

# UAB SCHOOL OF MEDICINE

Department of Microbiology

## Recruiting Excellence - Two New Faculty Arrive with the Snow

UAB rolls out the white carpet for Dr. Mengxi Jiang and Dr. Amy Weinmann who joined the department in January and February respectively.



### Mengxi Jiang, Ph.D.

Growing up in Shanghai, China, Mengxi Jiang attended Fudan University where she received her undergraduate degree in 2001. Later that year, she moved to the United States and began research in bacteriology at the University of Michigan. When she received her Ph.D., she took a different direction and accepted a post-doctoral position at University of Michigan in the area of virology. "While working toward my Ph.D., I became more interested in the interplay of the host and pathogen. This led me into the field of virology," says Jiang.

In 2012, Jiang became a research investigator at the University of Michigan, where she worked two years on the host-pathogen interactions of a human DNA tumor virus, BK polyomavirus (BKPyV). Now, as assistant professor in the microbiology department at UAB, she continues to search for a better understanding of the BKPyV life cycle to aid in the design of novel, more efficient anti-viral strategies.

"BKPyV infection is ubiquitous in the human population and occurs during early childhood," says Jiang. "Primary infection with BKPyV is followed by dissemination to the kidney and urinary tract, in particular to kidney tubule epithelial cells and urinary tract epithelial cells, where the virus establishes a lifelong persistent infection. This infection remains asymptomatic in immunocompetent individuals, but under conditions of immunosuppression, BKPyV can undergo reactivation resulting in viral shedding in the urine and may eventually lead to severe diseases such as polyomavirus-associated nephropathy (PVAN) in renal transplant patients and hemorrhagic cystitis in bone marrow transplant recipients."

Jiang says that no specific antiviral drugs for BKPyV infection are currently available, although the incidence of BKPyV-related disease has greatly increased in the last few years. The immune components that are involved in controlling BKV persistence and reactivation are not well defined.

As a new assistant professor, Jiang is looking to fill several positions in her lab. She enjoys sharing her excitement for research with students just entering the field. "It is important for students to learn how to do science, to think critically, and to establish their independence," says Jiang.

On a personal note, Jiang shares her home with three cats, and she is a licensed Zumba instructor.

al fellowship at the University of Wisconsin, Madison, and then she moved from Wisconsin to Seattle, Washington, and joined the faculty at the University of Washington Department of Immunology. Now, ten years later, she has made her way to Alabama.

Currently, she is working on the mechanisms by which lineage-specifying transcription factors regulate cell fate decisions in development. "A major focus of the research in my lab is on the T-box and BTB-ZF transcription factor families, which are required to promote cellular transitions in numerous developmental systems, ranging from early embryogenesis to immune cell fate. We are also interested in defining the mechanisms by which epigenetic patterns are established in a cell-type and activation-state specific manner. Collectively, our mechanistic studies will provide new insight into many human diseases that are associated with dysregulation of these pathways, including a major emphasis on blood cancers, autoimmunity, and birth defects."

During this time of economic challenges, Weinmann takes her job as mentor seriously. She says that it is easy to get discouraged when funding is so limited, but a person must not accept the word *can't*. "Science is do-able," she says. "Passion comes from within. Nobody can take your passion away from you." She enjoys watching students learn how to drive their own science. "Early on, it's much more hands-on, but eventually it starts to flip and by the end, the student knows way more than I do. It's a proud moment when they're on their own."

In her spare time, Weinmann follows professional sports (especially the Minnesota Vikings), and she herself can spike a mean volleyball, having played volleyball in high school and college. She says, "the mental discipline of sports fits well with science. It's always a work in progress; you should be proud of what you've accomplished, but at the same time strive to do better and learn more."

"Science is do-able."

