



OUHSC Physiology Newsletter

An update on the people and research activities of
the Department of Physiology
University of Oklahoma Health Sciences Center,
Oklahoma City, OK

Issue no. 8 September 2018

In this issue

Highlights of a new grant

- New NIH R56 grant awarded to Dr. Bill Freeman

New grant awards to Dr. Jay Ma

- NIH R01EY12231
- NIH R01EY028949

Lecturer of the Year

- Dr. Kennon Garrett

New ANMS President

- Dr. Beverley Greenwood-Van Meerveld

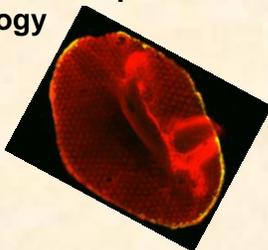
Welcome new graduate students to the Department

- Eric Enyong
- Jaime Laurin
- Wentao Liang
- Sarah Ocanas
- Justin Reid

Welcome new postdocs. in the Greenwood-Van Meerveld lab

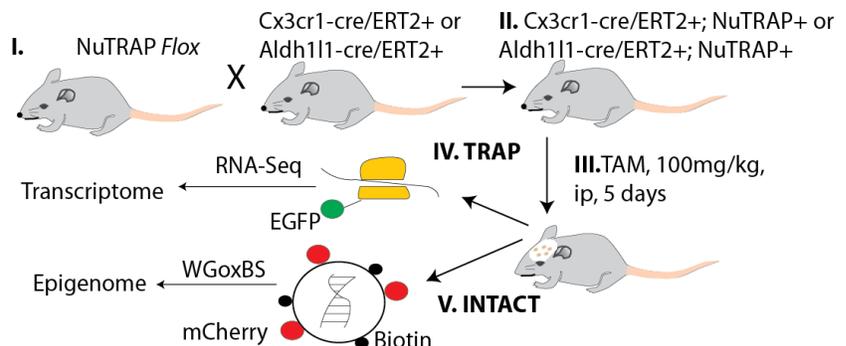
- Tijds Louwies
- Albert Orock
- Tian Yuan

New look of the Department of Physiology



New grant award to Dr. Bill Freeman (1R56AG059430-01 NIA/NIH)

Brain aging is a key driver of the morbidity, mortality, and societal burden of aging and is characterized by significant biological and clinical sex differences. We hypothesize that sexually divergent DNA modifications accumulate in a cell-specific fashion with brain aging to alter steady state and stimulus-responsive genome organization and gene expression. These, in combination with other processes, drive brain aging and susceptibility to neurodegeneration, e.g., Alzheimer's, in a sexually divergent fashion. However, this hypothesis is currently not directly testable. Specific genomic locations differentially modified with brain aging have not been identified in a cell-type and sex-specific manner and the regulatory mechanisms that direct epigenome remodeling to specific genomic locations are unknown. This is the central barrier to progressing towards epigenome editing or other approaches that will mechanistically demonstrate the role of DNA modifications in brain aging. Ultimately, the goal of this research is clinical rejuvenation interventions that work through restoring a 'youthful' epigenome. Our research will advance the field by providing novel insights into neuroepigenomic regulation and develop targets for future mechanistic manipulation. In this R56 award we will continue development of our novel transgenic animal models, perform proof-of-concept heterochronic parabiosis studies, and identify new DNMT and TET protein interactors across CNS cell types.



New grants awards to Dr. Jay Ma

1) NIH R01EY12231 Ma and Moiseyev (MPI) \$1,450,000 09/30/18 to 08/31/22

Studies of RPE65

The major goal of this project is to study the impact of disturbed retinoid metabolism on diabetic retinopathy.

2) NIH R01EY028949 Karamichos and Ma (MPI) \$870,000 09/01/18 to 08/31/21

A Novel Pathogenic Pathway for Diabetic Keratopathy

The major goal of this project is to investigate the role of diabetes-induced PPAR α down-regulation on diabetic corneal complications.

Lecturer of the Year



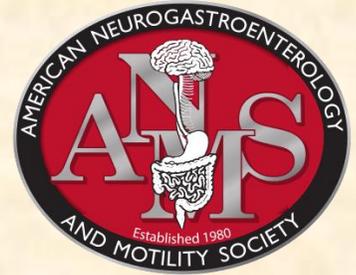
Congratulations

to Dr. Kennon Garrett for his selection as “Lecturer of the Year” by the Physician Assistant class of 2018.

Dr. Garrett receiving the award at the PA graduation ceremony on September 29.



