

# PADUA LYMPHATIC FORUM



**2024  
Summer  
School**

**16-20 SETTEMBRE**



“Padua Lymphatic Forum” Summer School is a unique international event, focused on a commonly neglected part of the vasculature: the **Lymphatic System**. Recent advances in our understanding of lymphatics in health and disease have opened up **exciting new research avenues and therapeutic opportunities** in diverse disease settings.

The school program brings together a **diverse range of esteemed speakers and discussion leaders** from Padua and from many institutions and organizations worldwide.

During the 5 days, all themed around different topics, these experts will discuss the state-of-the-art and latest advances in this evolving field, covering aspects of **vascular and mechano-biology; lymphatic pathophysiology** in **cardiovascular-metabolic, renal, lung and CNS disease; inflammation**; clinical diagnosis management of **lymphatic disorders; genetics**; point-of-care, advanced and interventional **imaging**; optimal **physical, medical and surgical/interventional**, as well as novel and upcoming, **therapeutics; research opportunities** and models of disease. The program was designed to facilitate **interdisciplinary exchange** across all these topics, and out-of-the-box thinking, accordingly.

Participants, selected among **Master Students in Biomedical disciplines, Medical Residents and PhD Students**, will also be involved in **practical workshops** covering **bench-to-bedside** approaches to lymphatic vessels, will have designated free time for **networking** and will be involved in **informal social and cultural events**, all meant to generate opportunities for professional development.

Thanks to the support by the **University of Padua** and the Department of Medicine (**DIMED**), and to the contributions from partner Departments (**DNS, DCTV, DEI, DMM**), we welcome you all to this exciting week.

*Prof. Giacomo Rossitto*

All scientific sessions, other than **WORKSHOPS** and **EVENTS** are **FREE** to attend and open to all interested students and professionals. Recording in any form is forbidden.

#### **SEDI:**

**DAY 1 - September 16<sup>th</sup> / DAY 5 - September 20<sup>th</sup>**  
(AULA MAGNA, Collegio “Morgagni”, via S. Massimo)

**DAYS 2,3,4 - September 17<sup>th</sup>-19<sup>th</sup>**  
(AULA RAMAZZINI, Policlinico Universitario)

#### **RESPONSABILE SCIENTIFICO:**

**Giacomo Rossitto, MD, PhD**

Associate Professor of Internal Medicine, Università degli Studi di Padova

#### **ORGANIZING SECRETARY:**

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Con il patrocinio e il contributo di:



UNIVERSITÀ  
DEGLI STUDI  
DI PADOVA



**DNS**  
Dipartimento  
NeuroScienze



## DAY 1 – September 16<sup>th</sup>

(AULA MAGNA, Collegio “Morgagni”, via S. Massimo)

### 09:00-10:00 *Opening*

Local Authorities; G. Rossitto, G.P Rossi, A. Zanatta

## UNDERSTANDING LYMPHATICS

10:00-11:30 *Discussion Leaders: Prof Teresa Maria Seccia, Giovanna Albertin (UNIPD)*

### VASCULAR GROWTH FACTORS IN LYMPHANGIOGENESIS

Kari Alitalo (Helsinki)

### LYMPHATIC ANATOMY IN HUMANS

Jean Paul Belgrado (Bruxelles)

### LYMPHATIC VESSELS IN THE SUPERFICIAL FASCIA

Giovanna Albertin (UNIPD)

11:30-11:45 *Coffee break*

11:45-12:30 **LYMPHATIC CONTRACTILE FUNCTION**

Michael J. Davis (Columbia, MO), Visiting Professor; KEYNOTE LECTURE

12:30-13:00 *Discussion Leader: Giuseppe Maiolino (AOUPD)*

### LYMPHATIC DRAINAGE IN CHOLESTEROL TRANSPORT

Veronique Angeli (Singapore)

13:00-14:00 *Lunch*

## LYMPHATICS IN DIFFERENT ORGANS/SYSTEMS

14:00-14:15 **INTRO: (LYMPH)EDEMA AND COMORBIDITIES**

Stanley Rockson (Stanford, CA)