### Amy Weinmann, Ph.D.

Growing up in Minnesota, Amy Weinmann attended the University of Minnesota, Morris, where she received a B.A. in biology in 1995. An undergraduate summer project at the Mayo Clinic gave her an appetite for research and set her on a path to crisscross the United States. She moved from Minnesota to California where she received her Ph.D. from the University of California, Los Angeles. She moved from California to Wisconsin where she completed a postdoctor-





The 22nd Microbiology Research Retreat was held on October 18-20, 2013, at the Alabama 4-H Center in Columbiana, Alabama. "This was the first time for the retreat at this recently remodeled venue. Everyone was very impressed with the facilities, the staff and the surrounding countryside. The 4-H Center is convenient to UAB, less than an hour away," says Dr. Pete Burrows, Microbiology Graduate Program Director.

The 85 attendees, including graduate students, postdoctoral fellows, and faculty, shared diverse experiences and knowledge. "On Friday afternoon and Saturday morning, there were 20 talks by students and postdoctoral fellows, including a record number of New Investigators, students in their first through third year of graduate school. A poster session with light refreshments was held on Friday evening with 21 presenters," says Burrows.

Kimberly Benton, Ph.D. was key note speaker for this year's retreat. A former graduate student in Dr. David Briles lab, Benton is currently the Deputy Director for the Division of Cellular and Gene Therapies at the US Food and Drug Administration Center for Biologics Evaluation and Research, in Rockville, Maryland. Dr. Benton gave an informative talk, explaining this career option.

Free time activities were geared for the enjoyment of all attendees.

"On both Friday and Saturday nights there was a campfire by Lay Lake, which forms one boundary of the 4H property," says Burrows. Several trainees commented that the s'mores and roasted marshmallows were a fun treat at these social gatherings.

The extended Saturday afternoon break allowed time for trainees and their mentors to team up for games of basketball and putt-putt, with only the bravest confronting the climbing wall and giant swing.

The retreat was a success because of the hard work of many individuals in the Micro office, in particular Kristina Sinclair and Justin Daigneault who attended the entire event and kept things running smoothly," says Burrows.

The three-day retreat concluded with the presentation of awards. Students receiving awards at the retreat include:

### ORAL PRESENTATIONS

#### **Graduate Students**

1st - Shane Kelly  
2nd - Lindsey Padgett  
2nd - Jeffery Vahrenkamp

#### **New Investigators**

1st - Preeyam Patel  
2nd - Gwen Gunn

#### **Postdoctoral Fellow**

Shannon Kahan

### POSTER PRESENTATIONS

#### **Graduate Students**

1st - Xiaojiao Xue  
2nd - Rosie Hill

#### **New Investigators**

1st - Sara Stone  
2nd - Shannon Romano

#### **Postdoctoral Fellow**

1st - Nicolas Maillard



## Glycoimmunobiology 2013

November 22, 2013 | University of Alabama at Birmingham | The Edge of Chaos | Lister Hill Library | Birmingham, AL

The Glycoimmunobiology 2013 minisymposium was held in the Edge of Chaos at Lister Hill Library on November 22, 2013. Noted researchers and physicians assembled to discuss current issues of glycosylation of glycoproteins in health and disease. The meeting provided attendees an overview of the current “state of the art” and a forum to discuss the outlook for interdisciplinary studies to elucidate the role of glycosylation in various aspects of immune system in health and disease.

Understanding the mechanisms and dynamics of glycosylation changes and regulatory pathways will offer not only better tools for diagnostic purposes, but also will generate knowledge for future glycan-targeting intervention. These issues were recently recognized by the National Research Council in their August 2012 report “Transforming Glycoscience: A Roadmap to the Future.”

