

# Biomed Highlights



DEPARTMENT of  
BIOMEDICAL SCIENCES

Quillen College of Medicine

EAST TENNESSEE STATE UNIVERSITY

*T J Neal—Editor  
Vol. 14 May 2019*

CHAIR'S MESSAGE  
THEO HAGG, MD, PhD, PROFESSOR  
DEPARTMENT OF BIOMEDICAL SCIENCES



Dear Colleagues,

Congratulations and thank you! We had another great half year since the last newsletter. We continue to provide excellent and essential teaching to the students, thus fulfilling our prime mission. The students' performance, e.g., on the NBME exams, as well as the Caduceus and Dean's nominations and awards for many of our faculty confirm that this is true. We also continue to do well in our research, resulting in many impactful findings, as judged by our publications, and have achieved a very good momentum in obtaining more external funding. New extramural grant awards were obtained by Dr. Krishna Singh and Dr. Russ Brown as highlighted elsewhere in this newsletter.

In January, we welcomed Assistant Professors James Sheffey, in collaboration with the Department of Surgery, and Tyrone Genade. They have already made good contributions to the Anatomy courses. We also are in the midst of recruiting new tenure-track faculty members and I am grateful for the hard work of the search committee, as well as everyone else who helped to leave them impressed about our team and place.

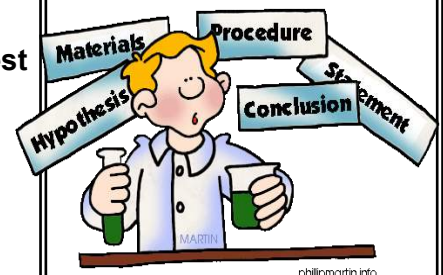
**We wish Deborah "Debbie" Lee, Research Assistant, the best as she begins retirement on July 1.** We thank Debbie for being a devoted and integral component to the College of Medicine and Department for the past 39-1/2 years.

I wish everyone a pleasant summer and am looking forward to again working with you in the new academic year to ensure that we continue to deliver that which we already excel at and to take advantage of opportunities for growth.

*Dr. Theo Hagg*

- ▶ Publications
- ▶ Grant Awards
- ▶ Presentations
- ▶ Faculty News
- ▶ Student News
- ▶ Staff News
- ▶ Seminar Information
- ▶ Abstracts

*Please submit news to  
TJ Neal - [neal@etsu.edu](mailto:neal@etsu.edu)*



Employees and students are encouraged to check the departmental web site for updates and changes. Please contact Tonya Ward at 439-2001 if you have questions regarding the site.

[www.etsu.edu/com/dbms](http://www.etsu.edu/com/dbms).

**Principal Investigator:** Krishna Singh, PhD  
**Co-investigators:** Drs Mahipal Singh, Valentin Yakubenko, Chuanfu Li, John Kalbfleisch  
**Funding Agency:** Department of Veterans Affairs  
**Type:** Merit Review  
**Funding Dates:** 04/01/2019 – 3/31/2023  
**Annual Direct Cost:** \$263,194.00  
**Total Direct Cost:** \$1,052,776.00



**Title:** Investigation of therapeutic potential of exogenous ubiquitin following myocardial ischemia/reperfusion injury.

**Narrative:** Heart attack, a leading cause of death among veterans, causes damage to the heart and compromises heart function. Therapies aimed to preserve heart function have been somewhat effective, however, development of new therapeutic approaches is needed to improve the outcome of patients suffering from heart attack. Using a mouse model, this project explores the therapeutic potential of ubiquitin (a naturally occurring small molecular weight protein; found in all eukaryotic cells) following heart attack, which may lead to the development of new and cost effective strategies for the treatment of heart attack.

**Principal Investigator:** Russ Brown, PhD  
**Funding Agency:** NIH  
**Type:** R15  
**Funding Dates:** 04/01/2019—03/31/2022  
**Total Direct Cost:** \$300,000  
**Total with Indirect Cost:** \$435,008

**Title:** The role of adenosine A(2A) receptor activation on the behavioral and plasticity response to nicotine in a rodent model of schizophrenia.

