



# POINTS OF INTEREST

October-December 2025

## HONORS AND AWARDS

### **Beck Fitzpatrick (Ryan Lab)**

Beck was selected to be featured in the University of Iowa's "Dare to Discover" downtown banner campaign.

### **Dr. Lalit Gautam (Ryan Lab)**

Lalit won first place in the University of Iowa's 2025 Art in Science Contest.

<https://cmrf.research.uiowa.edu/news/2025/12/results-are-2025-art-science-contest>

## APPOINTMENTS & SPECIAL RECOGNITION

### **Dr. Vikas Dudeja**

Dr. Dudeja has been appointed as a secondary faculty member in the Department of Anatomy and Cell Biology.

### **Dr. Martine Dunnwald**

Dr. Dunnwald was featured in the "Faces of Anatomy" series by the American Association for Anatomy.

<https://www.facebook.com/Anatomists/photos/if-you-havent-already-meet-our-past-president-dr-martine-dunnwaldmy-teaching-foc/1312543237582381/>

### **Dr. Amy Ryan**

Dr. Ryan has been appointed as a secondary faculty member in the Department of Internal Medicine.

Dr. Ryan was elected to be a representative on the Respiratory Cell and Molecular Biology Assembly in the American Thoracic Society International Conference Basic Science Core Working Group until 2029.

### **Dr. Raji Shyam**

Dr. Shyam's lab was featured in the November issue of The Association for Research in Vision and Ophthalmology's "50 States, 50 Stories" series.

<https://www.arvo.org/news/arvo-blog/nih-s-role-in-advancing-fuchs-dystrophy-research>

## CEC COMMITTEE

### This is Us

Thanks to Raji and Dakota for participating in our last event of the academic year. The next “This is Us” will take place in February or March; if you are interested, please let Madison or Martine Dunnwald know.

### KidsGoStem

Anatomy and Cell Biology was one of many activities that kids could register for while attending KidsGoStem, a CCOM outreach event for 6-8th graders. In that activity, kids got to handle human hearts and lungs and look through microscopes to visualize histological features of normal and atherosclerotic aorta and normal and CF lungs. Thanks to Emily Liu, Theo Velarde, Mercedes Crile and Martine Dunnwald who all helped to facilitate the event.

### Coffee Fridays

We will continue our tradition for coffee Fridays – last Friday of each month. In addition, we had a special Coffee Friday on January 9th to welcome everyone in the new year.

## OTHER

### ACB Student Government

The ACB Student Government, in collaboration with the University of Iowa Graduate Success Center, coordinated a PhD Career Exploration Workshop — the first-ever student-led career development seminar for PhD students and postdocs in the ACB department.

Zewei Zhang serves on the Travel Grants Committee of the University of Iowa Graduate Student Senate, helping PhD students apply for conference Travel Awards (up to \$750). The third application cycle, covering travel from January 1 to March 31, will open on January 6.

### MCA Graduates

Ruth Bropleh	Nicole Jordan
Mercedes Crile	Bella Parker
Foster Hazen	Precious Pate
Wes Hine	Yabsira Tekle

### CDB Graduates

Salma Hassan

## SPECIAL PRESENTATIONS

### **Emily Adelizzi (Dunnwald Lab)**

“Determining The Mechanical Forces Driving Palatal Shelf Elevation and Fusion,” Annual Meeting for Craniofacial Genetics and Developmental Biology, Minneapolis, MN, October 2025.

### **Dr. Martine Dunnwald**

Dr. Dunnwald was a keynote speaker for the 40th anniversary of the “Laboratoire d’Organogénèse Experimentale,” Laval University, Québec City in October. The title of her talk was: La Peau, Ma Passion, Ma Carrière (Skin: My Passion, My Carrier.”

### **Matieis Mayes (Ryan Lab)**

“Generating a CRE-inducible Pluripotent Stem Cell Line to Evaluate Airway Club Cell Specific Gene Expression,” University of Iowa Fall Undergraduate Research Festival, Iowa City, IA, November 2025.

### **Dr. Amy Ryan**

“Understanding The Role of CFTR in Pancreatic Progenitor Development to Target Exocrine Pancreatic Insufficiency,” North American Cystic Fibrosis Conference, Seattle, WA, October 2025.

### **Dr. Raji Shyam**

“Decrease in Substrate Stiffness Affects Corneal Endothelial Health,” L.V. Prasad Eye Institute, Hyderabad, India, December 2025.

### **Mia Zdionica (Dunnwald Lab)**

“Irf6 Influences Epidermal Development,” University of Iowa Fall Undergraduate Research Festival, Iowa City, IA, November 2025.

