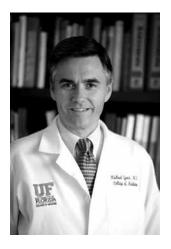
University of Florida College of Medicine

Celebration of Research February 9 - 13, 2015



Cover photo courtesy of Ann Fu, UF Molecular Pathology Core

## Welcome to the College of Medicine 2015 Celebration of Research!



The UF COM Celebration of Research is a wonderful opportunity for us to reflect on the strength of our research programs and appreciate the breadth, quality, and merit of the science conducted within the College. This event reminds us that it is through discovery and the impact of our research that we improve the quality of human life, and in doing so, advance the College of Medicine and the University of Florida.

This year brings us back to the Stephen C. O'Connell Center. With this space, we are delighted to be able to include research posters from some of our collaborators in other areas of campus. Totaling more than 460, the research posters on display tonight highlight the cutting-edge interdisciplinary research of our faculty, postdocs, and students. We also have a number of resource groups from across campus that are here tonight to share how they support research at UF. More than ever, this event affords us a unique opportunity to visit with old friends, meet new colleagues, exchange ideas, and develop new collaborations and synergies.

As you browse through the posters and informational booths, please be sure to engage in conversation with the presenters and join me in thanking them for supporting and promoting research at the UF College of Medicine.

Michael L. Good, MD Dean, College of Medicine

# **SCHEDULE OF EVENTS**

#### Monday, February 9, 2015

5:30pm – 8:30pm

Poster Session & Reception Stephen C. O'Connell Center

#### Wednesday, February 11, 2015

12:00 noon

Short Talks C1-09, Communicore Building, HSC



#### Stephanie Karst, PhD

Associate Professor Department of Molecular Genetics & Microbiology "Norovirus Interactions with B cells and Commensal Bacteria"



#### **Clayton Mathews, PhD**

Sebastian Family Professor for Diabetes Research Department of Pathology, Immunology, & Laboratory Medicine *"Backward Design to Understand Complex Disease"* 

#### Friday, February 13, 2015

12:00 noon

Keynote Speaker C1-15, Communicore Building, HSC



#### E. Antonio Chiocca, MD, PhD

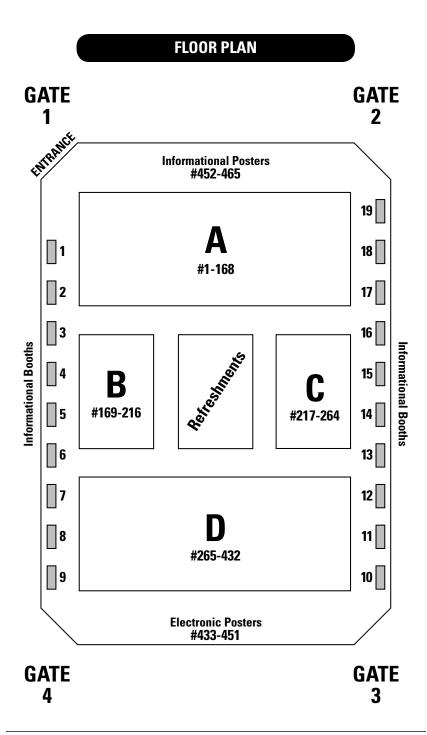
Chairman, Department of Neurosurgery Co-Director, Institute for the Neurosciences Brigham and Women's Hospital, Boston, MA *"Oncolytic viruses as a therapy for brain tumors"* 

\* Sponsored by the Joseph and Leila Applebaum Visiting Professorship

#### **KEYNOTE SPEAKER**



E. Antonio Chiocca, MD, PhD, is a neurosurgeon-scientist who has had continuous NIH peer reviewed funding for over 15 years. His research program has focused on the biology of malignant gliomas, one of the deadliest cancers in humans, and exploring the use of biological agents as novel glioma therapeutics. He has authored or co-authored over 200 peer-reviewed publications and has been a member and/ or officer of multiple national medical societies and is a current member of the Institute of Medicine of the National Academies and the National Advisory Council of the National Institutes of Neurological Disorders and Stroke (NINDS). He was Chairman of the Department of Neurological Surgery at the Ohio State University Wexner Medical Center from 2004-2012. He is currently Chair and Neurosurgeon-In-Chief in the Department of Neurosurgery at the Brigham and Women's Hospital and the Harvey W. Cushing Professor of Neurosurgery at Harvard Medical School.



# Table # Informational Booths

- 1 Electron Microscopy Core Facility
- 2 Molecular Pathology Core
- 3 Brain Rehabilitation Research Center
- 4 Health Science Center Libraries
- 5 Center for Safety, Simulation, & Advanced Learning Technologies
- 6 OneFlorida Clinical Research Consortium
- 7-9 Clinical & Translational Science Institute
- 10 Health Outcomes & Policy's Educational Offerings
- 11 Center for Smell & Taste
- 12-13 Research Administration & Compliance
  - 14 Howard Hughes Medical Institute Science for Life Program
  - 15 Interdisciplinary Program in Biomedical Sciences
  - 16 Office of Postdoctoral Affairs
  - 17 UF ICBR Interdisciplinary Center for Biotechnology Research
  - 18 Powell Gene Therapy Center
  - 19 UF Substance Abuse Training Center in Public Health

# Poster # Informational Posters

- 452 Supercomputing at UF: HiPerGator and HiPerGator2
- 453 UF Center for Addiction Research & Education
- 454 Citizen Scientist Program at UF
- 455 Implementation Science at UF
- 456 UF ICBR Cytometry Core
- 457 UF ICBR Gene Expression & Genotyping Core
- 458 UF ICBR Electron Microscopy Core
- 459 UF ICBR Proteomics and Mass Spectrometry Core: Technologies to Advance Biological and Medical Research
- 460 UF ICBR Nextgen DNA Sequencing Core
- 461 UF ICBR Monoclonal Antibody Core
- 462 UF ICBR Sanger Sequencing Core
- 463 Out of the Box: Librarians Collaborating in Classrooms & Clinics
- 464 VA Center of Innovation on Disability and Rehabilitation Research
- 465 Southeast Center for Integrated Metabolomics

# **POSTER TITLES**

## AGING

**1. Subtypes of prefrontal cortical NMDA receptors in working memory and normal aging.** Joseph McQuail, Sofia Beas, Kailey Simpson, Barry Setlow, Jennifer Bizon

2. The transcriptomic response of pulmonary neutrophils after severe injury is altered in the old versus the young and influences the subsequent mortality of the old to pseudomonal pneumonia. Brittany Mathias, Dina Nacionales, M. Cecilia Lopez, Azra Bihorac, Lizette Duckworth, Alicia Mohr, Frederick Moore, Scott Brakenridge, Philip Efron

3. Inadequate PMN chemokine receptor expression after polymicrobial abdominal sepsis contributes to defective PMN chemotaxis in the aged. Dina Nacionales, Ricardo Ungaro, Lori Gentile, M. Cecilia Lopez, Fatima Nedell, Erin Vanzant, Benjamin Szpila, Angela Cuenca, Frederick Moore, Anna Joseph, Christiaan Leeuwenburgh, Scott Brakenridge, Henry Baker, Lyle Moldawer, Philip Efron

**4. APOE moderates relationship between pulmonary function and memory.** Michael Grant, Carol Franz, Matthew Panizzon, Michael Lyons, William Kremen, Kristen Jacobson, Terrie Vasilopoulos

**5. Utilization of CNS resources for preparation and performance of complex walking tasks in older adults.** David Clark, Dorian Rose, Sarah Ring, Eric Porges

**6. The Testosterone Trial: A Phase 3 randomized controlled trial for older men.** Steve Anton, Michael Marsiske, Susan Nayfield, Todd Manini, Bhanuprasad Sandesara, Thomas Buford, Marco Pahor

7. Association of objectively-measured physical activity with cardiovascular risk in mobility-limited older adults. Jodi Fitzgerald, Lindsey Johnson, Don Hire, Walter Ambrosius, Stephen Anton, John Dodson, Anthony Marsh, Mary McDermott, Joe Nocera, Catrine Tudor-Locke, Daniel White, Veronica Yank, Marco Pahor, Todd Manini, Thomas Buford

**8. Mobility impairment during hospitalization in older adults**. Shiyao Gao, Sunil Swami, Christopher Harle, Gigi Lipori, Sandrine Sourdet, Susan Nayfield, Marco Pahor, Todd Manini

#### 9. Increased daily activity is associated with an improved mitochondrial metabolic profile in older adults. David Gundermann,

Nicholas Wawrzniak, Christiaan Leeuwenburgh, Bhanuprasad Sandasara, Peter Adhihetty, Todd Manini

**10. Heterogeneity of functional changes among older adults in response to long-term exercise.** Andrew Layne, Fang-Chi Hsu, Steven Blair, Timothy Church, Jennifer Dungan, Roger Fielding, Nancy Glynn, Alexandra Hajduk, Abby King, Todd Manini, Anthony Marsh, Marco Pahor, Christine Pellegrini, Thomas Buford

**11. Association between perceptual effort during mobility and executive function in older adults.** Duane Corbett, David Gundermann, Michael Marsiske, Benji Kluger, Immanuel Samuel, Todd Manini

**12. Effects of a long-term physical activity program on accelerometrybased sedentary time in older adults.** Amal Wanigatunga, Walter Ambrosius, Mary McDermott, Abby King, Roger Fielding, Nancy Glynn, Jack Guralnik, Jack Rejeski, Catrine Tudor-Locke, Thomas Gill, Donald Hire, Marco Pahor, Todd Manini

**13. On target: Fitts' law and aging.** Lauren Correa, Talia Seider, Diana Mosquera, Julio Rodriguez, Liliana Salazar, Damon Lamb, Zared Schwartz, Ron Cohen, Kenneth Heilman, Adam Falchook

**14. Expression of human alpha-1 antitrypsin (hAAT) expands life span in** *Drosophila melanogaster.* Lee Seifer, Brian Brenner, Nurdina Karic, Denis Titov, Sihong Song, Lei Zhou

**15. Progress report on the roles of glutathione reductase in the auditory system.** Chul Han, Hyo-Jin Park, Mi-Jung Kim, Karessa White, Logan Walker, Tatsuya Yamasoba, Dalian Ding, Richard Salvi, Paul Linser, Shinichi Someya

**16. Progress report on the roles of mitochondrial thioredoxin in the auditory system.** Mi-Jung Kim, Chul Han, Logan Walker, Karessa White, Dalian Ding, Christiaan Leeuwenburgh, Richard Salvi, Paul Linser, Shinichi Someya

**17. Progress report on the roles of mitochondrial isocitrate dehydrogenase in the auditory system.** Karessa White, Mi-Jung Kim, Chul Han, Paul Linser, Colleen Le Prell, Shinichi Someya

#### CANCER

**18. Antitumor activity mediated by N-myristoylated cationic peptides (myrCP).** Karina Krotova, George Aslanidi

**19. Using sarcosine to track dendritic cells for vaccine immunotherapy for glioblastoma.** Rolando Eladio Lovaton Espadin, Hassan Azari, Eman Shreteh, Alexander Vlasak, Duane Mitchell, Maryam Rahman

**20. Development of temozolomide resistant glioblastoma cell lines.** Hassan Azari, Rolando Eladio Lovaton Espadin, Gabriel De Leon, Duane Mitchell, Maryam Rahman

**21. PKR promotes MDS evolution to leukemia in the NHD13 mouse model by driving an increased mutation frequency.** Michael Byrne, Xiaodong Cheng, Christopher Carter, W. Stratford May, Richard Bennett

22. Nicotine reduces overall survival in pancreatic cancer via augmentation of paracrine HGF-MET signaling in the tumor microenvironment. Daniel Delitto, Dongyu Zhang, Song Han, Brian Black, Andrea Knowlton, Adrian Vlada, George Sarosi, Kevin Behrns, Ryan Thomas, Xiaomin Lu, Chen Liu, Thomas George, Steven Hughes, Shannon Wallet, Jose Trevino

**23. Drug sensitivity of hepatocellular carcinoma cells after suppression of asparagine synthetase.** Joshua Bloom, Elizabeth Dudenhausen, Michael Kilberg

**24. Electrostatic interactions in sliding clamp stability and loading.** Kevin Yu, Lauren Douma, Farzaneh Tondnevis, Avni Bhatt, Jennifer Binder, Marcia Levitus, Linda Bloom

**25. Nanotechnology-based platform targeting diffuse infiltrative pontine glioma.** Ana Bohorquez, Francisco Delgado, Paul Carney, Carlos Rinaldi

**26. Role of LKB1-CRTC1 on glycosylated COX-2 and response to COX-2 inhibition in lung cancer.** Chunxia Cao, Ruli Gao, Min Zhang, Antonio Amelio, Mohammad Fallahi, Zirong Chen, Yumei Gu, Chengbin Hu, Eric Welsh, Brienne Engel, Eric Haura, W. Douglas Cress, Lizi Wu, Maria Zajac-Kaye, Frederic Kaye

# 27. Enoxacin and bis-enoxacin stimulate GW body formation and alter regulatory exosomes produced by murine breast cancer cells.

