the 12th edition of TUM, scheduled for February 29th and March 1st 2024.

Over the past years, we have been diligently working on enhancing and refining technologies for laparoscopic and robotic urologic surgery.

Our journey has taken us from 3D-guided surgeries to the adoption of 4K vision and the implementation of highly advanced broadcasting systems, all designed to offer participants the most immersive experience possible. From the very first editions of our meeting, our goal has been to provide an enriched surgical environment.

Our exploration continued as we delved into the study of organ-specific 3D virtual models derived from standard imaging. This led us into the realms of augmented reality and mixed reality surgery, with the primary objective of improving surgical planning and intraoperative guidance. We aimed to maximize surgeon awareness during procedures, taking advantage of the information provided by virtual models of real anatomy.

Our initial forays into the augmented reality surgery were semi-automatic, but we soon transitioned to augmented reality platforms powered by artificial intelligence, with subsequent automatic overlapping of the 3D augmented reality images.

Taking our commitment further, last year we created an immersive platform for a virtual reality experience, in the Metaverse.

The surgeons had the possibility to navigate the 3D virtual models of the patients in a virtual environment, sharing the surgical planning with the moderators and the delegates even if located in different sites.

In this TUM24 edition, we will bring the delegates, moderators and surgeons into the Uro-Verse, that it is more than only a virtual platform. Uro-Verse is a testament to the dynamic synergy between technology and surgery, and it is set to redefine the landscape of urology for years to come. In Uro-Verse, the boundaries of physical geography dissolve, and this virtual realm facilitates collaborative learning, discussions, and surgical innovations.

Another novelty will be represented by the presentation of our fourth generation of the 3D virtual models.

3D BioDigital Virtual Models of the patients' anatomy will be a Digital Twin of the organs, and will be showed into the Uro-Verse environment, with an unprecedent level of precision and customization that has the potential to further improve the realism and the accuracy of immersive surgical planning.

I am confident that this special edition of TUM will be a resounding success, with a multitude of innovative surgical technologies to be presented, and a distinguished faculty of surgeons joining us from all corners of the world.

We hope that our ambitious program will be enjoyed by all attendees, and we warmly welcome you to Turin for this 12th edition of TUM!

Kind regards.



Francesco Porpiglia

## **OUR INSTITUTION**



## **DIVISION OF UROLOGY - DEPARTMENT OF ONCOLOGY UNIVERSITY OF TURIN**

The Department of Oncology at University of Turin, is composed by professionals, from preclinical to translational research and clinic assistance for oncological diseases. It is sited in San Luigi Hospital and IRCC Candiolo Institute.

The Urology team, that takes part into the Department of Oncology, manages all uro-oncological and all others genito-urinary diseases. The most recent and modern technologies are available for diagnosis and treatment of such of them.

Robotic and laparoscopic surgery have been developed in the last years, being San Luigi Hospital's Urology Division a pioneer Centre for many techniques, especially in the setting of translational surgery.

Together with the clinical activity, also the teaching activity has a primary role, being our Department the Center for the Urology Residency Program.

Our Staff is continuously involved and invited to attend the most prestigious International and National Meetings.

Our intensive scientific and research activity is widely recognized as demonstrated by the publications in the most famous international peer-reviewed journals.



### **CONGRESS VENUE** Aula Convegni S. Luigi Gonzaga Hospital



# HONORARY CONGRESS PRESIDENT



**Dario Fontana** Professor of Urology Turin, Italy



**Roberto Mario Scarpa** Professor of Urology Campus Biomedico University Hospital Rome, Italy

## **INVITED SURGEONS**



**Ronney Abaza** Central Ohio Urology Group LLC, USA



Alessandro Antonelli Chairman, Urology Department, Azienda Ospedaliera Universitaria Integrata, University of Verona, Verona, Italy"



Riccardo Autorino Professor of Urology Director of Surgical Innovation Rush University Medical Center Chicago, IL, USA





Consultant Urological Surgeon and Clinical Lead at The Specialist Centre for Kidney Cancer at The Royal Free Hospital