14:15-15:05 *Discussion Leader: Lorenzo A. Calò (UNIPD)*

(KIDNEYS)

### LYMPHATICS AND ANGIOTENSIN II

Giovanni Bertoldi (UNIPD)

### LYMPHATICS AND LYMPHANGIOGENESIS IN RENAL DISEASE

Joe Rutkowsky (Texas A&M, TX)

15:05-16:15 *Discussion Leader: Roberto Vettor (UNIPD)*

(CKM sdr)

### LYMPHATICS AND OBESITY

Jorge A. Castorena (New Orleans, LA)

### CARDIAC LYMPHATICS IN HEALTH AND DISEASE

Ebba Brakenhielm (INSERM, Rouen)

### LYMPHATICS IN HYPERTENSION TO HEART FAILURE

Giacomo Rossitto (UNIPD)

16:15-17:00 *Coffee break*

17:00-17:35 *Discussion Leader: Elisabetta Cocconcelli (AOUPD)*

(LUNGS)

### PLEURAL/DIAPHRAGMATIC LYMPHATIC VESSELS

Andrea Moriondo (Università dell'Insubria)

### LUNG LYMPHATICS

Scott Zawieja (Columbia, MO)

17:35-18:30 *Discussion Leader: Mattia Veronese (UNIPD)*

(CNS)

### CNS LYMPHATIC CLEARANCE IN NEUROLOGICAL DISEASE

Steven Proulx (Bern)

### PET IMAGING FOR CNS FLUID DYNAMICS

Julia Schubert (London; DEI UNIPD)

## DAY 2 – September 17<sup>th</sup>

(AULA RAMAZZINI, Policlinico Universitario)

08:45-10:15 **HANDS-ON VISIT to the Vascular Myography LAB (Group 1)**  
Giovanni Bertoldi (UNIPD)

### LYMPHEDEMA

10:30-11:15 **UNDERSTANDING LYMPHEDEMA**  
Christian Ure (Wolfsberg), LECTURE

11:15-12:15 **HUB DIAGNOSTICO/TERAPEUTICO REGIONALE VENETO**  
Silvia Fontana (AULSS 7)

#### IL CENTRO AOPD

Stefano Masiero, Lara Bonaldo/Stefano Masiero (UNIPD, AUOPD)

#### DISCUSSION: COMPREHENSIVE CURE/CARE OF LYMPHEDEMA - Plenary

11:45-12:00 **AN EDUCATIONAL OPPORTUNITY “MASTER DI LINFOLOGIA A PADOVA”**  
Luciana Caenazzo (UNIPD)

12:20-13:00 *Discussion Leader: Eva Trevisson (UNIPD)*

**PRIMARY LYMPHEDEMA AND MALFORMATIONS: FROM GENETICS TO CARE**  
Isabelle Quéré (Montpellier)

13:00-14:00 **Lunch + Master Theses POSTER exhibition**

14:00-15:30 *Discussion Leaders: Lara Bonaldo (AOUPD), Luciana Caenazzo (UNIPD)*

**STATE-OF-THE-ART DECONGESTIVE THERAPY**  
Silvia Fontana/Sara Troncon (AULSS 7, IOV)

**NOVEL STRATEGIES FOR DECONGESTION**  
Maria Chiara Maccarone (AUOPD)

**ARTIFICIAL LYMPHATIC BYPASS FOR LYMPHEDEMA**  
Valentina Triacca (Lausanne)

**NOVEL ANTI-INFLAMMATORY AND GENE THERAPY**  
Barbara Garmy-Susini (Toulouse)

15:30-16:00 **PERSPECTIVES FROM THE EDITOR IN CHIEF: AVENUES AND AWARENESS**  
Stanley Rockson (Stanford, CA), LECTURE

16:30-18:00 **HANDS-ON NEAR INFRARED LYMPHOGRAPHY WORKSHOP**  
Anna Poretto (AOUPD), Silvia Fontana (AULSS7), Jean Paul Belgrado (Bruxelles)

