POINTS OF INTEREST

DEPARTMENT OF BIOMEDICAL SCIENCES

TOMORROW'S INVESTIGATORS TODAY

Dr. Colin Young, postdoctoral associate in the Davisson Lab at Cornell-Ithaca has been awarded the 2014 Dean Franklin Young Investigator Award by the American Physiological Society. This award recognizes a young investigator who is doing in vivo physiological research and is in the process of establishing an independent laboratory. It comes with a $20,000 grant from Data Sciences International. Colin will be attending the Experimental Biology 2014 Conference in San Diego, CA where he will present his work and receive this award at the annual APS Business Meeting being held on April 29, 2014. Congratulations, Colin!

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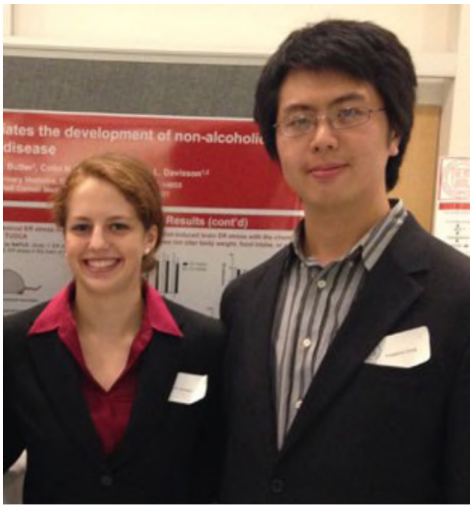
In this issue:

UNDERGRADS EARNING THEIR WINGS

Julie Horwath, an undergraduate in Nutritional Sciences and Fred Dong, an undergraduate in Biological Sciences, both students in the Davisson Lab at Cornell-Ithaca who work closely with postdoc Dr. Colin Young, have each been awarded the 2014 David S. Bruce Outstanding Undergraduate Abstract Award by the American Physiological Society. This award has been established for outstanding undergraduate students who are presenting their physiological research at the Experimental Biology Meeting. Julie will be presenting her poster entitled "Relief of endoplasmic reticulum stress in the brain subfornical organ rescues high fat diet-induced non-alcoholic fatty liver disease" and Fred will be presenting his poster entitled "Early surge in oxidative stress in the brain subfornical organ during angiotensin-II-induced hypertension" at the 2014 Experimental Biology Meeting on April 26-30, 2014 in San Diego, CA. In addition, Julie and Fred will each be presenting their studies in an oral session to compete for an additional award at the EB meeting. Way to go Julie and Fred!



REPRESENTIN'

Jenny Sones, graduate student in the Davisson Lab at Cornell-Ithaca has been a selected by the Water and Electrolyte Section of the American Physiological Society to give a special oral presentation for her abstract entitled "Interleukin 15 contributes to decidual natural killer cell loss via interferon gamma during early pregnancy in the preeclamptic BPH/5 mouse model" at the Data Blitz Session during the 2014 Experimental Biology Conference in San Diego, CA on April 26, 2014. As a selected presenter, Jenny has also been invited to write a mini-review based on the topic of her presentation, which will be published in the American Journal of Physiology: Regulatory, Integrative and Comparative Physiology. Dr. Heinrich Lob is a collaborator on these studies. Congratulations, Jenny!

Scott Butler, Research Support Specialist in the Davisson Lab for the past 7 years, has been recognized for his 20 years of dedicated service to Cornell University. Congratulations, Scott!

WELCOME TO THE FAMILY!

Jen will lead the new RNA Sequencing Core (RSC) with the goal to partner with biological researchers to enable next-generation sequencing as a successful discovery resource for gene expression analyses. The RSC will offer complete packages for Illumina sequencing of mRNA (RNAseq) and small RNAs, including consultation on experimental design, library preparation, sequencing, and data analysis. Jen brings 14 years of experience in technology development from her work at small biotechnology companies, the Broad institute, and most recently the MBG department at Cornell. Jen graduated from Stanford University and completed a Ph.D. in Sean Carroll's lab at the University of Wisconsin-Madison on the evolution of development. She then left the traditional academic path to work in small biotechnology companies and at the Broad Institute. As part of the Broad RNAi Platform, she developed and managed a high-throughput qPCR pipeline for RNA quantification to characterize the performance of the TRC shRNA library. In the department of Molecular Biology and Genetics at Cornell, she worked with Andy Clark to characterize natural genetic variation using next-generation sequencing. Jen is also a dedicated volunteer at the SPCA of Tompkins County – here she is holding Jaime, a female tabby available for adoption!