#### Alberto Breda

Ravi Barod

Chief of the Uro-Oncology Division and Director of the Kidney Transplant Unit Fundació Puigvert Barcelona, Spain





# INVITED SURGEONS



Ruben De Groote Assistant professor of Urology at KU Leuven, Belgium



**Riccardo Schiavina** Department of Urology at Sant'Orsola Malpighi Hospital University of Bologna, Italy



Antonio Galfano Department of Urology Niguarda Hospital Milan, Italy



**Carlo Terrone** Chief Department of Urology San Martino Hospital Genova, Italy



Ahmed Ghazi Brady Urological Institute Johns Hopkins University Baltimore, USA



Ashutosh Tewari Professor of Urology The Mount Sinai Hospital New York, USA



Inderbir Gill

Chair and Distinguished Professor of Urology, Shirley and Donald Skinner Chair in Urologic Cancer Surgery, Executive Director, USC Institute of Urology, Los Angeles 



Alessandro Volpe Urology Unit, University of Piemonte Orientale Novara, Italy

Jochen Walz

China

tre, Marseille, France



Jihad H. Kaouk Director, Center for Robotic and Image Guided Surgery Cleveland Clinic, Cleveland, USA



**Bo Yang** Director Kidney cancer program Department of Urology Changhai Hospital Shanghai, China

Associate Professor in Urology and

Head of the Department of Urology,

Institut Paoli-Calmettes Cancer Cen-



**Evangelos Liatsikos** Professor of Urology and Head of the Endourology and Laparoscopic Unit at the University of Patras Patras, Greece



Maria Carmen Mir Imed Valencia, Spain



Linhui Wang Professor of Urology Shanghai Changzheng Hospital



Veronique Phè Professor of Urology at Sorbonne University, Paris, France



Peter Wiklund Professor of Urology Department of Urology Karolinska University

Hospital Stockholm, Sweden



Francesco Porpiglia Professor and Chairman Department of Urology S. Luigi Hospital, Orbassano University of Turin Turin, Italy 



5

## **INVITED SPEAKERS & MODERATORS**

#### Simone Albisinni

UOSD Urology Department of Surgical Sciences University of Rome Tor Vergata Rome, Italy

#### Daniele Amparore

Department of Urology San Luigi Gonzaga Hospital, School of Medicine, University of Turin Orbassano, Italy

#### **Riccardo Bertolo**

Urology Department, Azienda Ospedaliera Universitaria Integrata, University of Verona, Verona, Italy"

#### Mahendra Bhandari

Senior Bio-scientist and Director of Robotic Surgery Research & Education at the Vattikuti Urology Institute (VUI), Detroit, USA

#### Nicolò Maria Buffi

Department of Urology, Humanitas Research Hospital, Rozzano, Milan, Italy

#### Riccardo Campi

Department of Urology Careggi University Hospital Florence, Italy

#### Giuseppe Carrieri

Department of Urology Ospedali Riuniti, University Medical School, Foggia, Italy

### 

#### Antonio Celia

Head of Department of Urology San Bassiano Hospital Bassano del Grappa (VI), Italy

Fabrizio Dal Moro Department of Urology University of Padova, Italy

#### Francesco Del Giudice

Department of Maternal-Infant and Urologic Sciences, Sapienza University of Rome Policlinico Umberto I Hospital Rome, Italy

#### Paolo Dell'Oglio

Department of Urology Niguarda Hospital, Milan, Italy

**Cosimo De Nunzio** Department of Urology Sant'Andrea Hospital Rome, Italy



#### Elisa De Lorenzis

Department of Urology, Foundation IRCCS Cà Granda Ospedale Maggiore Policlinico, Milan, Italy

#### Marco De Sio

Department of Urology University of Naples, Italy

#### Michele Di Dio

Department of Urology SS. Annunziata Hospital Cosenza, Italy

#### Francesco Esperto

Campus Biomedico University Hospital Rome, Italy

#### Vincenzo Ficarra

Department of Urology University of Messina Messina, Italy

Cristian Fiori

Department of Urology San Luigi Gonzaga Hospital School of Medicine, University of Turin Orbassano, Italy

