4th Annual CHOP Lymphatic Disorder Conference

FOCUS — New Horizons in Lymphology: Lymphatic Imaging, Interventions, Medical Therapy and Microsurgery

Thursday, Sept. 18 – Friday, Sept. 19, 2025

Children's Hospital of Philadelphia HUB for Clinical Collaboration

Children's Hospital of Philadelphia®
Jill & Mark Fishman Center for Lymphatic Disorders

Learn more: chop.edu/cme

Course Overview

Join us at the Lymphatic System Learning Conference, where healthcare professionals from various disciplines gather to deepen their understanding of the body's often overlooked but crucial lymphatic system. Through engaging presentations, interactive workshops and collaborative discussions, participants will explore the anatomy, physiology, disorders and treatment modalities related to the lymphatic system. From cutting-edge research to practical hands-on techniques, attendees will gain valuable insights and skills to enhance patient care and improve outcomes. Don't miss this opportunity to connect with experts, expand your knowledge and advance your practice in lymphatic health.

General Information

The conference will be held in the HUB Center Clinical Collaboration at Children's Hospital of Philadelphia. The registration fee includes continental breakfast, breaks, lunch, parking and syllabus material.

Physicians: $350.00

Nurses and Other Healthcare Professionals: $250.00

Course Objectives

Upon completion of this course, participants should be able to:

- Describe the science and knowledge base of information that supports current state-of-the-art clinical practice for the patient with lymphatic disease
- Discuss the multidisciplinary approach for patients with lymphatic dysfunction and the challenges and opportunities in providing care for them
- Explain the concepts and new strategies of care and practice for lymphatic disease
- Outline the factors and variables that uniquely influence the lymphatic system and contribute to the dysfunction of the lymphatics
- Recall the concepts and new strategies of care and treatment for conditions of the lymphatic system

Accreditation

JOINTLY ACCREDITED PROVIDER™
INTERPROFESSIONAL CONTINUING EDUCATION

In support of improving patient care, this activity has been planned and implemented by the Children's Hospital of Philadelphia. The Children's Hospital of Philadelphia is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Designation of Credit

Physicians: Children's Hospital of Philadelphia designates this live activity for a maximum of 8.75 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Nurses: This program provides 8.75 ANCC contact hours.

Joint Accreditation

IPCE CREDIT™

This activity was planned by and for the healthcare team, and learners will receive 8.75 Interprofessional Continuing Education (IPCE) credit for learning and change.

Hotel Accommodations

Welcome to Philadelphia, a vibrant city bursting with history, culture and endless attractions. During your stay here, make sure to explore iconic landmarks such as Independence Hall, the Liberty Bell, and the Philadelphia Museum of Art, famous for its "Rocky Steps." To plan your trip and find suitable accommodations, visit https://www.visitphilly.com hotels where you'll discover inspiration and hotel suggestions tailored to your preferences. The conference location is conveniently situated in University City, which can be easily accessed via various transportation options. Whether you prefer a rideshare service like Uber or Lyft, the reliable SEPTA bus network, or a traditional taxi, you'll have no trouble getting to the conference venue on CHOP's campus. Get ready for an unforgettable experience in the City of Brotherly Love!

Cancellation and Refund Policy

Children's Hospital of Philadelphia reserves the right to cancel or postpone any course due to any unforeseen circumstances. In the event of cancellation or postponement, Children's Hospital of Philadelphia will refund any registration fees, less a $40 service charge, but is not responsible for any related costs, charges or expenses to participants, including cancellation charges assessed by airlines or travel agencies. To process refunds for course withdrawals, cancellation must be received in writing by September 5, 2025. No refunds will be issued thereafter.

Services for People With Disabilities

If special arrangements are required for an individual with a disability to attend this meeting, please contact the Continuing Medical Education Department at 215-590-5263.

PROGRAM

Thursday, September 18, 2025

8:00 a.m. **Registration and Continental Breakfast**

8:30 a.m. **Welcome and Introduction**
Yoav Dori, MD, PhD

8:40 a.m. **Landmarks and My Personal Journey in Lymphology**
Marlys Hearst Witte, MD

9:00 a.m. **Origin of the Lymphatic System**
Oliver A. Stone, MD

9:20 a.m. **Cardiovascular System Beyond Blood Flow: The Untold Story of the Lymphatic System and Heart Disease**
Vibeke E. Hjortdal, MD, PhD, DMSc

9:30 a.m. **Pulmonary System — The Lung Lymphatics in Health and Disease**
Hasina Outtz Reed, MD, PhD

9:40 a.m. **Gastrointestinal System— Silent Flow, Major Impact: Lymphatic Dysfunction in Digestive Disorders**
Mark L. Kahn, MD

9:50 a.m. **Hepatic System — Beyond the Liver: The Hemolymphatic Forces Driving Cirrhosis**
Christopher L. Smith, MD, PhD

10:00 a.m. **Neurological System — The Role of Lymphatics in Neurodegenerative Diseases**
Helene Benveniste, MD, PhD

10:20 a.m. **From Lymph to Loop of Henle: The Renal Lymphatic Connection**
Yoav Dori, MD, PhD

10:30 a.m. **Break**

10:45 a.m. **Breakout Session I** *Select one session*

1. Interventional Approaches for Lymphatic Disorders — Breaking Barriers: Innovative Interventions that Redefine Possibility

Cracking the Code: Strategies for Safe and Effective Thoracic Duct Access
Raja Shaikh, MBBS, DNB, MD

Precision Over Occlusion: Rethinking the Role of Selective Lymphatic Embolization
Abhay Srinivasan, MD

Shutting it Down or Opening it up: Embolization Versus Decompression
Ganesh Krishnamurthy, MD, DNB

When Things Go Wrong: Complications of Lymphatic Interventions and How to Manage Them
Adam Kolesnik, MD

2. Interplay of Respiratory and Cardiac Function in Lymphatic Transport: Implications for Ventilatory Support

Breath by Breath: Pulmonary Lymphatic Perfusion and Its Role in Lung Pathophysiology
Hakon Hakonarson, MD, PhD

Neonatal Lymphatic Disease and Chronic Lung Disease: Early-Life Disruption of Pulmonary Flow
Kathleen A. Gibbs, MD

PEEP and the Thoracic Duct: Balancing Ventilatory Support with Lymphatic Drainage
Mudit Gupta, MD, PhD

Pressure Wars: Impact of Positive and Negative Intrathoracic Pressure on Fontan Lymphatic Circulation
Lene Thorup, MD; Christopher Smith MD, PhD

3. Nursing & Clinical Care — At the Front Lines: Elevating Lymphatic Care Through Excellence

Pediatric Lymphatic Emergencies: What the Inpatient Team Needs to Know
Aaron DeWitt, MD

Chylous Effusions and Beyond: Inpatient Management of Pediatric Lymphatic Patients
Meghan Scott, MSN, RN, CRNP-AC, CRNP-PC

From Diagnosis to Intervention: Coordinating Pediatric Lymphatic Care Across the Inpatient Team
Erin Pinto, MSN, RN, CCRN, FNP-BC

12:15 p.m. **Lunch**

1:00 p.m. **Family Panel Discussion: Patient Experiences and Caregiver Challenges**
Kempton Family ; Co Family; Emily Callaway

2:00 p.m. **Coffee Break**

2:30 p.m. **Breakout Session II** *Select one session*

1. Medical Treatment Strategies for Lymphatic Anomalies: Do They Work or Not? How Do We Decide Which Medications to Choose?