**Narrative:** The grant is focused on analyzing the role of the adenosine A(2A) receptor in reducing the rewarding aspects of nicotine and in alleviating behavioral deficits related to symptoms of schizophrenia using a rodent model. The focus of the grant is to discover a novel pharmacological target for the treatment of nicotine abuse in schizophrenia and psychosis, which is prevalent in this population, as well as a target for the treatment of psychosis.




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**Dr. Krishna Singh**, Member, attended NIH NHLBI, ZRG1 CVRS-K (80) meeting held in Washington, DC, March 27-28, 2019.

**Dr. Gregory Ordway** served on the Research Grants Committee for the American Foundation for Suicide Prevention, held in NYC, April 15-16, 2019.

**Dr. Valentin Yakubenko** served on the “Surgical Sciences, Biomedical Imaging and Bioengineering” Study Section Review Committee, NIH, held in Bethesda, MD, May 2019.

- **Bradshaw PC** (2019) Cytoplasmic and mitochondrial NADPH-Coupled redox systems in the regulation of ging. *Nutrients*. Feb 27;11(3). pii: E504. doi: 10.3390/nu11030504. Review. PMID:30818813.
- Delic V, Noble K, Zivkovic S, Phan TA, Reynes C, Zhang Y, Phillips O, Claybaker C, Ta Y, Dinh VB, Cruz J, Prolla TA, **Bradshaw PC** (2018) The effects of AICAR and rapamycin on mitochondrial function in immortalized mitochondrial DNA mutator murine embryonic fibroblasts. *Biol Open*. Nov 16;7(11). PMID: 30177551.
- Kaestner CL, Smith EH, Peirce SG, **Hoover DB** (2019) Immunohistochemical analysis of the mouse celiac ganglion: An integrative relay station of the peripheral nervous system. *J Comp Neurol*. Apr 25. PMID: 31021409.
- **Kostrzewa RM**, Wydra K, Filip M, Crawford CA, McDougall SA, **Brown RW**, Borroto-Escuela DO, Fuxe K and Gainetdinov RR (2018) Dopamine D2 receptor supersensitivity as a spectrum of neurotoxicity and status in psychiatric disorders. *J. Pharmacol Exp Ther*. Sept 366(3), 519-526.
- Kou J, **Musich PR**, Staal B, Kang L, Qin Y, Yao ZQ, Zhang B, Wu W, Tam A, Huang A, Hao HX, Vande Woude GF, **Xie Q** (2018) Differential responses of MET activations to MET kinase inhibitor and neutralizing antibody. *J Transl Med*. Sep12;16(1):253. PMID: 30208970.
- **Kruppa MD**, Jacobs J, King-Hook K, Galloway K, Berry A, Kintner J, Whittimore JD, Fritz R, **Schoborg RV**, **Hall JV** (2019) Binding of elementary bodies by the opportunistic fungal pathogen candida albicans or soluble  $\beta$ -Glucan, laminarin, inhibits chlamydia trachomatis infectivity. *Front Microbiol*. Jan 14;9:3270. PMID:30692972.
- Li Z, Qi DL, Singh HP, **Zou Y**, Shen B, Cobrinik D (2019) A novel thyroid hormone receptor isoform, TR $\beta$ 2-46, promotes SKP2 expression and retinoblastoma cell proliferation. *J Biol Chem*. Feb 22;294(8):2961-2969. PMID: 30643022.
- Mehraban N, **Musich PR**, Freeman HS (2019) Synthesis and encapsulation of a new zinc phthalocyanine photosensitizer into polymeric nanoparticles to enhance cell uptake and phototoxicity. *Applied Sciences*. Jan 24;9(3): 401-414. <https://doi.org/10.3390/app9030401>.
- Murrell DE, Cluck DB, Moorman JP, Brown SD, Wang KS, **Duffourc MM**, Harirforoosh S (2019) HIV integrase inhibitor pharmacogenetics: An exploratory study. *Clin Drug Investig*. Mar;39(3):285-299. PMID: 30623371.
- **Ngwa DN\*** and **Agrawal A** (2019) Structure-function relationships of C-reactive protein in bacterial infection. *Front Immunol*. Feb 26;10:166. PMID: 30863393.
- **Pathak A\*** and **Agrawal A** (2019) Evolution of C-reactive protein. *Front Immunol*. 30 Apr; 10:943. doi: 10.3389/fimmu.2019.00943.
- Peterknecht E, **Keasey MP**, Beresford MW (2018) The effectiveness and safety of biological therapeutics in juvenile-onset systemic lupus erythematosus (JSLE): A systematic review. *Lupus*. Nov;27(13):2135-2145. PMID: 30336753.
- Podolnikova NP, Hlavackova M, Wu Y, **Yakubenko VP**, Faust J, Balabiyev A, Wang X, Ugarova TP (2019) Interaction between the integrin Mac-1 and signal regulatory protein  $\alpha$  (SIRP $\alpha$ ) mediates fusion in heterologous cells. *J Biol Chem*. May 10;294(19):7833-7849. PMID:30910815.
- Scofield SLC, Dalal S, Lim K, Thrasher PR, Daniels CR, Peterson JM, **Singh M**, **Singh K** (2019) Exogenous ubiquitin reduces inflammatory response and preserves myocardial function 3 days post-ischemia-reperfusion injury. *Am J Physiol Heart Circ Physiol*. Mar 1:316(3):H617-628 (Article published with an editorial: The role of ubiquitin in cardiac ischemia-reperfusion injury. Kobayashi M, Higa JK, Matsui T. *Am J Physiol Heart Circ Physiol*. 2019; 316:H583-585. PMID:30681370.



