

UAB SCHOOL OF MEDICINE

Department of Microbiology

UAB Welcomes New Faculty Member Michael Gray, Ph.D.



Michael Gray, Ph.D.

The microbiology department is ringing in the new year by adding a new faculty member—Michael Gray, Ph.D.

Gray comes to Birmingham from the University of Michigan, Ann Arbor, where he battled winter snow for five years. Now he has stored his snow shovel (just in case we have another snowmageddon) and is ready for an unpredictable balmy/freezy Birmingham winter.

While pursuing his bachelor's degree, Gray focused on research in Food Science at Cornell University, Ithaca, New York. He worked on characterizing the growth and survival of *Vibrio parahaemolyticus* isolates under stress and ex-

amined the cytopathogenicity of *Listeria monocytogenes* strains. After graduation in 1999, he moved on to the University of California, Davis, where he received a master's degree in food science, and then to the University of Wisconsin, Madison, where he received his Ph.D. in 2010.

Gray entered the postdoctoral program at the University of Michigan where he conducted research on bacterial responses to proteotoxic reactive chlorine stress, using biochemical, genetic, transcriptomic, physiological, and biophysical methods.

Now, at UAB, Gray will be pursuing the molecular biology of bacterial stress response, in particular focused on how members of the gut microbiota respond to reactive chlorine species.

"I am interested in how bacteria respond to reactive chlorine species (RCS) and the role that those responses may play in host-microbe interactions," explains Gray. "This has led to several ongoing lines of research including characterizing RCS-specific gene regulation, exploring the role and regulation of inorganic polyphosphate under severe oxidative

stress, and examining oxidative stress responses in symbiotic gut microbes."

Gray has received many honors including awards from General Mills, the National Dairy Promotion Board, and the Ruth L. Kirschstein National Research Service Award, and he has served as a peer reviewer for the *Journal of Bacteriology*, *Molecular Microbiol-*

"I am interested in how bacteria respond to reactive chlorine species (RCS) and the role that those responses may play in host-microbe interactions."

ogy, *Journal of Applied Microbiology*, *Environmental Science & Technology*, *Antonie van Leeuwenhoek Journal of Microbiology*, and *PLOS One*. He is a member of the American Society for Microbiology.

Save the Date

[Bertram M. Marx Lecture](#)

Speaker: Roy Curtiss, III, Ph.D.

March 15, 2016 | Noon

Volker Hall LECTURE ROOM B



Photo by Baiyi Cai

24th Annual Microbiology Research Retreat

by Peter Burrows, Ph.D.

November 13-15, 2015, UAB Microbiology Department faculty, postdoctoral fellows, graduate students and special guests gathered in Chattanooga at the Chattanooga Hotel for our annual research retreat. This year's retreat—number 24—was once more a wonderful opportunity for members of the department to focus on science and to establish new collaborations away from the distractions of everyday life.

A Different Approach

It has been a long time since the retreat was held in a metropolitan area. According to David Briles, Ph.D., this change in atmosphere worked well. "The excellent meeting facilities and the careful planning of both the micro administrative staff and the staff at the Chattanooga gave us what we needed to have a very successful meeting," says Briles. Even the staff at the Chattanooga thought the meeting went well as they complemented our students saying that they were the best behaved group they had ever had.

Additionally, this was the

first retreat to include non-trainee researchers. Lab assistants, technicians and visiting scientists were able to participate in all of the retreat activities. Several non-trainees presented posters with great success. Others like Stacy Hall (Novak lab) took advantage of discussing processes and procedures with researchers from

"It was really a great experience for me personally and professionally."

other labs. "It was like breaking a hole in a brick wall," says Hall. "I was able to connect with people I had never met and discuss some of the more technical aspects of procedures common to a wide variety of lab disciplines. It was really a great experience for me personally and professionally."

Presenting Research

The retreat began on Friday after-

noon with talks by students and postdocs. The talks were varied and interesting and were followed by lively question and answer sessions. A poster session was next on the agenda, with 31 trainees and 4 non-trainee researchers presenting their research, a record number! Participants then went to one of two nearby restaurants, Public House and Meeting Place, for an offsite casual dinner. Student and postdoc presentations continued on Saturday morning. Faculty judges of these presentations uniformly agreed that they had a very difficult assignment due to the overall high quality of both talks and posters. The award winners are listed in the accompanying table.

