

EXPLORING THE LYMPHATIC CONTINUUM • VIRTUAL MEETING • MAY 31–JUNE 5  
**LYMPHATIC FORUM 2021**

Poster Session 6/2/21 9:30pm ET

### **Computational Modeling of Lymphatics**

#### **Pump efficacy in a two-dimensional, fluid-structure-interaction model of a chain of contracting lymphangions**

Presenter: Elich, Hallie (University of Utah, United States);  
Author: Elich, Hallie (University of Utah, United States);  
Co-Author: Barrett, Aaron (University of Utah, United States);  
Fogelson, Aaron (Salt Lake City, UT, United States);  
Shankar, Varun (University of Utah, United States);

#### **Simulating lymphatic function in gravitational fields**

Presenter: Li, Huabing (Guilin University of Electronic Technology, United States);  
Co-Author: Zhang, Qianyi (Guilin University of Electronic Technology, United States);  
Wei, Huajian (Guilin University of Electronic Technology, United States);  
Padera, Timothy P. (Boston, MA, United States);  
Baish, James (Bucknell University, Lewisburg, PA, United States);  
Munn, Lance (Massachusetts General Hospital, United States);

#### **A mechanistic mathematical model of lymphatic transport anti-tumor immunity**

Presenter: R., Mohammad (Sharif University, United States);  
Co-Author: Baish, James (Bucknell University, Lewisburg, PA, United States);  
Padera, Timothy P. (Boston, MA, United States);  
Munn, Lance (Massachusetts General Hospital, United States);

### **Genetics and /Epigenetic Regulation of Lymphatics**

#### **Endothelial Nitric Oxide Synthase Regulates Lymphatic Valve Development During Embryogenesis**

Presenter: Iyer, Drishya (University of South Florida, Tampa, FL, United States);  
Author: Iyer, Drishya (University of South Florida, Tampa, FL, United States);  
Co-Author: Scallan, Joshua (Tampa, FL, United States);

### **Molecular tracking devices quantify antigen distribution and archiving within lymphatic endothelial cells using single cell RNA sequencing**

Presenter: Tamburini, Beth A. (University of Colorado Anschutz Medical Campus, CO, United States);  
Author: Tamburini, Beth A. (University of Colorado Anschutz Medical Campus, CO, United States);  
Lucas, Erin D. (University of Colorado Anschutz Medical Campus, CO, United States);  
Sheridan, Ryan (University of Colorado Anschutz Medical Campus, United States);  
Walsh, Shannon (University of Colorado Anschutz Medical Campus, United States);  
Co-Author: Burchill, Matthew (University of Colorado Anschutz Medical Campus, United States);  
Finlon, Jeffrey (University of Colorado Anschutz Medical Campus, United States);  
Fu, Rui (University of Colorado Anschutz Medical Campus, United States);  
Hesselberth, Jay (University of Colorado Anschutz Medical Campus, United States);  
Schafer, Johnathon (University of Colorado Anschutz Medical Campus, Aurora, CO, United States);  
Ware, Biran (University of Colorado Anschutz Medical Campus, United States);

### **Lymphatic endothelial cell identity is controlled by a GATA2 bound enhancer.**

Presenter: Kazenwadel, Jan (University of South Australia, Australia);  
Author: Kazenwadel, Jan (University of South Australia, Australia);  
Co-Author: Venugopal, Parvathy (Department of Genetics and Molecular Pathology, SA Pathology, United States);  
Brown, Chris (University of South Australia, Australia);  
Oszmiana, Anna (Centre for Cancer Biology, University of South Australia, Adelaide, SA, Australia);  
Arriola-Martinez, Luis (Centre for Cancer Biology, University of South Australia, Australia);  
Piltz, Sandra (School of Biological Sciences, University of Adelaide, Australia);  
Taoudi, Samir (The Walter and Eliza Hall Institute of Medical Research, Australia);  
Thomas, Paul Q. (School of Biological Sciences, University of Adelaide, Australia);  
Scott, Hamish S. (Department of Genetics and Molecular Pathology, SA Pathology, Australia);  
Harvey, Natasha L. (University of South Australia, Australia);

## **Innovating Lymphatic Therapy (sponsored by the Microcirculatory Society)**

### **Physiologically Engineered In-Vitro Model of Lymphatic Vessel Growth & Function Using HA-Hydrogels**

Presenter: Alderfer, Laura (University of Notre Dame, Notre Dame, IN, United States);  
Author: Alderfer, Laura (University of Notre Dame, Notre Dame, IN, United States);  
Co-Author: Fan, Fei (University of Notre Dame, Notre Dame, IN, United States);  
Hanjaya-Putra, Donny (University of Notre Dame, United States);

