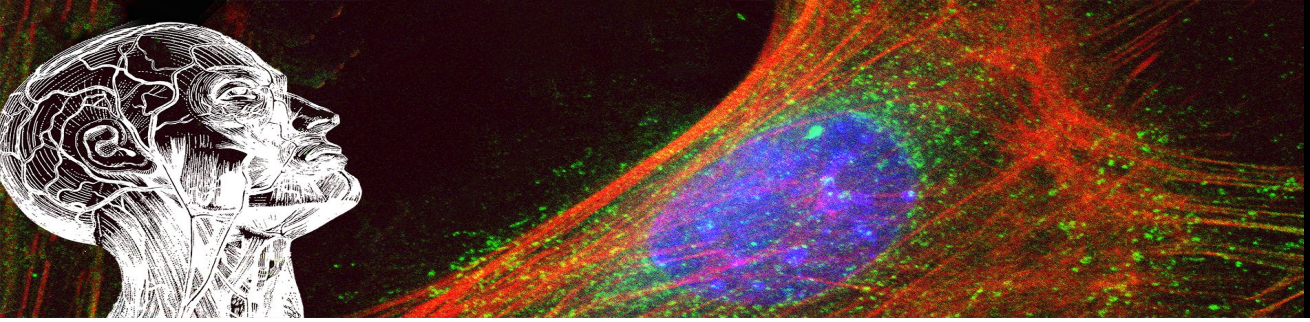

POINTS OF INTEREST

April – June 2023

HONORS AND AWARDS

Anatomy and Cell Biology Spring Awards Ceremony

The following students were honored at the ACB Annual Spring Awards Ceremony/Reception held on May 3. Congratulations!

Kiana Stender - *Superior Achievement in Human Anatomy for Advanced Practice Nursing*

Adrianna Symicek - *Superior Achievement in Advanced Human Anatomy for Athletic Trainers*

Nick Marnin - *Superior Achievement in Human Anatomy for Physical Therapists*

Lubin Deng - *Henry J. Prentiss Award for Superior Achievement in Medical Gross Anatomy*

Erika Feenstra - *W. R. Ingram Award for Superior Achievement in Functional Neuroanatomy*

Reuben Lucero - *Superior Achievement in Dental Gross Anatomy*

Reuben Lucero - *Michael W. Finkelstein Award for Superior Achievement in Dental Histology*

Danielle Talbot - *Mary J. C. Hendrix Graduate Leadership Award*

Dan Su - *Tung-Yang Wing Award for Superior Achievement in Anatomy Graduate Education*

Bill Milanick and Mark Li - *Superior Achievement in Student Teaching in Anatomy & Cell Biology*

Dr. Michelle Giedt - *Superior Achievement in Postdoctoral Research*

Zach Erickson and Willow Schanz - *Superior Academic Achievement in the Anatomical Sciences, MCA Program*

Willow Schanz and Nora Bensellam - *Excellence in Research/Teaching/Capstone, MCA Program*

Anna Ramsey and Brenna Powers – *Ishan and Adil Jain Travel Awards*

Leah Aberman (Young Lab)

Leah was awarded the ICRU Summer Research Fellowship to fund her undergraduate research.

Reed Adajar (Rutkowski Lab)

Reed received a supplemental award from NIGMS to support his summer training in Dr. Rutkowski's lab.

Emily Adelizzi (Dunnwald Lab) & Emily Fontenoy (Frank Lab), Interdisciplinary Graduate Students

Emily and Emily each received a fellowship on the University of Iowa's Interdisciplinary Graduate Program in Genetics NIH T32 Training Grant.

Emily Adelizzi (Dunnwald Lab),), Interdisciplinary Graduate Students

Emily received a travel grant from the Society of Developmental Biology to attend their annual conference in July.

Dr. Martine Dunnwald

Dr. Dunnwald received an international travel award from the UI International Program to attend the Gordon Conference on Epidermal Differentiation and Keratinization in Barcelona, Spain.

Jia Ma & Shuang Wu (Engelhardt Lab), Visiting Student Scholars

Jia and Shuang received a travel award for the 26th annual American Society of Gene & Cell Therapy Conference in May 2023.

Dr. Nathan Swailes

Nathan was awarded the M1/PA1 Milleman Teacher of the Year Award for 2022/23.

APPOINTMENTS & SPECIAL RECOGNITION

Dr. Martine Dunnwald

Dr. Dunnwald was appointed Chair of the Diversity, Equity, and Inclusion, Department of Anatomy and Cell Biology.

Dr. Andrew Frank

Dr. Frank has been appointed to serve on The College of Medicine Graduate Council.

Dr. Nicole Green (Tootle Lab), Postdoc

Dr. Green was hired as an Assistant Professor at Cornell College.

Dr. Marc Pizzimenti

Dr. Pizzimenti was appointed to serve on the Reconsideration Panel of the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA).

Qingwen (Kevin) Qian (Yang Lab)

Qingwen was appointed as a Research Assistant Professor.

Dr. Tom Rutkowski

Dr. Rutkowski was appointed a four-year term as a permanent member of the Hepatobiliary Pathophysiology study section at NIH.

