

Salivary Glands & Exocrine Biology

Gordon Research Conference

Understanding Development, Function and Regeneration of Secretory Tissues:
Novel Signaling Pathways and Approaches to Treat Exocrine Disorders

Dates

February 19-24, 2017

Location

Hotel Galvez
Galveston, TX

Organizers

Chairs:

Gary A. Weisman & Catherine E. Ovitt

Vice Chairs:

Sarah M. Knox & Stefan Ruhl

Application Deadline

Applications for this meeting must be submitted by **January 22, 2017**. Please apply early, as some meetings become oversubscribed (full) before this deadline. If the meeting is oversubscribed, it will be stated here. *Note:* Applications for oversubscribed meetings will only be considered by the Conference Chair if more seats become available due to cancellations.

Meeting Description

The Gordon Research Conference (GRC) on Salivary Glands and Exocrine Biology will include sessions on exocrine gland development, regenerative approaches, functional relevance of salivary proteins, membrane functions in exocrine glands, understanding the etiology of autoimmune disease, targeting inflammation to retard disease pathogenesis and current topics in cell biology of exocrine glands. Invited speakers for the GRC will include eminent scientists from academia, industry and government and talks will include both senior and junior scientists from diverse fields who will present unpublished research findings on subjects of greatest interest to the field. This GRC will include a Graduate Research Seminar (GRS) to be held just prior to the GRC that will invite only speakers who are graduate students and postdoctoral associates in a wide variety of laboratories worldwide. In addition, poster sessions will be held daily at the GRC and GRS to enable all attendees to present and discuss their data in an open forum. The overall goal of the GRC and GRS will be to foster scientific exchanges and engender research collaborations in disciplines that are viewed as having a major impact on the development of novel strategies to improve human health. Specific Aims include: 1) to present a program of topical interest to attendees in a pleasant setting where they will have opportunities to present unpublished findings before a knowledgeable audience and engage in a wide range of critical research discussions; 2) to offer for the first time, a GRS to be attended by graduate students and postdoctoral associates who will present their novel research findings before an audience of their peers and; 3) to emphasize presentations on state-of-the-art methodologies of interest to the exocrine biology field towards the goal of developing innovative approaches to the improvement of human health by preventing disorders of secretory organs.

Related Meeting



This GRC will be held in conjunction with the "**Salivary Glands & Exocrine Biology**" Gordon **Research Seminar (GRS)**. Those interested in attending both meetings must submit an application for the GRS in addition to an application for the GRC. Refer to the [associated GRS program page](#) for more

information.

Contributors



Meeting Program

Sunday

- 4:00 pm - 8:00 pm Arrival and Check-in
- 6:00 pm Dinner
- 7:30 pm - 7:40 pm Welcome / Introductory Comments by GRC Site Staff
- 7:40 pm - 9:30 pm **Keynote Session: Frontiers in Tissue Engineering**
- Discussion Leaders: **Gary Weisman** (University of Missouri, USA) and **Catherine Ovitt** (University of Rochester, USA)
- 7:40 pm - 7:50 pm Opening Remarks
- 7:50 pm - 8:30 pm **David Mooney** (John A. Paulson School of Engineering and Applied Sciences, Harvard University, USA)
"Improving Stem Cell Therapeutics with Mechanobiology"
- 8:30 pm - 8:40 pm Discussion
- 8:40 pm - 9:20 pm **Linda Griffith** (Massachusetts Institute of Technology, USA)
"Decoding Epithelial-Stromal Cross Talk with Synthetic Extracellular Matrix"
- 9:20 pm - 9:30 pm Discussion

Monday

- 7:30 am - 8:30 am Breakfast
- 8:30 am Group Photo
- 9:00 am - 12:30 pm **Exocrine Gland Development**

Discussion Leaders: **Deborah Andrew** (Johns Hopkins School of Medicine, USA) and **Matthew Hoffman** (National Institute of Dental and Craniofacial Research, NIH, USA)