## **INVITED SPEAKERS & MODERATORS**

Andrea Gallioli

Department of Urology, Puigvert Foundation, Barcelona, Spain

Ali Serdar Gozen

SIk Kliniken Urology Department Heidelberg University Heilbronn, Germany \_

Michele Marchioni Department of Urology University G. D'Annunzio Chieti Pescara, Italy

#### Andrea Mari

Department of Urology AOU Careggi Hospital Florence, Italy

**Salvatore Micali** Professor of Urology University of Modena and

Reggio Emilia, Italy

#### Marco Paciotti

Department of Urology, Humanitas Research Hospital, Rozzano, Milan, Italy

#### Vito Pansadoro

Laparoscopy Center Vincenzo Pansadoro Foundation Rome, Italy

#### Sisto Perdonà

Department of Oncologic Urologic Surgery At The I.R.C.C.S. "Fondazione G. Pascale" Naples, Italy

#### Stefano Puliatti

Department of Urology University of Modena and Reggio Emilia Reggio Emilia, Italy Clinical Lead For Urology Surrey And Sussex Nhs Trust Redhill, UK

**Bernardo Rocco** Department of Urology ASST Santi Paolo e Carlo Milan, Italy

Abhay Rane

Luigi Schips Department of Urology Vasto and Lanciano Hospital Chieti, Italy

Alessandro Sciarra Department of Urology Policlinico Umberto 1 Hospital Rome, Italy

**Silvia Secco** Department of Urology Hospital Niguarda Milan, Italy

Nazareno R. Suardi Associate Professor of Urology, University of Brescia, Italy

# • February 29<sup>th</sup> 2024 •

	SCREEN #1	SCREEN #2	
8.00 - 8.30	Welcome and Opening		
Moderators	Nicolò Buffi Andrea Gallioli	Riccardo Bertolo Bernardo Rocco	
8.30 - 10.00	Digital twin assisted planning for NS-RARP	Digital twin assisted planning for LAP 3D guided Partial Nephrectomy	
	Carlo Terrone	Maria Carmen Mir	
Moderators	Francesco Del Giudice Ali Sendar Gozen	Giuseppe Carrieri Michele Marchioni	
10.00 - 11.30	Tele-Cognitive guided for RN in locally advanced tumor/after neoadiuvant treatment	Digital twin assisted planning for RARP in locally advanced PCa	
	Bo Yang 🛛 🖀 🎽	Jochen Walz	
Moderators	Riccardo Campi Fabrizio Dal Moro	Francesco Esperto Vincenzo Ficarra	
11.30 - 13.00	Digital twin assisted clamping strategy planning for RAPN	Digital twin assisted planning for robotic sacrocolpopexy	
	Alberto Breda	Veronique Phè	
13.00 - 14.00	Lunch Break		
Moderators	Paolo Dell'Oglio Alberto Breda	Cosimo De Nunzio Marco Paciotti	
14.00 - 15.30	Digital twin assisted surgical planning for minimalanatomical impact RAPN	Single port retroperitoneal Robotic Partial Nephrectomy with IRIS technology	
	Francesco Porpiglia 🛛 🖉 📕	Ahmed Ghazi 🛛 🕅 🕅 🔛	
Moderator	Simone Albisinni Nazareno R. Suardi	Andrea Gallioli Salvatore Micali	
15.30 - 17.00	Digital twin assisted planning for Retius Sparing-RARP	Digital twin assisted enucleative strategy planning for RAPN	
	Antonio Galfano	Ruben De Groote	
Moderators	Niccolò Buffi Cosimo De Nunzio	Cristian Fiori Bernardo Rocco	
17.00 - 18.30	<b>SP transvesical RARP</b> (Semi Live)	<b>Robotic bladder transplantation</b> (Semi Live)	
	Jihad H. Kaouk 🛛 🕿 📕	Inderbir Gill 🛛 📽 📕	
	3D models and extended reality for Robotic Urologic Surgery: first course on pig models		
	Daniele Amparore, Riccardo Campi, Stefano Puliatti		
	Mahendra Bhandari		