Dan Su (Amendt Lab)

Dan successfully defended her Ph.D. “Identification and Functional Analysis of Stem Cell Niches During Oral Tissue Development and Regeneration,” in April.

Dr. Sam Young

Dr. Young has been reappointed to the Editorial Board of *The Journal of Physiology.*

SPECIAL PRESENTATIONS

Dr. Martine Dunnwald

“IRF6 promotes cell-cell adhesions via a novel noncanonical mechanism,” Gordon Research Conference on Epidermal Differentiation and Keratinization, June 2023.

Dr. John Engelhardt

“Ferrets as Preclinical Model Genetic Therapies Development” (Session entitled: “Strategies to Deliver Genetic Therapies for Cystic Fibrosis”), presented at American Society of Gene & Cell Therapy (ASGCT) 26th Annual Meeting, Los Angeles, CA, May 2023.

“Defining Cellular Targets for Gene Therapy of Cystic Fibrosis Lunch Disease Using Genetic Ferret Models,” presented at Carbon Biosciences, Waltham, MA, June 2023.

Invited Conference Participation at Cystic Fibrosis Foundation “Addressing Challenges to Expand Genetic Therapies” Conference, Big Sky, MT, June 2023.

Dr. Michelle Giedt (Tootle Lab), Postdoc

"Prostaglandins and lipid droplet-associated proteins work together and separately to promote actin remodeling during Drosophila oogenesis," Gordon Research Conference on Molecular and Cellular Biology of Lipids, July 2023.

Jia Ma (Engelhardt), Visiting Student Scholar

"Proliferation and Differentiation Potential of CFTR-expressing Epithelial Cells in Mouse Airways," Annual American Society of Gene and Cell Therapy Conference, May 2023.

Dr. Marc Pizzimenti

"Anatomy of a Lecture: Thinking about Interaction," Department of Pathology, May 2023.

Dr. Amy Ryan

Dr. Ryan moderated a webinar for the American Thoracic Society Assembly on Respiratory Cell and Molecular Biology titled "Advances in Lung Bioengineering," in June 2023.

Dr. Sam Young

"Development of Novel Viral Vector Approaches to Treat Cerebellar Disorders," University of Colorado-Anschutz, May 2023.

"Defining the Molecular Principles of Auditory Information Processing," University of Colorado-Anschutz, May 2023.

Dr. Young was invited to attend the CACNA1A Foundation Research Network meeting in June 2023

NEW GRANT AWARDS

Dr. Xiaoming Liu

Title: Development of Lung and Pancreatic Disease Models in Ferrets and the Study Their Stem Cell Compartments"
Sponsor: Gordian Bi
Role: PI
Total Award: $75,517

Dr. Marc Pizzimenti

Title: "Interactive Online Modules for an iPOCUS Elective"
Sponsor: CCOM Educational Innovation and Scholarship Grant, 2022-2023
Role: PI
Total Award $10,760

SUBMITTED GRANTS

Dr. Adam Dupuy

Title: "A Method for High Throughput, Genome-wide Protein Complementation Assays"

Sponsor: NIH – R01
Role: PI
Total Award: $310,999.83, 04/01/2024-03/31/2025

Dr. Martine Dunnwald

Title: “Leveraging the Oral Microbiome to Improve Oral Wound Healing”
Sponsor: NIH – R01
Role: PI
Total Award: $3,855,240, Total Directs – five years.

Dr. Fang Lin

Title: “Genetic Regulation of Endoderm Pouch Development”
Sponsor: NIH – R01
Role: PI
Total Award: $260,699, 01/01/2024-12/31/2024

Dr. Amy Ryan

Title: “mTORC1 Hyperactivation, Lung Injury, Repair, and Regeneration”
Sponsor: NIH – R01
Role: PI
Total Award: $787,837, 04/01/2024-03/31/2025

Dr. Sam Young

Title: “Novel Gene Therapy Approaches to Treat Cerebellar Disorders”
Sponsor: 2023 Raynor Cerebellum Project
Role: PI
Total Award: $1,000,000

Title: “Novel Gene Therapy Approaches to Treat Cerebellar Degeneration”
Sponsor: Chan Zuckerburg Initiative Collaborative Pairs Pilot Project
Role: PI
Total Award: $200,000

NEW PUBLICATIONS

Dr. Martine Dunnwald Lab

Dunnwald, M. American Association for Anatomy calls for ethical treatment and justice for human body donors. https://www.faseb.org/journals-and-news/latest-news/aaa-calls-for-ethical-treatment-and-justice-for-human-body-donors (online news)

Dr. John Engelhardt Lab

Wang S, Rao W, Hoffman A, Lin J, Li J, Lin T, Liew A-A, Vincent M, Mertens TCJ, Karmouty-Quintana H, Crum CP, Metersky ML, Schwartz DA, Davies PJA, Stephan C, Jyothula SSK, Sheshadri A, Suarez EE, Huang HJ, **Engelhardt JF**, Dickey BF, Parekh KR, McKeon FD, Xian W. Cloning a profibrotic stem cell variant in idiopathic pulmonary fibrosis. *Science Translational Medicine*, 2023, 15(693)

Ievlev V, Pai AC, Dillon Jr, DS, Kuhl S, **Lynch TJ, Freischlag KW, Gries CB, Engelhardt JF*, Parekh KR*** (*Co-Corresponding author). Development and characterization of ferret *ex vivo* tracheal injury and cell engraftment model. *Frontiers in Medicine*, 2023, 10:1144754.