- 9:00 am - 9:05 am Introduction by Discussion Leader
- 9:05 am - 9:25 am **Helen Makarenkova** (Scripps Research Institute, USA)
"The Dynamics of Murine Lacrimal Gland Stem/Progenitor Cells During Development, Homeostasis and Regeneration"
- 9:25 am - 9:35 am Discussion
- 9:35 am - 9:55 am **Lisa Sandell** (University of Louisville, USA)
"Signaling by the Vitamin A Derivative Retinoic Acid Regulates Development of Submandibular Salivary Epithelium"
- 9:55 am - 10:05 am Discussion
- 10:05 am - 10:15 am Short Talk Selected from Poster Abstracts
- 10:15 am - 10:20 am Discussion
- 10:20 am - 10:30 am Short Talk Selected from Poster Abstracts
- 10:30 am - 10:35 am Discussion
- 10:35 am - 11:00 am Coffee Break
- 11:00 am - 11:20 am **Abigail Tucker** (King's College London, United Kingdom)
"Fgf10 and Sox9 Interactions in Developing Salivary Glands"
- 11:20 am - 11:30 am Discussion
- 11:30 am - 11:50 am **Kenneth Yamada** (National Institute of Dental and Craniofacial Research, NIH, USA)
"3D Dynamics of Cells and Matrix in Branching Morphogenesis"
- 11:50 am - 12:00 pm Discussion
- 12:00 pm - 12:10 pm Short Talk Selected from Poster Abstracts
- 12:10 pm - 12:15 pm Discussion
- 12:15 pm - 12:25 pm Short Talk Selected from Poster Abstracts
- 12:25 pm - 12:30 pm Discussion
- 12:30 pm Lunch
- 1:30 pm - 4:00 pm Free Time
- 4:00 pm - 6:00 pm Poster Session
- 6:00 pm Dinner
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- 7:30 pm - 9:30 pm **Emerging Concepts in Regenerative Medicine**
- Discussion Leaders: **Darlene Dartt** (Schepens Eye Research Institute, Harvard University, USA) and **Mary Farach-Carson** (University of Texas Health Science Center at Houston, USA)
- 7:30 pm - 7:35 pm Introduction by Discussion Leader
- 7:35 pm - 7:55 pm **Quynh-Thu Le** (Stanford University, USA)
"Activating the ALDH3 Pathway to Mitigate Radiation-Related Xerostomia"
- 7:55 pm - 8:05 pm Discussion
- 8:05 pm - 8:25 pm **Driss Zoukhri** (Tufts University, USA)
"Mechanisms of Lacrimal Gland Repair"
- 8:25 pm - 8:35 pm Discussion
- 8:35 pm - 8:55 pm **Danielle Benoit** (University of Rochester, USA)
"Tunable Hydrogel Microenvironments to Study Salivary Gland Cell Phenotype and Function"

8:55 pm - 9:05 pm Discussion

9:05 pm - 9:25 pm **Melinda Larsen** (University at Albany, SUNY, USA)
"From Developmental Mechanisms to Regenerative Strategies"

9:25 pm - 9:30 pm Discussion

Tuesday

7:30 am - 8:30 am Breakfast

9:00 am - 12:30 pm **Functional Relevance of Mucins and Salivary Proteins**

Discussion Leaders: **Mary Reyland** (University of Colorado Denver, USA) and **Stefan Ruhl** (University at Buffalo, SUNY, USA)

9:00 am - 9:05 am Introduction by Discussion Leader

9:05 am - 9:25 am **Gordon Proctor** (King's College London, United Kingdom)
"Salivary Mucin Interaction with Mucosal Surfaces"

9:25 am - 9:35 am Discussion

9:35 am - 9:55 am **Paul Breslin** (Monell Chemical Senses Center, USA)
"The Role of Salivary Amylase in Taste and Regulatory Physiology"

9:55 am - 10:05 am Discussion

10:05 am - 10:15 am Short Talk Selected from Poster Abstracts

10:15 am - 10:20 am Discussion

10:20 am - 10:30 am Short Talk Selected from Poster Abstracts

10:30 am - 10:35 am Discussion

10:35 am - 11:00 am Coffee Break

11:00 am - 11:20 am **Eva Helmerhorst** (Boston University, USA)
"Oral Microbe-Derived Gluten-Degrading Proteases"

11:20 am - 11:30 am Discussion

11:30 am - 11:50 am **Walter Siqueira** (Western University, Canada)
"The Use of Nanotechnology on Salivary Proteins for the Prevention and Treatment of Oral Diseases"

