Beatriz León-Ruiz, Ph.D., grew up in La Rioja, Spain. She earned a bachelor’s degree in biology from Complutense University and a Ph.D. in microbiology and immunology from Universidad Autónoma, both in Madrid. She moved to the United States in 2008 to work in the lab of Dr. Fran Lund at Trudeau Institute and at the University of Rochester. When Lund moved to UAB in 2012, León-Ruiz came too, joining the microbiology department as an assistant professor.

“One of my current research objectives is directed toward understanding T helper type 2 (Th2)-driven immune responses.”

During her time at UAB, León-Ruiz has achieved a great deal. She is junior faculty winner of the 2015 Dean’s Excellence Award in Research, one of the first UAB Pittman Scholars, making her an endowed scholar for five years, and she received her first NIH R01 grant.

Throughout her career, her research has focused on dendritic cells and their ability to present antigen to T cells to initiate adaptive immune responses and on manipulating in vivo dendritic cell function to either elicit extensive immune responses with therapeutic effects, in the context of vaccination, or to abrogate unwanted immune responses, in the context of allergy and autoimmune diseases.

“The Th2 immune response is critical in the host defense against parasitic infections, but it is also responsible for the pathogenesis of allergic disorders, such as asthma.”

Another project high on León-Ruiz’s list is identifying the role autoantigen-specific B cells and plasma cells play in rheumatoid arthritis disease.”

Carlos J. Orihuela, Ph.D., comes to UAB from the Department of Microbiology and Immunology at the University of Texas Health Science Center at San Antonio in Texas. He received his Ph.D. in Microbiology from the University of Texas Medical Branch at Galveston in 2001 and completed a postdoctoral fellowship in the Department of Infectious Diseases at St. Jude Children’s Research Hospital in Memphis in 2005.

“My research focuses on Streptococcus pneumoniae pathogenesis and the lapses in host defense that lead to invasive pneumococcal disease (IPD),” says Orihuela.

“Invasive pneumococcal disease includes pneumonia with bacteremia, bacteremia and sepsis, and meningitis.” Orihuela is investigating the role of diverse pneumococcal proteins on bacterial attachment and endothelial cell translocation, biofilm formation during IPD, how age-
related defects in macrophage function enhances susceptibility to pneumococcal pneumonia, and cardiomyocyte damage mediated by the toxin pneumolysin.

Several members of Orihuela’s Texas lab are joining him here at UAB. Cecy Hinojosa will continue her role as lab manager. Additionally, Norberto Gonzalez-Juarbe, a postdoctoral trainee, and Anukul Shenoy, a graduate student, will continue their research projects here at UAB.

Orihuela currently serves as associate editor for PLOS Pathogens and is a standing member on the NIH CSR study section Aging Systems and Gerontology. He is editor of a just published book, *Streptococcus pneumoniae: Molecular Mechanisms of Host pathogen Interactions*.

### Immunology Theme

**Changes in Leadership**

Lou Justement, Ph.D., has been appointed as the new Immunology Theme director, and nominations are being accepted for an Immunology Theme faculty member to serve as associate theme director.

Nominations should be directed to [Dr. David Chaplin](mailto:Dr.Chaplin@uab.edu) by 5 pm Friday, July 10.

The GBS Steering and Oversight Committee will work with Dr. Justement to select the next Associate Director from the list of nominees.

### Department Events

**Tuesday, Jul 7, 2015**
Primary Faculty Meeting 1:15 pm - 2:15 pm (BBRB 263)

**Tuesday, Jul 21, 2015**
S. Celeste Morley, M.D., Ph.D., Division of Pediatric Infectious Diseases, Washington University School of Medicine in St. Louis (Co-sponsored by UAB Division of Pediatric Infectious Diseases)

**Tuesday, Aug 4, 2015**
Primary Faculty Meeting 1:15 pm - 2:15 pm (BBRB 263)

**Tuesday, Sep 1, 2015**
Primary Faculty Meeting 1:15 pm - 2:15 pm (BBRB 263)

**Tuesday, Sep 1, 2015**
Susan Roberts Dubay Endowed inaugural lecture

**Tuesday, Sep 8, 2015**
Microbiology Seminar Series Begins BBRB 170 (noon to 1pm)

[Click here for full listing.](#)

### Save the Date

Susan Roberts Dubay
Endowed inaugural lecture.
September 1, 2015
Speaker: Eric Hunter, Ph.D.
Microbiology professor Dr. Louis Justement and three other UAB professors were among 50 scientists from 27 states to meet with congressional staff during Capitol Hill Day, April 14, 2015.