Taylor Capasso, Dontreyl Holsey, Lindsay VonMoss, Edward Chan, L. Shannon Holliday

**28. Utility of CD123 for diagnosing low grade graft-versus-host disease in the stomach.** Michael Chang, David Gonzalo, Lizette Vila Duckworth

**29. Proton transporter expression in human breast cancer cells: Evidence for cross-talk between cancer and stromal cells.** Zhijuan Chen, Susan Frost

**30. PKR inhibits the DNA damage response and correlates with poor clinical outcomes in AML.** Xiaodong Cheng, Michael Byrne, Kevin Brown, Marina Konopleva, Steven Kornblau, Richard Bennett, W. Stratford May

**31. Optimizing EGFR targeted magnetic nanoparticles for nanoscale thermal therapy of triple negative breast cancer.** Andreina Chiu Lam, Fernando Merida, Antonietta Restuccia, Thomas Casey, Cory French, Gregory Hudalla, Gail Fanucci, Madeline Torres-Lugo, Carlos Rinaldi

**32. Effects of natural flavonoid compounds with rapamycin in prostate cancer cells.** Li Zhao, Dietmar Siemann, Yao Dai

**33. Personalized immunotherapy for the treatment of glioblastoma.** Gabriel De Leon, Smita Nair, Weihua Xie, Jeffrey Drake, Duane Mitchell

**34. Asparagine synthetase expression and asparaginase sensitivity of human hepatocellular carcinoma cell lines.** Corbin Eule, Elizabeth Dudenhausen, Michael Kilberg

**35. Synergistic cellular interactions in adoptive immunotherapy leads to immunologic rejection of malignant glioma.** Catherine Flores, Christina Pham, David Snyder, Luis Sanchez-Perez, Duane Mitchell

**36. Assessing the efficacy of multiple intradermal vaccination sites in regards to the promotion of dendritic cell frequency in lymph nodes.** Jorge Gil, Hassan Azari, Rolando Lovaton Espadin, Catherine Flores, Maryam Rahman

**37. A combination natural product therapy attenuates common side effects associated with chemotherapy.** Ben Griffith, Matt Bloom, Jennifer Owen, Regina Martuscello, Yosef Schwartz, Brent Reynolds, Coy Heldermon, Loic Deleyrolle

**38. Engineered T cells as a platform to deliver monoclonal antibodies to brain tumors.** Fernanda Guimaraes, Catherine Flores, Gabriel De Leon, Elias Sayour, Jeffrey Drake, Jianping Huang, Duane Mitchell

**39. Intensity-modulated radiosurgery treatments derived by optimizing delivery of sphere packing plans.** Michael Hermansen, Bonnie Chan, Theodore St. John, Frank Bova

**40. PCM1, a pericentriolar and ciliary basal body-associated protein, mediates glioblastoma cell proliferation and survival.** Lan Hoang-Minh, Loic Deleyrolle, Susan Semple-Rowland, Brent Reynolds, Matthew Sarkisian

**41. c-Met expression in hepatocellular carcinoma.** Yanfei Huang, Bernadette Harris, Xiaomin Lu, Chen Liu, Lizette Vila Duckworth

**42. Disruption of the c-Met pathway in vitro: Autocrine vs paracrine activation of the c-Met pathway in osteosarcoma cell lines impacts sensitivity.** Veronica Hughes, Dietmar Siemann

**43. Analysis of saliva samples from healthy adults in north central Florida for human papillomavirus infection.** Michelle Hwang, Hyun-Ji Choi, Taimour Langaee, Henrietta Logan, Kevin Raisch

**44. Epigenetic reprogramming of osteosarcoma tumor initiating cells alters histologic and metastatic phenotype.** E. M. Viktoria Hyddmark, Padraic Levings, Margerete White, Ali Zarezadeh, Elham Nasri, Maria Guijarro, Steve Ghivizzani, C. Parker Gibbs

**45. Magnetic nanoparticles targeting triple negative breast cancer.** Nicole Iovino, Carlos Rinaldi

**46. Dynamic acetylation of TAF9 regulates the recruitment and assembly of TFIID complex during gene transcription.** Wei Jian, Suming Huang, Yi Qiu

**47. Ipsilateral radiotherapy for squamous cell carcinoma of the tonsil.** William Kennedy, Michael Herman, Rohan Deraniyagala, Robert Amdur, John Werning, Peter Dzeigelwski, Christopher Morris, William Mendenhall

# 48. Day 30 lymphocyte count after autologous bone marrow transplant as a predictor of outcomes in patients with multiple myeloma.

Barry Sawicki, Jan Moreb, Randal Brown, Maxim Norkin, Zachary Hudson, Lakshmikanth Katragadda, William May, John Hiemenz, Christopher Cogle, William Stokes, Jack Hsu, Myron Chang, P. Ben King, John Wingard

#### 49. Intra-tumoral heterogeneity in osteosarcoma and its therapuetic

**implictions.** Padraic Levings, Elham Nasri, Ali Zarezadeh, Viktoria Hyddmark, Steven Ghivizzani, C. Parker Gibbs

**50. Identification and characterization of class I HDAC-specific smallmolecule inhibitors with a novel pharmacophore.** Yunfei Wang, Ryan Stowe, Christie Pinello, Lisa Zhao, Guimei Tian, Peter Hodder, William Roush, Daiqing Liao

**51. Delivery of Trichosanthin-encoding gene induces suppression of human liver tumorigenesis both in vitro and in vivo.** Yuanhui Zhang, Yuan Wang, Lina Wang, George Aslanidi, Arun Srivastava, Changquan Ling, Chen Ling

**52.** The inhibitory effect of various transfection agents on rAAV vectormediated transgene expression both in vitro and in vivo. Yuan Wang, Lina Wang, George Aslanidi, Changquan Ling, Arun Srivastava, Chen Ling

**53. Bufalin significant enhances viral vector-based gene therapy and synergistic strategies dramatically inhibit malignant cell growth.** Lina Wang, Zifei Yin, Meng Wang, Changquan Ling, Chen Ling

**54. Combining VEGF and PD-1 blockade with adoptive anti-tumor cellular therapy for patients with GBM.** Yu Long, Changlin Yang, Linchun Jin, Haitao Ge, Hongbo Bao, Catherine Flores, Gabriel De Leon, Christina Pham, Fernanda Guimaraes, Duane Mitchell, Jianping Huang

**55. Application of a combinatorial natural product therapy for the treatment of high-grade gliomas.** Christopher Louviere, Regina Martuscello, Benjamin Griffith, Hunter Futch, Colby Skinner, James McGuiness, Brent Reynolds, Loic Deleyrolle

**56. Targeting AAV to osteosarcoma tumor-initiating cells.** Yuan Lu, Damien Marsic, Yuanhui Zhang, Padraic Levings, Maria Guijario, E. Anthony Dacanay, Chen Ling, Mavis Agbandje-Mckenna, Sergei Zolotukhin, Steven Ghivizzani

**57. Deregulated thymidylate synthase promotes tumorigenecity in pancreatic neuroendocrine tumors.** Kyungah Maeng, Hye Seung Lee, Min Chen, Rony Francois, Arun Srivastava, Maria Zajac-Kaye **58. Dietary attenuation of tumor metabolism diminishes propagation of glioblastoma via mTOR.** Regina Martuscello, Loic Deleyrolle, Christopher Louviere, David McCarthy, Colby Skinner, Musa Jundi, Benjamin Griffith, Brent Reynolds

**59. Overcoming human myeloid leukemia cells resistance to myxoma virus oncolytic virotherapy by use of T cell carriers.** Ana Matos, Winnie Chan, Tom Hofland, Nancy Villa, Masmudur Rahman, Christopher Cogle, Grant McFadden

**60. Differential expression of miRNAs in osteosarcoma tumor initiating cells and their reverted progeny.** Elham Nasri, Padraic Levings, Ali Zarezadeh, Maria V. Guijarro, E. M. Viktoria Hyddmark, Margaret White, Glyn Palmer, Steven Ghivizzani, C. Parker Gibbs

**61. Distinct radiation response of slow-dividing cancer stem cells.** Jaimin Patel, Nancy Nabilsi, Benjamin Griffith, Kyle Dajac, Mark Rohaus, Angus Harding, Michael Kladde, Brent Reynolds, Florian Siebzehnrubl, Loic Deleyrolle

**62. Developmentally regulated antigens for immunologic targeting of medulloblastoma subtypes.** Christina Pham, Catherine Flores, Yanxin Pei, Robert Wechsler-Reya, Duane Mitchell

**63. Harnessing the immunologic capacity of the liver against glioblastoma multiforme.** Elias Sayour, Gabe De Leon, Christina Pham, Luis Sanchez-Perez, David Snyder, Hanna Kemeny, Catherine Flores, Duane Mitchell

**64. Intraosseous leiomyosarcoma arising in bone infarct.** Jong Taek Kim, Wonwoo Shon, John Reith

**65. Clinicopathologic study of myxofibrosarcoma: A retrospective overview of the University of Florida cases.** Jong Taek Kim, John Reith, Xiomin Lu, Wonwoo Shon

66. Diagnostic utility of MYC mRNA chromogenic in situ hybridization in differentiating secondary angiosarcomas from atypical vascular lesions. Kent Newsom, Karen Fritchie, John Reith, Dongtao Fu, Wonwoo Shon

67. Detection of MYC gene amplification in secondary cutaneous angiosarcomas by fully automated dual color silver in situ hybridization method. Kent Newsom, Karen Fritchie, John Reith, Elaine Dooley, Wonwoo Shon

#### 68. Chromogenic in situ hybridization of FGF23 mRNA in phosphaturic

**mesenchymal tumors.** Kent Newsom, John Reith, Dongtao Fu, Wonwoo Shon

69. Effect of Cathepsin L inhibitor KGP94 on bone metastases and resorption in a prostate cancer model. Dhivya Sudhan, Dietmar Siemann

**70. In vivo and ex vivo EPR measurements of the radiation-induced signal in finger/toe nails for rapid dosimetry.** Ann Flood, Oleg Grinberg, Xlaoming He, Michael Mariani, Andres Ruuge, Jason Sidabras, Harold Swartz, Shiv Varanasi, Dean Wilcox, Steven Swarts

**71. Chimeric antigen receptor-modified T cells against several target antigens in multiple myeloma.** Shih-Ting Tsao, Yuchen Liu, Hao-Hsiang Kuo, Jan Moreb, Lung-Ji Chang

**72. Capture of rare cancer cells in microfluidic devices for treatment monitoring.** Jose Varillas, Weian Sheng, Thomas George, Chen Liu, and Z. Hugh Fan

**73. Myxoma virus suppresses proliferation of activated T lymphocytes yet permits oncolytic virus transfer to cancer cells.** Nancy Villa, Clive Wasserfall, Amy Meacham, Elizabeth Wise, Winnie Chan, John Wingard, Grant McFadden, Christopher Cogle

**74. Forced induction of differentiation in osteosarcoma tumor initiating cells.** Margaret White, Padraic Levings, E. M. Viktoria Hyddmark, Ali Zarezadeh, Elham Nasri, Maria Guijarro, Glyn Palmer, Steve Ghivizzani, C. Parker Gibbs

**75. The impact of aerobic exercise on oxygenation and vascularity in breast cancer models.** Jennifer Wiggins, Jennifer Lee, Lori Rice, Dietmar Siemann

**76. Pulmonary vascular pruning in response to radiation.** Matt Wilhelm, Dustin Begosh-Mayne, Walter O'Dell

**77. Deregulated human Thymidylate Synthase (TS) promotes tumor progression in diverse hematopoietic and mesenchymal cell lineages.** Min Chen, Minghui Wu, Akbar Nawab, Frederic Kaye, Maria Zajac-Kaye

**78. HDAC1 can deacetylate GATA-1 and regulates its activity through a FOG-1 independent manner.** Bowen Yan, Tao Yang, Suming Huang, Yi Qiu

**79. Escherichia coli clbM encodes a MATE transporter implicated in colibactin transport and activity.** Ye Yang, Jarrod Mousa, Steven Bruner, Christian Jobin

**80. cGMP manufacturing of ex vivo expanded tumor-specific T cells and amplified tumor RNA-pulsed DC vaccines targeting glioblastoma and medulloblastoma.** Oleg Yegorov, Anjelika Dechkovskaia, Jeffery Drake, Brian Cleaver, Nathalie Clément, Jianping Huang, Duane Mitchell

**81. Bortezomib induces differentiation, cell cycle arrest and apoptosis in osteosarcoma.** Ali Zarezadeh, Padraic Levings, Elham Nasri, Maria Guijarro, Margaret White, E. M. Viktoria Hyddmark, Steven Ghivizzani, C. Parker Gibbs

**82. Mitochondrial DNA changes in tissues from NIH-Swiss mice exposed to low-dose gamma and proton radiation.** Steven Zhang, LiangJie Yin, Zuofeng Li, Roelf Slopsema, Zhenhuan Zhang, Amy Zhang, Mei Zhang, Shanming Yang, Chaomei Liu, Steven Swarts, Sadasivan Vidyasagar, Paul Okunieff