### **Ketogenic Diet as a Potential Intervention for Lipedema**

Presenter: Pfeffer, Megan (Lipedema Simplified, Metung, VIC, Australia);  
Author: Pfeffer, Megan (Lipedema Simplified, Metung, VIC, Australia);  
Co-Author: Keith, Leslyn (The Lipedema Project, OAK VIEW, CA, United States);  
Seo, Catherine (The Lipedema Project, Boston, MA, United States);

## **Advanced Pneumatic Compression Devices in the Treatment of Lymphedema: A Systematic Review**

Presenter: Klepper, Delaney (Elizabethtown College, Elizabethtown, PA, United States);  
Knecht, Kaitlyn (Elizabethtown College, Elizabethtown, PA, United States);  
Panchik, Daniel (Elizabethtown College, Elizabethtown, PA, United States);  
Pron, Jessica (Elizabethtown College, Elizabethtown, PA, United States);  
Schuller, Melanie (Elizabethtown College, Elizabethtown, PA, United States);  
Author: Panchik, Daniel (Elizabethtown College, Elizabethtown, PA, United States);  
Co-Author: Klepper, Delaney (Elizabethtown College, Elizabethtown, PA, United States);  
Knecht, Kaitlyn (Elizabethtown College, Elizabethtown, PA, United States);  
Pron, Jessica (Elizabethtown College, Elizabethtown, PA, United States);  
Schuller, Melanie (Elizabethtown College, Elizabethtown, PA, United States);

## **Generation of lymphatic endothelial cells from human induced pluripotent stem cells**

Co-Author: Hanjaya-Putra, Donny (University of Notre Dame, United States);

## **Lymphatics in Immunity and Inflammation**

### **An Intravital Microscopy Model of Macrophage Contributions to Corneal Lymphatic Vessel Regression and Recurrent Lymphangiogenesis**

Presenter: Collazo, Heather (South Dakota State University, Brookings, SD, United States);  
Author: Harms, Rebecca (Department of Chemistry and Biochemistry, South Dakota State University, Brookings, SD, United States);  
Co-Author: Collazo, Heather (South Dakota State University, Brookings, SD, United States);  
Fink, Darci M. (South Dakota State University, Brookings, SD, United States);

### **The Loss of LYVE1+ Peri-Lymphatic Macrophages: Potential Contributor to Mesenteric Lymphatic Dysfunction during Chronic Inflammation in the TNFdARE mouse**

Presenter: Keane, Keith P. (University of Calgary, Calgary, AB, Canada);  
Author: Keane, Keith P. (University of Calgary, Calgary, AB, Canada);  
Co-Author: Almutairi, Khaled (University of Calgary, Calgary, AB, Canada);  
Roizes, Simon (Calgary, AB, Canada);  
Stephens, Matthew (Calgary, AB, Canada);  
von der Weid, Pierre-Yves (Calgary, AB, Canada);

### **Primary cilia protein IFT20 is critical for lymphatic vessel development and remodeling during inflammation.**

Co-Author: Harms, Rebecca (Department of Chemistry and Biochemistry, South Dakota State University, Brookings, SD, United States);  
Ward, Cody (South Dakota State University, Brookings, SD, United States);  
Latterell, Mackenzie (South Dakota State University, Brookings, SD, United States);

Pazour, Gregory J. (Worcester, MA, United States);  
Fink, Darci M. (South Dakota State University, Brookings, SD, United States);

### **Lymph flow directs rapid neutrophil positioning in the lymph node in infection**

Presenter: Liao, Shan (Calgary, AB, Canada);  
Author: Xue, Jingna (University of Calgary, AB, Canada);  
Co-Author: Liao, Shan (Calgary, AB, Canada);

### **Analyzing functions of lymphatic endothelial cell primary cilia using CRISPR-Cas9 IFT20 KO lymphatic endothelial cells**

Presenter: Majumder, Ahana (Department of Biology and Microbiology, South Dakota State University, Brookings, SD, United States);  
Author: Majumder, Ahana (Department of Biology and Microbiology, South Dakota State University, Brookings, SD, United States);  
Co-Author: Collazo, Heather (South Dakota State University, Brookings, SD, United States);  
Fink, Darci M. (South Dakota State University, Brookings, SD, United States);  
Harms, Rebecca (Department of Chemistry and Biochemistry, South Dakota State University, Brookings, SD, United States);  
Pazour, Gregory J. (Worcester, MA, United States);

