

Microbiology Sponsors Lay Writing Workshop

The microbiology department held a three day writing seminar for UAB students and post-doctoral employees on April 13-15, 2016. The purpose of which was to teach graduate students and post-docs how to effectively communicate science to a lay audience. The department invited Dr. Nicki LeBrasseur, the senior director of scientific communications at DNA Communications to instruct the on and off campus portions of the course. The students were tasked with writing a press release on an assigned paper and were given feedback. James Kizziah (Dokland's lab) participated in the workshop and his article featured below is a write up of a recent Journal of Biological Chemistry publication from Dr. Saad's lab titled "Structural and Biophysical Characterization of the Interactions between Calmodulin and the Pleckstrin Homology Domain of Akt" by Constance Agamasu, Ruba H. Ghanam and Jamil Saad.

Written by James Kizziah



James Kizziah

Cancer is the uncontrolled growth of cells, which can occur when cells live beyond their healthy lifespan. A recent study outlining how a cell survival protein grabs onto its travel guide may offer new ways to combat unwanted cell growth.

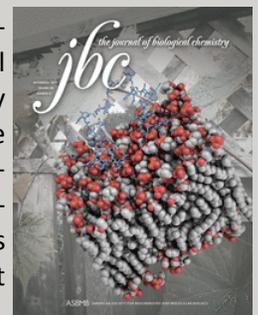
Most normal cells reach the end of their life and then commit suicide to keep their neighbors and the rest of the body healthy. A cell's decision to live or die depends partly on a protein called Akt, which essentially "turns other proteins on or off". With too much Akt, old cells live on instead of killing themselves when the time is right. This leads to tumor formation and cancer, especially breast cancer.

In the new study, published in the Journal of Biological Chemistry, Agamasu et al. investigated how Akt "itself is turned on" by attaching to a protein partner, called calmodulin. Akt is only active at the edge of the cell, on the cell membrane, but it needs calmodulin to escort it there. The researchers studied the partnership between Akt and calmodulin using several methods,

including nuclear magnetic resonance, or NMR, spectroscopy. By measuring tiny changes in the structures of Akt and calmodulin when they interact, they discovered which regions of the proteins connect.

Although calmodulin interacts with around 190 different proteins, Akt attaches to it in a way "that has not been characterized before", through a region of Akt called the pleckstrin homology domain, or PHD. In Akt and other proteins, PHDs recognize special molecules called lipids, which are the major component of the cell membrane. "Now we're showing that it's not just lipids; it's also other proteins [like calmodulin]", Agamasu says.

Drugs that deactivate Akt are already in various stages of clinical trials to treat cancer, but how they work is not well understood. The researchers believe that understanding how Akt hangs on to calmodulin will help drug developers keep them apart by improving Akt deactivating drugs.



Microbiology Faculty Elected to Senate

Congratulations to Allan Zajac (Senator, pictured left) and Jamil Saad (Alternate Senator, pictured right) for their elections to 2 year terms on the Faculty Senate.

The Faculty Senate represents UAB's faculty in matters of shared governance. The Senate is made up of faculty representatives from all of UAB's academic units, as well as four officers elected at large by the faculty.



Keynote Lectureship Established to Honor David Briles

Briles was honored at the Southeast Conference on the Pneumococcus last week at Mississippi State University. Carlos Orihuela said that a "keynote lectureship has been established to honor him for his many contributions both as a scientist and mentor".



Dr. Briles (right) with Dr. Nahm

The local pneumococcal symposium was started by the Briles lab 20 years ago. The next meeting will take place in two years at St. Jude in Memphis, TN.

Congratulations Hiramoto Award Winner

Congratulations to **Kathryn Doornbos** (Niederweis lab), who will be attending EMBO "Tuberculosis 2016: Interdisciplinary research on tuberculosis and pathogenic mycobacteria", in Paris, France on September 19-23, 2016.



Newly Named "Gail Cassell Annual Microbiology Research Retreat" is Scheduled November 11 - 13, 2016

The microbiology research retreat, now in its 25th year, was started by Dr. Gail Cassell, the chair of microbiology from 1987 to 1997. The department is recognizing Dr. Cassell's pivotal role in the retreat's creation by naming the event after her. An endowment was established in 1998 through generous contributions by Dr. Cassell, her husband and many others. This endowment will support activities related to the Cassell Retreat, including its keynote Gail Cassell Lecturer.

This year's retreat will be held at [The Lodges at Historic Banning Mills](#) in Banning Mills, Georgia on November 11-13, 2016. Dr. Ivaylo Ivanov has been invited to present this year's keynote lecture, a former UAB graduate student who is now an assistant professor at Columbia University.