Speakers for the event included Linda G. Baum, M.D., Ph.D., David Geffen School of Medicine at UCLA, Los Angeles, CA; Susan L. Bellis, Ph.D., University of Alabama at Birmingham, Birmingham, AL; Henrik Clausen, D.D.S., D.Sc., Copenhagen Center for Glycomics, Copenhagen, Denmark; Richard D. Cummings, Ph.D., Emory University, School of Medicine, Atlanta, GA; Michael A. Hollingsworth, Ph.D., University of Nebraska Medical Center, Omaha, NE; Joseph Lau, Ph.D., Roswell Park Cancer Institute, Buffalo, NY; Jan Novak, Ph.D., University of Alabama at Birmingham, Birmingham, AL; Rakesh Patel, Ph.D., University of Alabama at Birmingham, Birmingham, AL; and Matthew B. Renfrow, Ph.D., University of Alabama at Birmingham, Birmingham, AL.

Drs. Jan Novak (Microbiology); Susan L. Bellis (Cell, Developmental, and Integrative Biology); Matthew B. Renfrow (Biochemistry and Molecular Genetics) were co-organizers of the event. Administrative and organizational support was provided by Kristina Sinclair and Shayna Chambless (Microbiology); and Dr. Jennifer Croker (Medicine). Ashley Rouss (Microbiology) provided website development. Members of Drs. Novak, Bellis, and Renfrow laboratories and staff of Microbiology departmental office helped with setting up the venue, with assistance from David Hook, MPH, the Edge of Chaos director, and Chenoia Bryant, MPH, program director.

[Glycoimmunobiology 2013 minisymposium](#) was supported by: UAB School of Medicine AMC21 and Immunity, Autoimmunity, and Transplantation steering committee and the Department of Microbiology.

## Founder of IGA Nephropathy Foundation of America Visits UAB

Bonnie Schneider was able to see firsthand how her contributions to IgA nephropathy research are being used at UAB. Mrs. Schneider, the founder of the IGA Nephropathy Foundation of America, along with foundation president Leonard Erlanger, advisory board member Edwina Vidosh, and Donald Jones, also speaking on behalf of the foundation, visited the University of Alabama at Birmingham in November 11-12, 2014. They attended the “Festschrift: IgA Nephropathy” a full-day symposium in honor of Dr. Bruce Julian. During their visit they also met with Drs. Julian, Novak, Renfrow, and Wyatt and colleagues who updated the group on some of the latest research developments that have been made with the help of the foundation’s funding. The recent progress includes new approaches for future disease-specific treatment and biomarkers.

The IGA Nephropathy Foundation of America, a national organization based in Wall, New Jersey, was established in 2004 after Mrs. Schneider’s son, Eddie, was diagnosed with the disease. Since then, the foundation has contributed nearly \$400,000 to several institutions, including UAB, to fund research for the disease with the hope of finding a cure. UAB’s Division on Nephrology, directed by Dr. Anupam Agarwal, matches dollar for dollar the contributions made by the foundation.

## The 5th Southeastern Mycobacteria Meeting

The 5th Southeastern Mycobacteria Meeting, held on January 24-26, 2014, provided a platform to catalyze communication and collaboration between mycobacteria researchers and clinicians in the Southeast. Dr. Michael Niederweis organized the event with help from Shay Chambless and Jennifer Rowland. Attendees included primary investigators, postdoctoral scholars, medical professionals, graduate and undergraduate students interested in basic biology, epidemiology or clinical aspects of mycobacteria and mycobacterial diseases. Speakers included: Lalita Ramakrishnan, University of Washington; Hardy Kornfeld, University of Massachusetts; Adrie Steyn, K-RITH; Alastair Leslie, K-RITH; Karen LaCourciere, NIH; Ed Khan, UAB; Gail Cassell, IDRI.

The [5th Southeastern Mycobacteria Meeting](#) was supported by UAB Center for AIDS Research, UAB Microbiology Department, and Infectious Disease, Global Health and Vaccines Strategic Planning Initiative.

## Festschrift: IgA Nephropathy

On November 11, 2013, Dr. Robert Gaston, with support from Dr. Anupam Agarwal (Division of Nephrology), presented a Festschrift:



IgA Nephropathy in honor of Dr. Bruce A. Julian. Dr. Julian's seminal work in the field of IgA nephropathy was also recently recognized at UAB with the 2013 Max Cooper Award for Excellence in Research.