- Slade JA, **Hall JV**, Kinter J, **Schoborg RV** (2018) The Type I interferon receptor is not required for protection in the chlamydia muridarum and HSV-2 murine super-infection model. *Pathog Dis*. Nov 1;76(8). PMID: 30321322.
- Slade J and **Schoborg RV** (2019) Human papilloma virus and chlamydia trachomatis, casual acquaintances or partners in crime?" *Current Clinical Microbiology Reports*. May 2, pp1-12; DOI10.1007/s40588-019-00117-4.
- Stewart JR, Pyles RA, Mathis KA, **Ecay TW** (2019) Facultative mobilization of eggshell calcium promotes embryonic growth in an oviparous snake. *J Exp Biol*. Feb 11;222(Pt 3). PMID: 30630961.
- Veech RL, Todd King M, Pawlosky R, Kashiwaya Y, **Bradshaw PC**, Curtis W (2019) The "great" controlling nucleotide coenzymes. *IUBMB Life*. May;71(5):565-579. Review. PMID:30624851.
- Wang Y, Xu E, **Musich PR**, Lin F (2019) Mitochondrial dysfunction in neurodegenerative diseases and the potential countermeasure. *CNS Neurosci Ther*. Mar 19, 1-9. PMID: 30889315. [Epub ahead of print]



## SCIENTIFIC MEETINGS

**Dr. Kostrzewa** attended the International BMAA Conference and served as one of two judges for posters to determine the student winner of the E. Arthur Bell Prize, Salt Lake City, April 2019.

**Dr. Kostrzewa** is scheduled to make the presentation "Dopamine D2R Supersensitivity: Relevance to Psychiatric Disorders" as an invited speaker in the XX Polish Pharmacological Congress, Lublin Poland, June 4-7, 2019.

### Ninth Biannual Meeting of the Chlamydia Basic Science Research Society:

Yakoob H, Liu C, Grimm M, Slade J, Berry A, Leonard C, Kintner J, **Schoborg RV**. The Human Immunodeficiency Virus (HIV) Drugs Dolutegravir, Elvitegravir, and Bictegravir Inhibit Chlamydia Trachomatis and C. Muridarum Development in Culture. Ninth Biannual Meeting of the Chlamydia Basic Science Research Society, Seattle, WA; March 2019. Poster presentation.

Jasmin Kuratli, Hanna Marti, Christian Blenn, **Robert Schoborg**, Cory Ann Leonard, and Nicole Borel. Effects of Cytokine Inhibitors on Chlamydia Trachomatis Development *In Vitro*. Ninth Biannual Meeting of the Chlamydia Basic Science Research Society, Seattle, WA; March 2019. Poster presentation.