[Early Bird Registration](#) is now open for primary micro faculty and their trainees and staff, and will be available to all other eligible participants on August 16th! Please take this opportunity to [reserve your slot](#). The 2016 registration fee is \$50 (for all [eligible participants](#)) and includes lodging and meals served during the retreat.

	Early Bird July 15– August 15	General Registration August 16– September 15
Primary micro faculty	\$50	\$50
Secondary micro faculty	N/A	\$50
Pre/postdoctoral student training in the labs of primary micro faculty	\$50	\$50
Pre/postdoctoral student training in the labs of secondary micro faculty	N/A	\$50
GBS Microbiology & Immunology Graduate Student—1st years	\$0	\$0
GBS Microbiology & Immunology Graduate Student—years 2 & forward not training in the labs of Primary Micro faculty	N/A	\$50
Micro department members not specified above	N/A	\$50

Attention Biology Freshmen and Sophomores: New Major Available!

The Biology Department is pleased to announce a new undergraduate major – Immunology – a collaboration with the UAB School of Medicine’s Department of Microbiology. In addition to the broad biological training that all Biology majors receive, this new major will provide state-of-the-art research experiences and one-on-one training in mentors’ laboratories using the latest experimental techniques. Immunology is one of the hottest fields in the biomedical sciences. Combatting infectious diseases like HIV/AIDS, Ebola and Zika that threaten global health, using the immune system to defeat cancer, or understanding how the immune system gone awry contributes to many human diseases, these are all part of the opportunities provided by this new

major. It provides outstanding preparation for medically-oriented professional schools, graduate school or employment in the biotechnology and pharmaceutical fields.

For more information contact: [Louis Justement, Ph.D.](#) or [Vithal Ghanta, Ph.D.](#)



Welcome

Wayne Cheng - Research Technician (Weinmann Lab)
 Shawn Stokes - Chair’s Office (website support)
 Claire Auriemma - Chair’s Office (pre award)
 Rebecca Burnham - Research Technician (Leon Lab)
 Poulami Basu Thakur - Research Associate (Gray Lab)
 Sultan Tousif—Research Associate (Niederweis Lab)
 Melanie Lancaster - Research Technician (Hu Lab)

We’re on the web:

<http://www.uab.edu/microbiology>

Farewell

Anna Stevens - Research Technician (Hu Lab)
 Zhenghui Lui - (Hu Lab)
 Erin Burns - PostDoc (Walter Lab)

Useful Links

[Conference Rooms Schedule](#)
[Trainee Career Opportunities](#)
[Microbiology Seminar Series](#)

[Annual Retreat](#)
[Employee Site](#)
[Faculty Directory](#)

[Department Calendar](#)
[Microbiology Newsfeed](#)
[Giving Opportunities](#)

Follow us on Twitter — [@UABMicrobiology](#)

Our Twitter account is an easy way for faculty, trainees, and staff to keep up with department activities. If you have information to share via Twitter, send it to gunnin@uab.edu.

MICHAEL REBMANN

“REORGANIZATION OF THE GOLGI APPARATUS DURING HUMAN CYTOMEGALOVIRUS INFECTION”

JULY 14, 2016

Mentor: WILLIAM BRITT

Committee Members: ZSUZSANNA BEBOK, TERJE DOKLAND, ILYA FROLOV, JOHN KAPPES

JOCELYN HAUSER

“THE ROLE OF HYDROGEN PEROXIDE IN THE MODULATION OF CAPSULE BIOSYNTHESIS IN STREPTOCOCCUS PNEUMONIAE”

JULY 15, 2016

Mentor: JANET YOTHER

Committee Members: WILLIAM BENJAMIN, KEVIN DYBVIG, HUBERT TSE, HUI WU

CONSTANCE AGAMASU

“STRUCTURAL BASIS FOR LIPID-AND CALMODULIN-MEDIATED AKT ACTIVATION IN BREAST CANCER CELLS”

JULY 13, 2016

Mentor: JAMIL SAAD

Committee Members: TERJE DOKLAND, AARON LUCIUS, CHAD PETIT, PETER PREVELIGE

UAB Continues to Prepare for Changes Concerning Overtime Pay

UAB Reporter published on May 19, 2016 “Changes to the Fair Labor Standards Act (FLSA) regulations will change the salary threshold at which many employees must receive overtime pay for more than 40 hours work each week. The minimum salary threshold is rising to \$47,476 from \$23,660 and many exempt employees may find themselves classified as nonexempt.”

UAB is implementing the following changes in order to comply with the new federal mandate:

UAB has implemented KRONOS, time-keeping software for nonexempt staff to track time accurately and consistent-

ly.