An Introduction to Vascular Anomalies and our Speakers
Denise M. Adams, MD

Classification of Lymphatic Anomalies with Emphasis on Complicated Lymphatic Anomalies
Michael Fox, MD, MEd

Medical Treatment of Lymphatic Anomalies: Linking the Genotype to the Phenotype
Alexandra Borst, MD

Let's Debate Difficult Cases
Moderator and Presenter: Denise M Adams, MD
Discussants and Debaters: Alexander Borst, MD and Michael Fox, MD, MEd

2. Illuminating the Invisible: Advances in Lymphatic Imaging

Interventional Access for MR Lymphangiography
Mudit Gupta, MD, PhD

Central Lymphangiography: MRI Techniques
Abass Noor, MD

Clinical Applications of Lymphatic Imaging and Case Studies
Danish Vaiyani, MD

Advances in Multimodal Lymphatic Imaging
Russel Witte, PhD

3. Pediatric Lymphatic Disorders: Diagnosis and Early Intervention

Neonatal Lymphatic Disorders: Diagnosis and Management in the First Days of Life
Gregory Adamson, MD

Thoracic Lymphatic Complications in Congenital Heart Disease: From Fontan Physiology to Pleural Syndromes
Benjamin A. Blais, MD, FAAP, FPICS

Abdominal and Multicompartment Lymphatic Failure in Congenital Heart Disease: Expanding Beyond the Thorax
Sanjay Sinha, MD, FSCAI

Unraveling Pediatric Ascites: A Diagnostic and Therapeutic Approach
Rachelle Durand, DO

4:00 p.m. **Closing Remarks**

Friday, September 19, 2025

8:00 a.m. **Continental Breakfast**

8:15 a.m. **Welcome and Introduction**
Erin Pinto, MSN, RN, CCRN, FNP-BC

8:30 a.m. **Panel Debates on Effectiveness of LVAs**
Moderator: Pablo Laje, MD

Lymphatic-Venous Anastomosis for Peripheral Lymphedema: What Works, What Doesn't
Guido Giacalone, MD, PhD

Lymphatic-Venous Anastomosis for Central Lymphatic Disorders: Current Evidence and Emerging Experience
Nicole Lindenblatt, MD, PhD

Can LV Anastomosis Work in Central Lymphatic Disease? Navigating Elevated CVP and Lymphatic Dysplasia
Amir H. Taghinia, MD, MPH, MBA

9:30 a.m. **Breakout Session III** *Select one session*

1. Lymphatic System and Infectious and Inflammatory Disorders: Exploring the Connection

When the Nodes Turn Rogue: Lymphatic Involvement in Systemic Inflammatory Syndromes
Josh Brandtarter, MD, PhD

Autoimmunity in Transit: How Lymphatic Flow Shapes Immune Responses in Lupus
Theresa Lu MD, PhD

Infections on the Move: Pathogens Targeting the Lymphatic System
Philip Budge, MD, PhD

Immune Cell Trafficking through Lymphatics: Implications for Vaccines, Infection, and Cancer
Laura Vella MD, PhD

2. Surgical Advances — Cutting Edge: Transforming Lymphatic Surgery from Risk to Rescue

Surgical Approaches to Decompression and Interruption of the Central Lymphatic System
Pablo Laje, MD

Robotic-assisted Central Lymphatic Reconstruction: The Next Micro-surgical Frontier
Nicole Lindenblatt, MD, PhD

Lymphatic Venous Bypass of the Thoracic Duct: A Novel Pathway to Resolving Chylous Leaks
Katsuhide Maeda, MD

Lymphatic-Venous Connections in the Management of Central Disorders
Francesco Boccardo, MD, PhD

3. Genetics of Complex Lymphatic Anomalies

Genetics of Complex Lymphatic Anomalies
Sarah E. Sheppard, MD, PhD

Cell-free DNA is a Non-invasive Alternative for Genetic Testing in Individuals with Complex Lymphatic Anomalies
Dong Li, PhD

Beyond the Periphery: Identifying Central Conduction Defects in Lymphedema
Miikka Vikkula, MD, PhD

Gene Fusions Cause Complex Lymphatic Anomalies
Beth Winger, MD, PhD

11:00 a.m. **Break**

11:30 a.m. **Closing Remarks**
Looking Ahead: Outlining Unanswered Questions and Future Research Directions
Marlys Witte, MD; Yoav Dori MD, PhD; Kimberly E. Steele, MD, PhD; Selen Catania, PhD; Ken Liechty, MD; Miguel Amore, MD; Benjamin Kelly, MD, PhD; Mitchell Bartlett, PhD; David Jackson, PhD

1:00 p.m. **Adjourn**

Unless otherwise noted, faculty is from the Children's Hospital of Philadelphia and/or the Perelman School of Medicine at the University of Pennsylvania.

Course Directors

Yoav Dori, MD, PhD
Director, Pediatric Lymphatic Imaging and Interventions and Lymphatic Research
Pediatric Cardiologist Professor of Pediatrics

Erin Pinto, MSN, RN, CCRN, FNP-BC
Advanced Practice Provider Manager Outpatient Cardiology
Lymphatic Nurse Practitioner, Jill and Mark Fishman Center for Lymphatic Disorders

Vanessa Bustard, BSN, RN, CPN
Program Manager
Jill & Mark Fishman Center of Lymphatic Disorders

Diane Garofalo
Program Coordinator
Jill & Mark Fishman Center of Lymphatic Disorders

Course Faculty

Denise M. Adams, MD
Director, Comprehensive Vascular Anomalies Program (CVAP)
Alan R. Cohen Endowed Chair in Pediatrics
Professor of Pediatrics, University of Pennsylvania Perelman School of Medicine
Chair, Consortium of iNvestigators of Vascular Anomalies

Gregory Thomas Adamson, MD
Clinical Assistant Professor
Lucile Packard Children's Hospital Stanford

Miguel Amore, MD, FACS
Chief of Phlebology and Lymphology
Head of the Vascular Anomalies Committee
Central Military Hospital, Buenos Aires, Argentina
Head of the Lymphology Section, Fundación Favaloro University Hospital

Helene Benveniste, MD, PhD
Vice Chair for Research
Anthony N. Brady Professor of Anesthesiology
Yale School of Medicine

Mitchell J. Bartlett, PhD
Associate Scientific Investigator
Director, The Lymphology-Surgical Biology Laboratory
Department of Surgery
The University of Arizona College of Medicine-Tucson