## NEW GRANT AWARDS

### **Dr. Lalit Gautam (Ryan Lab)**

Title: Role of Akt-Dependent Pathways in Airway Epithelial Cell Fate Decisions Under Hyperinflammatory Conditions in Cystic Fibrosis

Sponsor: CFF Fellowship

Role: PI

### **Grace Gottschamer (Dunnwald Lab)**

Grace was awarded a T32 fellowship.

### **Dr. Amy Ryan**

Title: A Toolkit to Evaluate the Cell Specific Impact of CFTR Expression and Activity

Sponsor: CFF Pilot Grant

Role: PI

Title: Investment in Strategic Priorities

Sponsor: University of Iowa Faculty Investment

Role: PI

**Dr. Raji Shyam**

Title: Investment in Strategic Priorities

Sponsor: University of Iowa Faculty Investment

Role: PI

## **SUBMITTED GRANTS**

**Dr. Brad Amendt**

Title: Nanoparticle Delivery of RNA To Treat Calvarial and Mandibular Defects

Sponsor: NIH R21

Role: PI

**Dr. Martine Dunnwald**

Title: Arhgap29 in Orofacial Development

Sponsor: NIH R01

Role: PI

**Dr. Adam Dupuy**

Title: Mechanisms of Darovasertib Resistance and Response in Uveal Melanoma Models and Clinical Specimens

Sponsor: DOD

Role: PI

Title: Mechanisms of Darovasertib Resistance and Response in Uveal Melanoma

Sponsor: NIH R33

Role: PI

**Dr. C. Andrew Frank**

Title: Stress Testing Synaptic Homeostasis with Disease-Associated Cav2 Channel Variants

Sponsor: NIH R21

Role: PI

**Dr. Dakota Jones**

Title: Novel Organoid Models to Resolve Fibroblast–Epithelial–ECM Niche Regulation

Sponsor: NIH R01

Role: PI

**Dr. Fang Lin**

Title: AP-2–Dependent Signaling Circuits in Endodermal Pouch Development and Craniofacial Malformations

Sponsor: NIH R01

Role: PI

**Dr. Amy Ryan**

Title: Epithelium-Extracellular Matrix Crosstalk in Airway Homeostasis and Pathogenesis  
Sponsor: NIH R01  
Role: MPI

Title: Integrin 6-Mediated Mechanoregulation of Airway Basal-Cell Stemness in Chronic Lung Disease  
Sponsor: NIH R01  
Role: PI

### **Dr. Raji Shyam**

Title: Identifying the Signals Leading to the Onset And Progression of FECD Phenotypes Using a Mouse Model  
Sponsor: NIH R01  
Role: PI

Title: Evaluating the Extrinsic and Intrinsic Factors Regulating Corneal Endothelial Homeostasis  
Sponsor: ARVO  
Role: PI

### **Dr. Ling Yang**

Title: The Hepatic ER-regulated Liver-Heart Crosstalk in Sepsis  
Sponsor: NIH R01  
Role: PI

Title: The Impact of Fatty Acids on the Gingival Immunometabolic Homeostasis in Obesity  
Sponsor: R01  
Role: PI

## **NEW PUBLICATIONS**

### **Dr. Martine Dunnwald**

Kumari P, Friedman RZ, Pi L, Curtis SW, Paraiso K, Visel A, **Rhea L, Dunnwald M**, Patni AP, Mar D, Bomsztyk K, Mathieu J, Ruohola-Baker H, Leslie EJ, White MA, Cohen BA, Cornell RA. Identification of functional non-coding variants associated with orofacial cleft. *bioRxiv* [Preprint]. 2025 Feb 25:2024.06.01.596914. doi: 10.1101/2024.06.01.596914. Update in: *Nat Commun.* 2025 Jul 16;16(1):6545. doi: 10.1038/s41467-025-61734-w. PMID: 40027800; PMCID: PMC11870446.

### **Dr. Amy Ryan**

Wanczyk, H., Porritt, L., Linke, J., Walker, J., Suki, B., **Ryan, A.L.**, Weiss, D.J., & Finck, C. (2025). The Influence of Extracellular Matrix Composition and Mechanical Properties of Airway Basal Cell Growth, Organization And Differentiation. Submitted to *Biomaterials*.

Greaney, A.M., Orr, J.C., Moore, S.K.L, Ikonomou, L., Weiss, D.J., & **Ryan, A.L.** (2025). 20 Years of Progress in Stem Cells, Cell Therapy, and Bioengineering in Lung Biology and Diseases. Submitted to American Journal of Respiratory Cellular and Molecular Biology.

Koc-Gunel, S., **Ryan, A.L.**, & Kathiriya, J.J. (2025) Beyond the Epithelium: Multicellular Niches in Lung Regeneration and Disease. Submitted to the American Journal of Physiology, Lung Physiology.

*Please share news of your activities with Madison O'Leary for publication in the quarterly Points of Interest Newsletter. This information is circulated throughout the Department, as well as published on the ACB Department website.*