“The annual Capitol Hill day represents an ongoing effort by The Federation of American Societies for Experimental Biology (FASEB), its constituent societies and individual scientists to communicate directly with legislators and their staffs regarding the importance of biomedical research in terms of the economic impact and benefits to the health of the country,” says Justement, who serves as chair of the FASEB subcommittee on Policy and Government Affairs.

This year, researchers proposed a specific funding strategy to more than 100 congressional offices. That strategy involves a five-year commitment to a five percent annual funding increase in support of science research and development. The researchers believe this plan would help maintain the country’s leadership in science and restore the purchasing power of the NIH budget, which has decreased by 25 percent since 2003.

“The good news is that the efforts of FASEB and other advocates for biomedical research are indeed having an impact on how legislators view the NIH, NSF and other federal research entities. Recently, there has been a clear indication that legislators realize that NIH and the biomedical research community across the country are struggling to keep pace and that we risk losing a generation of new scientists. Hopefully, this will translate into increased support for biomedical research in the near term,” says Justement.

2015 Microbiology Faculty Retreat Forged New Ideas

Once a year, faculty members of the microbiology department join for a day-long retreat to discuss developments in their current research and plans for continued study. This year’s meeting included presentations from eight faculty members—Drs. Mengxi Jiang, Janusz Kabarowski, David Briles, Hui Hu, Scott Barnum, Allan Zajac, Amy Weinmann and Elliot Lefkowitz.

The retreat was held atop Birmingham’s Red Mountain at Vulcan Park & Museum, a premier venue for forging ideas. Named for the centerpiece of the park—the statue of the Roman god of fire and forge—Vulcan Park is by far the best place to view the city of Birmingham.

Microbiology professor David Briles says, “As with past faculty retreats, this retreat permitted the faculty to exchange information and help each other with scientific problems. This year’s talks were outstanding. The food was good, and the location was quiet, peaceful and had a beautiful view looking north over Birmingham.”

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

Congratulations to Tyler Stewart (Novak lab) who received a Hiramoto Travel Award to assist in his travel to the Society for Glycobiology Annual Meeting in San Francisco. The Hiramoto Travel Award honors the memory of Ray Hiramoto, Ph.D., a noted immunologist and faculty member in the UAB Department of Microbiology until his death in 2002. 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. These awards will enable recipients to attend upcoming scientific conferences.

For information about submitting an application for this award, click here. The next deadline for submission is August 1, 2015.

Patel Delivers Award-winning Presentations

Spring was a season of awards for graduate student Preeyam Patel (Kearny lab).

Beginning with the Minority Health and Health Disparities Research Symposium in March 2015, in Birmingham, Patel received the MHRC Charles Barkley Health Disparities Investigator Award for her poster presentation, "Early Exposure to Specific Microbes Dampens the Development of HDM Allergy During Adult Life."

In April 2015, she won 1st place in the Graduate Student category at the Pulmonary and Critical Care Update 2015 Basic and Translational Research Symposium.

Then, in June 2015, she gave an Oral Presentation at the 2015 Southeastern Immunology Symposium at Emory University and won an AAI Oral Presentation Award. At this meeting she also won the Joy Cappel Young Investigator Award, a $4000 grant, through Rockland Antibodies and Assays for development of an anti-mouse platelet activating factor receptor (PAFR) polyclonal antibody.

Patel discusses poster with faculty member

Public Defense

Jeffery Vahrenkamp

“The Effects of the Initially Transcribed Sequence on Reiterative Transcription in Escherichia Coli”

Thursday, May 14, 2015
Mentor: Charles L. Turnbough Jr, Ph.D.
Committee: Aaron L. Lucius, Ph.D.; Michael E. Niederweis, Ph.D.; Peter E. Prevelige, Ph.D.; David A. Schneider, Ph.D.
Susan Roberts Dubay Endowment
Focuses on Microbiology Graduate Students

Susan Roberts Dubay grew up in Decatur, Tennessee. She attended Duke University from 1978 to 1982 where she received her degree in biology. After graduation, she moved to Birmingham and joined the UAB Microbiology Department. She worked as lab manager in the lab of Dr. Eric Hunter, the founding director of the UAB Center of AIDS Research.

Dubay and her colleagues were recognized internationally for their work in defining the molecular events involved in retroviral assembly and for elucidating the structure/function relationships for retroviral gene products at a molecular level. She co-authored numerous articles that were published in leading national research journals. Her extensive research efforts helped advance the scientific knowledge that is necessary for the development of an effective HIV vaccine.

As lab manager, Dubay had a positive impact on many graduate students as she trained and guided them with a gentle, kind, and caring attitude in their earlier years. She was a remarkably happy and joyful person and students and colleagues turned to her time and again for advice and help both in their professional and personal lives.