## DAY 3 – September 18<sup>th</sup>

(AULA RAMAZZINI, Policlinico Universitario)

08:45-10:15 **HANDS-ON VISIT to the Vascular Myography LAB (Group 2)**  
Giovanni Bertoldi (UNIPD)

### IMAGING

10:30-11:20 *Discussion Leaders: Anna Poretto, Giampiero Avruscio (AOUPD)*

**RULING OUT VENOUS DISEASE**  
Anna Poretto (AUOPD/UNIPD)

**TISSUE ULTRASOUND**  
Lara Bonaldo (AUOPD)

**TISSUE ELASTOGRAPHY**  
Filippo Crimi (UNIPD)

11:20-12:00 **NEAR INFRARED LYMPHOGRAPHY: WHO? HOW? WHEN? WITH?**  
Jean Paul Belgrado (Bruxelles), LECTURE

- 12:00-13:00** *Discussion Leader: Giacomo Rossitto (UNIPD)*  
**OPTOACOUSTICS IMAGING: A NEW FRONTIER IN ASSESSMENT OF THE MICROVASCULATURE AND LYMPHATIC DISEASE**  
Thomas Sardella (IThera, Munich)  
**ADVANCED LYMPHATIC IMAGING WITH OPTOACOUSTICS AND ULTRA-HF US**  
Guido Giacalone (Leuven)
- 13:00-14:00** **Lunch**
- 14:00-14:45** *Discussion Leaders: Diego Cecchin, Filippo Crimi (UNIPD)*  
**LYMPHOSCINTIGRAPHY TODAY**  
Gaia Grassetto (AOUPD)  
**NUCLEAR MEDICINE 4.0: NOVEL PROTOCOLS AND TECHNOLOGIES**  
Diego Cecchin (UNIPD)
- 14:45-15:30** *Discussion Leaders: Filippi Crimi, Giulio Cabrelle (UNIPD)*  
**LYMPHATIC MAGNETIC RESONANCE IMAGING**  
Claus Pieper (Bonn)  
**LYMPHATIC CT: WHY AND HOW IN MODERN SUITES**  
Filippo Crimi (UNIPD)
- 15:30-16:15** **ADVANCED IMAGING AND INTERVENTIONS**  
Maxim Itkin (Philadelphia, PA), LECTURE
- 16:30-18:00** **IMAGING: TISSUE/VASCULAR US and VR WORKSHOP**  
Filippo Crimi (UNIPD) and Barbara Kager (Guerbet)

## DAY 4 – September 19th

(AULA RAMAZZINI, Policlinico Universitario)

- 08:45-10:15** **HANDS-ON VISIT to the Vascular Myography LAB (Group 3)**  
Giovanni Bertoldi (UNIPD)

### SURGERY

- 10:30-11:50** *Discussion Leader: Fabrizio Meggiolaro (AOUPD)*  
**SURGICAL LYMPHEDEMA: SIZE AND PRIMARY PREVENTION**  
Andrea Varotto (AOUPD)  
**FACILIFLOW: A NEW PRIMARY PREVENTION TOOL**  
James E. Moore (London)  
**A UNIQUE CLINICAL CASE: LYMPHATIC COLLATERAL ROUTES**  
Silvia Fontana (AULSS 7)
- 11:50-13:00** *Discussion Leader: Franco Bassetto (UNIPD)*  
**INTRA- (AND POST-) OPERATIVE IMAGING OF LYMPHATIC COLLECTORS**  
Alfio Costa (AOUPD)  
**LINFODIEP: PADUA EXPERIENCE**  
Vincenzo Vindigni (UNIPD)  
**LYMPHATIC SURGERY FOR LYMPHEDEMA**  
Francesco Boccardo (Genova)
- 13:00-14:00** **Lunch**
- 14:00-15:05** *Discussion Leader: Giacomo Rossitto (UNIPD)*  
**A STAND-ALONE ENTITY: LIPEDEMA**  
Andrej Szuba (Wroclaw)  
**GENTLE LIPO-SUCTION FOR LYMPHEDEMA**  
Franco Bassetto (UNIPD)  
**MINI-INVASIVE SURGICAL APPROACHES FOR UNDERSTANDING LYMPHATICS**  
Eva Kohlscheen (UNIPD)