The "IgA nephropathy world" truly descended on Birmingham to honor Dr. Julian, with colleagues from Australia, England, Germany, Japan, Canada, and several centers in the United States delivering lectures to an audience of 150-200 attendees. The full-day event was a State-of-the-Art *tour de force* of the current understanding of this disease, its causes, and its treatment.

The symposium, held at the Doubletree Hotel near the UAB campus, was chaired by Dr. Robert Luke (University of Cincinnati). Welcome addresses were delivered by Drs. Gaston, Agarwal, and Seth Landefeld. The speakers included Drs. Robert J. Wyatt (University of Tennessee, Memphis); Dan Cattran (University of Toronto, Canada); Jan Novak (UAB); Jonathan Barratt (University of Leicester, England); Ali G. Gharavi (Columbia University, New York); Hitoshi Suzuki (Juntendo University, Tokyo, Japan); Jurgen Floege (University of Aachen, Germany); and Steve Chadban (University of Sydney, Australia).

## FACULTY NEWS

### Yother Receives Diversity Award



Janet Yother, Ph.D., has a special knack for encouraging minorities who have chosen to pursue a career in science and mentoring them to become successful scientists. Her work to promote diversity in science education and training

was recognized on February 13, 2014, when she received the UAB President's Diversity Award for Mentoring.

"The mentoring award is a new category of diversity award," explains UAB Microbiology Department professor David Briles, Ph.D. "It is for faculty who through their mentoring have had a significant impact on the diversity of UAB students and graduates. Janet mentored the first under-represented minority student to receive a Ph.D. while training in the UAB Microbiology Department. This success made it clear that our department could provide a nurturing environment for students of all stripes and has led to the training of many minority graduate students in the labs of microbiology faculty members."

The [UAB President's Diversity Awards](#) are presented annually to recognize the significant achievements of faculty, staff and students who have worked to develop a more culturally diverse, competent and inclusive university community. Awards are given in five categories for projects or activities that best reflect the implementation of unit and/or campus diversity goals.

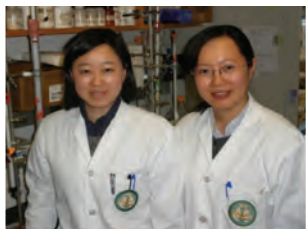
### Briles Elected to National Academy of Inventors

Congratulations to Dr. David Briles, who will be inducted into the National Academy of Inventors during the academy's annual conference in March 2014, in Alexandria, Virginia.

Briles' work on proteins that are candidate antigens for pneumococcal vaccines has led to several patents on pneumonia vaccines.

The National Academy of Inventors, founded in 2010, recognizes and encourages inventors with patents issued from the US Patent and Trademark Office. The organization is comprised of more than 3,000 members and fellows from more than 200 US and international universities, and governmental and non-profit research institutions.

### New and departing visiting scientists in Dr. Jan Novak's lab include:



**Dr. Zhang** (left) and **Dr. Bian** (right), nephrologists and researchers from Shanghai, China, joined the laboratory this winter. Their stay is supported by their respective universities.

**Dr. Lai** (visiting scientist) and **Mr. Franc** (visiting Ph.D. student) left in

December 2013 after 6-month stay each. Their stay was supported by their respective institutions.

**Dr. John Kearney** was recently interviewed by [Research Media Ltd.](#), Europe's Leading Portal of Scientific Dissemination regarding his work investigating B cells and the increasing recognition of their significance in modern immunology.



### Seven from Microbiology Recognized for Longtime Service

The microbiology department will be well represented at UAB's 2014 Service Awards Program luncheon on February 21. Four faculty members and three staff members will be recognized for their years of service at the event.

