

# KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

## Stromal Cells in Immunity and Disease (Q5)

Scientific Organizers: Scott N. Mueller, Jason G. Cyster, Reina E. Mebius and Theresa T. Lu

Supported by the Directors' Fund

## Fibrosis and Tissue Repair: From Molecules and Mechanics to Therapeutic Approaches (Q6)

Scientific Organizers: Shannon J. Turley and Thomas A. Wynn

February 19-23, 2020 • Fairmont Empress Victoria • Victoria, British Columbia, Canada

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Abstract & Scholarship Deadline: October 17, 2019 / Abstract Deadline: November 20, 2019 / Discounted Registration Deadline: December 18, 2019

### WEDNESDAY, FEBRUARY 19

#### Arrival and Registration

### THURSDAY, FEBRUARY 20

#### Welcome and Keynote Session (Joint)

**David A. Brenner**, University of California, San Diego, USA  
*Linking Inflammation and Myofibroblast Activation*

**Ruslan Medzhitov**, HHMI/Yale University School of Medicine, USA  
*Macrophage-Fibroblast Circuits*

#### Stromal Cells in Lymphoid Tissue Development (Q5)

**Burkhard Ludewig**, Kantonsspital St. Gallen, Switzerland  
*Stromal Cells Orchestrate Lymphoid Tissue Development*

**Reina E. Mebius**, Amsterdam UMC-VUmc, Netherlands  
*Ways by which Stromal Cells Control Autoreactive Lymphocytes*

**Sanjiv A. Luther**, University of Lausanne, Switzerland  
*Stromal Cell Development and Function within Secondary Lymphoid Organs*

#### Short Talk Chosen from Abstracts

#### Tissue Fibroblasts and Pericytes in Fibrosis (Q6)

**Jonathan M. Kurie**, University of Texas MD Anderson Cancer Center, USA  
*The Fibrotic Tumor Stroma*

**Yuval Rinkevich**, Helmholtz Zentrum München, Germany  
*Fibroblastic Lineages Drive Dermal Development and the Transition from Regeneration to Scarring*

**Scott M. Turner**, Pliant Therapeutics, USA  
*Identification and Evaluation of Small Molecule Integrin Inhibitors: From Cell Systems to Human Trials*

#### Short Talk(s) Chosen from Abstracts

#### Workshop 1 (Q5)

##### Short Talks Chosen from Abstracts

#### Workshop 1: Core Mechanisms versus Organ Specific Mediators of Fibrosis (Q6)

##### Short Talks Chosen from Abstracts

#### Stromal Cells and Immunity in Non-Lymphoid Tissues (Q5)

**Theresa T. Lu**, Hospital for Special Surgery/Weill Cornell Medicine, USA  
*Langerhans Cells and Skin Protection in Lupus Photosensitivity*

**Shruti Naik**, New York University, USA  
*Inflammatory Tuning of Epithelial Stem Cells*

**Tatiana V. Petrova**, CHUV, University of Lausanne, Switzerland  
*Lymphatic Vascular Development and Remodeling*

#### Short Talk Chosen from Abstracts

#### Myeloid Cells in Fibrosis (Q6)

**Shizuo Akira**, Osaka University, Japan  
*Atypical Monocytes in Multi-Organ Fibrosis*

**Harris Perlman**, Northwestern University, USA  
*Monocyte Derived Macrophages in Inflammation and Fibrosis*

**Frank Tacke**, University Hospital Aachen, Germany  
*Macrophage Heterogeneity in Liver Homeostasis, Inflammation, and Fibrosis*

#### Short Talk(s) Chosen from Abstracts

#### Poster Session 1

### FRIDAY, FEBRUARY 21

#### Stromal Cell Functions in Primary and Secondary Lymphoid Tissues (Q5)

**Paul S. Frenette**, Albert Einstein College of Medicine, USA  
*Bone Marrow Stromal Niches*

**João Pereira**, Yale University School of Medicine, USA  
*Bone Marrow Stromal Cells and Hematopoiesis*

**Tomoya Katakai**, Niigata University, Japan  
*Stromal Cell Diversity in Lymph Nodes*

**Beth A. Tamburini**, University of Colorado Denver Anschutz Medical Campus, USA  
*Control of Immune Responses in Lymph Nodes by Lymphatic Endothelial Cells*

#### Short Talk Chosen from Abstracts

#### Advances in Organ Fibrosis (Q6)

**Naftali Kaminski**, Yale University School of Medicine, USA  
*Dysregulated Cellular Networks in Pulmonary Fibrosis – Lessons from Single Cell Studies*

**Rachel C. Chambers**, University College London, UK  
*mTOR Signaling in Pulmonary Fibrosis*

**Katalin Susztak**, University of Pennsylvania, USA  
*Fatty Acid Oxidation in Tubular Epithelial Cells Regulates Kidney Fibrosis*

**Harry (Hal) C. Dietz**, Johns Hopkins University School of Medicine, Blade Therapeutics, USA  
*New Mechanisms and Vulnerabilities of Fibrosis*

#### Short Talk(s) Chosen from Abstracts

#### Workshop 2: Novel Technologies and Models in Stromal Cell Biology and Fibrosis (Joint)

##### Short Talks Chosen from Abstracts

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### Endothelial Cells in Immunity and Disease (Q5)