PUBLICATIONS

1. E. Balandya, A. D. Miller, M. Beck, J. Liu, H. Li, E. Borducchi, K. Smith, C. Cabral, K. Stanley, L. F. Maxfield and D. H. Barouch (2014). "Adenovirus Serotype 26 and 35 Vectors Induce Simian Immunodeficiency Virus-Specific T Lymphocyte Responses in Foreskin in Rhesus Monkeys." J Virol **88**(7): 3756-3765

2. E. Bolcun-Filas, V. D. Rinaldi, M. E. White and J. C. Schimenti (2014). "Reversal of Female Infertility by Chk2 Ablation Reveals the Oocyte DNA Damage Checkpoint Pathway." Science **343**(6170): 533-536

3. W. M. Burnside, S. J. Sharpe, J. D. Gaudy, A. D. Miller and C. G. Lamm (2014). "Pathology in Practice." J Am Vet Med Assoc **244**(6): 661-663

4. C. Y. Cheng, C. I. Hwang, D. C. Corney, A. Flesken-Nikitin, L. Jiang, G. M. Oner, R. J. Munroe, J. C. Schimenti, H. Hermeking and A. Y. Nikitin (2014). "Mir-34 Cooperates with P53 in Suppression of Prostate Cancer by Joint Regulation of Stem Cell Compartment." Cell reports **6**(6): 1000-1007

5. R. Cohen, D. E. Buttke, A. Asano, C. Mukai, J. L. Nelson, D. Ren, R. J. Miller, M. Cohen-Kutner, D. Atlas and A. J. Travis (2014). "Lipid Modulation of Calcium Flux through Cav2.3 Regulates Acrosome Exocytosis and Fertilization." Developmental cell **28**(3): 310-321

6. J. Congleton, M. Shen, R. Macdonald, F. Malavasi and A. Yen (2014). "Phosphorylation of C-Cbl and P85 Pi3k Driven by All-Trans Retinoic Acid and Cd38 Depends on Lyn Kinase Activity." Cell Signal

7. M. Cui, A. Augert, M. Rongione, K. Conkrite, S. Parazzoli, A. Y. Nikitin, N. Ingolia and D. Macpherson (2014). "Pten Is a Potent Suppressor of Small Cell Lung Cancer." Molecular cancer research : MCR

8. B. P. Cummings, A. Bettaieb, J. L. Graham, K. Stanhope, F. G. Haj and P. J. Havel (2014). "Administration of Pioglitazone Alone or with Alogliptin Delays Diabetes Onset in Ucd-T2dm Rats." J Endocrinol **221**(1): 133-144

9. S. M. Demonaco, M. W. Koch and T. L. Southard (2014). "Syndrome of Inappropriate Antidiuretic Hormone Secretion in a Cat with a Putative Rathke's Cleft Cyst." J Feline Med Surg

10. H. D. Edginton, J. Peters-Kennedy and D. W. Scott (2014). "Resident Lymphocytes in the Dermis of the Normal Dorsolateral Thoracic Skin of Alpacas." Veterinary dermatology **25**(1): 42-e15

11. L. Gao, K. M. Giglio, J. L. Nelson, H. Sondermann and A. J. Travis (2014). "Ferromagnetic Nanoparticles with Peroxidase-Like Activity Enhance the Cleavage of Biological Macromolecules for Biofilm Elimination." Nanoscale **6**(5): 2588-2593

12. A. T. Gifford, J. M. Scarlett and D. H. Schlafer (2014). "Histopathologic Findings in Uterine Biopsy Samples from Subfertile Bitches: 399 Cases (1990-2005)." J Am Vet Med Assoc **244**(2): 180-186

13. C. F. Hansen, E. Vassiliadis, N. Vrang, P. T. Sangild, B. P. Cummings, P. Havel and J. Jelsing (2014). "The Effect of Ileal Interposition Surgery on Enteroendocrine Cell Numbers in the Uc Davis Type 2 Diabetes Mellitus Rat." Regul Pept **189c**: 31-39

14. T. P. Harris, K. J. Schimenti, R. J. Munroe and J. C. Schimenti (2014). "Iq Motif-Containing G (Iqcg) Is Required for Mouse Spermiogenesis." G3 **4**(2): 367-372

