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);
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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);
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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);
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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);
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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);
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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);
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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);
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The Loss of LYVE1+ Peri-Lymphatic Macrophages: Potential Contributor to Mesenteric Lymphatic Dysfunction during Chronic Inflammation in the TNFδARE mouse
Presenter: Keane, Keith P. (University of Calgary, Calgary, AB, Canada);
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Primary cilia protein IFT20 is critical for lymphatic vessel development and remodeling during inflammation.
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**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);
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**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);
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**Programmed Death Ligand 1 Cytosolic Mutations Alter Endothelial Cell Function**
Presenter: Schafer, Johnathon (University of Colorado Anschutz Medical Campus, Aurora, CO, United States);
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**Functional Toll-like receptors in mesenteric collecting lymphatic vessels aid in maintenance of endothelial & smooth muscle cell phenotype**
Presenter: Stephens, Matthew (Calgary, AB, Canada);
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Liao, Shan (Calgary, AB, Canada);
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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);
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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);
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Kawabe, Hiroshi (Gunma University, Japan);
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Pitson, Stuart M. (Adelaide, Australia);
Kumar, Sharad (Centre for Cancer Biology, Australia);
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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);
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oxLDL in Chronic Liver Disease Impairs Liver Lymphatic Function
Presenter: Goldberg, Alyssa (University of Colorado, Aurora, CO, United States);
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Lymphatic Muscle Cells as the Intrinsic Pacemaker Cell of Lymphatic Collecting Vessels
Presenter: Zawieja, Scott D. (University of Missouri, Columbia, MO, United States);
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Primary Lymphatic Diseases and Anomalies

Angiopoietin-2-induced lymphatic endothelial cell migration drives lymphangiogenesis via the β1 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);
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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);
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Perioperative Outcomes for Children with Vascular Anomalies Undergoing Surgery while on Sirolimus Therapy
Presenter: Mehl, Steven (Baylor College of Medicine, Houston, TX, United States);
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