Free Time

Before breaking for lunch on Saturday, Dr. Lund set up the retreat group photo, no small feat given the number of participants. After a buffet lunch, there was free time to explore the many sites of Chattanooga including the [Tennessee Aquarium](#), rated as the best aquarium in America, and the [Riverwalk](#).

Keynote Speaker: Flavius Martin



A highlight of the retreat was the Saturday evening talk by keynote speaker Dr. Flavius Martin, a former postdoctoral fellow with John Kearney (1993-1998).

After leaving John’s lab, Flavius went into the biotechnology area, starting at Genentech, and is now Vice President and Head of Discovery Research Oncology and Inflammation at Amgen, Inc. in Thousand Oaks, California. Amgen is the world’s largest independent biotech firm, and its two major biologics are currently Neulasta/Neupogen, analogs of granulocyte-colony stimulating factor used to stimulate production of infection-fighting granulocytes in patients undergoing cancer chemotherapy, and Enbrel, a soluble Tumor Necrosis Factor Receptor used to treat rheumatoid arthritis and other autoimmune diseases.

Flavius discussed ongoing efforts to harness the immune system to fight cancer by developing bifunctional antibodies that can target tumor cells and simultaneously recruit immune effectors. He also talked about Amgen’s recent acquisition of deCode Genetics, an Icelandic biotech company that has sequenced the ge-

nomes of 1 out of every 100 people in that country and has corresponding clinical data. Given such extensive coverage and the relative genetic homogeneity of the Icelandic population, Amgen hopes to use this approach to identify new target genes for common disease such as Alzheimer’s. Dr. Martin’s talk was witty, informative, and very well received and provoked a lot of questions.

Faculty Talks

The retreat concluded on Sunday morning with three interesting talks by departmental faculty members, Drs. Ming Du, Michael Niederweis and Mark Walter, followed by the awards ceremony with closing remarks by department chair Dr. Fran Lund. The site and the science, along with tremendous help from the microbiology administrative office, made for a great retreat.



[View the 24th Annual Microbiology Research Retreat Scrapbook](#)

**2015 Microbiology Research
Retreat Award Winners**

Oral Presentations

- Graduate Students (4 years and up)**
 1. Mikhail Pavlenok
 2. Preeyam Patel and Sara Stone (tie)

- New Investigator (0-3 years)**
 Cameron Crawford

- PostDoc**
 Norberto Gonzalez-Juarbe

Poster Presentations

- Graduate Student**
 1. Xiaojiao Xue
 2. Kathryn Doornbos

- New Investigator**
 1. Uday Tak and Anukul Shenoy (tie)
 2. Jessica Peel

- Non-trainee Category**
 Krishna "Chait" Chinta



Federal Funding Important to UAB and Birmingham's Economy

By Louis Justement, Ph.D.

In 2013, the University of Alabama at Birmingham had an economic impact on the state of Alabama that exceeded \$5 billion. UAB is Alabama's largest employer, and it has generated more than 58 start-up companies, a business incubator, and at least 20 promising drug treatments for intractable diseases.

How much more could UAB do if more federal funds were available for scientific research?

"Support for research at the federal level is an important issue for Birmingham and the state of Alabama," explains microbiology professor Louis B. Justement, Ph.D.

"We are now at a critical time for encouraging our legislators to support continued funding for research agencies at the federal level."

Federal spending limits have caused a decline in biomedical research across the nation. As we are cutting back on research, many of our global economic competitors are increasing their funding for science and technology. Justement says this has real effects on the future of the United States and threatens the economic vitality of Birmingham.

Justement is active at the national level in efforts to highlight the importance of supporting funding for key research agencies including the National Institutes of Health and the National Science Foundation.