Faculty members David Briles, Ph.D.; Pete Burrows, Ph.D.; David Bedwell Ph.D.; Jun Tsao, Ph.D. and staff members Gregory J. Harber; Qing Wei and Wei-Fan Jia will be recognized for their years of service to UAB. Briles has completed 35 years at UAB; Burrows, 30 years; Bedwell, Harber and Jia, 25 years; Tsao and Wei, 20 years.

The UAB Service Awards Program luncheon recognizes employees with 20 or more years of service. The microbiology department will have a recognition event later in the year during which these additional faculty and staff members will be recognized for their service:

- Ruba H. Ghanam, 5 years
- Jessica D. Gunnin, 5 years
- Alexndra Samal, Ph.D., 5 years
- Donald Dempsey, 10 years
- Enatra A. Hale, 10 years
- Janusz H. Kabarowski, Ph.D., 10 years
- Kim M. Keeling, Ph.D., 10 years
- Andries J. Steyn, Ph.D., 10 years

## SAVE THE DATE

ANNUAL FACULTY RETREAT

MAY 14, 2014

\*Location TBA

## Upcoming Seminars

February 11, 2014

"Protective Antibodies in Allergy, Autoimmunity, and Fungal Infections"

John Kearney, Ph.D., Department of Microbiology, UAB

February 18, 2014

Terje Dokland, Ph.D., Department of Microbiology, UAB

February 25, 2014

Peter Mannon, M.D., Department of Medicine,  
Division of Gastroenterology & Hepatology, UAB

March 4, 2014

Janusz Kabarowski, Ph.D., Department of Microbiology, UAB

March 18, 2014

Sheryl Justice, Ph.D., Assistant Professor of Pediatrics and Urology, Center for Microbial Pathogenesis, Research Institute at Nationwide Children's Hospital Center for Microbial Interface Biology, Ohio State University School of Medicine (Host: David Briles)

March 25, 2014

"Viral and Host Protein Interactions During Paramyxovirus Assembly"

Tony Schmitt, Ph.D., Associate Professor of Molecular Virology, Veterinary and Biomedical Sciences, Penn State (Host: Ming Luo)

## Public Defenses

### Donald J. McGuire

"CD5 enhances Th17 differentiation by regulating IFN- $\gamma$  response and ROR $\gamma$ t localization"

Tuesday, December 17, 2013

Mentor: Chander Raman, Ph.D.  
Committee: Ety Benveniste, Ph.D.,  
Janusz Kabarowski, Ph.D., Robin Lorenz, Ph.D.,  
Casey Weaver, Ph.D., Allan Zajac, Ph.D.

### Kevin S. Cashman

"CD5-dependent CK2 activation is critical for the maintenance of B1-a B cells"

Friday, December 20, 2013

Mentor: Chander Raman, Ph.D.  
Committee: Patrizia De Sarno, Ph.D.,  
Lou Justement, Ph.D., John Kearney, Ph.D.,  
John Mountz, Ph.D., Alex Szalai Ph.D.

### Kanupriya Gupta

"Regulation of Capsule by CpsA and Global Regulatory Networks in *Streptococcus pneumoniae*"

Friday, November 1, 2013

Mentor: Janet Yother, Ph.D.  
Committee: Kevin Dybvig, Ph.D.,  
William Benjamin, Jr., Ph.D., Hui Wu, Ph.D.,  
Patrick Higgins, Ph.D.

Visiting Ph.D. student, **Vojtech Franc**, (Novak lab) received the 2013 Director's Award for Excellence at the 7<sup>th</sup> Meeting of the Scientific Board of "The Centre of the Region Haná," Czech Republic, December 12, 2013 for a collaborative study "Elucidating heterogeneity of IgA1 hinge-region O-glycosylation by use of MALDI-TOF/TOF mass spectrometry: role of cysteine alkylation during sample processing." published in 2013 *J. Proteomics*.