Benjamin A. Blais, MD, FAAP, FPICS
Cardiac Catheterization & Interventional Therapies
Director, Lymphatic Disorders Program
Assistant Professor of Pediatrics
The Heart Center | Nationwide Children's Hospital

Francesco Boccardo, MD, PhD, PACS
Associate Professor of General Surgery at University of Genoa
Head of the Surgical Lymphology Unit of the Department of Surgery
President of the European Society of Lymphology
San Martino Hospital, Genoa, Italy

Alexandra Borst, MD
Associate Professor, Pediatric Hematology-Oncology
Co-Director, UNC Vascular Anomalies Program
UNC Children's Hospital

Joshua Brandstadter, MD, PhD, MSc
Director, Clinical Research, Center for Cytokine Storm Treatment & Laboratory
Instructor of Medicine
University of Pennsylvania

Phillip J. Budge, MD, PhD
Attending Physician, Infectious Disease
St. Louis Children's Hospital
Associate Professor of Medicine
Washington University in St. Louis

Course Faculty (continued)

Selen Catania, PhD
Program Officer, Vascular Biology and Hypertension Branch, Division of Vascular Sciences
National Institutes of Health, Bethesda, Maryland

Parent
Emily Callaway

Co Family
Daniel and Tracy Co

Aaron DeWitt, MD
Medical Director, Jill and Mark Fishman Center for Lymphatic Disorders
Attending Cardiologist and Cardiac Intensivist
Assistant Professor of Clinical Pediatrics

Rachelle Durand, DO
Attending Interventional Radiologist
UCSF Benioff Children's Hospitals
Assistant Professor in Radiology
University of California, San Francisco

Michael Fox, MD, MEd
Attending Physician, Comprehensive Vascular Anomalies Program
Associate Professor of Clinical Pediatrics

Guido Giacalone, MD, PhD
Vascular and Lymphatic Surgeon
Head of Department of Lymphatic Surgery
AZ Sint-Maarten Hospital, Mechelen, Belgium

Kathleen Gibbs, MD
Medical Director, Newborn and Infant Chronic Lung Disease Program
Medical Director, Quality Improvement and Patient Safety (N/IICU)
Attending Neonatologist
Professor of Clinical Pediatrics

Mudit Gupta, MD, PhD
Attending Interventional Cardiologist
Attending Physician with the Jill and Mark Fishman Center for Lymphatic Disorders
Assistant Professor of Pediatrics

Hakon Hakonarson, MD, PhD
Director, Center for Applied Genomics
Investigator, The Joseph Stokes, Jr. Research Institute
Professor of Pediatrics

Marlys Hearst Witte, MD
Secretary-General, International Society of Lymphology
Director, Student Research Programs
Professor, Surgery, Neurosurgery & Pediatrics
University of Arizona College of Medicine (Tucson)

Vibeke E. Hjortdal, MD, PhD, DMSc
Professor of Congenital Heart Surgery, Department of Cardiothoracic Surgery
Copenhagen University (Denmark)

Course Faculty (continued)

David Jackson, PhD
Emeritus Professor of Human Immunology
MRC Translational Immune Discovery Unit
MRC Weatherall Institute of Molecular Medicine
University of Oxford

Mark L. Kahn, MD
Director, Center for Vascular Biology, Penn Cardiovascular Institute
Cooper-McLure Professor of Medicine

Benjamin Kelly, MD, PhD
Postdoctoral Researcher
Department of Cardiothoracic Surgery
Copenhagen University Hospital, Denmark

Kempton Family
Shannon and Steve Kempton

Adam Kolesnik, MD
Fetal cardiologist, Department of Perinatal Cardiology and Congenital Anomalies
Center for Postgraduate Medical Education, Warsaw, Poland

Ganesh Krishnamurthy, MD, DNB
Interventional Radiologist
Attending Physician, Jill and Mark Fishman Center for Lymphatic Disorders
Department of Radiology
Assistant Professor of Radiology

Pablo Laje, MD
Attending Surgeon, Division of General, Thoracic and Fetal Surgery
Surgical Director, Jill and Mark Fishman Center for Lymphatic Disorders
Surgical Director, Pancreatic Disorders Program
Associate Professor, Surgery

Kenneth Leichty, MD
Chief of Pediatric Surgery, University of Arizona College of Medicine Tucson's Department of Surgery
Director of Fetal Medicine, Banner University Medicine
Surgeon-in-Chief, Banner Children's at Diamond Children's Medical Center

Dong Li, PhD
Research Scientist, Jill and Mark Fishman Center for Lymphatic Disorders, Comprehensive Vascular Anomalies Program, and Division of Human Genetics
Research Assistant Professor of Pediatrics

Nicole Lindenblatt, MD, PhD
Deputy Clinic Director, Clinic for Plastic Surgery and Hand Surgery
Attending Surgeon, Department of Plastic Surgery and Hand Surgery
University Hospital Zürich

Theresa T. Lu, MD, PhD
St. Giles Research Chair
Autoimmunity and Inflammation Program and Pediatric Rheumatology
Hospital for Special Surgery Research Institute
Professor of Microbiology and Immunology
Professor of Pediatrics
Co-Director, Graduate Program in Immunology and Microbial Pathogenesis
Weill Cornell Medicine (New York City)

Course Faculty (continued)

Katsuhide Maeda, MD, PhD
Director of Mechanical Circulatory Support and ECMO
Surgical Director, Cardiac Lymphatics
Surgical Director, Heart and Lung Transplant Programs

Abbass Noor, MD
Attending Radiologist, Department of Radiology

Hasina Outtz Reed, MD, PhD
Assistant Professor of Medicine
Assistant Professor of Cell and Developmental Biology
Division of Pulmonary and Critical Care Medicine
Weill Cornell Medicine (New York City)

Meghan Scott, MSN, RN, CRNP-AC, CRNP-PC
Lymphatic Nurse Practitioner, Jill and Mark Fishman Center for Lymphatic Disorders

Raja Shaikh, MBBS, DNB, MD
Director of Pediatric Interventional Oncology, Division of Vascular and Interventional Radiology
Attending Physician, Vascular Anomalies Center; Boston Children's Hospital
Assistant Professor of Radiology
Harvard Medical School

Sarah E. Sheppard, MD, PhD, MSTR
NIH Distinguished Scholar & Clinical Tenure-Track Investigator
Unit on Vascular Malformations, Division of Intramural Research, Eunice Kennedy Shriver
National Institute of Child Health and Human Development
National Institutes of Health, Bethesda, Maryland

Sanjay Sinha, MD
Co-Director, UCLA Congenital Lymphatic Intervention Program
Attending Physician, Interventional Pediatric Cardiology
CHOC/CS Cardiology, University of California, Irvine School of Medicine
Assistant Professor, Pediatric Cardiology
UCLA Mattel Children's Hospital

Christopher L. Smith, MD, PhD
Attending Interventional Cardiologist
Attending Physician, Jill and Mark Fishman Center for Lymphatic Disorders
Assistant Professor of Pediatrics

Abhay Srinivasan, MD
Attending Physician, Jill and Mark Fishman Center for Lymphatic Disorders
Department of Radiology, Section of Interventional Radiology
Associate Professor, Clinical Radiology