For more information, read [Congress must commit to science funding in budget talks](#)

Department Events

January 12

Seminar Series - **Dr. Tom Braciale, Department of Pathology, University of Virginia School of Medicine**

January 19

Seminar Series - **Dr. Xiaojiang Chen, Department of Biological Sciences, University of Southern California**

January 26

Seminar Series - **Dr. Lyse Norian, UAB, Department of Nutrition Sciences, Tumor immunology and obesity**

February 2

Seminar Series - **Dr. Tonya Webb, Department of Microbiology and Immunology, University of Maryland School of Medicine**

February 9

Seminar Series - **Dr. Mark Young, Dept of Plant Sciences & Plant Pathology, Montana State University**

February 23

Seminar Series - **Dr. Erica Ollmann Saphire, The Scripps Research Institute**

March 1

Seminar Series - **Dr. Andrea Schietinger, Memorial Sloan Kettering Cancer Center**

March 15

Marx Lecture - Dr. Roy Curtiss, III

Noon

Volker Hall LECTURE ROOM B

March 22

Seminar Series - **Dr. Ajay Chawla, Cardiovascular Research Institute, Departments of Physiology and Medicine**

March 29

Seminar Series - **Dr. Hung Ton-That, Department of Microbiology and Molecular Genetics, The University of Texas Health Sciences Center at Houston (Co-sponsored by Pediatric Dentistry)**

We're on the web:

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

Gail H. Cassell Scholarship Endowment Award



Gail Cassell chaired the UAB Department of Microbiology from 1987 until 1997. In her tenure as chairman, Dr. Cassell enhanced the national and international stature of the Department of Microbiology by significantly improving research, graduate studies, and grant funding for both research and training so that the department ranked first in the nation in grant support from various national agencies.

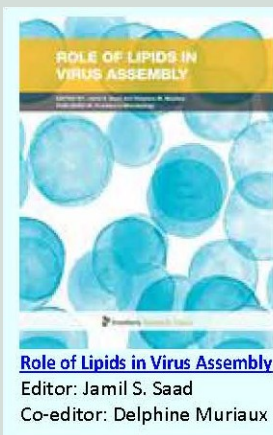
Although her schedule remained tremendously busy with the tasks of administrator, researcher and teacher, Dr. Cassell focused on trainees and the graduate teaching programs of the department. As an outcome of her interaction with trainees, she established the Annual Microbiology Research Retreat. She wanted the retreat to serve as a learning ground

for students and to bring students, postdocs, and faculty together to interact both scientifically and socially. She believed that the retreat was a safe environment in which students could learn and enhance oral and poster presentation skills.

When Dr. Cassell left UAB in 1997, friends, colleagues, and members of the Department of Microbiology established the Gail H. Cassell Scholarship Endowment, a permanent scholarship endowment in honor and appreciation of her leadership.

A portion of the awards given to trainees at the annual research retreat is made possible by the Gail H. Cassell Scholarship Endowment Award. Established in 1998, this award provides recognition to trainees who give outstanding poster and oral presentations during the retreats.

New Ebook Available Online



[Roles of Lipids in Virus Assembly](#), edited by microbiology's Jamil Saad, Ph.D., and co-edited by Delphine Muriaux, Ph.D., has been released by Frontiers Media SA.

The book is a compilation of articles that focus on key aspects of virus-membrane interactions during assembly and egress, especially those of retroviruses and Ebola virus (EBOV).

Stone and Akhrymuk Receive Hiramoto Travel Awards

Congratulations to Hiramoto Travel Award recipients: Sara Stone (Lund lab) who will travel to Stockholm, Sweden, this summer; and Ivan Akhrymuk (Frolova lab) who will travel to Austin, Texas, in May to attend the Positive Strand RNA Viruses Keystone Symposia.

[The Hiramoto Travel Award](#) honors the memory of Dr. Ray Hiramoto and provides travel assistance for graduate students to attend meetings, workshops and advanced courses offered by scientific societies and other organizations.

All Microbiology graduate students (defined as Ph.D. students with a *primary* Microbiology faculty member as a dissertation mentor) in good standing are eligible to apply for a Hiramoto Travel Award.



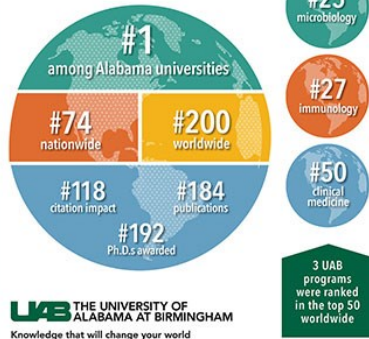
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Our Twitter account is an easy way for faculty, trainees, and staff to keep up with department activities. If you have information to share via Twitter, send it to erobnson@uab.edu.

INTERNATIONAL REPUTATION

In its 2016 Best Global Universities ranking, U.S. News & World Report rated 750 institutions.