**83. Icaritin enhances the radiosensitivity of 4T1 breast cancer cells in vitro.** Zhenhuan Zhang, Jinsheng Hong, Wenlong Lv, Mei Zhang, Chun Chen, Shanmin Yang, Shan Li, Lurong Zhang, Deping Han, Weijian Zhang, Paul Okunieff

## GENETICS

**84. Mouse model of human congenital heart disease by heterozygous Nkx2-5 homeodomain missense mutation.** Hassan Ashraf, Michelle Melanson, Rajib Chowdhury, Hiroko Wakimoto, D. Woodrow Benson, Robert Anderson, Hideko Kasahara

**85. Deletion of the polycomb Ezh2 in skeletal muscle stem cells is associated with an increase in fibroadipogenic progenitor proliferation and fibrosis.** Daphney Clermont, Vittorrio Satorelli, Assia Derfoul

86. Preparation and characterization of magnetic gene transfection agents consisting of polyethylenimine coated iron oxide nanoparticles. Melissa Cruz-Acuña, Lorena Maldonado-Camargo, Jon Dobson, Carlos Rinaldi

#### 87. Epigenomics of neuronal identity: Evolution of serotonergic

neurons. Emily Dabe, Rachel Sanford, Andrea Kohn, Leonid Moroz

**88. Light-mediated control of spatiotemporal gene expression in flies.** Lorena De Mena, Yan Zhang, Pedro Fernandez-Funez, Diego Rincon-Limas

**89. Can drug-drug interactions be used to inform gene-drug interactions and vice versa?** Jiexin Deng, Chakradhar Lagishetty, Lawrence Lesko, Stephan Schmidt

**90. Restoration of Tafazzin gene expression and function by AAV-TAZ delivery for the correction of muscular defects in Barth Syndrome.** Amy Donate, Meghan Soustek, Skylar Rizzo, Katherine Cheney, Bennett Gosiker, Alfred Lewin, Barry Byrne, Christina Pacak

**91. The Wright stuff: Reinventing path analysis reveals novel components of the sex determination hierarchy in** *D. melanogaster.* Justin Fear, Michelle Arbeitman, Matthew Salomon, Justin Dalton, John Tower, Sergey Nuzhdin, Lauren McIntyre

**92. Epigenetic regulation of the inflammatory response in localized aggressive periodontitis.** Amanda Francis, Hong Huang, Shannon Wallet, Taimour Langaee, Ikramuddin Aukhil, Luciana Shaddox

**93. Metabolic gene linkages to long non-coding RNAs and allelespecific expression.** Alison Gerken, Justin Fear, Sergey Nuzhdin, Lauren McIntyre

**94. Fgf-mediated cell adhesion regulates urethral tubulogenesis.** Marissa Gredler, Ashley Seifert, Martin Cohn

**95. Decrease in cMLCK in human heart failure patients and cardiac dysfunction in murine perinatal-onset ablation of cardiac myosin light chain kinase.** Yasmin Islam, Hideko Kasahara

**96. Developing an AAV vector to treat X-linked myotubular myopathy.** Angela McCall, Denise Cloutier, Jeffry Kelley, Meghan Soustek, Darin Falk, Nathalie Clément, Barry Byrne

**97. H3.3 deposition at centromeres is mediated by CENP-B and SUMO-2.** Viacheslav Morozov, Serena Giovinazzi, Alexander Ishov

**98. Intraspecific allelic imbalance.** Alison Morse, Justin Fear, Luis Leon-Novelo, Matthew Salomon, Alison Gerken, Yerbol Kurmangaliyev, John Tower, Sergey Nuzhdin, Lauren McIntyre **99. A homozygous nonsense mutation in SGCA is a common cause of LGMD in Egyptian patients.** Hemakumar Reddy, Sherifa Hamed, Monkol Lek, Elicia Estrella, Lane Mahoney, Anna Duncan, Satomi Mitsuhashi, Louis Kunkel, Daniel MacArthur, Peter Kang

**100. Using structural equation modeling to detect regulatory interactions in the InR/Tor pathway.** Felicia New, Justin Fear, Nicole Newell, Michelle Arbeitman, Sergey Nuzhdin, Lauren McIntyre

**101. The functional genomics of type 1 diabetes in CD4+, CD8+ and CD19+ lymphocytes.** Jeremy Newman, Felicia New, Lauren McIntyre, Patrick Concannon

**102.** The coding potential of Pseudomonas aeruginosa: Gene discovery across strains by computational comparative genomics and ribosome profiling. Steve Oden, Anna Picca, Shouguang Jin, Silvia Tornaletti, Luciano Brocchieri

103. Genotype/phenotype correlation of cellular function and AAVmediated gene delivery to treat Xeroderma Pigmentosum – Cockayne Syndrome (XP-CS). Skylar Rizzo, Amy Donate, Katie Cheney, Bennett Gosiker, Katherine Santostefano, Naohiro Terada, Fowzan Alkuraya, Peter Kang, Christina Pacak

**104. Eukaryotic DExD/H Box helicases impact lytic replication of Kaposi's Sarcoma Associated Herpesvirus.** Jacquelyn Serfecz, Grant McFadden, Masmudur Rahman, Rolf Renne

**105. The role of long non-coding RNA and chromatin structure in regulating the beta globin locus control region.** Jared Stees, Michael Kladde, Suming Huang, Jorg Bungert

**106. Timing of in utero caffeine exposure influences the morphological, functional, and trans-generational effects on adult hearts.** Ryan Poulsen, Xiefan Fang, Christopher Wendler

**107. Direct evidence for BBSome-associated intraflagellar transport reveals distinct properties of native mammalian cilia.** Corey Williams, Jeremy McIntyre, Stephen Norris, Paul Jenkins, Lian Zhang, Qinglin Pei, Kristen Verhey, Jeffrey Martens

# 108. Cephalopod neurogenomics: Insights into complex nervous system evolution across molluscan lineages. Gabrielle Winters, Andrea

Kohn, Naama Stren, Benny Hochner, Edgar Walters, Robyn Crook, Leonid Moroz

## IMMUNOLOGY, HEMATOLOGY, AND STEM CELLS

**109. Directed differentiation of ES cells into cardiomyocytes by bacterial injection of transcription factors.** Fang Bai, Chae Ho Lim, Katherine Santostefano, Hideko Kasahara, Chelsey Simmons, Naohiro Terada, Shouguang Jin

**110. Using galvanotaxis to improve mesenchymal stem cell homing.** Denis Balaban, Olcay Jones

**111. The influence of type 1 diabetes on pancreatic weight.** Martha Campbell-Thompson, John Kaddis, Clive Wasserfall, Michael Haller, Alberto Pugliese, Desmond Schatz, Jonathan Shuster, Mark Atkinson

**112. MicroRNAs regulation of effector T cell differentiation in Pbx1-d-transgenic CD4 T cells.** Seung-Chul Choi, Laurence Morel

**113. Hematopoietic stress response gene transcription regulation by TFII-I.** Alex Fan, Giorgio Papadopoulos, Mahmoud Aryan, Mir Hossain, I-J Lin, Jianhong Hu, Michael Kilberg, Rolf Renne, John Strouboulis, Jorg Bungert

**114. Transplantation of defined populations of differentiated human neural stem cell progeny.** Jeff Fortin, Hassan Azari, Tong Zheng, Brent Reynolds

**115. Dysregulation of microRNA expression during oval cell aided liver regeneration.** Altin Gjymishka, Liya Pi, Seh-Hoon Oh, Bryon Petersen

**116. Refractory BK-virus induced nephropathy in the native kidney of a pediatric bone marrow transplant recipient.** Nirupama Gupta, Lamis Eldjerou, Kiran Upadhyay

**117. Use of C4d biomarker as a diagnostic tool to classify membranoproliferative glomerulonephritis (MPGN).** Nirupama Gupta, Dara Wakefield, William Clapp, Eduardo Garin **118.** Are pancreatic volume and serum trypsinogen both markers of type 1 diabetes progression? A preliminary report. Michael Haller, Bimota Nambam, Desmond Schatz, Jonathan Shuster, Jonathan Williams, Richard Beegle, Miriam Cintron, Jessica Ferguson, Mark Atkinson, Martha Campbell-Thompson

**119. Efficient gene editing in pluripotent stem cells by bacterial injection of TALEN proteins.** Jingyue Jia, Fang Bai, Katherine Santostefano, Naohiro Terada, Shouguang Jin

**120. Histone deacetylase 6 regulates enucleation through deacetylation of mDia2 in mouse fetal erythroblast.** Xuehui Li, Peng Ji, Yi Qiu

**121. Transduction of primary human hepatocytes in vitro and in humanized murine livers in vivo by rAAV3 vectors.** Chen Ling, Yuan Wang, Yuanhui Zhang, Koen Vercauteren, Lieven Verhoye, Yuan Lu, George Aslanidi, Li Zhong, Guangping Gao, Changquan Ling, Philip Meuleman, Arun Srivastava

**122. Targeted delivery and suppression of human liver tumorigenesis by optimized rAAV3 vectors in a murine xenograft model.** Yuan Wang, Yuanhui Zhang, Yuan Lu, Lina Wang, Zhongbo Hu, Anila Ejjigani, George Aslanidi, Li Zhong, Guangping Gao, Changquan Ling, Chen Ling, Arun Srivastava

**123. The combination of metformin and 2-Deoxy-D-Glucose normalizes lupus CD4 T cell metabolism and functions, and reverses disease in murine models of lupus.** Yiming Yin, Seung-Chul Choi, Byron Croker, Eric Sobel, Laurence Morel

**124. The role of islet homeostasis protein in diabetes mellitus progression.** Seh-Hoon Oh, David Sullivan, Paulette Robinson, Liya Pi, Alicia Brown, Marda Jorgensen, Bryon Petersen

**125. Comparative proteomic analysis in hematopoietic tissues of Jak2 kinase conditional knock-out mice.** Sung Park, Jin Koh, Peter Sayeski

**126. Utilizing oral combination therapy with plant-expressed proinsulin, GAD65, and Exendin-4 to prevent type 1 diabetes in NOD mice.** Amanda Posgai, Clive Wasserfall, Desmond Schatz, Kwang-chul Kwon, Henry Daniell, Mark Atkinson

# 127. Adipose derived stem cell (ADSC) therapy prevents the progression of hypertension and improves cardiac function. $Yanfei\ Qi,$

Anandharajan Rathinasabapathy, Juan Zhang, Michael Zingler, Fong Wong, John Petersen, Michael Katovich, Mohan Raizada, Carl Pepine

# **128. Multi-scale indenter for mechanical characterization of soft tissues: Applications in cancer, genetics, and stem cell therapy.** Andres Rubiano, Chelsey Simmons

**129. Using innovative tools for personalizing antiplatelet therapy.** Snehal Samant, Xi-Ling Jiang, Richard Horenstein, Alan Shuldiner, Laura Yerges-Armstrong, Lambertus Peletier, Xiaoyan Zhang, Mirjam Trame, Lawrence Lesko, Stephan Schmidt

**130. Isolation of immunosuppressive T cells using the markers CD4, CD25, and CD226.** Leeana Peters, Howard Seay, Kit Fuhrman, Lin Zhang, Wen-I Yeh, Todd Brusko

**131. The adaptive immune repertoire of type 1 diabetes.** Stephanie Rothweiler, Howard Seay, Lin Zhang, Jeff Bluestone, Harlan Robins, Todd Brusko

**132. Expression of Helios is required for the differentiation of activated/effector T regulatory cells.** Mathew Sebastian, Ethan Shevach, Angela Thornton

**133. Investigation of organ regeneration through the use of perfusion decellularized scaffold matrix.** David Sullivan, Peter McFetridge, Bryon Petersen

**134. Effect of high glucose on type I IFN production, type I IFN signaling and proinflammatory cytokine/ chemokine expression in TLR3- or TLR9-activated PBMCs.** Chang-Qing Xia, Edward Buffiloski, Benjamin Looney, Michael Clare-Salzler

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**136. Do Influenza viral loads correlate with seasonal differences in clinical severity?** Stacy Beal, John Lednicky, Nicole Iovine, Rodney Arcenas, Maura Pieretti, Kenneth Rand

**137. Pg0717** homologues are present in virulent strains of **Porphyromonas gingivalis and their detection correlates with clinical severity of periodontitis.** Ryan Chastain-Gross, Luciana Shaddox, Cigdem Pasali, Gulnur Emingil, Alpdogan Kantarci, Myriam Belanger, Leticia Reyes, Ann Progulske-Fox

**138. LIGHTing up CD8 T cells: Implications in respiratory viral vaccine development.** Pritesh Desai, Shahram Salek-Ardakani

**139.** ChIP-seq analysis of H3K27me3 and SUZ12 on latent genomes of HSV-1 wild-type and LAT promoter deletion viruses. Adit Dhummakupt, Justin Fear, Lauren McIntyre, David Bloom

**140.** Alcohol and substance use in youth living with HIV-1 and antiretroviral therapy modulates anti-viral response through immune cellsurface receptors. Ashok Dinasarapu, Kai-Fen Chang, Alberto Riva, John Sleasman, Maureen Goodenow

**141. Virus-encoded miRNAs facilitate gammaherpesvirus latency and pathogenesis in vivo.** Emily Feldman, Mehmet Kara, Carrie Coleman, Katrina Grau, Lauren Oko, Brian Krueger, Rolf Renne, Linda Van Dyk, Scott Tibbetts