Due to the large salary spread among research staff positions (research technician, assistant and associates), UAB compensation has created a research career ladder. The new career ladder, which ranges from Researcher I to Scientist IV, delineates the combination of education and experience needed to work in research laboratories and advance through the non-faculty ranks and the compensation range for each stage. The new ladder and pay ranges can be found at the following link: [http://www.uab.edu/humanresources/home/compensation/research-career-](http://www.uab.edu/humanresources/home/compensation/research-career-ladder)

[ladder](#).

Position reclassifications will be effective August 21st for current non-exempt positions and September 1st for exempt positions.

As of October 1st, Researcher II – IV positions in the career ladder will be moved to non-exempt positions. This change will require staff to take the mandated training in LMS and begin using KRONOS.

Individuals impacted by this change will receive communications from UAB HR, the department administrative team and principal investigators.

More information about the FLSA, plus tools and resources for managers, is online at uab.edu/humanresources. Direct any questions not answered in the FAQs to FLSA@uab.edu.



**University of Alabama at Birmingham
Department of Microbiology**

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Publications | April - June 2016

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Publications continued from page 5

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Grants and Contracts April 1 – June 30 2016

Kearney, John F

Alabama Lyme Disease Association — *Characterization of B-Lymphocytes in the Cutaneous Immune System*

Novak, Jan

National Institute of Diabetes and Digestive and Kidney Diseases/NIH/DHHS — *IgA Nephropathy and the Role of Clustered Glycosylation Initiation by GalNAc-Transferases (F31)*

Briles named winner of the 2016 Dean's Excellence Award in Diversity Enhancement

Written by Kendra Carter

David E. Briles, Ph.D., professor of Microbiology, is a senior faculty winner of the Dean's Excellence Award in Diversity Enhancement. Since he joined the faculty in 1978, more than 75 graduate students, postdoctoral fellows, undergraduates, high school students, visiting scientists and research technicians have been a part of Briles' laboratory group. More than 25 percent of these individuals were from underrepresented minorities, more than 30 percent were from non-United States backgrounds and approximately half were women.

Janet Yother, Ph.D. and Peter D. Burrows, Ph.D., professors in the Department of Microbiology who nominated

"Dr. Briles actively sought to bring graduate students and other trainees from underrepresented minorities into his laboratory. "

Briles for the award, said his consistent efforts to make his lab a welcome environment for individuals of all backgrounds epitomize the commitment that has helped UAB become one of

the most diverse universities in the country.

"Dr. Briles actively sought to bring graduate students and other trainees from underrepresented minorities into his laboratory. Few people can appreciate now what an important step that was," they said. "The welcoming and nurturing atmosphere that he provided attracted more trainees from diverse backgrounds into his group and, perhaps more importantly, into many other laboratories and departments, who learned by example from Dr. Briles."

Around Campus and About Town

August 9

UAB Faculty Senate Meeting, VH 302

7:30—9am

Attendance is open to all UAB faculty and staff and you are free to come and go as schedule allows.

Free parkins is available across

August 11

Barons Faculty Night, Regions Field Banquet Hall

6:30 pm

Faculty are encouraged to bring their families. Dinner, non-alcoholic beverages and entrance to the game are included. Casual attire

August 16

Leadership in Academic Medicine Lecture, Margaret Cameron Spain Auditorium

8—9am

Paul B. Rothman, MD, dean of the medical faculty and vice president for medicine of Johns Hopkins University, and CEO of Johns Hopkins Medicine, is the featured keynote speaker in this installment of the Leadership in Academic Medicine Lecture series.

August 20

Equal Access Birmingham's Hearn + Sole 5K and Kids' Fun Run, Crestline Elementary

7:30am

A family-friendly event open to participants of all ages.

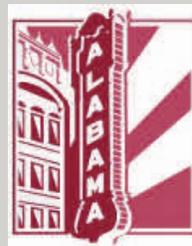
The Market at Pepper Place



Presented by Pepper Place Farmer's Market at Pepper Place

April 9 - December 17, 2016

Summer Film Series at the Alabama Theatre



Presented by Alabama Theatre at Alabama Theatre

June 10 - August 14, 2016

Hope in Motion: The Alabama Christian Movement for Human Rights

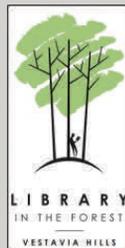


Presented by Birmingham Civil

Rights Institute at Birmingham Civil Rights Institute

June 18 - December 31, 2016

Concerts in the Forest: Sean Michael Ray



Presented by Vestavia Hills Library in the Forest at Vestavia Hills Library in the Forest

August 12, 2016



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Our Twitter account is an easy way for faculty, trainees, and staff to keep up with department activities. If you have information to share via Twitter, send it to gunnin@uab.edu.

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Department of Microbiology