Kimberley E. Steele, MD, PhD, Diplomate of ABOM
Program Manager; ,Health Science Futures
Advanced Research Projects Agency for Health (ARPA-H)
National Institutes of Health, Bethesda, Maryland

Oliver A. Stone, PhD
Department of Physiology, Anatomy and Genetics
University of Oxford (England)

Course Faculty (continued)

Amir H. Taghinia, MD
Attending Surgeon, Department of Plastic & Oral Surgery
Attending Physician, Vascular Anomalies Center
Boston Children's Hospital Associate Professor, Harvard Medical School

Lene Thorup, MD
Department of Cardiothoracic Surgery, Rigshospitalet
PhD student, Institute of Clinical Medicine
Copenhagen University (Denmark)

Danish Vaiyani, MD
Attending Cardiologist, Division of Cardiology
Attending Physician, Jill and Mark Fishman Center for Lymphatic Disorders
Assistant Professor of Pediatrics

Laura A. Vella, MD, PhD
Attending Physician, Division of Infectious Diseases
Assistant Professor of Pediatrics

Miikka Vikkula, MD, PhD
Professor, Human Genetics
Co-Director, Institut de Duve , Brussels, Belgium
Member, Belgian Royal Academy of Medicine

Russell Witte, PhD
Professor, Radiology and Imaging Sciences, Optical Sciences, Biomedical Engineering, Surgery and Neurosurgery
University of Arizona College of Medicine (Tucson)

Beth Winger, MD, PhD
Assistant Professor, Division of Pediatric Hematology/Oncology
University of California, San Francisco, School of Pharmacy

Children's Hospital of Philadelphia®
Continuing Education

3401 Civic Center Blvd.
Philadelphia, PA 19104 chop.edu
chop.cloud-cme.com

Dr. Marlys H Witte, a pioneering force in lymphatic research, education, and advocacy. As Secretary-General of the International Society of Lymphology and a long-standing faculty member at the **University of Arizona** College of Medicine, Dr. Witte has shaped the global conversation around lymphatic science for over five decades. Her groundbreaking work has elevated awareness of the systemic impact of lymphatic dysfunction, championed interdisciplinary education and discovery, and inspired generations of clinicians and researchers to think beyond conventional boundaries. At CHOP's 4th Annual Conference, Dr. Witte will reflect on key milestones in the evolution of lymphatic science and challenge us to reimagine the future of lymphatic medicine, surgery, and integrated care.

Dr. Mark L. Kahn is a leading force in vascular biology and lymphatic research. As the Cooper-McLure Professor of Medicine and Director of the Center for Vascular Biology at the **University of Pennsylvania**, Dr. Kahn has redefined our understanding of the complex interplay between the vascular and lymphatic systems in health and disease. His pioneering work in developmental biology, mechanotransduction, and disease modeling has yielded critical insights into the molecular signals guiding lymphatic vessel development and function, the pathophysiology of chylous disorders and gastrointestinal lymphatic dysfunction, and novel therapeutic pathways for addressing lymphatic abnormalities in systemic disease.

Dr. Denise M. Adams is the Director of the Comprehensive Vascular Anomalies Program (CVAP) at the **Children's Hospital of Philadelphia**. She is internationally recognized for her leadership in the diagnosis and treatment of vascular and lymphatic anomalies; Dr. Adams has been instrumental in identifying actionable genetic pathways and pioneering targeted therapies that are transforming outcomes for patients with complex lymphatic disease. Her groundbreaking work has advanced the clinical use of mTOR, MEK, and PI3K inhibitors, led influential multi-institutional trials that are shaping treatment standards, and bridged the critical gap between molecular discovery and individualized therapy. As Chair of the Consortium of iNvestigators of Vascular Anomalies (CaNVAS), Dr. Adams continues to drive the field toward a precision medicine approach that is redefining care for previously untreatable disorders.

Dr. Vibeke E. Hjortdal is a Professor of Congenital Heart Surgery at **Copenhagen University** and one of Europe's leading authorities on lymphatic–cardiovascular interactions. Dr. Hjortdal's groundbreaking research has deepened our understanding of how lymphatic circulation intersects with congenital heart disease, particularly in complex physiology such as single ventricle and Fontan circulation. Her work has illuminated the contribution of lymphatic dysfunction to heart failure and volume overload, the role of the lymphatic system in myocardial and pulmonary remodeling, and the potential for integrating lymphatic imaging into surgical decision-making for congenital heart disease. With a unique perspective that bridges surgical innovation, clinical research, and systems physiology, Dr. Hjortdal challenges us to redefine how we detect, interpret, and treat cardiac disease through the lens of the lymphatic system.

Dr. Oliver Stone is a Sir Henry Dale Fellow of the Royal Society and Wellcome Trust, whose pioneering research is redefining our understanding of vascular and lymphatic development. Now based at the **University of Oxford**, Dr. Stone leads a research program exploring how the vascular system forms during embryonic development, with a focus on the molecular mechanisms guiding endothelial cell specification and diversity. His lab investigates how naïve mesodermal progenitors give rise to arterial, venous, lymphatic, and organ-specific endothelial lineages. Among his group's landmark discoveries are the lineage-specific origins of endothelial cells and the identification of a specialized lymphatic endothelial progenitor. Dr. Stone's work provides critical insights into how endothelial heterogeneity influences organ development and sets the stage for regenerative strategies in vascular and lymphatic medicine.

Dr. Hasina Outtz Reed is an assistant Professor of Medicine at **Weill Cornell** Medicine. Her research uncovers the role of the lymphatic vasculature in chronic lung disease. Combining insights from molecular biology, mouse models, and human pathology, her work has revealed that lymphatic dysfunction—including early lymphatic clotting—contributes to diseases such as emphysema and COPD, and shapes local immune responses through the formation of tertiary lymphoid organs. A recipient of the ASCI Young Physician-Scientist Award, Dr. Outtz Reed is translating fundamental lymphatic biology into novel approaches for understanding, diagnosing, and treating chronic pulmonary conditions.

Dr. Helene Benveniste is a Professor of Anesthesiology at **Yale** School of Medicine and a pioneering expert in glymphatic system research—the brain's equivalent of lymphatic waste clearance. Her laboratory was among the first to characterize this perivascular network that facilitates cerebrospinal fluid (CSF) and interstitial fluid (ISF) exchange, revealing its critical role in removing metabolic and amyloid-β waste, particularly during sleep and anesthesia. Her recent MRI and PET imaging studies have advanced understanding of how body posture influences CSF–ISF flow and the system's relevance to aging, Alzheimer's, and cerebral small vessel disease. Dr. Benveniste's translational work—spanning molecular physiology to clinical imaging—offers transformative insights into glymphatic–lymphatic interactions and brain health, with implications for neurodegenerative disease prevention and vascular neurology.