The Susan Roberts Dubay Endowment was established by Dubay’s husband, Dr. John W. Dubay, her two brothers Dr. John R. Roberts and Mr. James D. Roberts, and other family members and friends as a way to pay perpetual tribute to Dubay and all those she touched throughout her life. This endowment is to support microbiology graduate students through lectures and other educational activities serving always as a reminder of the tremendous positive impact Dubay had on numerous graduate students during her time at UAB.

Eric Hunter, Ph.D. will be the inaugural speaker for the Susan Roberts Dubay Endowed Lecture. He is a professor in the Department of Pathology and Laboratory Medicine, Emory University, and Co-Director of the Emory Center for AIDS Research.

The lecture will be on September 1, 2015, at 2 p.m. in Volker Hall, Lecture Room C (1670 University Boulevard). A reception will follow in the Edge of Chaos, Lister Hill Library, 4th Floor (1700 University Boulevard).

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 erobson@uab.edu.

Grab your hammer and help build the UAB Habitat for Humanity house!

Volunteers are needed for Friday, September 18th. You can sign up for a morning shift (7:30 am – 11:30 am), or an afternoon shift (12:00 pm – 4:00 pm. There will be a 30-minute lunch break.

To volunteer, email Ella Robinson (erobson@uab.edu). In your email, include your name, contact information (email and cell phone if possible), and the shift you would like to work.

Volunteer registration ends August 15.

BENEVOLENT FUND
Give Help, Give Hope.
Novak Lab Says Farewell to Visiting Scientists

Hiroyuki Ueda, M.D.; Ph.D.; Yoshimi Ueda, M.D.; Qi Bian, M.D., Ph.D.

Three visiting scientists in the Novak lab are returning home with a greater understanding of IgA nephropathy.

Drs. Hiroyuki and Yoshimi Ueda (Jikei University School of Medicine in Tokyo, Japan) have studied several aspects of IgA nephropathy, including factors involved in familial form of IgA nephropathy.

Dr. Qi Bian (Changhai Hospital, Shanghai, China) studied signaling pathways involved in activation of mesangial cells by growth factors that drive disease progression in IgA nephropathy.

Improvements still to come in BBRB....

The ongoing renovations to BBRB are progressing well. A few more improvements to look forward to this fall....

- All circular conference rooms are being furnished with new table and chairs, new 60-inch TV and IT “plug-and-play” pods to easily connect your laptops making them ideal for scientific exchanges/meetings conveniently located on your floor.
- Another great addition to our conference room facilities will be the creation of a conference room similar in size to CFAR conference room with planned seating up to 35. This room will also have new furniture and expanded IT capabilities for video conferencing.
- A new entrance way into the department offices and renovation of the kitchen area on 2nd floor will soon be underway.

Welcome

Whittney Wiley - Research Tech (Bedwell)
Zhenghui Liu - Postdoc (Hu Lab)
Fang Zhang - Visiting Scientist (Hu Lab)
Guang Yang - Research Associate (Lund Lab)
Michael Zeiger - Research Tech (Tse Lab)
Megan Lu - Financial Officer I (Chair’s Office)
Ashlesha Deshpande - Promotion to Instructor (Walter Lab)
Wei Li - Volunteer (Hu Lab)
Kristin Deneen - Student Assistant (Jiang Lab)
Prachi Sanghvi - Student Assistant (Bedwell Lab)
Quynh-Mai Trinh - Research Assistant (Frolov Lab)

Farewell

Hiro Ueda - Research Associate (Novak Lab)
Qi Bian - Research Associate (Novak Lab)
Yoshi Ueda - Visiting Scientist (Novak Lab)
Mira Patel - Research Tech (Weinmann Lab)
Aliaksandra Rasalouskaya - Research Assistant (Frolova Lab)
Alexander Speer - Postdoc (Niederweis Lab)
Ludovic Perrochia - Postdoc (Frolova Lab)
Srilalitha Kuruganti - Research Associate (Walter Lab)
Lauren Kuntz - Student Assistant (Zajac Lab)
Linh Phan – Workstudy (Bedwell Lab)
Janice King - Research Assistant (Briles Lab)

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


Kelly SP, Bedwell DM. **Both the autophagy and pro- teaseomal pathways facilitate the Ubp3p-dependent depletion of a subset of translation and RNA turnover factors during nitrogen starvation in Saccharomyces cerevisiae.** RNA. 2015 May;21(5):898-910. Epub 2015 Mar 20. PMID: 25795416.


Lampel A, Bram Y, Ezer A, Shaltiel-Kario R, Saad JS, Bacharach E, Gazit E. **Targeting the Early Step of Build-


Flavius Martin, M.D., is Senior Vice President at Amgen. He heads the Inflammation Therapeutic Area and the Oncology and Tumor Immunotherapy research efforts. He joined Amgen from Genentech, where he directed a portfolio of programs focused on drug discovery and biomarkers, and on the biology of disease heterogeneity in autoimmune and allergic disorders.