### **Programmed Death Ligand 1 Cytosolic Mutations Alter Endothelial Cell Function**

Presenter: Schafer, Johnathon (University of Colorado Anschutz Medical Campus, Aurora, CO, United States);  
Author: Schafer, Johnathon (University of Colorado Anschutz Medical Campus, Aurora, CO, United States);  
Co-Author: Lucas, Erin D. (University of Colorado Anschutz Medical Campus, CO, United States);  
Tamburini, Beth A. (University of Colorado Anschutz Medical Campus, CO, United States);

### **Functional Toll-like receptors in mesenteric collecting lymphatic vessels aid in maintenance of endothelial & smooth muscle cell phenotype**

Presenter: Stephens, Matthew (Calgary, AB, Canada);  
Author: Stephens, Matthew (Calgary, AB, Canada);  
Co-Author: Carrillo, Miriam (University of Calgary, Calgary, AB, Canada);  
Liao, Shan (Calgary, AB, Canada);  
von der Weid, Pierre-Yves (Calgary, AB, Canada);

## **Lymphedema**

### **Notoginsenoside R1, the first discovered VEGF-C promoting natural compound candidate for the treatment of acquired lymphedema**

Presenter: Bao, Jia-min (Longhua Hospital, Shanghai University of Traditional Chinese Medicine, China);

Author: Bao, Jia-min (Longhua Hospital, Shanghai University of Traditional Chinese Medicine, China);

Co-Author: Hou, Tong (Jing'an District Central Hospital, Shanghai, Shanghai, China);

Liu, Yang (Longhua Hospital, Shanghai University of Traditional Chinese Medicine, China);

Xu, Hao (Longhua Hospital, Shanghai University of Traditional Chinese Medicine, China);

Wang, Xiao-yun (Longhua Hospital, Shanghai University of Traditional Chinese Medicine, China);

Wang, Yong-jun (Longhua Hospital, Shanghai University of Traditional Chinese Medicine, China);

Liang, Qianqian (Shanghai, China);

### **Elucidating repercussions of lipid accumulation in secondary lymphedema**

Presenter: Hazwany, Syaza (National University of Singapore, Singapore);

Author: Hazwany, Syaza (National University of Singapore, Singapore);

Co-Author: Lim, Hwee Ying (Singapore, Singapore);

Tan, Bien Keem (Singapore General Hospital, Singapore);

Angeli, Veronique (Singapore, Singapore);

### **Lifestyle Modification Group for Lymphedema and Obesity Results in Significant Health Outcomes**

Presenter: Keith, Leslyn (The Lipedema Project, OAK VIEW, CA, United States);

Author: Keith, Leslyn (The Lipedema Project, OAK VIEW, CA, United States);

### **Vascularised lymph node transfers in lymphoedema**

Presenter: Mago, Vishal (AIIMS Rishikesh, Rishikesh, India);

Author: Mago, Vishal (AIIMS Rishikesh, Rishikesh, India);

Co-Author: AJ, Praveen (AIIMS Rishikesh, Rishikesh, India);

Mir, Altaf (AIIMS Rishikesh, Rishikesh, India);

### **Role and therapeutic potential of dietary ketone bodies in lymph vessel growth**

Presenter: García Caballero, Melissa (University of Málaga, Spain)

Author: García Caballero, Melissa (University of Málaga, Spain)

## **Organ Specific Lymphatic Development**

### **Antigen archiving by lymphatic endothelial cells promotes secondary CD8+ T cell memory responses during an unrelated infection.**

Lucas, Erin D. (University of Colorado Anschutz Medical Campus, CO, United States);

Finlon, Jeffrey (University of Colorado Anschutz Medical Campus, United States);

Presenter: Doan, Thu (Aurora, CO, United States);

Author: Doan, Thu (Aurora, CO, United States);

Co-Author: Schafer, Johnathon (University of Colorado Anschutz Medical Campus, United States);

Lucas, Erin D. (University of Colorado Anschutz Medical Campus, CO, United States);

Tamburini, Beth A. (University of Colorado Anschutz Medical Campus, CO, United States);

### **Nedd4 controls lymphatic endothelial cell sprouting and adhesion by regulating sphingosine 1-phosphate receptor activity**

Presenter: Secker, Genevieve (University of South Australia, Adelaide, SA, Australia);

Author: Secker, Genevieve (University of South Australia, Adelaide, SA, Australia);

Co-Author: Sutton, Drew (University of South Australia, United States);

Tea, Melinda (Centre for Cancer Biology, United States);

Kazenwadel, Jan (University of South Australia, Australia);

Betterman, Kelly (Centre for Cancer Biology, University of South Australia, Australia);