**Melody A. Swartz**, University of Chicago, USA

*Role of Lymphatic Endothelial Cells in the Regulation of T Cell Memory*

**Cornelia Halin**, ETH Zürich, Switzerland

*Leukocyte Migration through Afferent Lymphatic Vessels*

**Ulrich H. Von Andrian**, Harvard Medical School, USA

*Lymphocyte Patrol of Blood Vessel Endothelium*

Short Talk Chosen from Abstracts

### Unique Drivers of Inflammation and Fibrosis (Q6)

**Stuart A. Cook**, Duke-NUS Graduate Medical School Singapore,

Enleofen, Singapore

*Therapeutic Targeting of IL-11 to Reverse Fibrosis and Inflammation in Lung, Kidney, Heart and Liver Disease*

**Pilar Alcaide**, Tufts University School of Medicine, USA

*T Cell Regulation of Cardiac Fibrosis*

**Jelena Mann**, Newcastle University, UK

*Epigenetics and Fibrosis*

Short Talk(s) Chosen from Abstracts

### Poster Session 2

### SATURDAY, FEBRUARY 22

#### Stromal Cells in Cancer and Anti-Tumor Immunity (Q5)

**Amanda Lund**, Oregon Health & Science University, USA

*Lymphatic Vessels Coordinate Peripheral Tissue/Tumor Immune Responses*

**Anne Fletcher**, Monash University, Biomedicine Discovery Institute, Australia

*Fibroblast Subsets and Functions within Tumors*

**Ruth Ganss**, Harry Perkins Institute of Medical Research, Australia

*Stromal Remodeling and Targeting in Cancer*

**Jacqui Shields**, University of Cambridge, UK

*Stromal Cell Functions in the Tumor Microenvironment*

#### Novel Pathways and Strategies to Ameliorate Fibrosis (Q6)

**Thomas A. Wynn**, Pfizer, USA

*Targeting Type 1 and Type 2 Fibrosis and Tissue Regeneration*

**Tatiana Kisseleva**, University of California, San Diego, USA

*The Role of Mesothelin in the Pathogenesis of Parenchymal Organs*

**Scott L. Friedman**, Icahn School of Medicine at Mount Sinai, USA

*Targeting CCR2/5 in the Treatment of Nonalcoholic Steatohepatitis and Fibrosis*

**Christine Kim Garcia**, Columbia University Medical Center, USA

*Insights from Human Genetic Studies of Organ Fibrosis*

### Short Talk(s) Chosen from Abstracts

#### Stroma Cell Contributions During Infection and Inflammation (Q5)

**Scott N. Mueller**, University of Melbourne, Australia

*Splenic Stromal Cell Responses to Infection*

**Susan R. Schwab**, New York University School of Medicine, USA

*Lymphatic Endothelial Cell S1P Support for Lymphocyte Migration and Survival*

**Marc Bajénoff**, Centre d'Immunologie Marseille-Luminy, France

*Regulation of Lymphoid Stromal Cell Networks*

Short Talk Chosen from Abstracts

#### Distinct and Common Mechanisms of Fibrosis Revealed by Different Tissues (Q6)

**Florian Rieder**, Cleveland Clinic, USA

*Linking Fibrosis in Ulcerative Colitis with the Severity of Mucosal Inflammation*

**Daniel Tschumperlin**, Mayo Clinic, USA

*Mechanosensing and Fibrosis*

**Valerie M. Weaver**, University of California, San Francisco, USA

*Tissue Tension Induces Matricellular Fibrosis and Tumor Progression in Pancreas*

Short Talk(s) Chosen from Abstracts

### Poster Session 3

### SUNDAY, FEBRUARY 23

#### Interrogating Stromal Functions in Disease (Q5)

**Michael B. Brenner**, Harvard Medical School, USA

*Stromal Cells that Drive Inflammation in Tissues*

**Lucie Peduto**, Institut Pasteur, France

*Mesenchymal Cells in Pathology and Tissue Repair*

**George A. Kollias**, Alexander Fleming Biomedical Sciences

Research Center, Greece

*Mesenchymal Cells in Inflammatory Disease*

**Ankur Singh**, Cornell University, USA

*Immune Organoids to Study Immunity and Epigenetics in Health and Diseases*

Short Talk Chosen from Abstracts

#### Progenitor Cells in Tissue Repair and Organ Regeneration (Q6)

Speaker to be Announced

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**Harold A. Chapman**, University of California, San Francisco, USA

*Lung Progenitors in Epithelial Renewal Following Injury*

**Joseph R. Arron**, Genentech, Inc., USA

*Reprogramming Pathogenic Cells to Promote Tissue Repair*

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#### Workshop 3 (Q5)

##### Short Talks Chosen from Abstracts

#### Workshop 3: Moving Anti-Fibrotic Strategies and Targets to the Clinic (Q6)

##### Short Talks Chosen from Abstracts

#### New Directions in Dissecting Stromal Cell Functions (Joint)

**Stuart Forbes**, University of Edinburgh, UK

*Liver Stem Cells and Tissue Regeneration*

**Jason G. Cyster**, HHMI/University of California, San Francisco, USA

*Stromal Cells as Orchestrators of Humoral Immunity*

**Shannon J. Turley**, Genentech, Inc., USA

*Stromal Cells in Cancer Immunology and Immunotherapy*

##### Short Talk Chosen from Abstracts

#### Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (Q5)

#### Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (Q6)

### MONDAY, FEBRUARY 24

#### Departure