11:50 am - 12:00 pm Discussion

12:00 pm - 12:10 pm Short Talk Selected from Poster Abstracts

12:10 pm - 12:15 pm Discussion

12:15 pm - 12:25 pm Short Talk Selected from Poster Abstracts

12:25 pm - 12:30 pm Discussion

12:30 pm Lunch

1:30 pm - 4:00 pm Free Time

4:00 pm - 6:00 pm Poster Session

6:00 pm Dinner

7:30 pm - 9:30 pm **Membrane Functions in Exocrine Glands**

Discussion Leaders: **Indu Ambudkar** (National Institute of Dental and Craniofacial Research, NIH, USA) and **Brij Singh** (University of North Dakota, USA)

7:30 pm - 7:35 pm Introduction by Discussion Leader

7:35 pm - 7:55 pm **Roberto Weigert** (National Cancer Institute, NIH, USA)

"Molecular Mechanisms of Membrane Remodeling During Regulated Exocytosis in Live Animals"

7:55 pm - 8:05 pm Discussion

8:05 pm - 8:25 pm **Sarah Hamm-Alvarez** (Keck School of Medicine, University of Southern California, USA)
"Influence of Rab Proteins on Protein Secretion Profiles in Lacrimal Gland"

8:25 pm - 8:35 pm Discussion

8:35 pm - 8:55 pm **David Yule** (University of Rochester, USA)
"Ca²⁺ Signaling Through Heterotetrameric Inositol 1,4,5-Trisphosphate Receptors"

8:55 pm - 9:05 pm Discussion

9:05 pm - 9:25 pm **Shmuel Muallem** (National Institute of Dental and Craniofacial Research, NIH, USA)
"Fix the Duct, Fix the Acini: CFTR and Sjögren's Syndrome"

9:25 pm - 9:30 pm Discussion

Wednesday

7:30 am - 8:30 am Breakfast

9:00 am - 12:30 pm **Understanding the Etiology of Autoimmune Disease: From Mice to Humans**

Discussion Leaders: **Ammon Peck** (University of Florida, USA) and **Julian Ambrus** (School of Medicine and Biomedical Sciences, University at Buffalo, SUNY, USA)

9:00 am - 9:05 am Introduction by Discussion Leader

9:05 am - 9:25 am **Markus Hardt** (Forsyth Institute, USA)
"Proteolytic Profiles Associated with Sjögren's Syndrome"

9:25 am - 9:35 am Discussion

9:35 am - 9:55 am **Rachel Ettinger** (MedImmune, USA)
"Sjögren's Syndrome Arises Due to Early-Life Immune Dysregulation"

9:55 am - 10:05 am Discussion

10:05 am - 10:15 am Short Talk Selected from Poster Abstracts

10:15 am - 10:20 am Discussion

10:20 am - 10:30 am Short Talk Selected from Poster Abstracts

10:30 am - 10:35 am Discussion

10:35 am - 11:00 am Coffee Break

11:00 am - 11:20 am **Umesh Deshmukh** (Oklahoma Medical Research Foundation, USA)
"Microbes, Innate Immunity and the Salivary Gland"

11:20 am - 11:30 am Discussion

11:30 am - 11:50 am **Jay Chiorini** (National Institute of Dental and Craniofacial Research, NIH, USA)
"The Role of Epigenetics in Salivary Gland Dysfunction"

11:50 am - 12:00 pm Discussion

12:00 pm - 12:10 pm Short Talk Selected from Poster Abstracts

12:10 pm - 12:15 pm Discussion

12:15 pm - 12:25 pm Short Talk Selected from Poster Abstracts

12:25 pm - 12:30 pm Discussion

12:30 pm Lunch

1:30 pm - 4:00 pm Free Time

4:00 pm - 6:00 pm Poster Session

6:00 pm Dinner

7:00 pm - 7:30 pm Business Meeting

Nominations for the Next Vice Chair; Fill in Conference Evaluation Forms; Discuss Future Site and Scheduling Preferences; Election of the Next Vice Chair

7:30 pm - 9:30 pm **Targeting Inflammation to Retard Disease Pathogenesis**

Discussion Leaders: **Maria Kukuruzinska** (Boston University, USA) and **David Ann** (Beckman Research Institute, City of Hope, USA)