15. M. Hesse, B. K. Fleischmann and M. I. Kotlikoff (2014). "The Role of C-Kit Expressing Cells in Heart Repair at the Neonatal and Adult Stage." Stem Cells

16. B. Kim, X. Zhang, R. Kan, R. Cohen, C. Mukai, A. J. Travis and S. A. Coonrod (2014). "The Role of Mater in Endoplasmic Reticulum Distribution and Calcium Homeostasis in Mouse Oocytes." Dev Biol **386**(2): 331-339

17. J. W. Leung, R. Siao-Salera, O. Abramyan, S. K. Mann, G. Ward, A. Yen, R. Gutierrez and F. W. Leung (2014). "Impact of Water Exchange Colonoscopy on Serum Sodium and Potassium Levels: An Observational Study." Dig Dis Sci **59**(3): 653-657

PUBLICATIONS (CONT.)

18. Y. Li, D. D. Wu, A. R. Boyko, G. D. Wang, S. F. Wu, D. M. Irwin and Y. P. Zhang (2014). "Population Variation Revealed High-Altitude Adaptation of Tibetan Mastiffs." Mol Biol Evol

19. N. P. Liyanage, R. P. Dassanayake, C. A. Kuszynski and G. E. Duhamel (2013). "Contribution of Helicobacter Hepaticus Cytolethal Distending Toxin Subunits to Human Epithelial Cell Cycle Arrest and Apoptotic Death in Vitro." Helicobacter **18**(6): 433-443. http://www.ncbi.nlm.nih.gov/pubmed/23895367

20. E. Llano, H. L. Gomez, I. Garcia-Tunon, M. Sanchez-Martin, S. Caburet, J. L. Barbero, J. C. Schimenti, R. A. Veitia and A. M. Pendas (2014). "Stag3 Is a Strong Candidate Gene for Male Infertility." Human molecular genetics

21. K. E. Nagel, R. K. Swartz, E. Strong, J. K. Holloway, P. E. Cohen, J. Schimenti, J. Ward, N. Hunter, J. H. Shrimp, J. Hu, M. Dong, B. S. Wang, R. J. Macdonald, H. Jiang, Q. Hao, A. Yen and H. Lin (2014). "Revealing Cd38 Cellular Localization Using a Cell Permeable, Mechanism-Based Fluorescent Small Molecule Probe." Nature genetics

22. A. M. Navratil, M. G. Dozier, J. D. Whitesell, C. M. Clay and M. S. Roberson (2014). "Role of Cortactin in Dynamic Actin Remodeling Events in Gonadotrope Cells." Endocrinology **155**(2): 548-557

23. S. Okayama, L. Kopelovich, G. Balmus, R. S. Weiss, B. S. Herbert, A. J. Dannenberg and K. Subbaramaiah (2014). "P53 Regulates Hsp90 Atpase Activity and Thereby Wnt Signaling by Modulating Aha1 Expression." J Biol Chem

24. J. Peters-Kennedy, D. W. Scott, K. E. Loft and W. H. Miller (2014). "Scaling Dermatosis in Three Dogs Associated with Abnormal Sebaceous Gland Differentiation." Veterinary dermatology **25**(1): 23-e28

25. H. Qiao, H. B. Prasada Rao, Y. Yang, J. H. Fong, J. M. Cloutier and D. C. Deacon (2014). "Antagonistic Roles of Ubiquitin Ligase Hei10 and Sumo Ligase Rnf212 Regulate Meiotic Recombination." **46**(2): 194-199

26. A. Sipka, S. Klaessig, G. E. Duhamel, J. Swinkels, P. Rainard and Y. Schukken (2014). "Impact of Intramammary Treatment on Gene Expression Profiles in Bovine Escherichia Coli Mastitis." PLoS One **9**(1): e85579

27. S. Sun, G. Shi, X. Han, A. B. Francisco, Y. Ji, N. Mendonca, X. Liu, J. W. Locasale, K. W. Simpson, G. E. Duhamel, S. Kersten, J. R. Yates, 3rd, Q. Long and L. Qi (2014). "Sel1l Is Indispensable for Mammalian Endoplasmic Reticulum-Associated Degradation, Endoplasmic Reticulum Homeostasis, and Survival." Proc Natl Acad Sci U S A **111**(5): E582-591