Dr. Hakon Hakonarson is the Director of the Center for Applied Genomics at the **Children's Hospital of Philadelphia** and Professor of Pediatrics at the Perelman School of Medicine, University of Pennsylvania. A globally recognized leader in genomics, Dr. Hakonarson founded CHOP's Center for Applied Genomics in 2006—now one of the world's largest pediatric biobanks—and has driven large-scale genomic initiatives characterizing over 100,000 children. His team made a landmark discovery identifying disease-causing mutations in rare lymphatic disorders, and translated these into life-saving precision therapy: by using MEK inhibitors like trametinib, they achieved complete remodeling of the lymphatic system in patients with central conducting lymphatic anomaly (CCLA) caused by ARAF and KRAS mutations—an achievement recognized as the first evidence of systemic organ repair through targeted drug treatment. Dr. Hakonarson's work exemplifies a new era of translational medicine, leveraging genomics to redefine disease classification and offer novel therapeutic pathways for previously untreatable lymphatic conditions.

Dr. Nicole Lindenblatt serves as Deputy Director of the Department of Plastic and Hand Surgery at **University Hospital Zurich** and leads the Zurich Lymphatic Network of Excellence, in addition to her role at the University of Zurich. A trailblazer in lymphatic surgery, she spearheaded the first thoracic duct reconstruction in Switzerland and Europe in 2018, and in 2021 performed the world's first robotic assisted lymphatic surgery using the Symani Surgical System. Dr. Lindenblatt's work integrates robotic microsurgery with reconstructive techniques—she has delivered successful central lymphatic reconstructions across all ages using lymphovenous anastomosis via deep access to the thoracic duct and tributaries, yielding patent anastomoses and reduced chyle leakage in patients with rare central lymphatic anomalieshttps://journals.lww.com/prsgo/fulltext/2024/09000/robotic_assisted_lymphovenous_anastomosis_of_the.50.aspx?utm_source=chatgpt.com. Her broader research spans peripheral and central lymphatic surgery, facial and breast reconstruction, and

regenerative strategies—including autologous fat transfer and lymph node transfer—to restore function and form in complex lymphatic disease.

Dr. Amir H. Taghinia is an Associate Professor of Surgery at **Harvard Medical School** and an Attending Physician in the Department of Plastic and Oral Surgery at Boston Children's Hospital. Dr. Taghinia is renowned for combining pediatric plastic surgery with microsurgical techniques to address complex lymphatic and vascular anomalies. His expertise spans lymphaticovenous anastomosis and free functional lymphatic transfer, and he has presented on the surgical management of vascular anomalies—including lymphatic malformations—at major international meetings such as ISSVA. Dr. Taghinia's contributions exemplify how precise microsurgery can dramatically improve functional and aesthetic outcomes for children with challenging lymphatic and vascular conditions, bridging reconstructive innovation with multidisciplinary care.

Dr. Joshua Brandstadter serves as Director of Clinical Research at Penn's Center for Cytokine Storm Treatment & Laboratory and is an Instructor of Medicine in Hematology/Oncology at the **University of Pennsylvania**. A physician-scientist specializing in Castleman disease, histiocytic disorders, lymphoma, and other lymphoproliferative conditions, his research focuses on how non-hematopoietic cells including fibroblastic stromal cells and myofibroblasts in lymph nodes contribute to disease pathogenesis and diagnostic complexity. Notably, his team has shown that an increased ratio of myofibroblasts to Tzone reticular cells distinguishes unicentric Castleman disease, paving the way for new immunohistochemical diagnostic tools. Additionally, Dr. Brandstadter co-developed a broadly applicable- cryopreservation and biobank strategy that preserves lymph node stromal cell integrity for single-cell and spatial transcriptomic studies, enabling deeper analysis of these critical cell compartments in rare human diseases. His work is at the forefront of bridging tumor microenvironment biology and rare-disease diagnostics, offering promise for earlier detection and personalized therapeutic strategies.

Dr. Theresa T. Lu holds the St. Giles Chair for Research at the Hospital for Special Surgery and serves as Professor of Microbiology & Immunology and Pediatrics at **Weill Cornell** Medicine, where she also co-directs the Immunology & Microbial Pathogenesis PhD program. With training in Pediatrics at CHOP and fellowship in Pediatric Rheumatology at UCSF, her lab investigates how tissue signals—particularly from UV-exposed skin—are transmitted via lymphatics to draining lymph nodes, shaping immune activation in lupus and related autoimmune conditions. Her team has demonstrated that lupus is associated with impaired lymphatic flow, and that enhancing flow—whether through manual lymphatic drainage or experimental interventions—can reduce skin photosensitivity and B cell-driven inflammation, in part by modulating lymph node stromal fibroblastic reticular cells (FRCs). Through a combination of molecular immunology,

vascular stromal- biology, and translational models, Dr. Lu's work illuminates a critical immune circuit that links peripheral tissue injury to systemic autoimmune responses—and points toward innovative interventions for autoimmune disease.

Dr. **Philip J. Budge** is an Associate Professor of Medicine in the Division of Infectious Diseases at **Washington University in St. Louis**, where he leads translational research focused on lymphatic filariasis and other filarial infections. His lab connects biomarker discovery for filarial infection diagnostics with international clinical trials in countries such as Côte d'Ivoire, Cameroon, and Sri Lanka. In a landmark study published in *The Lancet Infectious Diseases* (May 2025), Dr. Budge and collaborators demonstrated that the anti-parasitic drug moxidectin, already approved for river blindness, is significantly more effective than ivermectin at clearing Wuchereria bancrofti—the causative agent of lymphatic filariasis and may dramatically shorten global elimination timelines. By merging rigorous epidemiologic trials with diagnostic innovation and cross-continental partnerships, Dr. Budge exemplifies how infectious disease medicine can drive impactful advances in lymphatic disease control and elimination.

Professor Miikka Vikkula serves as Codirector of the de Duve Institute and Professor of Human Genetics at **UC Louvain in Brussels,** where he leads transformative research into the molecular basis of vascular malformations and lymphedema. A pioneer in the field, he and his collaborators discovered the TIE2 gene mutation driving familial venous malformation in 1996 establishing the dual "two-hit" model of both hereditary and somatic mutations in vascular anomaly pathogenesis. His laboratory integrates patient-derived biobanks with next-generation sequencing, cell culture, and animal models to pinpoint causative genes most recently identifying novel variants in pathways like PIK3CA, EPHB4, ADAMTS3 and translating these findings into therapeutic testing, including the first proof-of-concept rapamycin trials for TIE2 and PIK3CA driven malformations. With over three decades of leadership in vascular anomaly genetics and international recognition including serving on the ISSVA board and receiving the InBev Baillet Latour Clinical Research Award Professor Vikkula's work continues to shape precision medicine approaches to previously untreatable rare diseases.

