

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

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

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

Sponsored by Akebia Therapeutics, Genentech, Inc., Novartis Institutes for BioMedical Research and Novo Nordisk A/S

Stromal Cells in Immunity and Disease (Q5)

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

February 19-23, 2020 • Fairmont Empress Victoria • Victoria, BC, 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

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, GmbH, Germany
Two Succeeding 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 Talks Chosen from Abstracts

Stromal Cells in Lymphoid Tissue Development (Q5)

Burkhard Ludewig, Kantonsspital St. Gallen, Switzerland
Fibroblastic Stromal Cells Direct Lymphoid Organ Development

Reina E. Mebius, Amsterdam UMC-VUmc, Netherlands
Control of the Adaptive Immunity by Lymph Node Stromal Cells

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

Short Talk Chosen from Abstracts

Poster Session 1

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

Short Talks Chosen from Abstracts

Workshop 1 (Q5)

Short Talks Chosen from Abstracts

Myeloid Cells in Fibrosis (Q6)

Shizuo Akira, Osaka University, Japan
Molecular Mechanism of Bleomycin-Induced Lung Fibrosis

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

Frank Tacke, Charité Universitätsmedizin Berlin, Germany
Macrophage Heterogeneity in Liver Homeostasis, Inflammation, and Fibrosis

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

FRIDAY, FEBRUARY 21

Advances in Organ Fibrosis (Q6)

Ivan O. Rosas, Baylor College of Medicine, USA
Insights into the Complexity and Diversity of Cell Populations in IPF and COPD using Single Cell RNA-seq

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 Talks Chosen from Abstracts

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

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

Short Talks Chosen from Abstracts

Unique Drivers of Inflammation and Fibrosis (Q6)

Stuart A. Cook, Duke-NUS Graduate Medical School Singapore, Enleofen, Singapore
Hiding in Plain Sight: Interleukin-11 Emerges as a Master Regulator of Fibrosis, Tissue Integrity and Stromal Inflammation

Pilar Alcaide, Tufts University School of Medicine, USA
T cell regulation of cardiac fibrosis

Jelena Mann, Newcastle University, UK
Epigenetics and Fibrosis

Short Talks Chosen from Abstracts

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

Poster Session 2

SATURDAY, FEBRUARY 22

Novel Pathways and Strategies to Ameliorate Fibrosis (Q6)

Thomas A. Wynn, Pfizer, USA
Targeting Type 1 and Type 2 Fibrosis

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
Target Selection and Validation for Antifibrotic Therapies in Liver

Christine Kim Garcia, Columbia University Medical Center, USA
Pulmonary Fibrosis: Inherited Susceptibilities and Personalized Prognostics

Short Talks Chosen from Abstracts

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

Amanda Lund, Oregon Health & Science University, USA
Lymphatic Vessels and the Cancer Immunity Life Cycle

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
Beyond the Cancer Cell: Exploring the Tumour Stroma as Immune Modulators

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

Florian Rieder, Cleveland Clinic, USA
Mechanisms and Future Clinical Trial Endpoints of Intestinal Fibrosis

Daniel Tschumperlin, Mayo Clinic, USA
Targeting YAP/TAZ in Lung and Liver Fibrosis

Valerie M. Weaver, University of California, San Francisco, USA
Tissue Tension Induces Matricellular Fibrosis and Tumor Progression in Pancreas

Short Talks 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
Exit Strategies: S1P Gradients in Inflammation

Marc Bajénoff, Centre d'Immunologie Marseille-Luminy, France
Regulation of Lymphoid Stromal Cell Networks

Short Talk Chosen from Abstracts

Poster Session 3

SUNDAY, FEBRUARY 23

Progenitor Cells in Tissue Repair and Organ Regeneration (Q6)

Speaker to be Announced

Wonder Drake, Vanderbilt University, USA
Sex Specific Distinctions in Pulmonary Fibrosis Are Mediated by Estrogen Inhibition of STAT3 Signaling

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

Interrogating Stromal Functions in Disease (Q5)

Michael B. Brenner, Harvard Medical School, USA
Transcriptional and Anatomic Fibroblast Gradients Define the Pathologic Synovium in Rheumatoid Arthritis

Lucie Peduto, Institut Pasteur, France
Mesenchymal Cells in Pathology and Tissue Repair

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George A. Kollias, Alexander Fleming Biomedical Sciences
Research Center, Greece

Mesenchymal Causalities in Inflammation, Immunity and Cancer

Ankur Singh, Cornell University, USA

Immune Organoids to Study Immunity and Epigenetics in Health and Diseases

Short Talk Chosen from Abstracts

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

Short Talks Chosen from Abstracts

Workshop 3 (Q5)

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 (Joint)

MONDAY, FEBRUARY 24

Departure