**142. Importance of the 5' terminal sequence in Coxsackievirus B3 RNA in regulating viral RNA replication.** Sushma Ogram, Joan Morasco, Nora Chapman, James Flanegan

**143. Lytic gene expression is critical for murine gammaherpesvirus 68 latency establishment in B cells.** Katrina Grau, Haiyan Li, Carrie Coleman, Ting-Ting Wu, Ren Sun, Scott Tibbetts

**144. MHV68 miRNA mutant lacking 12 of 14 pre-miRNA stem loops displays normal lytic replication in vitro and in vivo.** Mehmet Kara, Emily Feldman, Brian Krueger, Katrina Grau, Rolf Renne, Scott Tibbetts

**145. MHV68 viral IncRNAs regulate epigenetic machinery.** Lisa Keyes, Mehmet Kara, Emliy Feldman, Mariel Rickert, Scott Tibbetts

**146. Development of a CYP2C19 genotype guided dosing algorithm for voriconazole.** Naveen Mangal, Tanay Samant, Issam Hamadeh, Julie Johnson, Taimour Langaee, Stephan Schmidt

**147. Role of naturally occurring polymorphisms in HIV-1 subtype A, B or C protease and gag polyproteins in virion maturation.** Carla Mavian, Roxana Coman, Robert McKenna, Ben Dunn, Maureen Goodenow

**148. EphA2 depletion protects host from methicillin-resistant staphylococcus aureus (MRSA) empyema.** Satindra Gahlot, Najmunnisa Nasreen, Judith Johnson, Kamal Mohammed

**149. Open-label study to evaluate the safety and tolerability of Telaprevir in combination with Sofosbuvir in naïve subjects with hepatitis C virus genotype 1.** Giuseppe Morelli, Roberto Firpi, Patrick Horne, Joy Peter, Lucy Akushevich, Monika Vainorius, Shelley George, Abel De La Rosa, G. Prabhakar Reddy, Taylor Evers, Richard Arrendale, Tara Kieffer, Varun Garg, Michael Fried, David Nelson

**150. The role of alpha actinin in calcium-sensitive transpodia formation in hela cells infected with listeria monocytogenes.** Meray Ohanessian, Gurjit Sidhu, Wei Li, Frederick Southwick

151. Clinical and economic impact of antimicrobial stewardship interventions with the FilmArray Blood Culture Identification Panel.

Joe Pardo, Kenneth Klinker, Samuel Borgert, Brittany Butler, Patricia Giglio, Kenneth Rand

**152.** A clinical isolate of Klebsiella pneumoniae from infants induces colonic inflammation. Jillian Pope, Ye Yang, Xiaolun Sun, Maria Ukhanova, Joe Neu, Volker Mai, Christian Jobin

**153. Membrane bound β-lactamase of** *Burkholderia pseudomallei*. Linnell Randall, Herbert Schweizer

**154. Development of a population pharmacokinetic model characterizing the tissue distribution of azithromycin in healthy subjects.** Songmao Zheng, Peter Matzneller, Markus Zeitlinger, Stephan Schmidt

**155. Model-based comparison of monoclonal antibody dosing strategies for application in children.** Songmao Zheng, Puneet Gaitonde, Marilee Andrew, Megan Gibbs, Lawrence Lesko, Stephan Schmidt

**156.** Description of the population structure and genetic diversity of *M. tuberculosis* among patients of Haitian origin living in Florida. Marie Seraphin, Alice Abernathy, J. Glenn Morris, Michael Lauzardo

**157. Microbiota diminishes Campylobacter jejuni induced intestinal inflammation through modulation of virulence activities in II10-/- mice.** Xiaolun Sun, Christian Jobin **158. The role of USP18 in HIV-1 persistence in macrophages.** Jared Taylor, Daniel Aldridge, Melanie Cash, Mark Wallet

**159. South American eastern equine encephalitis: Possible enzootic hosts, human epidemiology, and associations with land use.** Amy Vittor, Blas Armien, Publio Gonzalez, Daniel Gonzalez, Claudia Dominguez, Mario Avila, Jean Paul Carrera, Julio Cisneros, Davis Beltran, Eryu Wang, Anayansi Valderrama, Doug Goodin, Jason Blackburn, Alex Castillo, Brechla Moreno, Nestor Sosa, Juan Miguel Pascale, Scott Weaver

**160.** Δ9-tetrahydrocannabinol (THC) suppresses HIV-1 infection of T cells. Julie Williams, Sofia Appelberg, Bruce Goldberger, Thomas Klein, John Sleasman, Maureen Goodenow

**161. Debridement with cold plasma generating instrument significantly reduces mature bacterial biofilms on pig skin explants.** Qingping Yang, Daniel Gibson, Gregory Schultz

**162. Development and maturation of immunoglobulin repertoires in health by next generation deep sequencing.** Li Yin, Jiqiang Yao, Kaifen Chang, John Sleasman, Maureen Goodenow

**163. A B cell-specific immune checkpoint regulates the outcome of norovirus.** Shu Zhu, Melissa Jones, Danielle Hickman, Shuhong Han, Westley Reeves, Stephanie Karst

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**165. Efficacy of clinically tested Laropiprant in minimizing brain injury following intracerebral hemorrhage.** Abdullah Ahmad, Monique Mendes, Sylvain Doré

**166. NADPH oxidase subunit p47phox is elevated in diaphragm of heart failure patients and required for heart failure-induced diaphragm dysfunction in mice.** Bumsoo Ahn, Adam Beharry, Gregory Frye, Andrew Judge, Jennifer Moylan, Charles Hoopes, Mark Bonnell, Leonardo Ferreira

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**168.** Inhibition of chemokine: Glycosaminoglycan (Glycocalyx) interaction in the donor kidney significantly reduces transplant rejection and vascular inflammation. Sriram Ambadapadi, Hao Chen, Donghang Zheng, Dara Wakefield, William Clapp, Alexandra Lucas

**169. Prognostic utility of lactate clearance after 24 to 48 hours of early goal directed therapy in the management of sepsis, severe sepsis, and septic shock.** Jason Chertoff, Michael Chisum, Lauren Simmons, Brent King, Michael Walker, Jorge Lascano

**170. Mitochondrial ATP transporter Ant2 is dispensable for basal liver function.** Joonseok Cho, Yujian Zhang, Jae-Sung Kim, Takayuki Shiratsuchi, S. Paul Oh, Young Jae Lee, Naohiro Terada

171. Active invasion of periodontal bacteria into synovial joint exacerbates collagen-induced arthritis in disease-prone B10 RIII mice. Sasanka Chukkapalli, Mercedes Rivera, Irina Velsko, Indraneel Bhattacharyya, Salvatore Calise, Edward Chan, Minoru Satoh, Kesavalu Lakshmyya

**172. Mechanism of grl function in vasculogenesis.** Changzoon Chun, Mark Segal

**173. Sirtuin 1-induced autophagy suppresses liver ischemia/ reperfusion injury in mice.** Thomas Biel, Joseph Flores-Toro, Joseph Dean, Ivan Zendejas, William Dunn Jr, Kevin Behrns, Jae-Sung Kim

**174. P-glycoprotein expression in the brain and peripheral tissues in a rat model of ischemic stroke.** Kelly DeMars, Changjun Yang, Kimberly Hawkins, Eduardo Candelario-Jalil

**175. Establishment of vascular smooth muscle cell differentiation from hypertensive patient derived induced pluripotent stem cells (iPSC) to model hypertension-pharmacogenomics "in a dish".** Bayli DiVita, Nikolett Biel, Katherine Santostefano, Rhonda Cooper-DeHoff, Julie Johnson, Naohiro Terada

# 176. Role of periodontal pathogens in induction of atherosclerosis in

**LDLRnull mice.** Meena Easwaran, Sasanka Chukkapalli, Mercedes Rivera-Kweh, Irina Velsko, Donghang Zheng, Alexandra Lucas, Lakshmyya Kesavalu

**177.** Overexpression of Calpastatin enhances hepatocellular autophagy and suppresses ischemia/reperfusion injury to mouse livers. Joseph Flores-Toro, Thomas Biel, Min-Ho Lee, Joseph Dean, Ivan Zendejas, Kevin Behrns, Jae-Sung Kim

**178. Development of a standardized murine autologous blood prechiasmatic cistern model of subarachnoid hemorrhage.** Joshua Garcia, Jenna Leclerc, Sylvain Doré

**179. Therapeutic potential of the prostaglandin E2 EP1 receptor in traumatic brain injury.** Alexander Glushakov, Jawad Fazal, Shuh Narumiya, Sylvain Doré

**180. Nicotinic receptors regulate inflammatory and apoptotic signaling through nonconducting states.** Timothy Gould, Nicole Horenstein, Christopher Kinter, Roger Papke

**181. Overexpression of soluble hemopexin as a therapeutic tool against intracerebral hemorrhage.** Jenna Leclerc, Alex Dang, Juan Santiago-Moreno, Sylvain Doré

**182. Clinical application of haptoglobin in models of supraphysiologic extracellular brain hemoglobin levels.** Jenna Leclerc, Sean Robbins, Tina Esfandiary, Alex Dang, Sylvain Doré

**183. Prostaglandin E2 EP2 receptor deletion attenuates intracerebral hemorrhage-induced brain injury and improves functional recovery.** Jenna Leclerc, Andrew Lampert, Matthew Diller, Joshua Immergluck, Shuh Narumiya, Sylvain Doré

**184. Genetic deletion of the PGE2 EP3 receptor improves anatomical and functional outcomes after intracerebral hemorrhage.** Jenna Leclerc, Matthew Diller, Andrew Lampert, Shuh Narumiya, Sylvain Doré

**185. Effect of blockade or stimulation of the prostaglandin E2 EP1 receptor on intracerebral hemorrhage-induced brain injury.** Jenna Leclerc, Abdullah Ahmad, Nilendra Singh, Luke Soshnik-Schierling, Ellis Greene, Alex Dang, Sylvain Doré **186.** Haptoglobin phenotype predicts the development of focal and global cerebral vasospasm and influences outcomes after aneurysmal subarachnoid hemorrhage. Jenna Leclerc, Spiros Blackburn, Dan Neal, Nicholas Mendez, Jeffrey Wharton, Michael Waters, Sylvain Doré

**187.** Neurovascular protection by post-ischemic injections of a lipoxin A4 receptor agonist, BML-111, in a rat model of ischemic stroke. Kimberly Hawkins, Kelly DeMars, Henry Cho, Jonathan Singh, Jan Frankowski, Sylvain Doré, Eduardo Candelario-Jalil

**188.** Activation of nucleotide binding oligomerization domainlike receptor family, pyrin domain containing -3 inflammasomes in hyperoxaluric rats, is it caused by oxalate or calcium oxalate crystals? Sunil Joshi, Wei Wang, Saeed Khan

**189. Monocyte gene expression changes following arteriovenous fistula creation.** Chris Kuppler, Kerri O'Malley, Lyle Moldawer, Scott Berceli

**190. The correlation between arteriovenous fistula fluid dynamics and maturation.** Liza Laquian, Yong He, Scott Berceli

**191. Activation of prostaglandin E2 EP1 receptor promotes microglial phagocytosis though CD36 receptor recycling.** Bo Ma, Jason Day, Leng Zhou, Takayuki Maruyama, Sylvain Doré

**192. Deletion of the hemopexin or heme oxygenase-2 gene aggravates brain injury following stroma-free hemoglobin-induced intracerebral hemorrhage.** Bo Ma, Jason Day, Emanuela Tolosano, Sylvain Doré

**193. Effects of Sildenafil, a phosphodiesterase inhibitor, and brain natriuretic peptide (BNP - Nesiritide) on ischemia/reperfusion injury in rat Type II pneumocytes.** Caleb Matthews, Jessica Cobb, Thomas Beaver

**194. Beneficial stroke outcomes following epicatechin consumption in young and older mice.** Christopher Leonardo, Monique Mendes, Abdullah Ahmad, Sylvain Doré

**195. Carbon monoxide (CO) at low concentrations neuroprotective in hypoxic ischemia in neonatal mice.** Martha Douglas-Escobar, Monique Mendes, Candace Rossignol, Michael Weiss, Sylvain Doré

**196. Interaction of AP endonuclease 1 and aryl hydrocarbon receptor in chronic obstructive pulmonary disease.** Satya Narayan, Aruna Jaiswal, Kamal Mohammed, Liu Li, Robert Hromas **197. Development of an anatomically-correct 3-D flow chamber bioreactor for studies of cerebral aneurysm formation and treatment with bioactive devices.** Kamil Nowicki, Andrew Kolarich, Koji Hosaka, Yong He, Peter McFetridge, Edward Scott, Brian Hoh

**198.** Investigation of colon CaSR anti-inflammatory role in response to agonist and antagonist. Alexandra Pedicone, Samuel Cheng

**199. The molecular mechanism of the alpha7 nAChR silent agonist NS6740 is associated with nonconducting conformations of the receptor.** Can Peng, Roger Papke