HERE'S WHERE UAB STANDS:



UAB THE UNIVERSITY OF ALABAMA AT BIRMINGHAM
Knowledge that will change your world

UAB Microbiology #25, Immunology #27 in 2016 Best Global Universities Ranking

The 2016 edition of the Best Global Universities issued by [U.S. News & World Report](#) ranks the University of Alabama at Birmingham 200th in the world and places UAB in the top 75 US universities.

UAB was highly ranked in three subcategories: 25 in microbiology, 27 in immunology and 50 in clinical medicine.

To see the entire list or learn more about specific criteria used in rankings, visit the [official U.S. News rankings page](#).

Welcome

- Hongdi Huan - Visiting Scientist (Novak Lab)
- YiYang Guo - Student Assistant (Thompson Lab)
- Christian Russ - Undergrad Volunteer (Jiang Lab)
- Jeff Milner II - Research Technician (Orihuela Lab)
- Reid Ballard - Student Assistant (Zajac Lab)
- Blair Heater - Student Assistant (Lefkowitz Lab)
- David Pajuelo Gamez - Postdoc (Niederweis Lab)

Farewell

- Fang Zhang - Visiting Scientist (Hu Lab)
- Yanying Dai - Research Assistant (Bedwell Lab)
- Anthony Sellers - Student Assistant (Zajac Lab)
- Wei Yang - Volunteer (Hu Lab)
- Emily Stefanov - Research Assistant (Kearney Lab)
- Adrienne Brown - Student Assistant (Zajac Lab)
- Cecy Hinojosa - Research Associate (Orihuela Lab)
- Josephine Reynaud - Postdoc (Frolov Lab)
- Xianwen Zhang - Visiting Scientist (Novak Lab)

Celebrating Micro's Star Julie Decker — Employee of the Year Reception November 10, 2015





The team used the image of [Brigadier General George Miller Sternberg](#), (pictured in black-and-white) considered the first US bacteriologist, as their role model.

Orihuela Lab Gets Hairy

Carlos Orihuela, Ph.D., and lab members [Norberto Gonzalez-Juarbe](#), Ph.D. and [Anukul Shenoy](#) put away their razors and embraced their hair for the whole month of November. Why? "Well, men's health is important and should be paid close attention to," says Orihuela.

These men participated in [No-shave November](#), an annual web-based, non-profit event focusing attention on cancer and raising funds to support cancer prevention, research and education.

The idea is for participants to embrace their hair, which many cancer patients lose, and let it grow wild and free. Then, at the end of the month, they donate the money they saved by not buying hair care products or getting haircuts.

[Learn more.](#)

Useful Links

[Employee Site](#)
[Faculty Directory](#)
[Microbiology Newsfeed](#)

[Giving Opportunities](#)
[Conference Rooms Schedule](#)
[Trainee Career Opportunities](#)

[Microbiology Seminar Series](#)
[Department Calendar](#)

Postdoctoral Scientists Numbers Declining

By Louis Justement, Ph.D.

The quality and quantity of biomedical research may be negatively affected if the number of postdoctoral fellows in the biomedical field continues to decline. According to microbiology professor Louis Justement, Ph.D., co-author of "Biomedical science postdocs: an end to the era of expansion" (Oct. 6, 2015, FASEB Journal online), the number of early-career scientists choosing to become postdocs has declined for three years in a row.

Postdocs along with graduate students comprise a majority of the research workforce in the biomedical sciences. A continued loss of postdocs without an alternative source of talented research personnel

will slow our rate of progress. "We need to develop a steady-state model for the biomedical research workforce while maintaining the vitality and excellence of the enterprise," explains Justement.

NUMBER OF BIOLOGICAL AND BIOMEDICAL SCIENCE POSTDOCS



*Submit information for the newsletter via email to Ella Robinson at erobnson@uab.edu.



Saini Receives Young Investigator Award

Congratulations to Dr. Vikram Saini who was awarded a Young Investigator Award at the 22nd Annual Meeting of the Society for Redox Biology and Medicine (SFRBM) held in Boston, November 18-21, 2015.

The SFRBM Young Investigator Awards are given for outstanding originality and conceptual novelty of the presentation in both oral or poster symposia.

Saini was awarded for his work in identifying a role for host-derived intracellular hydrogen sulfide in tuberculosis disease and pathogenesis.