## Just Published

### Barnum

Bullard, D.C., X. Hu, D. Crawford, K. McDonald, T.N. Ramos, **S.R. Barnum**. 2014. Expression of a single ICAM-1 isoform on T cells is sufficient for development of experimental autoimmune encephalomyelitis. *Eur J Immunol*. [Epub ahead of print]

Hu X., **S.R. Barnum**, R.P. Patel, M.B. Marques, J.A. Weinberg. 2013. The level of complement activation fragments is higher in red blood cell units than segments. *Transfus Apher Sci*. [Epub ahead of print]

Weinberg J.A., P.A. MacLennan, M.J. Vandromme-Cusick, L.J. Magnotti, J.D. Kerby, L.W. Rue 3rd, J.M. Angotti, C.A. Garrett, L.E. Hendrick, M.A. Croce, T.C. Fabian, **S.R. Barnum**, R.P. Patel. 2013. The deleterious effect of red blood cell storage on microvascular response to transfusion. *J Trauma Acute Care Surg*. 75:807-12.

Read, R.W., S.D. Vogt, **S.R. Barnum**. 2013. The complement anaphylatoxin receptors are not required for the development of experimental autoimmune uveitis. *J Neuroimmunol*. 15;264(1-2):127-9.

### Bedwell

Gunn, G., Y. Dai, M. Du, V. Belakhov, J. Kandasamy, T.R. Schoeb, T. Baasov, **D.M. Bedwell**, K.M. Keeling. 2013. Long-term nonsense suppression therapy moderates MPS I-H disease progression. *Mol Genet Metab*. [Epub ahead of print].

Zhang, S., N.K. Ranganath, D. Skinner, **D.M. Bedwell**, J.A. Buckley-Lanier, E.J. Sorscher, B.A. Woodworth. 2013 Marked repression of CFTR mRNA in the transgenic Cfr<sup>tm1kth</sup> mouse model. *J Cyst Fibros*. [Epub ahead of print].

Keeling, K. M., D. Wang, Y. Dai, S. Murugesan, B. Chenna, J. Clark, V. Belakhov, J. Kandasamy, S.E. Velu, T. Baasov, **D.M. Bedwell**. (2013) Attenuation of nonsense-mediated mRNA decay enhances in vivo nonsense suppression. *PLOS One* 8(4) e60478.

**Briles**

Basophil expansion protects against invasive pneumococcal disease in mice.

Bischof, A., C. Brumshagen, N. Ding, G. Kirchhof, **D.E. Briles**, J.E. Gessner, T. Welte, M. Mack, U.A. Maus. 2014. *J Infect Dis.* [Epub ahead of print]

Schachern, P.A., V. Tsuprun, S. Goetz, S. Cureoglu, S.K. Juhn, **D.E. Briles**, M.M. Paparella, P. Ferrieri. 2013. Viability and virulence of pneumolysin, pneumococcal surface protein A, and pneumolysin/pneumococcal surface protein A mutants in the ear. *JAMA Otolaryngol Head Neck Surg.* 139 (9):937-43.

**Chaplin**

Zindl, C.L., J.F. Lai, Y.K. Lee, C.L. Maynard, S.N. Harbour, W. Ouyang, **D.D. Chaplin**, C.T. Weaver. IL-22-producing neutrophils contribute to antimicrobial defense and restitution of colonic epithelial integrity during colitis. 2013. *Proc Natl Acad Sci USA* 110(31):12768-73.

**Frolov, I.**

Lulla, V., D.Y. Kim, E.I. Frolova, **I. Frolov**. 2013. The amino-terminal domain of alphavirus capsid protein is dispensable for viral particle assembly but regulates RNA encapsidation through cooperative functions of its subdomains. *J Virol.* 87 (22):12003-19.

Atasheva, S., E.I. Frolova, **I. Frolov**. Interferon-stimulated PARPs are potent inhibitors of cellular translation and virus replication. *J Virol.* 2013 Dec 11. [Epub ahead of print].