## • March 1<sup>st</sup> 2024 •

Marchini			
	SCREEN #1	SCREEN #2	
Moderators	Francesco Del Giudice Ali Gozen	Mahendra Bhandari Marco Paciotti	
8.30 - 10.00	Digital twin assisted surgical planning for LAP Partial/Radical Nephrectomy	Digital twin assisted planning for Hood-RARP with & hydro-dissection	
	Evangelos Liatsikos 🛛 🖉 🔛	Ashutosh Tewari	
Moderators	Riccardo Campi Luigi Schips	Riccardo Bertolo Mahendra Bhandari	
10.00 - 11.30	Digital twin assisted planning for energy-free clipless total anatomical RARP	Complex robotic surgery for locally advanced kidney cancer	
	Francesco Porpiglia	Wang Linhui 🛛 🕿 🂴	
Moderators	Andrea Mari Silvia Secco	Simone Albisinni Vito Pansadoro	
11.30 - 13.00	Digital twin assisted clamping strategy planning for RAPN	Digital twin assisted planning for NS-RARP	
	Riccardo Autorino	Peter Wiklund	
13.00 - 14.00	Lunch Break		
Moderators	Francesco Esperto Abhay Rane Elisa De Lorenzis Marco De Sio		
14.00 - 15.30	Digital twin assisted planning for retroperitoneal RAPN	Digital twin assisted resection strategy planning for RAPN	
	Ronney Abaza 🛛 🖀 📕	Riccardo Schiavina 🛛 🖉 📕	
Moderator	Sisto Perdonà Abhay Rane	Antonio Celia Paolo Dell'Oglio	
15.30 - 17.00	Digital twin assisted planning for robotic ureteral reimplantation	Digital twin assisted surgical strategy planning for anterior RAPN	
	Alessandro Antonelli 🛛 🖉 📕	Ravi Barod	
Moderators	Michele Di Dio Michele Marchioni	Stefano Puliatti Alessandro Sciarra	
17.00 - 18.30	Digital twin assisted surgical strategy planning for RAPN	Single Port-RAPN	
	Alessandro Volpe	Simone Crivellaro 🛛 🕅 🖀	
18:30 - 19:00		ronic in BPH: an update	

## **SCIENTIFIC SECRETARIAT**

#### **Daniele Amparore**

Department of Urology, San Luigi Gonzaga Hospital, School of Medicine, University of Turin, Orbassano, Italy

#### **Riccardo Autorino**

Professor of Urology, Director of Surgical Innovation, Rush University Medical Center Chicago, IL, USA

#### Alberto Breda

Chief of the Uro-Oncology Division and Director of the Kidney Transplant Unit Fundació Puigvert, Barcelona, Spain

#### **Enrico Checcucci**

Department of Urology Istituto di Candiolo IRCCS, Turin, Italy

#### Michele Di Dio

Department of Urology, SS. Annunziata Hospital, Cosenza, Italy

#### **Cristian Fiori**

Department of Urology, San Luigi Gonzaga Hospital, School of Medicine, University of Turin Orbassano, Italy

#### Alex Mottrie

Department of Urology Orsi Accademy and O.L.V. Clinic, Aalst, Belgium

#### Francesco Porpiglia

Professor and Chairman Department of Urology, San Luigi Gonzaga Hospital, School of Medicine, University of Turin, Orbassano, Italy

### ORGANIZING COMMITTEE FOR LIVE SURGERY

Staff of the hosting Department of Urology San Luigi Gonzaga Hospital, School of Medicine, University of Turin, Orbassano, Italy