### Association for Chemoreception Sciences (AChemS) Meeting, Bonita Springs, Florida, April 14th-17th, 2019.

**Rudy Chapman** presented a poster. The title of his presentation was Methimazole-Induced Injury Alters Levels of Expression of Engulfment Proteins. Rudy T. Chapman, Diego J. Rodriguez-Gil.

**Dr. Rodriguez-Gil** presented a poster. The title of his presentation was Olfactory Sensory Neuron Maturation in the Young Adult. Teresa Liberia, Diego J. Rodriguez-Gil, Charles A. Greer.



## SCIENTIFIC MEETINGS (Cont'd)

1<sup>st</sup> Southeastern Brain Tumor Research Meeting. University of Alabama at Birmingham, May.9-10, 2019:

Dr. Xie and Anna Musket, Graduate Student, participated in both the oral presentations and the poster session. In Session II, "Cell Signaling in Glioma," Dr. Xie presented an overview of the molecular mechanisms of HGF/MET signaling in glioma invasion. In Session II, Anna Musket, presented the on-going project showing that overexpressing HGF/MET axis led to glioma initiation in mice.

Invited Mentor/Trainee Oral Presentation:

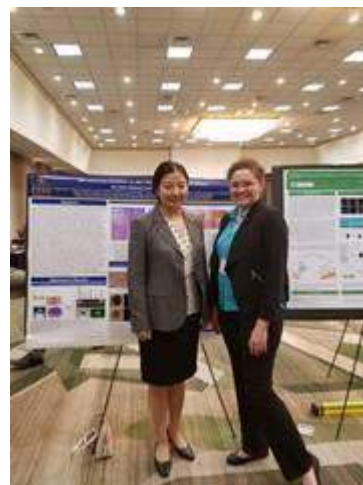
**Qian Xie:** HGF/MET Signaling and Therapeutics in Glioblastoma.

**Anna Musket:** HGF-Autocrine Activation of MET Receptor Tyrosine Kinase Induces de novo Glioma Formation in Mice.

Graduate Student and Postdoctoral Fellow Poster Presentation:

**Anna Musket:** HGF-Autocrine Activation of MET Receptor Tyrosine Kinase Induces de novo Glioma Formation in Mice.

Dr. Xie further served as a judge for the poster sessions.



### Book Chapters

Garcia D, Archer T, **Kostrzewa RM** (2019) Personality, Neurodevelopmental, Neurodegenerative, and Affective Disorders, In Personality and Brain Disorders: Associations and Interventions (Garcia D, Archer T, Kostrzewa, Eds.) Springer New York. ISBN 978-3-319-90064-3.

### Book

Garcia D, Archer T, **Kostrzewa RM** (May 2019) Personality and Brain Disorders – Associations and Interventions, Springer New York. ISBN 978-3-319-90064-3.



**Colin Yarid**, an Honors-In-Discipline student working in the laboratory of **Dr. Rodriguez-Gil** presented his Thesis on April 11th, 2019. The title was "Maturation and synapse formation of olfactory sensory neurons after injury."

### HEALTH & SAFETY NEWS



**THE ANNUAL HEALTH & SAFETY OSHA INSPECTIONS FOR LABORATORIES WILL BE FORTHCOMING WITHIN THE NEXT COUPLE OF WEEKS. TJ NEAL AND JERRY KEPLINGER WILL PROVIDE FURTHER INFORMATION IN THE NEAR FUTURE.**

### 2019 Medical Student Summer Research Program Dr. Aaron Polichnowski—Coordinator

#### Student

Prince Boakye  
Abigail Holt  
Britton Huskey  
Mayuri Jagadish  
Paul Kirby  
Caleb Knisley  
Allee Maxwell  
Connor Ryon  
Haley Scarbrough

#### Mentor

Dr. Jennifer Hall  
Dr. Russ Hayman  
Dr. Jennifer Hall  
Dr. Greg Ordway  
Dr. Greg Ordway  
Dr. Patrick Bradshaw  
Dr. Russ Brown  
Dr. Aaron Polichnowski  
Dr. Valentin Yakubenko



## Congratulations



"Please join me in congratulating several of our DBMS faculty and adjunct faculty who achieved major milestones in their career. This is a testimony to how much we, as their colleagues, value them."