Dr. Beth Apsel Winger is an Assistant Professor in Pediatric Hematology Oncology and Clinical Pharmacy at **UCSF**, where she plays a key role in the UCSF Birthmarks & Vascular Anomalies Center providing team-based care for patients with lymphatic, venous, and mixed vascular malformations. Dr. Winger leads pioneering research focused on applying precision medicine to rare lymphatic anomalies, including the use of ALK inhibitors to treat EML4: ALK-positive lymphatic malformations unresponsive to sirolimus marking a promising expansion in targeted therapy for complex cases. In addition to interpreting kinase mutations to optimize drug selection, she investigates personalized

dosing strategies to ensure patients receive safe, effective treatments tailored to their genetic profile. Dr. Winger's integrative approach bridges genomic discovery with clinical application, offering new therapeutic hope for children with rare lymphatic disorders.

Dr. Kimberley Steele Program Manager in the Health Science Futures Office at **ARPAH**, brings a deeply committed and multidisciplinary perspective to lymphatic medicine. Previously an Associate Professor of Surgery at Johns Hopkins University, she transitioned from roles in bariatric and minimally invasive surgery to lymphatic research following her son's diagnosis with a rare lymphatic anomaly. Motivated by personal experience, she helped establish the nonprofit Collaborative Research Advocacy for Vascular Anomalies Network (CaRAVAN) and, through leadership roles at LE&RN, has spearheaded cross-disciplinary initiatives bridging clinicians, researchers, and advocacy organizations over the past seven years. At ARPAH, Dr. Steele now coleads the GLIDE program—designed to generate transformative physical, pharmacologic, gene, and cellular therapies for lymphatic dysfunction—and advocates for treating lymphatic disease as a central component in addressing chronic and rare conditions.

Professor Francesco Boccardo is a globally recognized leader in surgical lymphology, serving as Associate Professor of Surgery at the **University of Genoa** and Head of the Unit of Surgical Lymphology at IRCCS San Martino Hospital in Genoa, Italy. As former President of the International Society of Lymphology and current President of the European Society of Lymphology, he has shaped international guidelines and advanced surgical interventions for lymphatic disorders. Dr. Boccardo conceived and refined the LY.M.P.H.A. technique (Lymphatic Microsurgical Preventive Healing Approach), microsurgically reconnecting arm lymphatics during breast, melanoma, vulvar, or gynecological cancer surgeries to prevent postoperative lymphedema a method proven to significantly reduce risk and maintain anastomosis patency. His expertise spans diagnosis and surgical care for primary and secondary lymphedema, chylous disorders, and lymphatic complications following oncology and cardiovascular interventions, employing ICG fluorescence imaging and reconstructive microsurgery. With over 250 publications, leadership roles in major lymphology societies, and decades of clinical innovation, Professor Boccardo remains at the forefront of precision lymphatic surgery and translational care.

Dr. Guido Giacalone is a vascular surgeon at AZ SintMaarten Hospital in Mechelen-, **Belgium**, recognized internationally for pioneering surgical approaches and imaging advances in lymphedema and lymphatic disorders. As faculty at CHOP's Lymphatic Disorder Conference, he delivered insights on "Advances in Peripheral Lymphatic Identification and Therapeutic Options". His research includes developing ultra-high frequency ultrasound (70 MHz)

techniques to improve visualization of superficial lymphatic vessels—a critical tool for planning microsurgical interventions. Clinically, he is known for performing super microsurgical lymphaticovenous anastomosis, successfully treating breast cancer-related lymphedema, recurrent lymphocele, and severe lymphorrhea in adults and children. As an active member of VASCERN's Pediatric and Primary Lymphedema Working Group, Dr. Giacalone combines cross-border collaboration and hands-on surgical expertise- to raise the standard of lymphatic care globally

Dr. Gregory Thomas Adamson is a pediatric interventional cardiologist and Clinical Assistant Professor at **Lucile Packard Children's Hospital Stanford**, where he specializes in catheter-based diagnosis and treatment of congenital heart disease. As a member of Stanford's multidisciplinary lymphatic team, Dr. Adamson has been integral to the development of interventional strategies for diagnosing and managing neonatal and pediatric lymphatic disorders, including chylothorax, protein-losing enteropathy, and central lymphatic flow failure. He collaborates closely with radiology, surgery, and intensive care teams to optimize care pathways for infants with complex cardiopulmonary and lymphatic physiology.

Dr. Benjamin A. Blais is an interventional cardiologist at **Nationwide Children's Hospital** and Assistant Professor of Pediatrics. He is actively involved in advancing the use of catheter-based strategies to evaluate and manage lymphatic complications in children with congenital heart disease, particularly those with single ventricle physiology. At Nationwide, Dr. Blais collaborates across disciplines to develop clinical approaches that integrate hemodynamic assessment with lymphatic imaging and intervention, supporting early detection and management of central lymphatic failure, chylothorax, and pleural complications.

Dr. Alexandra Borst is Associate Professor of Pediatrics in the Division of Hematology-Oncology at the **University of North Carolina** and Co-Director of the UNC Vascular Anomalies Program. Dr. Borst is nationally recognized for her expertise in diagnosing and managing vascular and lymphatic anomalies in children, with a focus on multidisciplinary care for patients with complex syndromic presentations and molecularly defined vascular anomalies. Her clinical and research efforts span overgrowth syndromes, multifocal lymphatic anomalies, and rare high-flow malformations, and she has been instrumental in developing targeted treatment protocols using mTOR and PI3K inhibitors.

Dr. Selen Catania is a Program Officer in the Vascular Biology and Hypertension Branch within the Division of Vascular Sciences at the **National Heart, Lung, and Blood Institute (NHLBI)**, part of the National Institutes of Health. With a background in molecular and developmental biology, Dr. Catania oversees a broad research portfolio focused on vascular and lymphatic development, endothelial cell biology, and novel therapeutic targets for vascular anomalies and hypertension-related disorders. She plays a key role in shaping NHLBI's funding priorities and fostering collaborative initiatives that bridge basic science with clinical innovation.

Dr. Yoav Dori is a Professor of Pediatrics at the **Children's Hospital of Philadelphia** and Director of the Jill and Mark Fishman Center for Lymphatic Disorders. Internationally recognized as a pioneer in lymphatic imaging and interventions, Dr. Dori developed dynamic contrast MR lymphangiography (DCMRL), now a cornerstone diagnostic tool for visualizing central lymphatic flow and identifying leaks, reflux, and malformations. While his early work focused on lymphatic complications in congenital heart disease including chylothorax, plastic bronchitis, and protein-losing enteropathy, his clinical and research leadership now extends far beyond cardiology. Dr. Dori and his multidisciplinary team care for children and adults with a wide range of central and peripheral lymphatic disorders, including syndromic, genetic, inflammatory, and idiopathic causes. Through the integration of advanced imaging, minimally invasive catheter-based interventions, and translational science, Dr. Dori continues to redefine how lymphatic diseases are diagnosed and treated across diverse patient populations.

Dr. Aaron DeWitt is a pediatric cardiologist and cardiac intensivist at the **Children's Hospital of Philadelphia**, where he serves as Medical Director of the Jill and Mark Fishman Center for Lymphatic Disorders and Assistant Professor of Clinical Pediatrics at the Perelman School of Medicine. Dr. DeWitt is a leader in the integration of lymphatic science into pediatric cardiac critical care, with a focus on lymphatic failure in single ventricle physiology, postoperative complications, and protein-losing enteropathy. He has helped shape institutional protocols for early recognition and multidisciplinary management of lymphatic complications in the intensive care setting.