**Paolo Alessio** 

**Daniele Amparore** 

Giovanni Cattaneo

Enrico Checcucci

Marco Cossu

Sabrina De Cillis

Stefano De Luca

**Michele Di Dio** 

**Cristian Fiori** 

Matteo Manfredi

Alberto Piana

**Federico Piramide** 

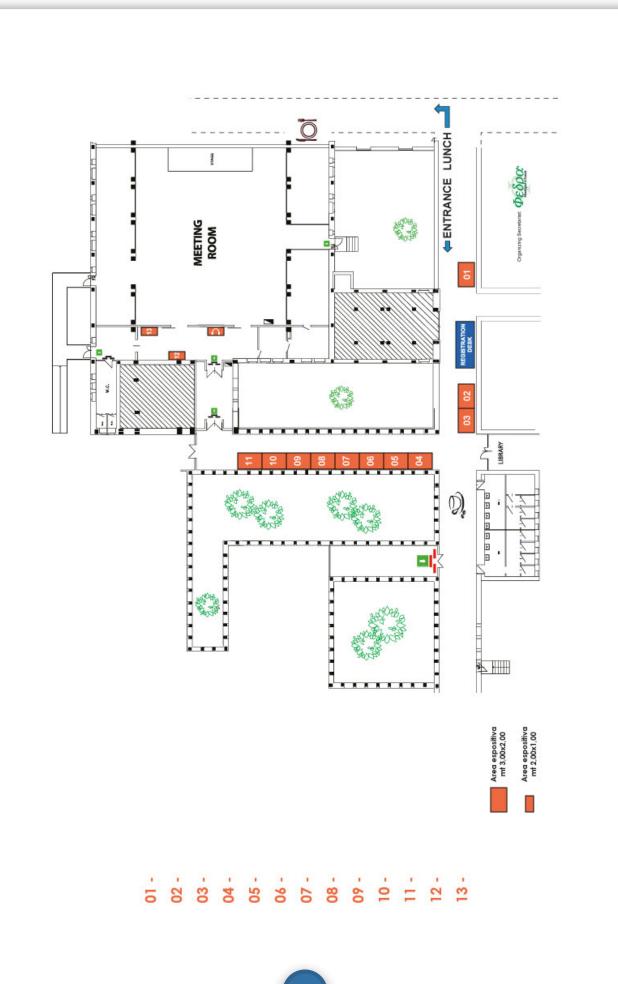
Massimiliano Poggio

Francesca Ragni

# WITH THE UNCONDITIONAL SUPPORT OF



# **EXHIBITION FLOOR PLAN**



## CONGRESS VENUE

Aula Convegni - S. Luigi Gonzaga Hospital Regione Gonzole, 10 10043 - Orbassano, Turin, Italy



### **MEETING PLANNER**



FEDRA Congressi Provider ECM n° 3376 Viale dei SS. Pietro e Paolo, 21 00144 Rome, Italy Ph. +39 06 52247328 info@fedracongressi.com www.fedracongressi.com

## **OFFICIAL LANGUAGE**

The official language of the Congress is English.

### **REGISTRATION FEE**

Delegates: Between October 15th, 2023 and December 15th, 2023: After December 15th, 2023:	
Trainee/Residents: Between October 15th, 2023 and December 15th, 2023: After December 15th, 2023:	

The registration fee includes scientific program, lunches, and coffee breaks during the event.

### **WEBSITE**

Visit our website at: www.technourologymeeting.com

## **ITALIAN ECM ACCREDITATION**

The 12<sup>th</sup> INTERNATIONAL TECHNO-UROLOGY MEETING has been accredited by the Italian Ministry of Health.

The Italian Ministry of Health assigned n. 18 ECM Credits (2-Linee guida-protocolli-procedure).

The Congress has been accredited for the following specialties:

- Oncology
- Radiotherapy
- Urology
- Pathological anatomy
- Radiodiagnostics

In order to receive Italian credits participants must attend 90% of the event and pass the final test.

### WEBSITE

Visit our website at: www.technourologymeeting.com

NOTE	
15	



#### FEDRA Congressi Viale dei SS. Pietro e Paolo, 21 00144 Rome, Italy Ph. +39 06 52247328 Fax +39 06 5205625 info@fedracongressi.com www.fedracongressi.com www.technourologymeeting.com