— Dr. Theo Hagg

**Dr. Eric Beaumont**, received promotion to Professor with Tenure

**Dr. Valentin Yakubenko**, received promotion to Associate Professor with Tenure

**Dr. Michelle Duffourc** received promotion to Professor

**Dr. Russ Hayman** received promotion to Professor

**Dr. Victoria Palau & Dr. Brooks Pond** (Pharmaceutical Sciences) were promoted to Professor.

**Dr. Caroline Abercrombie** (Associate Dean Academic Affairs) was Promoted to Associate Professor.

## Happy Retirement

**CONGRATULATIONS TO DEBBIE LEE, RESEARCH ASSISTANT, ON HER RETIREMENT AFTER 39-1/2 YEARS OF SERVICE**



Debbie's career began in 1980 by supporting the research efforts of Dr. Ronald Cowden, Associate Dean for Basic Sciences, and later when he became Chairman for the Department of Biophysics. Upon Dr. Cowden's retirement, she began working with Dr. Ellen Rasch, who assumed chairmanship of Biophysics. When the Biophysics department merged with the Anatomy department, she continued working with Dr. Rasch until basic sciences moved into Stanton-Gerber Hall in 2002. At this time she began working with Dr. Richard Skalko, then Chairman of Anatomy, in the zebrafish lab along with Dr. Mark Airhart and Dr. Barney Miller. After the unfortunate passing of Drs. Airhart and Miller, and subsequent retirement of Dr. Skalko, Debbie began collaborations with Dr. Paul Monaco, who has been Principal Investigator on the zebrafish project for the past 9 years. We wish Debbie all the best and know that she will enjoy retirement to the fullest extent.



**DR. GREG ORDWAY** was inducted into the **PHS Academic Hall of Fame**, Paulding High School, Paulding, Ohio (Class of 1974)



GREG ORDWAY

Dr. Ordway gave a short speech at the commencement exercises held on May 26th, 2019. (Picture from the Progressive Newspaper)  
<https://progressnewspaper.org/PrintArticle.aspx?aid=198882&uid=1751d692-9720-497d-9db3-336719570a94>

Congratulations are extended to Dr. Ordway on receiving this honor.

Our daily thoughts and prayers are being lifted for **Mary Lou Hawk.**



### **Celebration of Service 2019 Awards**

#### **40 Years of Service**

Donald B. Hoover  
David A. Johnson  
Jerry Lee Keplinger  
Richard M. Kostrzewa  
Paul J. Monaco

#### **35 Years of Service**

Rhesa J. Dykes

#### **20 Years of Service**

Michelle D. Duffourc

#### **15 Years of Service**

Cheryl Garby Moore

#### **10 Years of Service**

Jennifer Leann Hall  
Michael Douglas Kruppa  
Lady Angela Thompson

#### **5 Years of Service**

Robert Michael Becker  
Crystal Dawn Maupin

Congratulations to **Crystal Maupin** who completed the requirements for a Bachelor's Degree in Accounting from ETSU in May 2019. This is her second Bachelor's Degree from ETSU.



We welcome **Anna Musket** to the Department. Anna is a Biomedical Sciences Doctoral Candidate and is completing her first year as a Research Assistant in the laboratory of Dr. Qian Xie. Anna entered the program with a BS in Biology and BS in Chemistry from ETSU. She lives in Blountville with her husband and a menagerie of pets. During her free time, she enjoys reading, spending time in her hammock and learning to play different musical instruments.



Congratulations to **Tonya Ward "Mimi"** who became a proud first-time grandmother to a precious beautiful baby girl February 17, 2019. Ellen Elizabeth Adkins came into the world at 6:51 a.m., weighed 6 lbs. 9 oz., and 20" long. The family is doing well.



Congratulations are extended to **Debbie Lee** on the birth of her granddaughter, Kennedy Brooke Lee. Kennedy was born on May 23rd @ 1:40 a.m., and weighed 7 lbs.1 oz. and was 20 3/4 inches long. This cute little "Georgia Peach" lives in Atlanta with very happy parents, Josh and Elizabeth Lee.