200. A disintegrin and metalloprotease with thrombospondin Type I motif 7: A new protease for connective tissue growth factor in hepatic progenitor/oval cell niche. Liya Pi, Marda Jorgensen, Seh-hoon Oh, Yianni Protopapadakis, Altin Gjymishka, Alicia Brown, Paulette Robinson, Chuanju Liu, Edward Scott, Gregory Schultz, Bryon Petersen

**201. The involvement of connective tissue growth factor during alcoholic and nonalcoholic steatohepatitis.** Liya Pi, Marda Jorgensen, Bryon Petersen

**202.** The correlation between CT and duplex evaluation of vein bypass grafts and their relationships to graft failure. Jonathan Rehfuss, Yong He, Bradley Schmit, Kenneth Desart, Peter Nelson, Scott Berceli, Salvatore Scali

**203. The role of hepcidin in persistent injury-associated anemia.** Michael Smith, Ines Alamo, Kolenkode Kannan, Alicia Mohr

**204. Haptoglobin phenotype and clinical outcomes after severe traumatic brain injury.** Stephanie Stillings, Jenna Leclerc, Sylvain Doré

**205. Elevated wall shear stress predicts branch graft failure following Chimney EVAR.** Rosamaria Tricarico, Yong He, Adam Beck, Salvatore Scali, Roger Tran-Son-Tay, Scott Berceli

**206. Characterizing a novel murine model for idiopathic pulmonary fibrosis.** Christina Turn, Narasaiah Kolliputi

**207. Adropin reduces paracellular permeability of rat brain endothelial cells exposed to ischemia-like conditions.** Changjun Yang, Kelly DeMars, Kimberly Hawkins, Eduardo Candelario-Jalil

**208.** Prostacyclin receptor activation with MRE-269 reduces infarct size and improves long-term neurological recovery following ischemic stroke in both young and aged rats. Changjun Yang, Jon Alexander, Kelly DeMars, Kimberly Hawkins, Marcelo Febo, Eduardo Candelario-Jalil

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**209.** Metabolic predictors of response to pioglitazone treatment in patients with prediabetes or Type 2 Diabetes Mellitus (T2DM) and Nonalcoholic Steatohepatitis (NASH). Fernando Bril, Paola Portillo Sanchez, Maryann Maximos, Romina Lomonaco, Srilaxmi Kalavalapalli, Amitabh Suman, Margaret Lo, Song Lai, Kenneth Cusi

**210. Rapamycin as a potential treatment for obesity.** Erin Bruce, Yasemin Sakarya, Michael Matheny, Nataliya Kirichenko, Hale Toklu, Drake Morgan, Nihal Tumer, Christy Carter, Philip Scarpace

**211. Nephrin phosphorylation in Minimal Change Disease.** Gabriel Cara-Fuentes, Heiman Wang, Eduardo Garin

**212. Clinical value of podocyte and urinary CD80 in differentiating treatment considerations for Minimal Change Disease and Focal Segmental Glomerulosclerosis.** Jochen Reiser, Nada Alachkar, Gabriel Cara-Fuentes, Richard Johnson, Eduardo Garin

**213. Accelerated phenotype in a novel model of Pompe disease.** A. Gary Todd, Phil Doerfler, Glenn Walter, Lucia Notterpek, David Fuller, Barry Byrne, Darin Falk

**214. Dual AAV9 vectors improve cardiac and skeletal muscle function with amelioration of immune responses in Pompe mice.** Phillip Doerfler, A. Gary Todd, Nathalie Clément, Darin Falk, Roland Herzog, Barry Byrne

**215. Function of ketohexokinase (khk) in somitogenesis and angiogenesis.** Chao Chen, Di-Hua He, Changzoon Chun

**216. Retrospective analysis of public domain adverse events related to P-glycoprotein associated interaction of Digoxin-perpetrator drugs.** Brett Fleisher, Chakradhar Lagishetty, Lawrence Lesko, Mirjam Trame

**217. Early correction of neural deficits in Pompe disease is required for restoration of strength following gene therapy.** A. Gary Todd, Jessica McElroy, Robert Grange, Glenn Walter, David Fuller, Barry Byrne, Darin Falk

**218.** The effect of high fat and high fat/fructose diet on the vascular reactivity of the basilar artery. Hale Toklu, Judy Muller-Delp, Yasemin Sakarya, Şehkar Oktay, Nataliya Kirichenko, Michael Matheny, Christy Carter, Drake Morgan, Kevin Strehler, Nihal Tümer, Philip Scarpace

**219. Global metabolomics of complications in pregnancy.** Jacquelyn Walejko, Maureen Keller-Wood, Charles Wood, Josef Neu, David Nelson, Arthur Edison

**220. A cyclic-AMP dependent pathway regulates intestinal oxalate secretion.** Jonathan Whittamore, Marguerite Hatch

**221. Induction of mitochondrial tri-carboxylic acid cycle is sustained in mice with nonalcoholic steatohepatitis (NASH).** Srilaxmi Kalavalapalli, Rainey Patterson, Manisha Nautiyal, Justin Mathew, Janie Martinez, Timothy Garrett, Kenneth Cusi, Nishanth Sunny

#### 222. A simultaneous semi-mechanistic population analysis of levofloxacin in plasma, lung and prostrate measured by microdialysis in Wistar rats following intravenous administration. Estevan

Zimmermann, Camila Neris, Chakradhar Lagishetty, Whocely Victor de Castro, Teresa Dalla Costa, Stephan Schmidt

**223. Enzyme focused PBPK modelling in adults for candidate drugs using GastroPlus.** Tanay Samant, Naveen Mangal, Viera Lukacova, Lawrence Lesko, Stephan Schmidt

**224. Circadian regulation of IncRNAs connects Per1, Endothelin-1, and GR.** Kristen Solocinski, Sarah Barilovits, Amanda Welch, Charles Wingo, Brian Cain, Michelle Gumz

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**225. Prevalence of depression and anxiety in atypical Parkinsonian patients.** Leonardo Almeida, Nikolaus McFarland, Michael Okun

**226. Experimental transmissibility of mutant SOD1 motor neuron disease.** Jacob Ayers, Susan Fromholt, Morgan Koch, Adam DeBosier, Ben McMahon, Guilian Xu, David Borchelt

**227. Craniofacial deformity and malocclusion in a mouse model of neurofibromatosis type 1 (NF1).** Ibraheem Bamaga, Song Xue, Kevin McHugh **228. IL-10 modifies disease progression and pathology in a mouse model of alpha synucleinopathy.** Mieu My Thi Brooks, Paramita Chakrabarty, Vincent Hudson, Yona Levites, Todd Golde, Benoit Giasson

**229. Behavioral changes and signs of dependence associated with chronic cannabis smoke exposure.** Adrie Bruijnzeel, Xiaoli Qi, Shannon Wall, Mark Gold, Marcelo Febo, Barry Setlow

**230. Characterization of dopaminergic neurons expressing physiological and overexpressed levels of alpha-synuclein.** Brittany Butler, Damiano Angoli, Kaustav Saha, Min Lin, Jason Coleman, Beniot Giasson, Todd Golde, Habibeh Khoshbouei

**231. ALS-linked ubiquilin-2 mutants cause inclusion pathology in a somatic brain transgenic mouse model.** Carolina Ceballos-Diaz, Awilda Rosario, Paramita Chakrabarty, Amanda Sacino, Pedro Cruz, Zoe Siemienski, Nicolas Lara, Corey Moran, Natalia Ravelo, Hyo-Jin Park, Todd Golde, Nikolaus McFarland

**232. IFN-γ promotes tau hyperphosphorylation without affecting mature tangles.** Carolina Ceballos Diaz, Andrew Li, Nadia DiNunno, Yona Levites, Pedro Cruz, Ben Giasson, Todd Golde, Paramita Chakrabarty

**233. Capsid-promoter combinations as determinants of rAAV mediated cell type specific transgene expression in primary cultures and mouse brains.** Paramita Chakrabarty, Pedro Cruz, Carolina Ceballos-Diaz, Awilda Rosario, Zin Khaing, Georgiy Aslanidi, Meghan Pardo, Doris Deng, Christian Archer, Maria Parianos, Manuel Frutos, Keri-lyn Schob, Julia Giardina, Estefania Steiner, John Guitierrez, John Butterfield, Yen Le, Arun Srivastava, Yona Levites, Edgardo Rodriguez, Todd Golde

**234. Utilizing Progerin to induce aging phenotype in primary neuroglial cultures and mouse models of proteostasis.** Christian Archer, Carolina Ceballos-Diaz, Awilda Rosario, Pedro Cruz, Paramita Chakrabarty, Todd Golde

**235. Altered D1R-positive medium spiny neuron activity and impaired motor-skill transfer in Dyt1 ΔGAG heterozygous knock-in mice.** Huanxin Chen, Fumiaki Yokoi, Mai Dang, Jun Liu, Jason Gandre, Kelly Kwon, Robert Yuen, Steve Roper, Yuqing Li

**236. Injectable acellular nerve hydrogels for treating spinal cord injury.** Chase Cornelison, Christine Schmidt

**237. Post processing optimization of functional connectivity MRI procedures.** Luis Colon-Perez, Marcelo Febo

**238. 3,4-Methylenedioxypyrovalerone (MDPV), a major bath salt drug, reduces functional connectivity in rat brain.** Luis Colon-Perez, Kelvin Tran, Khalil Thompson, Michael Pace, Maria Korah, Kenneth Blum, Bruce Goldberger, Mark Gold, Adriaan Bruijnzeel, Barry Setlow, Marcelo Febo

**239. Development of diffusion-weighed MRI to study structural changes in the brain stem following mild traumatic brain injury.** Luis Colon-Perez, Manish Amin, Margarita Khariton, Molly Sullan, Anastasia Ford, Joe Gullet, David Fitzgerald, Thomas Mareci

240. Simultaneous cell type specific targeting by multiple AAVs in primary neuroglia: Implications for neuroglial connectomics and cell type specific disease modification. Pedro Cruz, Maria Parianos, Cory Jones, Jessica Lew, Julia Giardina, Estefania Steiner, John Gutierrez, Yen Le, Ted Frederic, Flana Levando, Franklin Burg, Ethan Salgado, Patrick Bliven, Carolina Ceballos-Diaz, Mieu M-T Brooks, Awilda Rosario, Paramita Chakrabarty, Todd Golde

**241. ADCY5 mutation: A rare cause of childhood onset hyperkinetic movement disorder.** Sol De Jesus, Nikolaus McFarland, Aparna Wagle Shukla, Christopher Hess, Michael Okun

**242. Risky decision-making behavior modulates the epigenetic factor MeCP2 in prefrontal cortex.** Jay Deng, Caitlin Orsini, Kristy Shimp, Jennifer Bizon, Barry Setlow

**243. Modeling and simulation of magnetic nanoparticle harmonic spectra.** Rohan Dhavalikar, Carlos Rinaldi

**244. Perioperative aspirin use in patients undergoing craniotomy for brain tumor.** Lauren Donnangelo, Mustafa Ahmed, Dan Neal, Kiran Mogali, Matthew Decker, Maryam Rahman

**245. Cognitive-motor dysfunction after moderate to severe traumatic brain injury: A cerebral interhemispheric disconnection syndrome.** Adam Falchook, Eric Porges, Stephen Nadeau, Susan Leon, John Williamson, Kenneth Heilman

**246. Primary cilia on olfactory horizontal basal cells regulate OE regeneration.** Ariell Joiner, Warren Green, Jeremy McIntyre, Jeffrey Martens

**247. Exploring LRRK2 as a tau kinase and implications of this activity in Parkinson's disease.** Matthew Hamm, Rachel Bailey, Jason Covy, Heather Melrose, Linda Rosseau, Ruth Watkinson, Joshua Knight, Sarah Miles, Matt Farrer, Dennis Dickson, Benoit Giasson, Jada Lewis

**248. Variability in the ideal target of GPi DBS for Parkinson's disease requires advanced direct targeting for optimal results.** Justin Hilliard, Takashi Morishita, Michael Okun, Kelly Foote

**249. Tumor subtype influences quality performance measures and post-operative complications in pituitary adenoma patients.** Alexander Vlasak, Kristopher Hooten, Wenya Bi, Timothy Smith, Dan Neal, Ian Dunn, Steven Roper, Gregory Murad, Edward Laws, Maryam Rahman

**250. Calculating magnetic field produced by low-amplitude electric current injection into a hydrogel using Magnetic Resonance Electrical Impedance Tomography (MREIT).** Aditya Kumar Kasinadhuni, Rosalind Sadleir, Chris Anderson, Paul Carney, Thomas Mareci

**251. Brain astrocytes are acutely vulnerable to simulated blast shock.** Saranya Canchi, Ghatu Subhash, Malisa Sarntinoranont, Michael King

**252. Phase contrast MRI with reduced eddy current distortion.** Magdoom Kulam, Malisa Sarntinoranont, Thomas Mareci

**253. Magnetically templated hydrogels for engineered peripheral nerve repair scaffolds.** Christopher Lacko, Andrew Garcia, Carlos Rinaldi, Christine Schmidt

**254. Effects of intracellular and extracellular recombinant antibodies on tau pathology.** Golda Sinyavskiy, Pedro Cruz, Awilda Rosario, Jada Lewis, Todd Golde, Yona Levites