Gliddeon, Briony (Centre for Cancer Biology, Australia);

Kawabe, Hiroshi (Gunma University, Japan);

Schwarz, Quenten (Centre for Cancer Biology, Australia);

Dejana, Elisabetta (University of Milan, United States);

Pitson, Stuart M. (Adelaide, Australia);

Kumar, Sharad (Centre for Cancer Biology, Australia);

Harvey, Natasha L. (University of South Australia, Australia);

### **Flow-induced decrease in lymphatic pumping is mediated by TRPV4 activation and utilizes both the COX-dependent and NO-dependent signalling pathways**

Presenter: von der Weid, Pierre-Yves (Calgary, AB, Canada);

Author: Du Toit, Jacques (University of Calgary, Calgary, AB, Canada);

Co-Author: von der Weid, Pierre-Yves (Calgary, AB, Canada);

Roizes, Simon (Calgary, AB, Canada);

Stephens, Matthew (Calgary, AB, Canada);

### **oxLDL in Chronic Liver Disease Impairs Liver Lymphatic Function**

Presenter: Goldberg, Alyssa (University of Colorado, Aurora, CO, United States);

Author: Goldberg, Alyssa (University of Colorado, Aurora, CO, United States);

Co-Author: Burchill, Matthew (University of Colorado Anschutz Medical Campus, United States);

Finlon, Jeffrey M. (University of Colorado - Anschutz Medical Campus, United States);

McCullough, Rebecca (University of Colorado Anschutz Medical Campus, United States);

Pal, Sarit (University of Colorado Anschutz Medical Campus, United States);

Tamburini, Beth A. (University of Colorado Anschutz Medical Campus, CO, United States);

## **Lymphatic Muscle Cells as the Intrinsic Pacemaker Cell of Lymphatic Collecting Vessels**

Presenter: Zawieja, Scott D. (University of Missouri, Columbia, MO, United States);  
Author: Zawieja, Scott D. (University of Missouri, Columbia, MO, United States);  
Co-Author: Castorena-Gonzalez, Jorge (Tulane University, New Orleans, LA, United States);  
Li, Min (Medical Pharmacology and Physiology, University of Missouri, Columbia, MO, United States);  
Drumm, Bernard (Department of Life & Health Science, Dundalk Institute of Technology, Dundalk, Ireland);  
Davis, Michael J. (Columbia, MO, United States);

## **Primary Lymphatic Diseases and Anomalies**

### **Angiopoietin-2-induced lymphatic endothelial cell migration drives lymphangiogenesis via the $\beta 1$ integrin-RhoA-formin axis**

Presenter: Mikelis, Constantinos (School of Pharmacy, Texas Tech University Health Sciences Center, Amarillo, TX, United States);  
Author: Mikelis, Constantinos (School of Pharmacy, Texas Tech University Health Sciences Center, Amarillo, TX, United States);

### **Impact of Dietary Fatty Acids on Chylous Effusion in a Mouse Model of Generalized Lymphatic Anomaly**

Presenter: Creed, Heidi (Texas A&M University College of Medicine, College Station, TX, United States);  
Author: Creed, Heidi (Texas A&M University College of Medicine, College Station, TX, United States);  
Co-Author: Sanfelippo, Ashley (Texas A&M University College of Medicine, United States);  
Reyna, Andrea (Texas A&M University College of Medicine, Bryan, TX, United States);  
Chakraborty, Adri (Texas A&M University College of Medicine, Bryan, TX, United States);  
Rutkowski, Joseph M. (Texas A&M University College of Medicine, Bryan, TX, United States);

### **Mechanisms of KATP channel activation by metabolic stress in mediating lymphatic contractile dysfunction**

Presenter: Kim, Hae Jin (University of Missouri-Columbia, Columbia, MO, United States);  
Co-Author: Davis, Michael J. (Columbia, MO, United States);

### **Perioperative Outcomes for Children with Vascular Anomalies Undergoing Surgery while on Sirolimus Therapy**

Presenter: Mehl, Steven (Baylor College of Medicine, Houston, TX, United States);  
Author: Mehl, Steven (Baylor College of Medicine, Houston, TX, United States);  
Co-Author: Whitlock, Richard (Baylor College of Medicine, United States);  
Iacobas, Ionela (Texas Children's Hospital, United States);  
Maricevich, Renata (Texas Children's Hospital, United States);

Rosenberg, Tara (Texas Children's Hospital, United States);  
Ortega, Rachel (Baylor College of Medicine, United States);  
Rialon, Kristy (Texas Children's Hospital, United States);