**From the Desk of...**  
 Dr. Rob Schoborg, Professor and  
 Vice Chair for Education  
 On behalf of the DBMS Course Directors



To my colleagues,

Hello everyone!

It is the end of May and most of our courses for the 2018-2019 academic year are now over! Before you launch into preparing for the next group of students, make sure to take a deep breath, relax, and pause a moment to reflect on a job well done. Also, please take the time to personally thank the DBMS and BMS graduate program staff who support our teaching mission from “behind the scenes” and who rarely get the recognition from the students that they so richly deserve.

Rob Becker, Cindy Canter, Lana Cook, Sarah Gilham, Kim Johnson, Natalie Jones, Jerry Keplinger, Deborah Lee, Crystal Maupin, TJ Neal, Rebecca Steele, Angela Thompson, Diana Toler, Tonya Ward.

I would also like to remind everyone that the DBMS annual teaching retreat will be held in the large auditorium in Stanton-Gerber Hall (Bldg. 178) on Thursday, June 6 from 9AM to 3:30PM. In the morning, Dr. Antonio Rusiñol will lead a team-based learning workshop. This will be followed by a Cajun shrimp boil for lunch. In the afternoon, activities will include a faculty panel discussion on building a teaching portfolio for promotion and tenure, as well as a multiple choice question writing workshop. You do not have to attend the retreat to attend the lunch – but if you are planning to attend the lunch, please RSVP to [schoborg@etsu.edu](mailto:schoborg@etsu.edu) by May 31.

As some of you may know, the Cell and Molecular Medicine and Clinical Neurosciences courses underwent leadership changes this year. I would like to thank Drs. Mitch Robinson and Eric Beaumont for their hard work as course directors and their immense dedication to the education and well-being of our medical students. I would also like to extend my deepest appreciation to Drs. Antonio Rusiñol and Diego Rodriguez-Gill for volunteering to take on the challenging task of directing these medical courses.

Finally, our faculty and staff have earned many teaching honors and awards over the past academic year, some of which are listed below. Congratulations and thank you all for your contributions to the DBMS and QCOM teaching mission.

**Dr. Mitch Robinson** received the Jack E. Moble, MD Memorial Award for Excellence in Innovation for his efforts in converting the Cell and Molecular Medicine (CMM) course from a primarily lecture modality to a flipped-classroom/team based learning intensive course.





**From the Desk of...**  
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 On behalf of the DBMS Course Directors



### 2019 QCOM Deans Distinguished Teaching Award

Dr. Jennifer Hall

### 2019 String of Pearls Awardees

Dr. Richard Feit  
 Dr. Tom Kwasigroch  
 Dr. Paul Monaco  
 Dr. Rob Schoborg

### 2019 Scarlet Sash Awardees

Dr. Richard Feit  
 Dr. Tom Kwasigroch  
 Dr. Paul Monaco  
 Dr. Antonio Rusiñol  
 Dr. Rob Schoborg

### 2019 Caduceus Club Nominees and Award Recipients\*

#### **M1 Outstanding Course of the Year**

Cell and Tissue Biology (Paul Monaco, Jia Cuihong, Antonio Rusiñol, Deborah Lee, and Tonya Ward)

**Cellular and Molecular Medicine\*** (Antonio Rusiñol, Mitch Robinson, Doug Thewke, David Johnson, Kim Johnson, Tonya Ward, and Angela Thompson)

Medical Human Gross Anatomy and Embryology (Tom Kwasigroch, Caroline Abercrombie, James Denham, Jia Cuihong, Matt Keasey, Rob Becker, Cindy Canter, Rebecca Steel, and Tonya Ward)

Medical Physiology (Tom Ecay, Krishna Singh, Aaron Polichnowski, Brian Rowe, Richard Feit, Valentin Yakubenko, Rob Schoborg, Tonya Ward, and Kim Johnson)

