



# POINTS OF INTEREST

July - September 2021

## HONORS AND AWARDS

### **Dr. Martine Dunnwald**

Dr. Dunnwald received the CCOM *Outstanding Mentorship in Basic Research* award for 2021. She was nominated for this award by her mentee, Alexis Kollasch.

## APPOINTMENTS & SPECIAL RECOGNITION

### **Dr. Tina Tootle**

Dr. Tootle has become a member of the Publications Committee for the Genetics Society of America.

### **Riley Leonard (Amendt Lab) and Jianing Li (Young Lab), Cell and Developmental Biology Students**

Riley and Jianing passed their Doctoral Comprehensive Exams on July 23 and July 30, respectively.

## SPECIAL PRESENTATIONS

### **Dr. Martine Dunnwald**

“La guérison des plaies et les fentes palatines – ce que les patients nous ont appris”. Guest Lecture at Laval University, Québec (Laboratory of Experimental Organogenesis)

### **Dr. John Engelhardt**

“Utility of Genetic Ferret Models for Translational Cystic Fibrosis Research.”  
(Session entitled: Introduction to CF and Disease Modelling), presented at Cystic

Fibrosis Canada and Stem Cell Network Regenerative Medicine and Cystic Fibrosis Workshop (Virtual). June 2021.

“Developmental aspects of CFRD: How early are CFTR modulators needed?” (Session entitled: Prevention and Treatment, Part 1) presented at the NIH and Cystic Fibrosis Foundation Scientific Workshop on Cystic Fibrosis-Related Diabetes (Virtual). June 2021.

“Advances in Gene Therapy and Animal Models for Cystic Fibrosis” presented at the CFRI National CF Education Conference (Virtual). July 2021.

## **NEW GRANT AWARDS**

### **Angelo Antiguas (CDB Graduate Student, Dunnwald Lab)**

Title: “Function of IRF6 in Regulating E-cadherin Dependent Adherens Junctions”

Sponsor: F31 NRSA NIH Predoctoral Fellowship for 3 years

Project Dates: 8/27/2021 – 8/26/2024

### **Dr. Douglas Bartels**

Title: Vertex Service Contract MUC5B COPD

Sponsor: Vertex Pharmaceuticals, Inc

Role: Principal Investigator

Total Award: \$791,250 8/7/2021 – 1/7/2023

### **Dr. Xiaoming Liu**

Title: “Models and Gene Therapies for AAT Deficiency

Sponsor: University of Massachusetts Subaward, NIH

Role: Principal Investigator

Total Award: \$421,436; 9/8/2021 – 7/31/2023

### **Dr. Justin Sipla**

Title: “Training Expansion in Addiction Medicine and Medications for Addiction Treatment at the University of Iowa (TEAM-MAT-UI)”

Sponsor: PCSS-Universities FOA No. TI-21-003 through HHS and SAMHSA

Role: Curriculum Director (Andrea Weber (IM-Psych, PI)

Total Award: \$149,603; 3-year project

### **Dr. Xingshen Sun**

Title: Early Pathogenesis of SPINK1 Deficiency in a Ferret Model  
Sponsor: American Pancreatic Association Foundation 2021 Young Investigator  
in Pancreatology Grant  
Role: Principal Investigator  
Total Award: \$100,000, 1/7/2021-6/30/2022

### **Dr. Ziyang Yan**

Title: Development of a Novel rAAV Vector Without Cross-species Barrier  
To Transduce Human and Ferret Conducting Airways  
Sponsor: R21 AI156448 from NIAID  
sub-awarded from University of Kansas Medical Center  
Role: MPI, Jianming Qiu (contact) and Ziyang Yan  
Total Award: \$169,950, 6/15/2021-6/30/2023

Title: Gene Editing for Cystic Fibrosis Gene Therapy in Ferret Models  
Sponsor: Cystic Fibrosis Foundation Non-Competitive Renewal  
Role: Principal Investigator  
Total Award: \$216,000, 7/1/2021-6/30/2022

### **Dr. Ling Yang**

Title: The Role of Pituitary-Hepatic Crosstalk in Obesity-Associated Fatty  
Liver Disease (Catalyst Award)  
Sponsor: UI Diabetes Research Center Pilot and Feasibility Grant  
Total Award: \$50,000, with the possibility for a second year of funding for a total  
of \$100,000 over a two-year period.