**255. Characterizing sex differences among pain medication abusers.** Ben Lewis, Lauren Hoffman, Sara Jo Nixon

**256. Analysis of Btbd9 conditional knockout mice as models of restless legs syndrome.** Mark DeAndrade, Fumiaki Yokoi, Yuqing Li

**257. Gray matter damage and respiratory activity following midcervical spinal cord injury.** Nicole Little, Elisa Gonzalez-Rothi, Lynne Mercier, David Fuller, Michael Lane, Paul Reier

**258. Robust muscle cell segmentation using region selection with dynamic programming.** Fujun Liu, Fuyong Xing, Lin Yang

**259. Determining the pathogenicity of short amyloid beta peptides using a** *Drosophila* **model.** Jason Martin, Brenda Moore, Lorena Alvarez, Jonatan Sanchez, Yan Zhang, Pedro Fernandez-Funez, Diego Rincon-Limas, Pedro Cruz, Todd Golde

**260. Estradiol is involved in mediating electroencephalographic hyperexcitatory and anesthetic effects of sevoflurane in neonatal rats.** Jiaqiang Zhang, Changqing Xu, Dyanet Puentes, Elizabeth Valdes, Dayana Infante, Christoph Seubert, Nikolaus Gravenstein, Anatoly Martynyuk

**261. RNA mediated toxicity in Spinocerebellar ataxia type 10 (SCA10).** Karen McFarland, Jilin Liu, Christina Ahn, Jenny Holt, Ivette Landrian, Stephen Tapia-Ruano, Connie Mulligan, Astrid Rasmussen, Tetsuo Ashizawa

**262. Gene expression profiles of the subthalamic nucleus in mice with and without repetitive behavior.** Lisa Curry, Amber Muehlmann

**263. Stereotactic striatal injection of a regulated viral GDNF expression system in non-human primates.** Seth Oliveria, Kelly Foote, Ronald Mandel

**264.** Does ciprofloxacin affect collagen levels in the tympanic membrane. Nicklas Orobello, Carol Ojano-Dirain, Patrick Antonelli

**265. The basolateral amygdala and the orbitofrontal cortex have functionally dissociable roles in a rodent model of risky decision-making.** Caitlin Orsini, Rose Trotta, Jennifer Bizon, Barry Setlow

**266. Retention in endoplasmic reticulum (RER1) promotes alphasynuclein degradation.** Hyo-Jin Park, Daniel Ryu, Benoit Giasson, Nikolaus McFarland

**267. Neonatal seizures disrupt growth of primary cilia in developing cortical neurons.** Alexander Parker, Megan Le, George Ugartemendia, Jason Coleman, Matthew Sarkisian

**268. Cervical spinal cord injury alters the pattern of inspiratory and expiratory neuronal activity in the rat brainstem respiratory centers.** Lynne Mercier, Milap Sandhu, Savannah Posgai, Elisa Gonzalez-Rothi, Nicole Little, David Baekey, Michael Lane, David Fuller, Paul Reier

**269. Variation in spatiotemporal expression of Matrin 3 in vivo.** Sruti Rayaprolu, Simon D'Alton, Keith Crosby, John Howard, David Borchelt, Jada Lewis

270. Attenuation of hyperactivity induced by methamphetamine, oxycodone, and their combination by a novel 5HT2C agonist / 5HT2A-

**2B antagonist.** Jessica Rose, Paul Orza, Clint Canal, Myong Kim, Raymond Booth, Drake Morgan

**271. Neural correlates of impulse control in Parkinson's disease.** Corinna Peden, P. Justin Rossi, Michael Okun

**272.** Fewer than two hours of daily centromedian thalamic stimulation produces significant tic reduction in Tourette syndrome: Two-year follow-up of a personalized, scheduled DBS strategy. P. Justin Rossi, Aysegul Gunduz, Jonathan Shute, Dawn Bowers, Herbert Ward, Kelly Foote, Michael Okun

273. Induction of  $\alpha$ -synuclein pathology and neuroinflammation in  $\alpha$ -synuclein transgenic mice. Nicola Rutherford, Amanda Sacino, Mieu Brooks, Jasie Howard, Thomas Ladd, Todd Golde, Benoit Giasson

**274. HIV-tat 101 protein regulation of electrophysiological properties of midbrain dopaminergic neurons.** Kaustuv Saha, Min Lin, Danielle Sambo, Glenn Garron, Soha Alam, Anna Shao, Taiwo Alonge, Niousha Ahmari, Shilpa Buch, Habibeh Khoshbouei.

**275. Identification and characterization of disease mechanisms in MEGF10 myopathy.** Madhurima Saha, Satomi Mitsuhashi, Peter Kang

**276. Regulation of methamphetamine-mediated dopamine transporter activity by the sigma-1 receptor.** Danielle Sambo, Min Lin, Ben Richardson, Damiano Angoli, Taiwo Alonge, Bruce Blough, Jonathan Katz, Habibeh Khoshbouei

**277. Multiple instance learning based automated histopathology image annotation.** Manish Sapkota, Fuyong Xing, Lin Yang

**278.** The profile of the hospitalized and re-hospitalized Parkinson disease patient: 5 year data from the National Parkinson Foundation. Leili Shahgholi, Sol De Jesus, Samuel Wu, Qinglin Pei, Anhar Hassan, Peter Schmidt, Michael Okun

**279. Sex differences in a rat model of risky decision making.** Kristy Shimp, Caitlin Orsini, Ryan Gilbert, Markie Willis, Jennifer Bizon, Barry Setlow

**280. Target identification for use in screening HDAC inhibitor libraries for novel treatments for schizophrenia.** Kimberly Shorter, Patricia Glenton, Robert Hromas, Brooke Miller

**281. Automatic myonuclear detection in isolated single muscle fibers using robust ellipse fitting and sparse representation.** Hai Su, Fuyong Xing, Jonah Lee, Charlotte Peterson, Lin Yang

**282. Analysis of tissue injury response to deep brain stimulation electrodes in a rat model.** Vinata Vedam-Mai, Massoud Baradaran-Shoraka, Jamie Schwarz, Eun Mi Kim, Sara Ardila, Alex Mafdali, Brent Reynolds, Michael Okun

**283. In vivo MR characterization of dystrophic murine model on a DBA background.** Ravneet Vohra, Krista Vandenborne, Elizabeth Mcnally, Glenn Walter

**284.** Do tumor and ventricular volume predict the need for postresection shunting in colloid cyst patients? Kristin Weaver, Matthew McCord, Dan Neal, Maryam Rahman

**285. Assessing higher-order repetitive behavior in a mouse model of autism.** Cristina Whitehouse, Robin Shafer, Mark Lewis

**286. Robust cell detection in neuroendocrine cancer using hierarchical voting and convolutional neural network.** Yuanpu Xie, Fuyong Xing, Hai Su

**287.** Automatic, high throughput overlapping cell segmentation on digitized lung cancer pathology specimens. Fuyong Xing, Lin Yang

288. 3-(Arylidene)-4(R),6(S)-Ethylene-Anabaseines display high  $\alpha7$  versus  $\alpha4\beta2$  nAChR selectivity. Hong Xing, Ferenc Soti, Ziang Lu, William Kem

**289. Electrophysiological characterization of DYT1 dystonia mouse models.** Fumiaki Yokoi, Huan-Xin Chen, Chad Cheetham, Susan Campbell, Steven Roper, David Sweatt, Yuqing Li

#### VISION

290. An antioxidant gene therapy approach to treat retinal

**degeneration.** Manas Biswal, Cristhian Ildefonso, Brian Rossmiller, Zhaoyang Wang, Haoyu Mao, Hong Li, Ping Han, Ping Zhu, Yao Tong, Lindsey Buzz, Giovani Quinones Valdez, Alfred Lewin

### 291. Rational design of AAV vectors for efficient transduction of Müller

**cells.** Shreyasi Choudhury, Rachna Manek, Miranda White, Jinfeng Sun, Georgiy Aslanidi, Arun Svrivistava, Sanford Boye, Shannon Boye

**292. Gene therapy to induce neuroprotection in retina.** Ansuya Deosaran, Carolina Abrahan, John Ash

**293. The aldehyde trap NS2 mitigates dense haze in a rabbit model of photorefractive keratectomy.** Daniel Gibson

294. Inhibition of IL-1 $\beta$  exhibits a protective effect against retinal degeneration in a model of NalO3-induced oxidative stress in the retinal pigment epithelium. Kyle Jones, Cristhian Ildefonso, Alfred Lewin

**295. Dual inhibition of VEGF and complement pathway confer protection against diabetic retinopathy and choroidal neovascularization.** Yiming Li, Ping Zhu, Yuyuan Ma, Amrisha Verma, Tuhina Prasad, Na Zhang, Pollob Shil, Hongxin Deng Dechao Yu, Qiuhong Li

**296. Suppression of ocular inflammation by dual inhibition of VEGF and complement activation.** Yiming Li, Ping Zhu, Amrisha Verma, Tuhina Prasad, Pollob Shil, Hongxin Deng Dechao Yu, Qiuhong Li

**297. Effects of alamandine on inflammation, oxidative stress, endoplasmic reticulum stress and cell proliferation in human RPE and Müller glial cells.** Yuyuan Ma, Yiming Li, Amrisha Verma, Na Zhang, Tuhina Prasad, Qiuhong Li

**298. Evaluating relative transduction efficiency of AAV vectors in mouse vs. non-human primate retina.** Tyler McCullough, Paul Gamlin, Seok Hong Min, Artur Cideciyan, Sanford Boye, Shannon Boye

**299. Brightness-color interactions in human early visual cortex.** Dajun Xing, Ahmed Ouni, Hinde Sahmoud, James Gordon, Robert Shapley

**300.** Donor rim culture as prognostic tool for post-operative corneal infections following Descemet's stripping endothelial keratoplasty. Shiyi Pang, Sonal Tuli

**301. Expression and function of Mas-related G-protein coupled receptor D and its novel ligand Alamandine in retina.** Tuhina Prasad, Ping Zhu, Amrisha Verma, Qiuhong Li **302. Increased levels of amyloid β peptides in RPE via AAV-mediated gene transfer mimics AMD-like pathology in mice.** Tuhina Prasad, Ping Zhu, Amrisha Verma, Paramita Chakrabarty, Awilda Rosario, Todd Golde, Qiuhong Li

**303. Gene therapy with self-complementary recombinant adenoassociated virus in models of autosomal dominant retinitis pigmentosa cause by RHO mutations.** Brian Rossmiller, Danny Zakria, Arathi Nandyala, Hiral Jivanji, Haoyu Mao, Alfred Lewin

**304. BBSome interactions in photoreceptor cells: Determination of specific proteins associated with axonemal BBS5.** W. Clay Smith, Susan Bolch, Donald Dugger, Bilen Kassu

**305. Comparison of transfection efficiency and cellular toxicity of different transfection reagents for human retinal cells.** Amrisha Verma, Tuhina Prasad, Ping Zhu, Qiuhong Li.

**306. AAV-mediated rescue of a mouse model of X-linked Congenital Stationary Night Blindness.** Miranda White, Sanford Boye, Frank Dyka, Kathryn Fransen, Charles de Leeuw, Elizabeth Simpson, Ronald Gregg, Maureen McCall, Neal Peachey, Shannon Boye

**307.** Long term effects of retinal overexpression of ACE2 and Ang-(1-7) via AAV-mediated gene transfer in wild type mice. Ping Zhu, Tuhina Prasad, Amrisha Verma, Qiuhong Li

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**308. Common non-cardiac contributors to anginal pain - experience of emergency chest pain evaluation center.** Mohammad Al-Ani, Ahmed Mahmoud, Robert Hamburger, David Winchester

**309.** Noninvasively determined work of breathing during noninvasive pressure support: Validation study. Carl Tams, Michael Banner, Neil Euliano, A. Daniel Martin, Paul Stephan, Nawar Al-Rawas, Andrea Gabrielli

**310. Urogynecologic surgical competencies of ObGyn residents: Is there alignment between ObGyn residency and FPMRS fellowship program directors?** Hazel Asumu, Anne Richardson, Lou Ann Cooper, John Davis, Emily Weber LeBrun

## 311. The prevalence of overweight and obese patients presenting to the emergency department (ED) and an assessment of their health.