Public Defenses

Lindsey E Padgett

“NADPH Oxidase-Derived Superoxide: A Potentiator of Autoimmune Responses in Type 1 Diabetes”

October 30, 2015 | 1:00 p.m.

Committee: Hubert M. Tse, Ph.D.—Chair/Mentor

Robin Lorenz, M.D., Ph.D.; David D. Chaplin, M.D., Ph.D.; Kathryn Haskins, Ph.D.; Chad Steele, Ph.D.; Casey Weaver, M.D.

Mikhail Pavlenok

“The MspA nanopore as a sensor for DNA sequencing”

October 30, 2015 | 1:30 PM

Committee: Michael Niederweis—Chair

Kevin L. Kirk, Ph.D.; Peter E. Prevelige, Ph.D.; David A. Schneider, Ph.D.; Charles L. Turnbough, Ph.D.

Tyler Wright

“C-reactive protein, autoimmunity, and inflammation in the central nervous system”

October 23, 2015 | 10:00 AM

Committee: Alexander J. Szalai, Ph.D.—Chair/Mentor

Scott R. Barnum, Ph.D.; Khurram Bashir, M.D.; Peter H. King, M.D.; Hubert M. Tse, Ph.D.

Xiaojiao Xue

“Nonsense Suppression in a CFTR Mouse Model and Analysis of the Amino Acids Inserted at the CFTR Premature Termination Codons in Mammalian Cells”

Friday, October 23, 2015

2:00 PM BBRB 170

Committee: David M. Bedwell Ph.D.—Mentor

Zsuzsanna Bebok, Ph.D., Robert Kesterson, Ph.D., Kevin Kirk, Ph.D., Steve Rowe, Ph.D.

Qing Zhao

“Intestinal microbiota and its role in mucosal and systemic immune responses”

Thursday, October 29, 2015 | 2:00 p.m.

Committee: Charles O. Elson, M.D.—Mentor

Robinna G. Lorenz, M.D.; Dr. Casey T. Weaver, M.D.; John F. Kearney, Ph.D.; John D. Mountz, M.D., Ph.D.

Publications | October 1 - December 31, 2015

Bhardwaj A, Sankhala RS, Olia AS, Brooke D, Casjens SR, Taylor DJ, **Prevelige PE Jr**, Cingolani G. Structural plasticity of the protein plug that traps newly packaged genomes in podoviridae virions. J Biol Chem. 2015 Nov 16. pii: jbc.M115.696260. [Epub ahead of print] PMID: 26574546

Black LL, Srivastava R, Schoeb TR, Moore RD, Barnes S, **Kabarowski JH**. Cholesterol-Independent Suppression of Lymphocyte Activation, Autoimmunity, and Glomerulonephritis by Apolipoprotein A-I in Normocholesterolemic Lupus-Prone Mice. J Immunol. 2015 Oct 14. pii: 1500806. [Epub ahead of print] PMID: 26466956

Chen Z, Su L, Xu Q, Katz J, **Michalek SM**, Fan M, Feng X, Zhang P. IL-1R/TLR2 through MyD88 divergently modulates osteoclastogenesis through regulation of nuclear factor of activated T cells c1 (NFATc1) and B lymphocyte-induced maturation protein-1 (Blimp1). J Biol Chem. 2015 Oct 19. pii: jbc.M115.663518. [Epub ahead of print] PMID: 26483549

Dennis EA, Coats MT, Griffin SE, **Hale JY, Novak L, Briles DE**, Crain MJ. The Effects of CFTR and Mucoid Phenotype on Susceptibility and Innate Immune Responses in a Mouse Model of Pneumococcal Lung Disease. PLoS One. 2015 Oct 15;10(10):e0140335. doi: 10.1371/journal.pone.0140335. eCollection 2015. PMID: 26469863

Edwards RK, Kumar R, Zhi D, Szychowski J, Subramaniam A, **Lefkowitz EJ**, Morrow C. Gravidas with Class III Obesity: Evaluating the Abdominal Skin Microbiota Above and Below the Panniculus. J Matern Fetal Neonatal Med. 2015 Nov 24:1-21. [Epub ahead of print]