#### **M1 Professor of the Year**

Dr. Thomas Ecay  
 Dr. David Johnson  
 Dr. Thomas Kwasigroch  
 Dr. Paul Monaco  
 Dr. Aaron Polichnowski  
 Dr. Mitchell Robinson  
 Dr. Brian Rowe  
**Dr. Antonio Rusiñol\***  
 Dr. Krishna Singh  
 Dr. Doug Thewke



**From the Desk of...**  
 Dr. Rob Schoborg, Professor and  
 Vice Chair for Education  
 On behalf of the DBMS Course Directors



### **M2 Outstanding Course of the Year**

Clinical Neuroscience (Eric Beaumont, Patrick Bradshaw, Russ Brown, Diego Rodriguez-Gil, Regenia Phillips-Campbell, Theo Hagg, Michelle Duffourc, Rob Schoborg, Kim Johnson, and Tonya Ward)

Medical Microbiology & Immunology (Russ Hayman, Mike Kruppa, Jennifer Hall, Jerry Keplinger, Rob Schoborg, and Kim Johnson)

Medical Pharmacology (Rich Kostrezwa, Michelle Duffourc, Don Hoover, Ken Ferslew, and Kim Johnson)

### **M2 Professor of the Year**

Dr. Eric Beaumont

**Dr. Michelle Duffourc\***

Dr. Russ Hayman

Dr. Rob Schoborg

### **M1/M2 Outstanding College of Medicine Staff**

**Rob Becker\***

Jerry Keplinger

Kim Johnson

Rebecca Steele

### **2019 Faculty AOA Inductees**

Rob Schoborg

### **2019 DBMS Graduate Program Faculty Awards:**

#### **Outstanding Teaching Awards in Advanced Courses**

Dr. Patrick Bradshaw

Dr. Diego Rodriguez-Gil

Dr. Robert Schoborg

#### **Outstanding Faculty Mentorship Awards**

Dr. Alok Agrawal

Dr. Antonio Rusiñol

#### **Outstanding Student Mentorship Awards**

Michael Cartwright

Rudy Chapman

#### **1st year Professor of the Year**

Dr. Alok Agrawal

#### **1st year Course Director of the Year**

Dr. Antonio Rusiñol

\***Dr. Michelle Duffourc** was selected for membership on the ASPET National Executive Committee for the Division of Pharmacology Education, and was invited to present 3 invited seminars at the 2019 Experimental Biology meeting on Pharmacology education and teaching career development and mentoring.

## APPALACHIAN STUDENT RESEARCH FORUM

### JUDGES

Dr. Eric Beaumont	Dr. Yong Jiang
Dr. Patrick Bradshaw	Dr. Diego Rodriguez-Gil
Dr. Russ Brown	Dr. Sanjay Singh
Dr. Suman Dalal	Dr. Doug Thewke
Dr. Chad Frasier	Dr. Valentin Yakubenko
Dr. Jennifer Hall	Dr. Qian Xie
Dr. Cuihong Jia	

### AWARD WINNERS

#### **Mary Wingard**

**First Place**, Graduate Student-Doctoral Biological Sciences, Poster Presentation.

Dr. Krishna Singh—Sponsor

#### **Hannah Malone**

**Second Place**, Graduate Student-Doctoral, Medicine/ Diseases. Oral Presentation.

Dr. Theo Hagg—Sponsor

#### **Caytlin James**

**Second Place**, Undergraduate Student Biological Sciences, Poster Presentation. Dr.

Krishna Singh—Sponsor

### PRESENTATIONS—POSTERS

#### Graduate Student—Doctoral

Cui Kui (Dr. Yakubenko)

Mary Wingard (Dr. Singh)

#### Graduate Student—Masters

Heath Shelton—2nd Year (Dr. Brown)

Rebecca Steele (Dr. Abercrombie)

#### Undergraduate Student

Hebah Alkhateeb (Dr. Ordway)

Brook Beasley (Dr. Ordway)

Jacob Goodlaxson (Dr. Bradshaw)

Caytlin James (Dr. Singh)

Adam Musick (Dr. Yakubenko)

Dylan Peters (Dr. Bradshaw)

Hannah Rauhuff (Dr. Brown)

### PRESENTATIONS—ORAL

#### Graduate Student-Doctoral

Amy Berry (Dr. Hall)