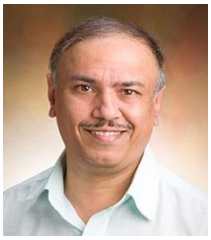
Dr. Rachelle Durand is a pediatric interventional radiologist and Assistant Professor in the Department of Radiology at **UCSF** Benioff Children's Hospitals. Her clinical practice spans the diagnosis and image-guided treatment of complex lymphatic and vascular anomalies, including chylothorax, lymphatic malformations, pleural effusions, and peritoneal lymphatic leaks. Dr. Durand collaborates closely with multidisciplinary teams to develop individualized interventional strategies that improve outcomes for children with central and multicomponent lymphatic disorders.

Dr. Michael Fox is an attending physician with the Comprehensive Vascular Anomalies Program at the **Children's Hospital of Philadelphia** and Associate Professor of Clinical Pediatrics at the Perelman School of Medicine. With dual training in pediatric hematology–oncology and vascular anomalies, Dr. Fox focuses on complex mixed and lymphatic malformations, particularly those associated with syndromic presentations and genetic variants such as PIK3CA and RAS pathway mutations. He is a key member of CHOP's vascular anomalies precision medicine team, where he guides individualized therapeutic strategies using targeted agents including sirolimus, alpelisib, and MEK inhibitors.

Dr. Kathleen Gibbs is a Professor of Clinical Pediatrics at the Perelman School of Medicine and a neonatologist at the **Children's Hospital of Philadelphia**, where she serves as Medical Director of the Newborn and Infant Chronic Lung Disease (N/I CLD) Program. Dr. Gibbs leads a multidisciplinary team that specializes in the care of infants with severe bronchopulmonary dysplasia, pulmonary hypertension, and complex cardiopulmonary conditions. Her work has helped shape clinical pathways that incorporate early diagnosis and longitudinal care for infants with chronic lung disease and associated lymphatic complications.

Dr. Mudit Gupta is an interventional cardiologist at the **Children's Hospital of Philadelphia** and Assistant Professor of Pediatrics at the Perelman School of Medicine. He serves as a key member of the Jill and Mark Fishman Center for Lymphatic Disorders, where his work focuses on the intersection of catheter-based hemodynamics and lymphatic flow, particularly in single ventricle physiology and Fontan-associated complications.

Dr. Adam Kolesnik is a fetal and pediatric cardiologist at the **Medical University of Warsaw**, Poland, where he specializes in prenatal diagnosis and management of congenital heart disease. Dr. Kolesnik has developed a focused clinical and research interest in lymphatic failure associated with single ventricle physiology, particularly in the prenatal and early postnatal periods. He collaborates across cardiology and imaging teams to evaluate thoracic lymphatic flow, protein-losing enteropathy, and chylous complications in patients with Fontan physiology and complex congenital anomalies.



Dr. Ganesh Krishnamurthy is an interventional radiologist at the **Children's Hospital of Philadelphia** and Assistant Professor of Radiology at the Perelman School of Medicine. As a member of the Jill and Mark Fishman Center for Lymphatic Disorders, Dr. Krishnamurthy specializes in image-guided lymphatic interventions, including thoracic duct embolization, selective lymphatic duct embolization, and decompression techniques for central lymphatic failure. His work has helped expand the field's understanding of how lymphatic venous interactions, pressure gradients, and decompressive strategies influence outcomes in complex congenital heart disease.

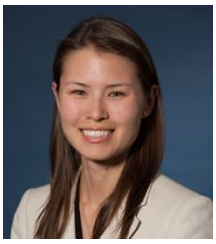
Dr. Pablo Laje is an attending pediatric surgeon at the **Children's Hospital of Philadelphia** and Associate Professor of Surgery at the Perelman School of Medicine. He serves as the Surgical Director of both the Jill and Mark Fishman Center for Lymphatic Disorders and the Pancreatic Disorders Program. Dr. Laje has been at the forefront of developing surgical solutions for central lymphatic failure, advancing techniques such as lymphatic decompression, lymphovenous anastomosis (LVA), and a range of innovative procedures to treat chylous complications—including protein-losing enteropathy, chylous ascites, chylothorax, and complex multicomponent lymphatic syndromes. His groundbreaking work in lymphatic microsurgery exemplifies the integration of surgical innovation with comprehensive, multidisciplinary care for children and young adults with complex lymphatic disease.

Dr. Dong Li is a Research Assistant Professor of Pediatrics at the Perelman School of Medicine and a research scientist at the **Children's Hospital of Philadelphia**, where he contributes to both the Jill and Mark Fishman Center for Lymphatic Disorders and the Comprehensive Vascular Anomalies Program. Dr. Li's research focuses on the genetic and molecular mechanisms underlying complex lymphatic anomalies, with a particular emphasis on identifying somatic mutations and developing noninvasive diagnostic strategies. His recent work has explored the use of cell-free DNA (cfDNA) as a minimally invasive tool for detecting gene variants in lymphatic malformations and guiding precision therapy.

Dr. Katsuhide Maeda is Surgical Director of Cardiac Lymphatics and Mechanical Circulatory Support at the **Children's Hospital of Philadelphia**, where he also serves as Surgical Director of the Heart and Lung Transplant Programs and holds the Alice Langdon Warner Endowed Chair in Pediatric Cardiothoracic Surgery. Dr. Maeda is a pioneer in the integration of lymphatic intervention into cardiothoracic surgical care, developing open and hybrid surgical strategies for lymphatic decompression, thoracic duct interruption, and targeted management of central lymphatic failure in patients with complex congenital heart disease.

Dr. Abbass Noor is an attending radiologist at the **Children's Hospital of Philadelphia** and an expert in advanced cardiovascular and lymphatic imaging. As part of the Department of Radiology and the Jill and Mark Fishman Center for Lymphatic Disorders, Dr. Noor specializes in MRI-based techniques for evaluating central lymphatic anatomy and flow, including cardiac-gated dynamic contrast MR lymphangiography. His work supports diagnosis, pre-procedural planning, and post-intervention surveillance in children and adults with complex congenital and lymphatic disorders.

Dr. Raja Shaikh is an interventional radiologist at **Boston Children's Hospital** and Director of Pediatric Interventional Oncology in the Division of Vascular and Interventional Radiology. He is also an Assistant Professor of Radiology at Harvard Medical School. Dr. Shaikh brings specialized expertise in image-guided interventions for pediatric vascular and lymphatic anomalies, including catheter-based lymphangiography, thoracic duct access, and embolization strategies for central lymphatic disorders. His clinical work spans lymphatic complications in oncology, congenital heart disease, and complex syndromic malformations.