Erasmus JH, Needham J, Raychaudhuri S, Diamond MS, Beasley DW, Morkowski S, Salje H, Fernandez Salas I, Kim DY, **Frolov I**, Nasar F, Weaver SC. Utilization of an Eilat Virus-Based Chimera for Serological Detection of Chikungunya Infection. PLoS Negl Trop Dis. 2015 Oct 22;9(10):e0004119. doi: 10.1371/journal.pntd.0004119. eCollection 2015 Oct. PMID: 26492074

Garrison HH, **Justement LB**, Gerbi SA. Biomedical science postdocs: an end to the era of expansion. FASEB J. 2015 Oct 6. pii: fj.15-280552. [Epub ahead of print] PMID: 26443818

Hakim JA, Hyunmin K, Dennis LN, Kumar R, **Ptacek T**, Morrow CD, **Lefkowitz EJ**, Powell ML, Watts SA, Bej AK. An abundance of Epsilonproteobacteria revealed in the gut microbiome of the laboratory cultured sea urchin, Lytechinus variegatus. Front. Microbiol. 2015 Oct.

Hara Y, Tashiro Y, Murakami A, Nishimura M, Shimizu T, Kubo M, Burrows PD, Azuma T. High affinity IgM⁺ memory B cells are generated through a germinal center-dependent pathway. Mol Immunol. 2015 Oct 26. [Epub ahead of print] PMID: 26514429

Kuruganti S, Accavitti-Loper MA, **Walter MR**. Production and characterization of thirteen human type-I interferon- α subtypes. Protein Expr Purif. 2014 Nov;103:75-83. doi: 10.1016/j.pep.2014.08.010. Epub 2014 Aug 20. PMID: 25149396

Kuruganti S, Miersch S, Deshpande A, Speir JA, Harris BD, Schriewer JM, Buller RM, Sidhu SS, **Walter MR**. Cytokine Activation by Antibody Fragments Targeted to Cytokine-Receptor Signaling Complexes. J Biol Chem. 2015 Nov 6. pii: jbc.M115.665943. PMID: 26546677

Ludwig MR, Kojima K, Bowersock GJ, Chen D, Jhala NC, Buchsbaum DJ, Grizzle WE, **Klug CA**, Mobley JA. Surveying the serologic proteome in a tissue specific kras(G12D) knockin mouse model of pancreatic cancer. Proteomics. 2015 Nov 17. [Epub ahead of print] PMID: 26572242

Neubauer J, Ogino M, **Green TJ**, Ogino T. Signature motifs of GDP polyribonucleotidyltransferase, a non-segmented negative strand RNA viral mRNA capping enzyme, domain in the L protein are required for covalent enzyme-pRNA intermediate formation. Nucleic Acids Res. 2015 Nov 23. [Epub ahead of print]

Publications

continued from page 9

Oliver MB, van der Linden MP, Küntzel SA, **Saad JS**, Nahm MH. Discovery of Streptococcus pneumoniae serotype 6 variants with glycosyltransferases synthesizing two differing repeating units. J Biol Chem. 2015 Oct 30. PMID: 26519486

Qiu S, Ogino M, Luo M, Ogino T, **Green TJ**. Structure and function of the N-terminal domain of the vesicular stomatitis virus RNA polymerase. J Virol. 2015 Oct 28. [Epub ahead of print] PMID: 26512087

Reynaud JM, Lulla V, Kim DY, Frolova EI, Frolov I. The SD1 Subdomain of Venezuelan Equine Encephalitis Virus Capsid Protein Plays a Critical Role in Nucleocapsid and Particle Assembly. J Virol. 2015 Dec 9, [Epub ahead of print] PMID: 26656680

Subramaniam A, Kumar R, Cliver SP, Zhi D, Szychowski JM, Abramovici A, Biggio JR, **Lefkowitz EJ**, Morrow C, Edwards RK. Vaginal Microbiota in Pregnancy: Evaluation Based on Vaginal Flora, Birth Outcome, and Race. Am J Perinatol. 2015 Oct 19. [Epub ahead of print] PMID: 26479170

VanValkenburg ME, Pruitt GI, Brill IK, Costa L, Ehtsham

M, Justement IT, Innis-Shelton RD, Salzman D, Reddy ES, Godby KN, Mikhail FM, Carroll AJ, Reddy VB, Sanderson RD, **Justement LB**, Sanders PW, Brown EE. Family history of hematologic malignancies and risk of multiple myeloma: differences by race and clinical features. Cancer Causes Control. 2015 Nov 23. [Epub ahead of print] PMID: 26596855