Dr. Martin received his M.D. from the University of Medicine and Pharmacy in Timisoara, Romania. His postdoctoral work focused on fundamental aspects of B-cell biology in Max Cooper’s world leading center of developmental and clinical immunology research in Birmingham, Alabama, under John Kearney, Ph.D. Dr. Martin has published significant papers on the delineation of developmental pathways and functions of B cell subsets, the application of this information to next-generation B cell immunotherapies, and the molecular mechanisms that underlie human myeloproliferative syndromes.

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Grants and Awards | April 1 - June 30, 2015

Dokland, Terje
National Institute of Allergy and Infectious Diseases/NIH/DHHS
Structural Basis for Mobilization of S. Aureus Pathogenicity Islands

Frolova, Elena I.
National Institute of Allergy and Infectious Diseases/NIH/DHHS
Alphavirus nsP3 Protein: Roles of Intrinsically Disordered Region in Virus Replication and Pathogenesis

Jiang, Mengxi
INHIBIKASE THERAPEUTICS
Investigate the Effects of Protein Kinase Effectors on JC and BK Polyomavirus Replication

Keeling, Kim M
ELOXX PHARMACEUTICALS
ELOXX-Hurler Research Proposal

Saad, Jamil S.
SK CHEMICALS CO., LTD
Characterization of Typhoid Conjugate Vaccines by NMR Methods

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24th Annual Microbiology Research Retreat
November 13—15, 2015
The Chattanooga | Chattanooga, Tennessee

Important Dates
- Early Bird Registration for Micro faculty and their trainees: July 15—August 15
- General Registration: August 16—September 15.
- Abstract submission deadline: October 15.

Keynote Speaker: Flavius Martin, M.D.
Senior Vice President at Amgen

Dr. Martin heads the Inflammation Therapeutic Area and the Oncology and Tumor Immunotherapy research efforts at Amgen. He received his M.D. from the University of Medicine and Pharmacy in Timisoara, Romania. His postdoctoral work with John Kearney at UAB focused on fundamental aspects of B-cell biology.
Microbiology Welcomes New Financial Officer

Huantao (Megan) Lu, graduated from Long Island University with a master’s degree in accounting in 2001. Before joining the microbiology department, Megan worked in New York City as a market analyst for Thomson Reuters from 2001 to 2008, then as a tax accountant until 2015. She was also the owner of a successful small business that focused on supplementing children’s math and reading skills after school. In the fall of 2013, she and her husband moved to Birmingham with their two small children, Sarah and Dylan.

Congratulations to Beatriz Leon-Ruiz and Andre Ballesteros-Tato, proud parents of Isabella!

Isabella was born on June 18, 2015. She weighed 7 pounds, 14 ounces, and was 20.5 inches long.

Around Campus and About Town

The 5th Annual Taste of Birmingham
July 30, 2015
6:00 pm-9:00 pm
The Club — 1 Robert Smith Dr.
Birmingham, AL 35209
Admission: $75.00 or $85.00 at the door
The 5th Annual Taste of Birmingham, benefitting the Birmingham Boys Choir, features the cuisine of Birmingham’s top restaurants accompanied by refreshing drinks and entertainment. Enjoy award-winning music provided by the choir and great jazz. The evening is capped off by fireworks sparkling over the city lights. For more information visit: www.thetasteofbirmingham.com

Sidewalk Film Festival, 17th Annual
August 28, 2015 to August 30, 2015
Downtown Birmingham’s Historic Theatre District
Admission charged.
The 17th annual Sidewalk Film Festival, a celebration of new independent cinema in downtown Birmingham, offers screenings of innovative productions by filmmakers from across the country and around the world. For more information, visit: http://sidewalkfest.com.

Poncho Sanchez and His Latin Jazz Band
September 3, 2015
7:00 pm
Alys Stephens Performing Arts Center
Admission: $39.50
Learn about the history of Latin jazz, the music, and the artists and enjoy the Latin jazz, swing, bebop, and salsa Grammy-winner Poncho Sanchez.

10th Annual MY FAVORITE POEM Evening
September 25, 2015
Alabama School of Fine Arts
Admission Free
15 Alabamians from every walk of life read aloud a favorite poem and explain why they love that bit of literature, why they have carried the words with them through life.

Birmingham Originals Breakin' Bread
September 27, 2015
Railroad Park
Admission charged.
Taste dishes from Birmingham’s best local restaurants and enjoy local brews, imported and domestic beers, wines, and soft drinks at this community event. Local farmers will offer a wide variety of seasonal produce and homemade goodies. For more information visit: www.birminghamoriginals.org.