**Frolova, E.I.**

Lulla, V., D.Y. Kim, **E.I. Frolova**, I. Frolov. 2013. The amino-terminal domain of alphavirus capsid protein is dispensable for viral particle assembly but regulates RNA encapsidation through cooper-

ative functions of its subdomains. *J Virol.* 87 (22):12003-19.

Atasheva, S., **E.I. Frolova**, I. Frolov Interferon-stimulated PARPs are potent inhibitors of cellular translation and virus replication. *J Virol.* 2013 Dec 11. [Epub ahead of print].

**Green**

**Green, T.J.**, R. Cox, **J. Tsao**, M. Rowse, S. Qiu, **M. Luo**. 2014. Common mechanism for RNA encapsidation by negative strand RNA viruses. *J Virol.* [Epub ahead of print]

**Kearney**

Yockey, L.J., Demehri S, Turkoz M, Turkoz A, Ahern PP, Jassim O, Manivasagam S, **Kearney JF**, Gordon JI, Kopan R. 2013. The absence of a microbiota enhances TSLP expression in mice with defective skin barrier but does not affect the severity of their allergic inflammation. *J Invest Dermatol.* 133(12):2714-21.

Rivera, J., Morgenstern A, Bruchertseifer F, **Kearney JF**, Turnbough CL Jr, Dadachova E, Casadevall A. 2013. Microbicidal power of alpha radiation in sterilizing germinating Bacillus anthracis spores. *Antimicrob Agents Chemother.* [Epub ahead of print].

Song, J., Lokmic Z, Lämmermann T, Rolf J, Wu C, Zhang X, Hallmann R, Hannocks MJ, Horn N, Ruegg MA, Sonnenberg A, Georges-Labouesse E, Winkler TH, **Kearney JF**, Cardell S, Sorokin L. 2013. Extracellular matrix of secondary lymphoid organs impacts on B-cell fate and survival. *Proc Natl Acad Sci USA* 110(31):E2915-24.

**Keeling**

Gunn, G., Y. Dai, M. Du, V. Belakhov, J. Kandasamy, T.R. Schoeb, T. Baasov, D.M. Bedwell, **K.M. Keeling**. 2013. Long-term nonsense sup-

pression therapy moderates MPS I-H disease progression. *Mol Genet Metab.* [Epub ahead of print].

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**Lefkowitz**

Adams, M.J., E.J. Lefkowitz, A.M. King, E.B. Carstens. 2014. Recently agreed changes to the International Code of Virus Classification and Nomenclature. *Arch Virol.* 158:2633-2639.

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Lazrak, A., L. Fu, V. Bali, R. Bartoszewski, A. Rab, V. Havasi, S. Keiles, J. Kappes, R. Kumar, **E. Lefkowitz**, E.J. Sorscher, S. Matalon, J.F. Collawn, Z. Bebok. 2013. The silent codon change I507-ATC->ATT contributes to the severity of the ΔF508 CFTR channel dysfunction. *FASEB J.* 27: 4630-4645.

Esteban, D.J., C. Upton, C. Bartow-McKenney, R.M. Buller, N.G. Chen, J. Schriewer, **E.J. Lefkowitz**, C. Wang. 2013. Expression of a non-coding RNA in ectromelia virus is required for normal plaque formation. *Virus Genes.* [Epub ahead of print].

Muzny, C.A., I.R. Sunesara, R. Kumar, L.A. Mena, M.E. Griswold, D.H. Martin, **E.J. Lefkowitz**, J.R. Schwebke, and E. Swiatlo. 2013. Characterization of the Vaginal Microbiota among Sexual Risk Behavior Groups of Women with Bacterial Vaginosis. *PLoS One* 8(11):e80254.

**Lund**

Ballesteros-Tato, A, S.L. Stone, **F.E. Lund**.

2013. Innate IFN $\gamma$ -producing B cells.

Cell Res. [Epub ahead of print].