New President of the American Neurogastroenterology and Motility Society



[Dr. Beverley Greenwood-Van Meerveld](#) is the first female Ph.D. to ever hold the position as the President of ANMS! See her message to ANMS below:

Message from ANMS President

Dear ANMS Members

The American Society for Neurogastroenterology and Motility (ANMS) has a rich history serving as the premier society for those working in Neurogastroenterology and Motility. My year as President-Elect of the ANMS has flown by and it is my great honor to assume the role of ANMS President for the next two years.

I would like to acknowledge **Dr. Gianrico Farrugia** who just completed his tenure as ANMS President. For the past two years Gianrico provided exceptional leadership and with support from the ANMS council he refined and focused our strategic plan with clear objectives and measurable outcomes. On behalf of all the membership of ANMS thank you Gianrico! Personally, having been a member of ANMS since 1986, it has been thrilling for me to serve again on the ANMS leadership team as the President-Elect and to work with such an outstanding group of councilors who are truly devoted to the ANMS and strive to represent its membership through a spirit of stewardship and fiduciary responsibility. Over the years my husband Dwight and I have travelled to many ANMS council meetings and ANMS conferences where we have met many wonderful people. I am very excited as I begin my tenure as President of our organization. We recently had our elections and have a new President-Elect **Dr. John Pandolfino**. John is Chief of Gastroenterology and Hepatology and the Hans Popper Professor of Medicine at

Northwestern University in Chicago. Our new treasurer is **Dr. Nicholas Verne**, the Harry Greenberg Chair of Medicine at Tulane University in New Orleans. We also welcome four new council members: **Drs. Jose-Garza, Simon Gibbons, Baharak Moshiree and Linda Nguyen.**

Over the next two years my goal is to ensure that the ANMS continues to meet the needs of its membership by following the mission and vision of the society. Our most recent initiatives include the formation of an ANMS Institute which was created to provide the structure to collaborate with industry partners, philanthropy, foundations, and academic institutions with the overarching goal of promoting innovative strategies to advance our understanding and treatment of disorders affecting gastrointestinal neuromuscular function and the brain-gut axis. We should also take great pride in the educational efforts of the ANMS as well as the research grants provided by the ANMS to promising junior clinical and basic faculty. We are also in the process of planning our **2019 ANMS Annual Meeting** to be held in Chicago to include: **Clinical Course:** Providing the best clinical care for our patients; **Scientific Program:** Advancing patient care through cutting edge research; and a **Young Investigator Forum:** Developing our future researchers in Neurogastroenterology and Motility. We have also begun working with the FNM planning committee to plan the FNM2020 meeting to be held in Australia.

During my tenure as President of the ANMS I plan on rolling out a series of innovative initiatives to enhance support of our existing members and to increase our membership numbers by encouraging our junior clinical and basic scientists to become active members of the ANMS. An important endeavor during my term as President will be to attract and develop the next generation of basic and clinical faculty to work in the field of Neurogastroenterology and Motility. ANMS will provide more travel awards to our annual ANMS-sponsored clinical course, as well as the Young Investigator Forum and Scientific meetings. In closing, I would like to encourage all members to become active in moving the ANMS forward. I look forward to hearing from you either directly through my email Beverley-Greenwood@ouhsc.edu or through the ANMS Executive Director, Lori Ennis at admin@motilitysociety.org.

Beverley Greenwood-Van Meerveld, PhD

Welcoming new students to our Department!



Eric Enyong

Ph.D. candidate
Dr. Michael Elliot's lab



Sarah Ocañas

Ph.D. candidate
Dr. Bill Freeman's lab



Wentao Liang

Ph.D. candidate
Dr. Jay Ma's lab



Jaime Laurin

Ph.D. candidate
Dr. Ben Miller's lab

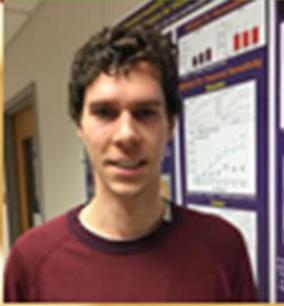


Justin Reid

Ph.D. candidate
Dr. Ben Miller's lab

More new faces!