Walter MR. Elucidating new drug targets in psoriasis by gene profiling: an opportunity to be seized. Ann Transl Med. 2015. PMID: 25992377

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Xin G, Schauder DM, Lainez B, Weinstein JS, Dai Z, Chen Y, Esplugues E, Wen R, Wang D, Parish IA, **Zajac AJ**, Craft J, Cui W. A Critical Role of IL-21-Induced BATF in Sustaining CD8-T-Cell-Mediated Chronic Viral Control. Cell Rep. 2015 Oct 28. [Epub ahead of print]

Grants and Contracts

October 1 – December 31, 2015

Kearney, John F

Juvenile Diabetes Research Foundation International
Analysis of Human and Mouse Antibodies to Beta Cell Antigen Bearing N-Acetyl Glucosamine Post-Translation Modifications and their Potential to Prevent Human Type 1 Diabetes

Lund, Frances E.

United States - Israel Binational Science Foundation
The Mechanism Whereby CD38 Deficiency Inhibits Alzheimer's Disease Pathology in a Mouse Model

Niederweis, Michael E.

National Institute of Allergy and Infectious Diseases/NIH/DHHS
The Necrosis-Inducing Toxin of Mycobacterium Tuberculosis

Orihuela, Carlos J.

National Institute of Allergy and Infectious Diseases/NIH/DHHS
Cardiac Microlesion Formation during Invasive Pneumococcal Disease

Around Campus and About Town

Red Shoe Run 2016

Benefitting: Ronald McDonald House

January 23, 2016 / 7:30-11:00am

Rosewood Hall at Soho Square

2850 19th Street South

Homewood, AL 35209

10 mile: \$45 (late registration fees apply)

5k: \$30 (late registration fees apply)

1 mile fun run: \$20



Repticon Birmingham

February 13 / 10:00 am to 5:00 pm

February 14 / 10:00 am to 4:00 pm

Zamora Shrine Temple

Admission: Adults - \$10, Children (5-12) - \$5, Under 5 - Free.

2-day and VIP tickets available.

Repticon Birmingham features two days of reptile fun, with over 100 tables of top-quality reptiles, amphibians, exotic pets and pet products, hourly seminars and presentations, door prizes sponsored by Exo Terra, and more!

Birmingham Home and Garden Show

February 18 - 21, 2016

Birmingham-Jefferson Convention Complex

Adults-\$11; children 5 and under-free

Four days of lively presentations by local and national home and garden experts. The topics will relate to remodeling, home improvement, gardening, landscaping, DIY, home décor, and more.

Alabama 4H: Herp Journey

March 24, 2015 / 4:00pm

Springville Road Regional Library

1224 Old Springville Road

Birmingham, AL



Join the Alabama 4H Science School for an afternoon of hands-on fun as they introduce some of Alabama's most famous reptiles—turtle, snake, gator, and more, oh my!

Polar Plunge for Special Olympics

January 30, 2016 / 8:00 am

Minimum \$50 registration fee

Oak Mountain State Park



Come out and take a plunge with the **Alabama Law Enforcement Torch Run for Special Olympics**. There will be a costume contest prior to the plunge. All plungers will receive a T-Shirt. The more money you raise, the cooler the swag you receive! All the money raised supports Special Olympics Alabama, devoted to sports training and competition for children and adults with intellectual disabilities.



Birmingham Art Crawl

February 4, 2016 / 5:00-9:00 pm

Downtown Loft District,

2212 2nd Avenue N

Every first Thursday from 5:00– 9:00 pm, rain or shine, Birmingham transforms into a walking art gallery full of artists, performers, food and fun! Meet local artists

UAB Women's Basketball vs FIU

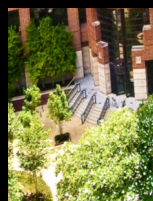
March 3, 2016 @ 7:00-9:00pm

Tickets: \$5 admission / \$3 youth (ages 3-17) Children age two and under are admitted free.

UAB Students get in free with valid UAB student ID.

Group Rates available at 205-975-8221

Tickets may be purchased at the front door of Bartow Arena as early as one hour before tipoff on game day.



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

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