Mark Baptiste, Vishal Goswami, Malorie Lipman, Marie-Carmell Elie, Emily Weeks, Matthew Ryan

**312.** A descriptive study of factors leading to delay in the diagnosis of advanced cervical cancer. Paula Beers, Michael Kinson, Jacqueline Castagno

**313. Revascularization and outcomes in veterans with moderate to severe ischemia.** Alexander Bolanos, Anita Wokhlu, Rebecca Beyth, David Winchester

**314. Explaining state variation in medicaid expenditures.** Deina Bossa, Lawrence Kenny, Jill Herndon

**315. Diagnostic yield of noninvasive cardiovascular testing in a low risk chest pain unit population.** John Brandt, Carla Schmidt, Brandon Allen, Thomas Payton, David Winchester

**316.** Association of internet gambling and alcohol consumption in adolescents. Joe Brew, Sonam Lasopa, Catherine Striley, Linda Cottler

**317. Adolescent suicide clusters and their impact on the community.** Andrea Brownridge, Michael Shapiro, Mathew Nguyen

**318. Risk of death in veteran patients with elevated troponin: Type 1 versus Type 2 myocardial infarction.** Lucas Burke, Manoj Jadhav, Carsten Schmalfuss, Carl Pepine, David Winchester

**319. Comparing apples: The use of an art therapy assessment with adolescents with eating disorders.** Genevieve Camp, Amy Bucciarelli, Mathew Nguyen

**320. Can the HEART score keep chest pain patients from returning to the ED?** Kevin Cao, Victor Huang, Brandon Allen, Mike Marchick, Ahmed Mahmoud, David Winchester

**321. Feasibility of extended duration follow-up for patients receiving warfarin (FADE-OUT).** Nicholas Carris, James Taylor, Katherine Vogel Anderson, Karen Sando, Alisa Spinelli, Jennifer Elliott, Jason Powell, Danielle Pierini, Patrick Cogan, Eric Rosenberg, Marc Zumberg, Steven Smith, John Gums, Eric Dietrich **322.** Possessed by the Devil: Case report and review of childhood psychosis and spiritual belief implications in mental illness. Michelle Chanev-Catchpole

**323. Correlation of anti-Xa levels in patients on low molecular heparin (LMWH) and birth weight.** Oluseyi Ogunleye, Patrick Duff

**324. Outcomes of applied training in quality improvement for postgraduate medical trainees.** Calvin Choi, Matthew McKillop, Thomas Burkart, Rebecca Beyth, David Winchester

**325.** Issues surrounding effective implementation and documentation of oral nutritional supplements in hospitalized patients: A review of literature. Zandra Christopher, Kate Krause, Shannon Dunne, Amber Bart, Sandra Citty

**326. Use of optic nerve sheath diameter to predict stroke outcome.** Vishnumurthy Shushrutha Hedna, Brian Corliss, Vaibhav Rastogi, Emily Weeks, Rohit Patel

**327. Establishing standard performance measures in adult TBI patients.** Brian Corliss, Kristopher Hooten, Sarah Gul, Dan Neal, Gregory Murad, Maryam Rahman

**328. The Impact of cervical cancer education at Centro Médico Asistencial Casa Hogar Del Campesino, Cusco, Peru.** Jennifer Costa, Elizabeth Plasencia, Mariana Ramos-Rivera, Luisa Vera, James Grigg

**329. Multi-morbid chronic disease and emergency department use: Understanding gender differences.** Hannah Crooke, Sadaf Milani, Linda Cottler, Catherine Striley

**330. Recovery of life role activities and underlying impairment gains in response to comprehensive, integrated, milieu intervention for TBI survivors.** Jessica McCabe, Stephanie Pudlik, Richard Burdsall, Timothy Leslie, Helen Emery, Carolyn Hanson

**331. Blunt cerebrovascular injuries at UF Health: A retrospective review.** Matthew Decker, Greg Murad

**332. Pilot Study: Intra-operative use of fluorescein for malignant glioma resection; a histopathologic analysis.** Matthew Decker, Jesse Kresak, Anthony Yachnis, Frank Bova, Maryam Rahman

**333. Effects of perioperative aspirin on clinical outcomes in patients undergoing craniotomy for brain tumor.** Maryam Rahman, Lauren Donnangelo, Dan Neal, Kiran Mogali, Matthew Decker, Mustafa Ahmed

**334. Photoplethysmography and heart rate variability for the prediction of preeclampsia.** Mariem del Rio, Shalom Darmanjian, Savya Singh, Neil Euliano, Monique Ho, Tammy Euliano

**335. Embryonal tumor with multilayered rosettes of the fourth ventricle: Case report and review of the literature.** Catherine Edmonson, Kristin Weaver, Jesse Kresak, David Pincus

**336. Pediatric bronchoscopy in children with chronic cough: Diagnostic and therapeutic yield.** Andre Espaillat, Pritish Mondal, Yanerys Colon-Cortes, Mutasim Abu-Hasan, Satyanarayan Hegde

**337. The ableist physician? A study of perceived quality of life for disabled patients.** Katherine Fahy, Nina Stoyan-Rosenzweig

**338. Preventing diabetes in West Virginia: Review of programs that consider barriers to care**. Justine Falcone, Ranjita Misra

**339. Evaluating and planning teen pregnancy interventions in Tumbaco, Ecuador.** Stacey Geryak, Elizabeth Poulson, Robert Lawrence

**340. PTSD as a shared diagnosis between parent and child.** Almari Ginory, Michael Shapiro

**341. Priapism and antipsychotics: Case report and review.** Mathew Nguyen, Almari Ginory

**342. Linking "doing" and "being" with hands in medicine.** Catherine Gonsalves, Zareen Zaidi

**343. Understanding health disparities related to weight in the emergency department (ED).** Vishal Goswami, Mark Baptiste, Malorie Lipman, Marie-Carmelle Elie, Emily Weeks, Matthew Ryan

**344. A case of a healthy athletic teenager with exercise-induced dyspnea due to isolated respiratory muscle weakness.** Dipankar Gupta, Mutasim Abu-hasan

**345. Effect of prenatal diagnosis on hospital costs in patients with complete transposition of great arteries.** Dipankar Gupta, Himesh Vyas, Dalia Lopez-Colon, Connie Nixon, Jennifer Co-Vu

**346. Endotracheal intubation for pediatric trauma: Evaluation of patient outcomes treated at a Level 1 Trauma Center.** Harold Hamann, Saleem Islam, David Kays, Janice Taylor, Shawn Larson

**347. Utility of the Diamond-Forrester classification in stratifying acute chest pain in an academic chest pain center.** Robert Hamburger, Muhommad Al-Ani, Ahmed Mahmoud, John Spertus, David Winchester

**348. Lateral ventricle ratio, a predictor of in hospital mortality in moderate to severe traumatic brain injury.** Cory Hartman, Arnold Toth, Saeed Sadrameli, Joshua Garcia, Gregory Murad, Steven Robicsek

**349. UF mobile clinic needs assessment for Gainesville's homeless population.** Meron Hirpa, Omar Iqbal, Haider Ali, Sama Ilyas, Nabeel Iqbal, Jeena Kar, Brendan Shortley, Nancy Hardt

**350. Evaluation of a curriculum for teaching cross cultural communication to pediatric residents.** Susan Horky, Joseph Andreola, Erik Black, Michele Lossius

**351. Can low-risk chest pain patients be safely discharged from the ED using the HEART score?** Victor Huang, Kevin Cao, Xiaoming Jia, Emily Weeks, Michael Marchick, Brandon Allen, Ahmed Mahmoud, David Winchester

**352. Mortality and cost of acute and chronic kidney disease after vascular surgery.** Matthew Huber, Tezcan Ozrazgat-Baslanti, Paul Thottakkara, Charles Hobson, Azra Bihorac

**353.** An analysis of test-retest performance of the King-Devick test and comparison to standard concussion tests in collegiate football players. Dominic Iorio, Brenton Asken, Alyson Listhaus, Christopher Lake, James Clugston

**354. Monitoring fetal heart rate during labor: A comparison of three methods.** Amber Johnson, Kelly Brennan, Shalom Darmanjian, Neil Euliano, Anthony Gregg, Tammy Euliano

**355. The use of fictional storytelling as an effective means to promote health education regarding dental hygiene in 7-10 year old children in South Florida elementary schools – pilot testing.** Jonathan Kalehoff, Paulette Hahn

**356. Gender difference and use of other illicit drugs as major correlates of sexual abuse among ecstasy users.** Shivani Khan, Jennifer Copeland, Steven Kurtz, Linda Cottler, Catherine Striley

**357. Feasibility and acceptability of a novel ceramic cord-cutting device (C3D).** Margo Klar, Linda Cottler

**358. Healthcare provider attitudes about unnecessary myocardial perfusion imaging: Appropriate use criteria, the Choosing Wisely campaign, and medical malpractice.** Kristopher Kline, Jared Plumb, Linda Nguyen, Leslee Shaw, Rebecca Beyth, David Winchester

**359. Tunneled lines and ports and their outcomes in children.** Nicholas Laconi, Saleem Islam

**360. Alcohol sales to youth: Data from rural communities within the Cherokee Nation.** Sarah Lynne-Landsman, Terrence Kominsky, Melvin Livingston, Alexander Wagenaar, Kelli Komro

**361. Role of gender in initiation of nonmedical use of prescription drugs among youth 10 to 18 years of age.** Sonam Lasopa, Catherine Striley, Linda Cottler

**362. Socioeconomic status may be a marker of risk for clinical outcomes with continuous flow ventricular assist devices.** Alexander Bolanos, Christopher Le, Mustafa Ahmed

**363. Uncovering conflicts of interest in current medical literature.** Adam Leavitt, Elizabeth Pace, Christian Reintgen, Bruce Mast

**364. The prevalence of clinical and cutaneous risk factors for melanoma among the native population in Cusco, Peru.** Maria Leszczynska, Fiorinda Muhaj, Stanton Wesson, James Grigg

**365. Disparity in patient perception of weight, health, and communication.** Malorie Lipman, Vishal Goswami, Mark Baptiste, Emily Weeks, Marie-Carmelle Elie, Matthew Ryan

**366. EVD practice patterns across the United States: Results from a nationwide survey.** Dennis Lockney, Sasha Vaziri, Kyle Fargen, Kristopher Hooten, Gregory Murad

**367. Prophylactic antiepileptic drugs do not reduce seizure rates in surgical brain tumor patients.** Dennis Lockney, Sasha Vaziri, Frank Walch, Dan Neal, Gregory Murad, Maryam Rahman

**368. Reduced cardiovascular events after percutaneous coronary intervention with genotype-guided antiplatelet therapy: Results from the UF Health personalized medicine program.** Oyunbileg Magvanjav, Larisa Cavallari, R. David Anderson, Aniwaa Owusu-Obeng, Ben Kong, Teresa Vo, Jennifer Ashton, Benjamin Staley, Amanda Elsey, Rhonda Cooper-Dehoff, Kristin Weitzel, Michael Clare-Salzler, David Nelson, Julie Johnson

**369. Combining antipsychotics and antidepressants increase falls in Parkinson's disease.** Daniel Martinez-Ramirez, Juan Giugni, Leonardo Almeida, Bilal Ahmed, Valerie Rundle-Gonzalez, Alberto Bona, Erin Monari Christopher Hess, Aparna Wagle Shukla, Chris Hass, Michael Okun

**370. Medication errors prolong length of stay in hospitalized Parkinson's disease patients.** Daniel Martinez-Ramirez, Juan Giugni, Christopher Little, John Chapman, Bilal Ahmed, Erin Monari, Michael Okun

**371. Working toward effective RCR training that supports ethical decision-making.** William Allen, Shane Connelly, Joshua Crites, Jeffrey Engler, Victoria Freedman, Cynthia Garvan, Paul Haidet, Joel Hockensmith, William McElroy, Erik Sander, Rebecca Volpe, Michael Verderame, Wayne McCormack

**372. Peer mentoring in medical students: Strategies that work.** Yoldez Meroueh, Lou Ann Cooper

**373. Improved pain control with local anesthetic after percutaneous nephrolithotomy.** Jennifer Kuo, James Mason, Akira Yamamoto, Rishi Modh, Vincent Bird

**374. Evaluation and analysis of urologic consults at a tertiary care center.** Jennifer Kuo, Akira Yamomoto, Rishi Modh, James Mason, Paul Crispen

**375. Analysis of guidewire use for common endourologic procedures: A cost perspective.** Vincent Bird, James Mason

**376. Adverse childhood experiences and sexually trafficked adolescents.** Rachel Naramore, Melissa Bright, Nancy Hardt

**377. To wrap or not? Antireflux procedures after gastrostomy in infants.** Kelsey Nestor, David Kays, Shawn Larson, Saleem Islam

**378. Patient provided appropriateness ratings for myocardial perfusion imaging.** David Winchester, Linda Nguyen, Kristopher Kline, Jared Plumb, Leslee Shaw, Rebecca Beyth

**379. Medical school applicants' attitudes about social media use.** Phillip Nguyen, Lauren Solberg

**380.** The relationship between complementary and alternative medicine (CAM) use and immunologic parameters among persons living with HIV/AIDS (PLWHA) in Florida. Natalie Kelso, Jeffery Harman, Christa Cook, Robert Cook

**381.** Parent online health information seeking in type 1 diabetes: State of the science and recent results. Amanda Balkhi, Lacie Lazaroe, Janet Silverstein, Gary Geffken, Brian Olsen

**382. The thin line between psychosis and gender identity disorder in near emergent settings.** Christopher Ong, Almari Ginory, Sarah Fayad, Herbert Ward

**383. Stigma, support, and the use of mental health resources by medical students in Florida.** Berkay Otkur, John Curran, Penelope Ziegler, Lisa Merlo

**384. The evolution of plastic surgery training: Faculty perceptions of the integrated training residency program.** Elizabeth Pace, Adam Leavitt, Christian Reintgen, Bruce Mast

**385. Comparison between intravenous tissue plasminogen activator administration times and discharge dispositions.** Kathleen Park, Atish Patel, Emily Weeks, Shushrutha Hedna