28. B. J. Taylor, A. R. Carlson, A. D. Miller and B. D. Johnson (2014). "Exercise-Induced Interstitial Pulmonary Edema at Sea-Level in Young and Old Healthy Humans." Respir Physiol Neurobiol **191**: 17-25

29. I. R. Thompson, S. M. Mirczuk, L. Smith, A. J. Lessey, B. Simbi, A. Sunters, G. F. Baxter, V. J. Lipscomb, I. M. McGonnell, C. P. Wheeler-Jones, A. Mukherjee, M. S. Roberson, C. A. McArdle and R. C. Fowkes (2014). "Homologous and Heterologous Desensitization of Guanylyl Cyclase-B Signaling in Gh3 Somatolactotropes." Cell Tissue Res **355**(2): 425-436

30. C. K. Tung, F. Ardon, A. G. Fiore, S. S. Suarez and M. Wu (2014). "Cooperative Roles of Biological Flow and Surface Topography in Guiding Sperm Migration Revealed by a Microfluidic Model." Lab on a chip **14**(7): 1348-1356

31. J. A. Walker, M. L. Sulciner, K. D. Nowicki, A. D. Miller, T. H. Burdo and K. C. Williams (2014). "Elevated Numbers of Cd163 Macrophages in Hearts of Simian Immunodeficiency Virus-Infected Monkeys Correlate with Cardiac Pathology and Fibrosis." AIDS Res Hum Retroviruses

32. C. Ye, W. Yan, P. L. McDonough, S. P. McDonough, H. Mohamed, T. J. Divers, Y. F. Chang and Z. Yang (2014). "Serodiagnosis of Equine Leptospirosis by Enzyme-Linked Immunosorbent Assay Using Four Recombinant Protein Markers." Clin Vaccine Immunol **21**(4): 478-483

DEPARTMENT OF BIOMEDICAL SCIENCES

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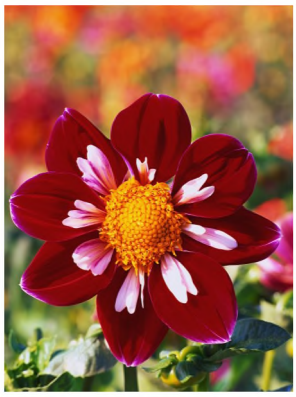


BIOMEDICAL SCIENCES DEPARTMENTAL SEMINAR SERIES

TUESDAY, APRIL 15

Dr. Ronald Victor

Director
Cedars-Sinai Center for Hypertension
Cedars-Sinai Heart Institute
Los Angeles, CA

"NO more muscle ischemia in muscular dystrophy: Translational research from mdx-mice to a multicenter trial"

TUESDAY, APRIL 22

Dr. Yousin Suh

Professor of Genetics and Medicine
Albert Einstein College of Medicine
Bronx, NY

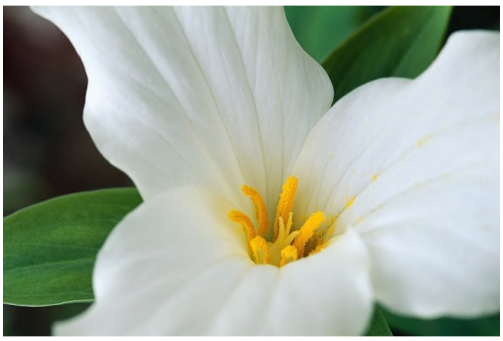
"Functional Approaches to the Genetics of Human Aging"

TUESDAY, APRIL 29

Dr. Alexander Nikitin

Professor of Pathology
Leader, Cornell Stem Cell Program
Department of Biomedical Sciences
Cornell University - College of Veterinary Medicine

"Stem cells, microRNAs and cancer"



THE NEXT GENERATION!

Introducing Jack Maverick Peterson, born February 20th, 2014 to Joshua and Kadeine Peterson in Ithaca, NY. This is the first child for the happy couple.

Congratulations to Jenny and Ryan Sones on the birth of their son Hunter Francis Sones born on March 12, 2014 at 4:53pm. Hunter weighed 7lbs. 7ozs. and 19.5 inches long.

Sara Carpenter and I welcomed Dorian Rhys Jenkins Reining to the world on 3/6/2014 at 10:10am, weighing in at 8lb 3.6oz.