Putman, MS, Norris AW, Hull RL, Rickels MR, Sussel L, Blackman SM, Chan CL, Larson Ode K, Daley T, Stecenko AA, Moran A, Helmick MJ, Cray S, Alvarez JA, Stallings VA, Tuggle KL, Clancy JP, Eggerman TL, **Engelhardt JF*,** Kelly A* (*Co-Corresponding author). Cystic Fibrosis-Related Workshop: Research priorities spanning disease pathophysiology, diagnosis, and outcomes. *Diabetes,* 2023, 72:677-689.

Putman, MS, Norris AW, Hull RL, Rickels MR, Sussel L, Blackman SM, Chan CL, Larson Ode K, Daley T, Stecenko AA, Moran A, Helmick MJ, Cray S, Alvarez JA, Stallings VA, Tuggle KL, Clancy JP, Eggerman TL, **Engelhardt JF*,** Kelly A* (*Co-Corresponding author). Cystic Fibrosis-Related Workshop: Research priorities spanning disease pathophysiology, diagnosis, and outcomes. *Diabetes Care,* 2023, 46(6):1112-1123.

Pai AC, Swatek AM, **Lynch TJ**, Ahlers BA, **Ievlev V**, **Engelhardt JF, Parekh KR**. Orthotopic ferret tracheal transplantation using a recellularized bioengineered graft produces functional epithelia. *Bioengineering*, 2023, 10(7):777

Dr. Xiaoming Liu Lab

Ma, J., Wang, J., Ma, C., Cai, Q., **Wu, S.**, Hu, W., Yang, J., Xue, J., Chen, J., & **Liu, X**. (2023). Wnt5a/Ca^{2+} signaling regulates silica-induced ferroptosis in mouse macrophages by altering ER stress-mediated redox balance. *Toxicology*, *490*, 153514. https://doi.org/10.1016/j.tox.2023.153514

Dr. Marc Pizzimenti

Dr. Pizzimenti published a series of online modules outlining anatomical and clinical concepts related to the upper extremity. He was part of a large team of worldwide anatomy educators who developed succinct lessons in regional anatomy that are focused on learning outcomes for medical students. These online modules were published as part of the Anatomy Learning Outcomes for Medicine Project through Primal Pictures powering Anatomy.TV. (FIX LINK), 2023

Dr. Justin Sipla Lab

Persons, J. E., & **Sipla, J. S.** (2023). The cure for neurophobia: an approach for progressive mastery of medical neuroscience. *Journal of neuropathology and experimental neurology*, nlad039. Advance online publication. https://doi.org/10.1093/jnen/nlad039

Dr. Tina Tootle Lab

Giedt, M. S., Thomalla, J. M., White, R. P., Johnson, M. R., Lai, Z. W., **Tootle, T. L**., & Welte, M. A. (2023). Adipose triglyceride lipase promotes prostaglandin-dependent actin remodeling by regulating substrate release from lipid droplets. *Development (Cambridge, England)*, *150*(20), dev201516. https://doi.org/10.1242/dev.201516

Dr. Eric Van Otterloo Lab

Nguyen, T. T., Mitchell, J. M., **Kiel, M. D.**, Jones, K. L., Williams, T. J., Nichols, J. T., & **Van Otterloo, E**. TFAP2 paralogs regulate midfacial development in part through a conserved *ALX* genetic pathway. *bioRxiv.* Posted June 16, 2023. doi: https://doi.org/10.1101/2023.06.16.545376

Dr. Sam Young Lab

Tarabichi, O., Correa, T., Kul, E., Phillips, S., Darkazanly, B., & **Young, SM. Jr.*,** Hansen, MR. Development and evaluation of helper dependent adenoviral vectors for inner ear gene delivery. Hear Res 2023 May 26;435:108819.doi: 10.1016/j.heares.2023.108819

Keine, C., Al-Yaari, M., Radulovic, T., & **Young, SM. Jr***. Stereotactic delivery of helper-dependent adenoviral viral vectors at distinct developmental time points to perform age-dependent molecular manipulations of the mouse calyx of Held**.** Bio-protocol (*in press*)

Keine, C., **Al-Yaari, M., Radulovic, T.**, & **Young, SM. Jr***. Confocal imaging and 3D reconstruction to determine how genetic perturbations impact presynaptic morphology at the mouse calyx of Held Bio-protocol (*in press*)

Li, J., Veeraraghavan, P., & Young, SM. Jr*. $Ca_V2.1$ α_1 subunit motifs that control presynaptic $Ca_V2.1$ subtype abundance are distinct from $Ca_V2.1$ preference Journal of Physiology (*under revision* bioRxiv 2023.04.28.538778; doi: https://doi.org/10.1101/2023.04.28.538778

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