**386.** The effects of executive functioning on patient activation and subsequent patient-reported outcomes among patients with cooccurring physical and mental health disorders. Aditi Patel, Kimberly Case, Sara Jo Nixon, Martin Wegman, Robert Prather, Jill Herndon, Keith Muller, Yi Guo, Elizabeth Shenkman

**387. Using muscle function testing as a predictor for acute ischemic stroke outcome.** Atish Patel, Kathleen Park, Shushrutha Hedna

**388. Symptomatic improvement of traumatic dysgeusia from occipital nerve block.** Atish Patel, Shushrutha Hedna

**389.** Do you get what you pay for? Comparing the HeartBuds mobile phone operated stethoscope to the stethoscopes we know and love. Ritesh Patel, Julio Schwarz, Valerie Danesh, Arnold Einhorn, David Bello

**390. Implementation of prehospital sepsis protocol leads to improved patient morbidity and mortality outcomes.** Hunter Pattison, Johndavid Storn, Emily Weeks, Marie-Carmelle Elie, Christine Van Dillen

**391. Factors influencing patient follow-up after pelvic floor surgery.** Savannah Rose Pena, Kara Ruder, Emily Weber LeBrun

**392. "Doc, My Baby Just Died!": Treatment of factitious disorder in the acute setting.** Andrew Pierce, Ana Turner, Tessy Korah, Amelia Davis, Almari Ginory

**393.** Do pain medicine fellowship programs provide education in practice management? A survey of pain medicine fellowship directors. Chris Babl, Justin Bremer, Jay Mesrobian, Gary Brenner, Richard Rosenquist, Amr Abouleish, Rene Przkora

**394. Functional improvements in older patients after lumbar epidural steroid injections for spinal stenosis: A prospective study.** Justin Bremer, Christopher Babl, Steven Fisher, Daneshvari Solanki, Elena Volpi, Rene Przkora

**395. Results of a preemptive multimodal analgesia protocol for total knee arthroplasty.** Timothy Bednar, Jatinder Singh, Jonathan Kwan, Brian Smith, Courtney Williams, Daneshvari Solanki, Rene Przkora

# **396. Evaluation of the head mounted display (HMD) for ultrasound guided peripheral nerve blocks in simulated regional anesthesia.**

Rene Przkora, William McGrady, Terrie Vasilopoulos, Nikolaus Gravenstein, Daneshvari Solanki

**397. Health education in the mobile clinics: A patient centered approach tailored to literacy.** Cristina Rabaza, Isabella Camacho, Mona Sayedul Huq, Nancy Hardt, Robert Lawrence

**398. Two cases of treatment-resistant psychosis triggered by spice use.** Mariam Rahmani, Mathew Nguyen

**399. Prescribing patterns of thromboprophylaxis and adherence to standardized VTE order sets in hospitalized obese patients.** Anita Rajasekhar, Nicholas Piccicacco, Joseph Pittman, Avan Armaghani, Kenji Kaye, Rebecca Beyth

**400. Identifying patient-perceived facilitators and barriers to inferior vena cava filter removal.** Anita Rajasekhar, Jordan Neil, Debbie Treise, Joseph Pittman, Rebecca Beyth

**401. Objective prognostic preoperative prediction of a difficult pelvic dissection: 'Pelvic Surgery Difficulty Index'.** Ahsan Raza, Aimal Khan, Sanda Tan, Stavan Ukuhan, Atif Ishal

Sanda Tan, Steven Hughes, Atif Iqbal

**402. Predicting a bad day in the OR: Objective prediction of a difficult pelvic dissection from preoperative imaging.** Aimal Khan, Ahsan Raza, Sanda Tan, Robert Zlotecki, Luis Chihray, Atif Iqbal

403. A pilot study of actigraphy as an objective measure of SSRI activation symptoms; results from a randomized placebo controlled psychopharmacological treatment study. Adam Reid, Joseph McNamara, Johanna Meyer, Andrew Guzick, Dana Mason, Eric Storch, Tanya Murphy, Regina Bussing

**404. Do SSRI adverse events interfere with multimodal treatment for pediatric OCD?** Adam Reid, Joseph McNamara, Eric Storch, Andrew Guzick, Tanya Murphy, Gary Geffken, Regina Bussing

**405. Post-mastectomy skin necrosis and intraoperative angiography.** Christian Reintgen, Adam Leavitt, Elizabeth Pace, Bruce Mast

**406. Prevalence of intimate partner violence in safety net clinics.** Mar'Tina Reynolds, Valiece Long, Melissa Bright, Nancy Hardt

**407.** A comparison of residency program directors' expectations and CREOG objectives for surgical education. Anne Richardson, Hazel Asumu, Lou Ann Cooper, John Davis, Emily Weber LeBrun

**408. Toxic vasculitis, seizures, and psychosis after using spice: A case report.** Yuliet Sanchez, Sarah Fayad, Almari Ginory

**409.** Assessing role of maternal pre-pregnancy body mass index and obesity in neonatal outcomes. Jason Schneider, Lisa Spiryda

**410. The use of weight loss agents in children and adolescents prescribed psychotropic medications.** Michael Shapiro, Adam Reid, Brian Olsen, Michael Taasan, Joseph McNamara, Mathew Nguyen

**411. Evaluation of NBME shelf examination scores after implementation of a novel tablet application.** Christiana Shaw, Erik Black, Lou Ann Cooper, Sanda Tan

**412. Cervical spine clearance in the obtunded patient.** Brian Sindelar, Dan Neal, Gregory Murad

**413. Evaluation of clinical image quality in low-dose iterative CT studies.** Lauren Smajdor, Anna Mench, Izabella Lipnharski, Catherine Carranza, Manuel Arreola

**414. Mortality risk associated with apparent resistant hypertension among women.** Steven Smith, Tianyao Huo, Yan Gong, Eileen Handberg, Martha Gulati, C. Noel Bairey Merz, Carl Pepine, Rhonda Cooper-DeHoff

**415. Outcomes of salivary gland cancer treated with proton therapy.** Tamara Smith, Chris Morris, Roi Dagan

**416. Parental perception of childhood nutrition and obesity.** Keri Southall, Mathew Nguyen

**417. The effect of previous traumatic injury on preventable deaths.** Daniel Spearman, Nancy Hardt, Martha Burt

**418. Sepsis alert bundle expansion to pre-hospital setting demonstrates improved sepsis care and decreased time to treatment.** Johndavid Storn, Emily Weeks, Marie-Carmelle Elie, Christine Van Dillen

**419. Simulation scenarios involving interdisciplinary teams for inproving patient safety in the perioperative setting.** Michelle Brunges, Christine Foley-Brinza, Terry Sullivan, Theresa Hughes, Diane Skorupski, Margaret Friend, Andrew Cordar, Andrew Robb, Ben Lok, Adam Wendling, David Lizdas, David Williams, Hannah Norton, Cliff Richmond, Donald Daniel, Samsun Lampotang

**420.** Long-term organ dysfunction after severe sepsis: A retrospective study. Selina Sutchu, Jay Khadpe, Robert Wears, Colleen Kalynych, Sunita Dodani, Alan Jones, Faheem Guirgis

**421. Successful implementation of a packed red blood cell and fresh frozen plasma transfusion protocol in the surgical intensive care unit.** Benjamin Szpila, Tezcan Ozrazgat-Baslanti, Jianyi Zhang, Jennifer Lanz, Ruth Davis, Erin Vanzant, Lori Gentile, Peggy Marker, Marc Zumberg, Azra Bihorac, Frederick Moore, Scott Brakenridge, Philip Efron

**422. Prior podcast experience moderates efficacy of electroencephalography.** Terrie Vasilopoulos, Destiny Chau, Meriem Bensalem-Owen, Jean Cibula, Brenda Fahy

**423. A performance-risk taxonomy for understanding raw and risk-adjusted quality measures.** Betsy Shenkman, Bruce Vogel

**424. Development of nanoparticle-coupled regulatory T cell vaccine for treatment of type 1 diabetes.** Judit Cserny, Jamal Lewis, Benjamin Keselowsky, Howard Seay, Michael Haller, Daniel Perry, Todd Brusko

**425. Epidural blood patch in a patient with Chiari I malformation, cerviothoracic syrinx and intracranial hypotension.** Ashley Screws, Anastacia Munro, Stephen Vose, Donald Bohannon

**426. Molecular mechanism of small molecule inhibitor YM155 in pancreatic cancer.** William Puszyk, Frank Zhao, Zaming Lu, David Ostrov, Thomas George, Keith Robertson, Chen Liu

**427. Measuring birth control adherence among college women.** Chelsea Wiltjer, Patrick Duff

**428. Is acute pain medicine ready for Markov? Preliminary testing of sequential postoperative pain intensity transition matrix stabilities.** Nicholas Wright, Haldun Aytug, Roger Fillingim, Patrick Tighe

**429. Study guides to enhance second year medical students' understanding of functional circuits within the central nervous system.** Avital Yohann, Louis Ritz

**430. What is the best treatment of partial thickness burns in children?** Antonia Zecevic, Shawn Larson, David Kays, Ana Ruzic, Saleem Islam

**431.** Long term outcomes of the antegrade colonic enema for stooling dysfunction in children. Michelle Zeidan, David Kays, Janice Taylor, Shawn Larson, Saleem Islam

**432. Myocardial perfusion imaging in patients without symptoms: Contributing factors and results of testing.** Pengcheng Zhang, Rebecca Beyth, Anita Wokhlu, David Winchester

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**433. Outcomes of reverse total shoulder arthroplasty as primary versus revision procedure for proximal humerus fracture.** Bobby Dezfuli, Aimee Struk, Joseph King, Kevin Farmer, Thomas Wright

**434. Revision using cementless femoral component with modular, fluted, tapered stems.** Timothy Gooldy, Richard Vlasak, Dane lams

#### **435. Increased cadence is associated with reduced energy expenditure during running.** Daniel Herman, Cong Chen, Kevin Vincent,

Heather Vincent

**436. Clinical factors affecting diagnosis of occult ankle fractures with ipsilateral tibial shaft fractures.** Christopher Holden, Terrie Vasilopoulos, Jessica Diaz, Richard Vlasak

**437. Using the 6+ spine board technique still recommended: Evaluating EMS protocols.** Laura Zdziarski, Ira Hill, Ellen Coyn, Mark Parsarn, Cong Chen, Robert Marschall, Heather Vincent, Glenn Rechtine, MaryBeth Horodyski

**438. Effect of jump landing surface on Landing Error Scoring System grades: Implications for anterior cruciate ligament injury risk screening.** Kimberley Jacobs, Diego Riveros, Heather Vincent, Daniel Herman

**439. Characterization of conditionally active fluorescent and bioluminescent reporter gene constructs for evaluation of chondrogenesis in cartilage repair applications.** Alfonso Martin-Pena, Ryan Porter, Steve Ghivizzani, Glyn Palmer

**440. Clinical outcomes of reverse total shoulder arthroplasty in patients 65 years and younger.** Christopher Matthews, Aimee Struk, Kevin Farmer, Thomas Wright, Joseph King

**441. Osteosarcoma of the pelvis: Changes in outcomes over 40 years.** Hernan Prieto, Eric Silverstein, Andre Spiguel, Timothy Gooldy, Mark Scarborough, C. Parker Gibbs

**442. Impact of observation on gait patterns: Implications for clinical testing.** Austin Reed, Cindy Montero, Marissa Olegario-Nebel, Robert Decker, Heather Vincent

443. The effects of handheld sports equipment on Landing Error Scoring System grades: Implications for anterior cruciate ligament injury risk screening. Diego Riveros, Kimberley Jacobs, Heather Vincent, Daniel Herman

**444. Biomechanical analysis of percutaneous fixation of vertical femoral neck fracture.** Ryan Schnetzer, Adam Bruggeman, MaryBeth Horodyski, Richard Vlasak

**445. Exertional heat illness and environmental conditions during high school football practices.** Brady Tripp, Michael Seth Smith

**446. Comparison of dislocation rates and outcome scores in reverse total shoulder arthroplasty with or without subscapularis repair.** Jason Vourazeris, Aimee Struk, Kevin Farmer, Jay King, Thomas Wright

**447. Kinematics of overhead throwing motions in professional lacrosse and baseball players.** Joseph Wasser, Cong Chen, Laura Zdziarski, Heather Vincent

**448. Pediatric motocross injuries at an annual competition: Rates and severity.** Brendan Williams, Tyler Teurlings, Laurel Blakemore, James McFadden

**449.** Does climate matter? A comparison of ulnar collateral ligament reconstruction in collegiate baseball pitchers in a Northern versus **Southern conference.** Jason Zaremski, MaryBeth Horodyski, Robert Donlan, Sonya Tang Brisbane, Kevin Farmer

**450. Prevalence of inaccurate foot strike detection in runners: Relation to shoe type and injury.** Laura Zdziarski, Cong Chen, Kevin Vincent, MaryBeth Horodyski, Heather Vincent

**451. Safety-focused extrication of vehicular accident patients with cervical spine injuries.** Laura Zdziarski, Bob Marschall, Mark Prasarn, Glenn Rechtine, Dewayne DuBose, MaryBeth Horodyski



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