Dr. Sarah E. Sheppard is an NIH Distinguished Scholar and Clinical Tenure-Track Investigator at the Eunice Kennedy Shriver National Institute of Child Health and Human Development (**NICHD**), where she leads the Unit on Vascular Malformations in the Division of Intramural Research. A physician-scientist trained in pediatrics, genetics, and clinical research, Dr. Sheppard investigates the genetic basis and pathophysiology of complex lymphatic anomalies, including kaposiform lymphangiomatosis (KLA), generalized lymphatic anomaly (GLA), and central conducting lymphatic anomaly (CCLA). Her work integrates deep genotyping with longitudinal phenotyping to inform disease classification, molecular diagnostics, and therapeutic targeting.

Dr. Sanjay Sinha is Co-Director of the **UCLA** Congenital Lymphatic Intervention Program and Assistant Professor of Pediatrics at the UCLA Mattel Children's Hospital. He serves as an interventional cardiologist with dual appointments at CHOC and UC Irvine, and his clinical work focuses on the catheter-based diagnosis and management of complex congenital heart and lymphatic conditions. Dr. Sinha has been instrumental in expanding lymphatic intervention capabilities on the West Coast.

Dr. Christopher L. Smith is an interventional cardiologist at the **Children's Hospital of Philadelphia** and Assistant Professor of Pediatrics at the Perelman School of Medicine. A key member of the Jill and Mark Fishman Center for Lymphatic Disorders, Dr. Smith specializes in catheter-based approaches to diagnosing and treating central lymphatic failure in patients with congenital heart disease. His clinical and research

interests include transcatheter thoracic duct decompression strategies, treatment of multicomponent lymphatic failure, and the hemodynamic and physiologic drivers of lymphatic dysfunction in single ventricle physiology and other forms of congenital heart disease.

Dr. Danish Vaiyani is an attending cardiologist in the Division of Cardiology at the **Children's Hospital of Philadelphia** and an Assistant Professor of Pediatrics at the Perelman School of Medicine. As part of the Jill and Mark Fishman Center for Lymphatic Disorders, Dr. Vaiyani specializes in the evaluation and longitudinal management of patients with congenital heart disease and associated lymphatic dysfunction. His clinical work emphasizes integration of lymphatic imaging into cardiology care pathways, particularly for patients with Fontan physiology, chylothorax, and protein-losing enteropathy.

Dr. Laura A. Vella is an infectious disease specialist at the **Children's Hospital of Philadelphia** and Assistant Professor of Pediatrics at the Perelman School of Medicine. Her research focuses on human immune responses to infection, vaccination, and immune dysregulation in rare pediatric syndromes. As a member of CHOP's lymphatic research team, Dr. Vella investigates how lymphatic architecture and function influence immune cell trafficking, lymph node remodeling, and systemic inflammation in children with congenital heart disease and complex lymphatic failure.

Dr. Russell Witte is a Professor at the **University of Arizona** College of Medicine, with appointments in Radiology and Imaging Sciences, Optical Sciences, Biomedical Engineering, Surgery, and Neurosurgery. A multidisciplinary innovator, Dr. Witte leads research at the intersection of imaging technology, bioengineering, and lymphatic science. His work includes the development of advanced multimodal imaging tools—such as photoacoustic, ultrasound, and electrical impedance techniques—for visualizing lymphatic structure and function in vivo. His lab has also explored noninvasive methods to assess cerebrospinal fluid–lymphatic coupling and brain waste clearance.

Dr. Abhay (Finn) S. Srinivasan is an Associate Professor of Clinical Radiology at the University of Pennsylvania and an Attending Radiologist in the Interventional Radiology & Body Imaging division at **Children's Hospital of Philadelphia**, where he also serves as Medical Director of Vascular Access and oversees medical student education in radiology. A pivotal contributor to lymphatic intervention, Dr. Srinivasan has co-authored key work on selective lymphatic duct embolization and comprehensive percutaneous techniques for treating central lymphatic conduction disorders in children, including thoracic duct obstruction and protein-losing enteropathy. His expertise in image-guided interventional techniques is central to CHOP's

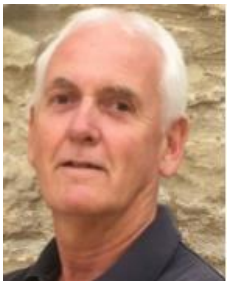
multidisciplinary approach in caring for kids with complex lymphatic and vascular anomalies—even beyond those with congenital heart disease.

Dr. Lene Thorup is a cardiothoracic surgery trainee at **Rigshospitalet** and a PhD fellow at the University of Copenhagen, where her research focuses on the interaction between intrathoracic pressure dynamics and lymphatic flow in patients with single ventricle physiology. Working closely with the congenital heart and lymphatic research teams in Copenhagen, Dr. Thorup is investigating the impact of mechanical ventilation, PEEP, and spontaneous breathing on thoracic duct function in the setting of elevated central venous pressure and Fontan circulation.

Meghan Scott is a nurse practitioner at the Jill and Mark Fishman Center for Lymphatic Disorders at the **Children's Hospital of Philadelphia**. With dual certification in acute and primary care pediatrics, Ms. Scott plays a central role in coordinating multidisciplinary evaluation and longitudinal care for patients with central and peripheral lymphatic disorders. She is a leader in patient and family education, procedural planning, and clinical pathway development, and serves as a key liaison across cardiology, radiology, surgery, and genetics in CHOP's lymphatic program.

Erin M. Pinto is a Nurse Practitioner and Codirector- within the Jill and Mark Fishman Center for Lymphatic Disorders at **Children's Hospital of Philadelphia**, with over two decades of nursing excellence—including ten years dedicated to CHOP's lymphatic program. A critical member of the multidisciplinary team, Ms. Pinto co-led early clinical studies demonstrating how modern lymphatic imaging and interventions dramatically improve outcomes in neonatal chylothorax and central lymphatic flow disorders. Her contributions in coordinating care and translating advanced diagnostics into effective clinical workflows have been instrumental in CHOP's leadership in lymphatic medicine—including making complex lymphatic leak repairs possible, as families personally attest.

Dr. Ken Liechty is the division chief of pediatric surgery in the **University of Arizona** College of Medicine Tucson's Department of Surgery, as well as director of fetal medicine at Banner University Medicine and surgeon-in-chief of Banner Children's at Diamond Children's Medical Center. Dr. Liechty is internationally recognized for his clinical care in fetal medicine and his research in wound healing and regeneration.



Dr. David Jackson is the Principal Investigator for Lymphatic Trafficking Group MRC Translational Immune Discovery Unit. Having pioneered molecular research into the lymphatic system in Oxford, his particular interest is the biology of this critical but overlooked vasculature in the context of inflammation, immunity and cancer.

Dr. Miguel Amore is a Vascular surgeon, head of the Unit of Phlebology and Lymphology, Cardiovascular Surgery Division and director of Vascular Anomalies Center at the Central Military Hospital of Buenos Aires, Argentina. Head of lymphology unit at Favaloro Foundation, University Hospital. He is Professor of Anatomy at Buenos Aires University and Head of Vascular Anatomy Lab. His main interests and research are venous and lymphatic diseases, including management of vascular anomalies.