**15:05-15:30 THE MULTIDISCIPLINARY APPROACH TO LYMPHEDEMA**  
Sandrine Mestre (Montpellier), LECTURE

**15:30-16:00 *Coffee break***

**16:00-17:00 *Discussion Leaders: Lucrezia Furian, Giacomo Rossitto (UNIPD)***

**LYMPHATICS AND RENAL TRANSPLANTATION: THE SURGEON'S VIEW**  
Lucrezia Furian (UNIPD)

**LYMPHATICS AND TRANSPLANTATION: PATHOPHYSIOLOGICAL CONUNDRUM**  
Domenico Bagordo (UNIPD)

**TOOLS AND FACILITIES FOR LARGE ANIMAL RENAL STUDIES**  
Alejandro Chade (Columbia, MO)

**LATE PM – EVENING: VISIT TO PALAZZO BO  
FREE TIME, PIZZA AND FUN**

**DAY 5 – September 20th**  
(AULA MAGNA, Collegio “Morgagni”, via S. Massimo)

**08:45-10:15 HANDS-ON VISIT to the Vascular Myography LAB (Group 4)**  
Giovanni Bertoldi (UNIPD)

## **LYMPHATIC BONANZA**

**10:30-13:00 MECHANOBIOLOGY**  
*Discussion Leader: Giacomo Rossitto (UNIPD), Michael J Davis (Columbia, MO)*

**THE MECHANOBIOLOGY OF THE EXTRACELLULAR MATRIX**  
Sirio Dupont (UNIPD)

**VASCULAR MECHANOTRANSDUCTION**  
Michael J. Davis (Columbia, MO; VISITING PROFESSOR)

**LEC JUNCTIONS AND cGMP-DEPENDENT NOTCH SIGNALING**  
Claudia Carlantoni (Hamburg)

**THE BIOLOGY OF LYMPHATIC VALVES**  
Joshua Scallan (Tampa, FL)

**13:00-14:00 *Lunch***

**14:00-15:15 CONGENITAL HEART DISEASE AND LYMPHATICS**  
*Discussion Leader: Giovanni Di Salvo*

**WHAT IN COMMON?**  
Giovanni Di Salvo (UNIPD)

**A “LEAFLET” DESIGN**  
Gabriele Egidy Assenza (Bologna)

**LYMPHATICS IN OVINE MODELS OF CONGENITAL HEART DISEASE**  
Sanjeev Datar (San Francisco, CA)

**15:15-16:30 IMMUNO-INFLAMMATION**  
*Discussion Leader: Anna Scanu (UNIPD)*

**LYMPHATIC FUNCTION IN EXPERIMENTAL INFLAMMATORY ARTHRITIS**  
Michael Davis (Columbia, MO)

**DELINEARE: DECONGESTION VIA LYMPHATICS FOR RA**  
Giacomo Rossitto, on behalf of Dina Facchin (UNIPD)

**ANTI-INFLAMMATORY APPROACHES FOR LYMPHATIC DYSFUNCTION**  
Dongeon Kim (Stanford, CA)

**16:30-17:00 *Closing Ceremony: Aperitivo + String Quartet***

**17:30-18:30 PADUA BOTANICAL GARDEN GUIDED TOUR**



**Giacomo Rossitto, MD, PhD; “Padua Lymphatic Forum” Summer School organizer**

Associate Professor of Internal Medicine;  
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Honorary Research Fellow,  
School of Cardiovascular & Metabolic Health, University of Glasgow, UK



**Michael J. Davis, PhD; VISITING PROFESSOR**

Curators' Distinguished Professor  
Margaret Proctor Mulligan Professor in Medical Research  
2022 LE&RN-GRC Lifetime Achievement Awards in Lymphatic Research  
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## FACULTY



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