## **SUBMITTED GRANT AWARDS**

### **Dr. Andy Frank**

Title: How Discrete Homeostatic Signals Integrate to Stabilize Synapse  
Function  
Sponsor: NIH Research Project Grant  
Role: PI  
Proposed Amount: \$2,426,287; submitted 7/6/2021

### **Dr. Ling Yang**

Award: CDMRP PRMRP Investigator Initiated Research Award  
Sponsor: Dept. of the Army -- USAMRAA  
Role: PI  
Proposed Amount: \$ 2,462,711; submitted 9/1/2021

Title: Pituitary-Hepatic Crosstalk  
Sponsor: NIH Research Project Grant  
Role: PI  
Proposed Amount: \$3,000,221; submitted 9/30/2021

### Dr. Sam Young

Award: NIH Directors Pioneer Award Program  
Sponsor: NIH  
Role: PI  
Proposed Amount: \$3,500,000; submitted 9/10/2021

## NEW PUBLICATIONS

### Dr. Brad Amendt Lab

Remy MT, Akkouch A, He L, **Eliason S**, **Sweat ME**, Krongbaram T, Fei F, Qian F, **Amendt BA**, Song X, Hong L. Rat calvarial bone regeneration by 3D-printed  $\beta$ -tricalcium phosphate incorporating microRNA-200c. *ACS Biomater Sci Eng*, 2021 Aug 26, doi: 10.1021/acsbiomaterials.0c01756. Online ahead of print.

### Dr. Robert Cornell Lab

Cagle BS, **Sturgeon ML**, O'Brien JB, Wilkinson JC, **Cornell RA**, Roman DL, Doorn JA. Stable expression of the human dopamine transporter in N27 cells as an in vitro model for dopamine cell trafficking and metabolism. *Toxicol In Vitro*. 2021 Oct76:105210. doi: 10.1016/j.tiv.2021.105210.

Baronio D, Chen Y-C, **Decker AR**, Enckell L, Fernandez-Lopez B, Semenova S, Puttonen HA, **Cornell RA**, Panula P. Vesicular monoamine transporter 2 (SLC18A2) regulates monoamine turnover and brain development in zebrafish. *Acta Physiol* 2021 Aug 17;e13725. doi: 10.1111/apha.13725 Online ahead of print.

Campbell NR, Rao A, Hunter MV, Sznurkowska MK, Briker L, Zhang M, Baron M, Heilmann S, Deforet M, **Kenny C**, Ferretti LP, Huang T-H, Perlee S, Garg M, Nsengimana J, Saini M, Montal E, Tagore M, Newton-Bishop J, Middleton M, Corrie P, Adams DJ, Rabbie R, Aceto N, Levesque MP, **Cornell RA**, Yanai I, Xavier JB, White RM. Cooperation between melanoma cell states promotes metastasis through heterotypic cluster formation. *Dev Cell* Sept 13;S1535-5807(21)00677-8. doi:10.1016/j.devcel.2021.08.018. Online ahead of print.

### **Dr. John Engelhardt Lab**

Shen W, Wang Z, Ning K, Cheng F, **Engelhardt JF, Yan Z**, Qiu J. Hairpin Transfer-Independent Parvovirus DNA Replication Produces Infectious Virus. *J Virology*, 2021, 95(20):e01108-21.

### **Dr. Tina Tootle Lab**

**Giedt MS\***, Thomalla JM\*, Johnson MR, Lai ZW, **Tootle TL**, Welte MA. Lipid droplets regulate actin remodeling via prostaglandin signaling during *Drosophila* oogenesis. *BioRxiv* doi.org/10.1101/2021.08.02.454724

### **Dr. Ziyang Yan Lab**

Zou W, Xiong M, Hao S, Zhang EY, Baumlin N, Kim MD, Salathe M, **Yan Z**, Qiu J. The SARS-CoV-2 transcriptome and the dynamics of the S gene furin cleavage site in primary human airway epithelia. *mBio*, 2021 12(3):e01006-21. PubMed PMID: 33975939

Shen W, Wang Z, Ning K, Cheng F, **Engelhardt JF, Yan Z**, Qiu J. Hairpin Transfer-Independent Parvovirus DNA Replication Produces Infectious Virus. *J Virology*, 2021, 95(20):e01108-21.

### **Dr. Ling Yang Lab**

**Zhang Z, Qian Q, Li M, Shao F**, Ding W-X, Lira VA, **Chen SX, Sebag SC**, Hotamisligil GK, **Cao H, Yang L**. The unfolded protein response regulated hepatic autophagy by sXBP1-mediated activation of TFEB. *Autophagy* 17(8):1841-1855.

***Please share news of your activities with Mary Beckler 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***