Rudy Chapman (Dr. Rodriguez-Gil)

W. Drew Gill (Dr. Brown)

Hannah Malone (Dr. Hagg)

Heath Shelton (Dr. Brown)

### **2019 BOLAND UNDERGRADUATE RESEARCH SYMPOSIUM PRESENTERS:**

Westley Ongtengco, Senior

Dr. Gregory Ordway—Sponsor

Natania Paul, Senior ACS Chemistry

Dr. Michael Kruppa—Sponsor

### INVITED EXTERNAL SEMINAR SPEAKERS



Brooke E. Schmeichel, Ph.D.,  
 Post-Doctoral Research Training Award Fellow  
 National Institute on Drug Abuse  
 Intramural Research Program, Baltimore, MD  
 Title: A Multifunctional Role for Hypocretin in Addiction  
 Date: January 7, 2019



Harald Junge, Ph.D.  
 Assistant Professor  
 Department of Molecular, Cellular, and Developmental  
 Biology, University of Colorado at Boulder, Boulder, CO  
 Title: Mechanisms of Norrin/Frizzled4 Signaling in Retinal Angiogenesis  
 and Blood-Retina Barrier Formation  
 Date: January 10, 2019



Bennett Van Houten, Ph.D., Professor and Associate Director - Aging Institute  
 Coleader—Hillman Cancer Center University of Pittsburgh School of Medicine,  
 Pittsburgh, PA  
 Title: Watching the confluence of two DNA repair pathways at the single  
 molecule level  
 Date: April 1, 2019



Ivan Zanoni, Ph.D., Assistant Professor of Pediatrics  
 Harvard Medical School  
 Staff Scientist of Immunology & Division of Gastroenterology  
 Boston Children's Hospital  
 Title: Innate immune responses against fungal infections  
 Date: April 26, 2019  
*In Conjunction with Center of Excellence in Inflammation, Infectious Disease  
 and Immunity.*



Bhavya Voleti, Ph.D.  
 Principal Scientist  
 Merck Discovery Neuroscience  
 Title: Enabling Target Identification and Validation for Neurodegenerative  
 Diseases  
 Date: May 2, 2019  
*In Conjunction with Graduate Program in Biomedical Sciences.*



## RECENT INTERNAL SEMINARS

- Dr. Yue Zou**, Professor. **Title:** Genome stability, cancer, and premature aging. Date: February 8, 2019.
- Dr. Gary Wright**, Associate Professor. **Title:** Remodeling metabolism in the hypoxic heart. Date: February 22, 2019.
- Dr. Alok Agrawal**, Professor. **Title:** Defensive role of C-reactive protein in murine models of inflammatory diseases. Date: March 8, 2019.
- Dr. Lev Yampolsky, Professor**, Department of Biological Sciences. **Title:** Aging without sex: Daphnia as a new model for the studies of longevity and senescence. Date: March 22, 2019.
- Dr. Doug Thewke**, Associate Professor. **Title:** Function of the Type 2 cannabinoid receptor in vascular calcification. Date: March 29, 2019.
- D. Spencer Gill**, Graduate Student. **Title:** The impact of trained immunity in sepsis, aging, and the microbiome. Date: April 5, 2019.
- Dr. Diego Rodriguez-Gil**, Assistant Professor. **Title:** Characterizing olfactory sensory neuron differentiation. Date: May 3, 2019.
- Dr. Valentin Yakubenko**, Associate Professor. **Title:** What is the contribution of macrophages to the sepsis development? The surprising role of integrin  $\alpha\text{D}\beta\text{2}$  in endotoxemia and cecal ligation and puncture models. Date: May 10, 2019.

### Upcoming Seminar Schedule—2019 Dr. Brian Rowe—Coordinator

August 16  
Dr. Russ Brown

August 30  
Dr. Sivarao Digavalli

September 13  
Fei Tu

September 27  
Amy Berry

October 11  
Dr. Ashana Puri

October 25  
Ummear Raza

November 8  
Dr. Jia Cuihong

November 22  
Dr. Greg Ordway

December 6  
Dr. Yong Jiang