Orabi, A.I., K.A. Muili, T.A. Javed, S. Jin, T. Jayaraman, **F.E. Lund**, S.Z. Husain. 2013. Cluster of differentiation 38 (CD38) mediates bile acid-induced acinar cell injury and pancreatitis through cyclic ADP-ribose and intracellular calcium release. J Biol Chem. 288(38):27128-37.

**M. Luo**

**Green, T.J.**, R. Cox, **J. Tsao**, M. Rowse, S. Qiu, **M. Luo**. 2014. Common mechanism for RNA encapsidation by negative strand RNA viruses. J Virol. [Epub ahead of print]

**Mestecky**

Gupta, S, J.S. Gach, J.C. Becerra, T.B. Phan, J. Pudney, Z. Moldoveanu, S.B. Joseph, G. Landucci, M.J. Supnet, L.H. Ping, D. Corti, B. Moldt, Z. Hel, A. Lanzavecchia, R.M. Ruprecht, D.R. Burton, **J. Mestecky**, D.J. Anderson, D.N. Forthal. The Neonatal Fc receptor (FcRn) enhances human immunodeficiency virus type 1 (HIV-1) transcytosis across epithelial cells. PLoS Pathog. 2013 Nov;9 (11):e1003776.

**Michalek**

Banas J.A., D.J. Lynch, **S.M. Michalek**, M. Zhu, D. Drake, F. Qian. 2013. Cariogenicity of Streptococcus mutans Glucan-Binding Protein Deletion Mutants. Oral Health Dent Manag. 12(4):191-9.

Richard, K., B.J. Mann, L. Stocker, E.M. Barry, A. Qin, L.E. Cole, M.T. Hurley, R.K. Ernst, **S.M. Michalek**, D.C. Stein, P. Deshong, S.N. Vogel. 2013. Novel Catanionic Surfactant Vesicle Vaccines Protect Mice against Francisella tularensis LVS and Confer Significant Partial Protection

against F. tularensis Schu S4. Clin Vaccine Immunol. [Epub ahead of print].

Edwards, M.W., J.A. Aultman, G. Harber, J.M. Bhatt, E. Sztul, Q. Xu, Zhang, P., **S.M. Michalek**, J. and Katz. 2013. Role of mTOR downstream effector signaling molecules in *Francisella tularensis* internalization by murine macrophages. PLoS ONE 8(12): e83226. doi:10.1371/journal.pone.0083226. PMID: PMC3849438

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**Grants/Contracts**

Jan Novak, Ph.D., Pfizer, "Pharmacological Characterization of PDGF Pathway in Human Mesangial Cell Proliferation Assay Induced by Engineered-Immune-Complexes (EIC) From IgA Nephropathy Patients."

Jocelyn Hauser, NIH F31, "Hydrogen peroxide and Capsule Production in *Streptococcus pneumoniae*"

## Employee Recognition Event

The bi-annual employee recognition event recognizes outstanding accomplishments of department employees.

On December 13, 2013, the department honored two long-time employees, Amy Perkins and Pat Grayson, who retired earlier in the year. Amy assisted three department chairs, Dr. Gail Cassell, Dr. David Chaplin, and Dr. Fran Lund. Pat worked as an administrator for Dr. Jiri Mestecky's lab.

Also, recognized at the event were employees who have worked at UAB for an accomplished number of years. Dr. Jiri Mestecky was this year's longest tenured employee at UAB. He has worked in the microbiology department for 45 years. Janice King (research assistant for Dr. David Briles) and Dr. Ming Luo have both completed 25 years of service. Patricia Grayson, Xianzhen Hu, Dr. Christopher Klug, and Kristina Sinclair have all completed 15 years of service. Dr. Scott Swindle and Ming Du have completed 10 years of service. Jamil Saad and David Osborne have completed 5 years of service.

Dr. Pete Burrows was recognized for the many ways he supports the department, faculty, students and employees.