Tijs Louwies
Ph.D



Albert Orock
Ph.D



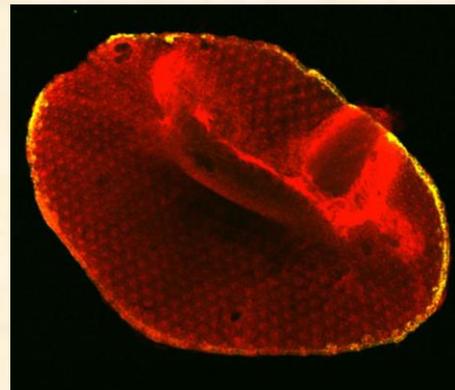
Tian Yuan
Ph.D

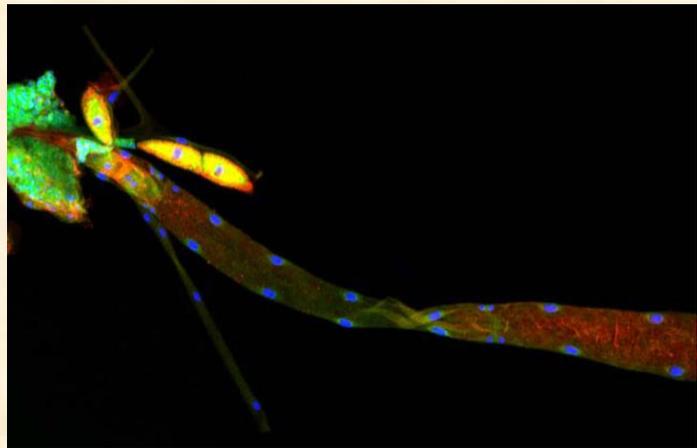
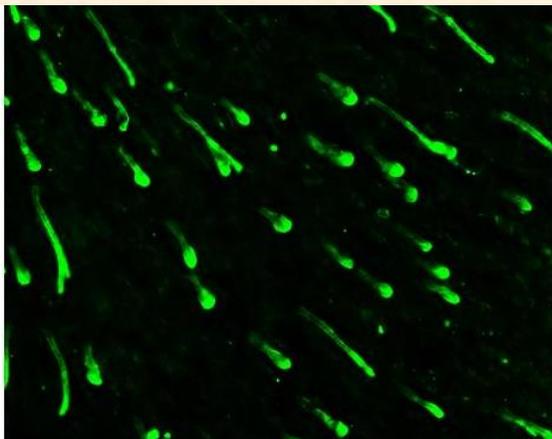
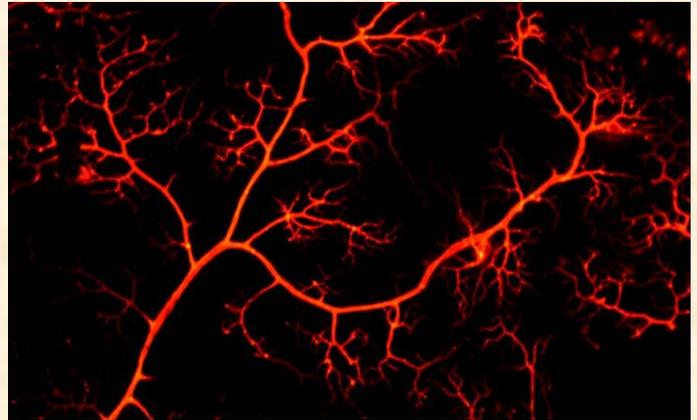
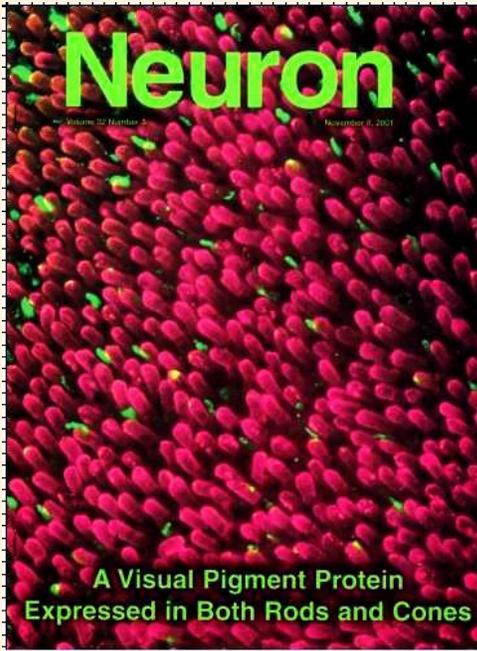


Let's welcome **Dr. Louwies**, **Dr. Orock**, and **Dr. Yuan** as new postdocs. in Dr. Greenwood-Van Meerveld's lab.

The New look of the Department of Physiology

Check out all the new science photos that are now on full display at our Physiology Office and Conference rooms!





A shout-out to Becky Mosley for providing all these images for the newsletter!

About the newsletter

We hope you have enjoyed reading the OUHSC Physiology newsletter. This publication is intended to share with everyone the latest events and developments within the Department. We welcome articles, thoughts and suggestions for our future issues. Please do so by emailing Dr. Hui-Ying Lim (hlim@ouhsc.edu).