7:30 pm - 7:35 pm Introduction by Discussion Leader

7:35 pm - 7:55 pm **Marco Colonna** (Washington University School of Medicine in St. Louis, USA)
"The Role of TGF β in the Development and Function of Salivary Gland Innate Lymphoid Cells"

7:55 pm - 8:05 pm Discussion

8:05 pm - 8:25 pm **Yuka Kanno** (National Institute of Arthritis and Musculoskeletal and Skin Diseases, NIH, USA)
"Lymphocyte Genes, Genomes and New Drugs"

8:25 pm - 8:35 pm Discussion

8:35 pm - 8:55 pm **Helen Braley-Mullen** (University of Missouri, USA)
"NOD.H-2h4 Mouse Mutants Provide Robust Models for Defining Mechanisms and Targeting Inflammation in Sjögren's Syndrome"

8:55 pm - 9:05 pm Discussion

9:05 pm - 9:25 pm **Kirsten Limesand** (University of Arizona, USA)
"Signaling Mechanisms Involved in Radiation-Induced Chronic Loss of Function"

9:25 pm - 9:30 pm Discussion

Thursday

7:30 am - 8:30 am Breakfast

9:00 am - 12:30 pm **Mechanisms of Exocrine Gland Repair and Regeneration**

Discussion Leaders: **Isabelle Lombaert** (University of Michigan, USA) and **Rob Coppes** (University Medical Center Groningen, The Netherlands)

9:00 am - 9:05 am Introduction by Discussion Leader

9:05 am - 9:25 am **Matthias Hebrok** (University of California, San Francisco, USA)
"Dedifferentiation and Transformation of Pancreatic Exocrine Cells"

9:25 am - 9:35 am Discussion

9:35 am - 9:55 am **Stephen Konieczny** (Purdue University, USA)
"Clearing the MIST: Deciphering New Transcriptional Networks that Govern Secretary Throughput and the Unfolded Protein Response"

9:55 am - 10:05 am Discussion

10:05 am - 10:15 am Short Talk Selected from Poster Abstracts

10:15 am - 10:20 am Discussion

10:20 am - 10:30 am Short Talk Selected from Poster Abstracts

10:30 am - 10:35 am Discussion

10:35 am - 11:00 am Coffee Break

- 11:00 am - 11:20 am **Jason Mills** (Washington University School of Medicine in St. Louis, USA)
"How Cells Scale Their Secretory Apparatus in Homeostasis and Cancer"
- 11:20 am - 11:30 am Discussion
- 11:30 am - 11:50 am **Jonathan Axelrod** (Hadassah Medical Center, Hebrew University of Jerusalem, Israel)
"Senescence-Mediated Loss of Salivary Gland Function: Is It the End of the Road?"
- 11:50 am - 12:00 pm Discussion
- 12:00 pm - 12:10 pm Short Talk Selected from Poster Abstracts
- 12:10 pm - 12:15 pm Discussion
- 12:15 pm - 12:25 pm Short Talk Selected from Poster Abstracts
- 12:25 pm - 12:30 pm Discussion
- 12:30 pm Lunch
- 1:30 pm - 4:00 pm Free Time
- 4:00 pm - 6:00 pm Poster Session
- 6:00 pm Dinner
- 7:30 pm - 9:30 pm **Keynote Session: Clinical Trials for Sjögren's Syndrome**
- Discussion Leaders: **Sarah Knox** (University of California, San Francisco, USA) and **David Wong** (UCLA School of Dentistry, USA)
- 7:30 pm - 7:40 pm Introduction by Discussion Leader
- 7:40 pm - 8:30 pm **Robert Fox** (Scripps Memorial Hospital and Research Foundation, USA)
"Management of Sjögren's Syndrome: Where Do We Go from Here?"
- 8:30 pm - 9:00 pm Discussion
- 9:00 pm - 9:20 pm General Discussion
- 9:20 pm - 9:30 pm Closing Remarks

Friday

- 7:30 am - 8:30 am Breakfast
- 9:00 am Departure

Funding for this conference was made possible (in part) by 1R13DE026651-01 from the National Institutes of Dental and Craniofacial Research. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention by trade names, commercial practices, or organizations imply endorsement by the U.S. Government.