Season’s Greetings!

Mandalfino Memorial Fund Scholarship

Congratulations to Tinu E. Thomas, MD, MPH, the first resident to receive a scholarship from the Dominic and Lisa Mandalfino Memorial Fund in Anesthesiology. Tinu is a CA-3 resident in anesthesiology under the supervision of Babak Khabiri, DO (Principal Investigator), John Norton, DO, and Fernando Arbona, MD at University Hospital East. The title of their approved IRB study is “Ultrasound Guided Ankle Block vs. Ultrasound Guided Lateral Popliteal Fossa Nerve Block for Simple Bunionectomy.” Anesthesia residents are encouraged to apply for these competitive research awards. To learn more, check out http://anesthesiology.osu.edu/4613.cfm.

New Funding

Hamdy Awad, MD is the recipient of pilot funding through the OSU Center for Clinical and Translational Science (CCTS). The award is partially funded by the NIH Clinical and Translational Award (CTSA, award number UL1RR025755 through NCRR/OD) to OSU. The funds are intended to encourage new multidisciplinary research groups to address integrated solutions to complex clinical and translational problems and are designed to support new research teams. Roy Sashwati, PhD (associate professor, Surgery) is Dr. Awad’s senior advisor on the study. Dr. Awad’s application was 1 of 8 applications that were selected out of 45 for funding by the review committee. The award provides $25,000 for his grant entitled “Local wound environment in regulation of pain and wound healing in post-sternotomy cardiac surgery patients.” In addition to receipt of funding, the award includes priority access to CCTS core resources. Alison Beck, MA is the clinical research assistant responsible for implementing the clinical aspect of the study.

Fievos L. Christofi, PhD was the recipient of an NIH Administrative supplement award to NIH R01 DK044179 grant under the American Recovery and Reinvestment Act of 2009 (ARRA). The goal is to further investigate mechanisms and interactions of endogenous adenosine release (eADO) and activation of A3 adenosine receptors (A3AR) in modulating motility and protecting against inflammation and mucosal damage in inflammatory bowel diseases (IBD). Understanding the role of eADO in digestive diseases is of fundamental importance in developing new therapies. A key innovation is the ability to carry-out for the first time real-time electrochemical detection of eADO release in intestinal tissue layers using an eADO biosensor (amperometry) system in human intestinal specimens removed from IBD patients undergoing surgery for their disease. Co-investigators include Wendy L. Frankel, MD (professor and director clinical pathology labs), Kenneth A. Jacobson, PhD (NIH NIDDK, chief Medicinal Chemistry Section), and Susan A. Masino, PhD (associate professor, Trinity College, Connecticut).

Continued on page 2
Profile: Sergio D. Bergese, MD, Newly Appointed as Director of Clinical Trials and Neurological Research

Sergio D. Bergese, MD is an assistant professor of anesthesiology and neurological surgery and director of neuroanesthesia. He joined the faculty of The Ohio State University Medical Center in 2003. He earned his medical degree from National University of Cordoba in Cordoba, Argentina. Dr. Bergese began his research career early on in the Department of Surgery, Division of Transplantation at Ohio State, and he completed his residency and fellowship at Ohio State’s Department of Anesthesiology.

Dr. Bergese, interested in clinical research since the early 1990s, believes that “research is the key to improving medicine and, ultimately, improving the lives of patients.” He succeeded in creating a clinical research team in the Department of Anesthesiology, which consists of Fellows, residents, postdoctoral researchers, medical students, and clinical research assistants. In the last several years, Dr. Bergese has been the principal investigator of 23 clinical trials, including sponsored and investigator-initiated studies, and involves a number of faculty members, within and outside our department, and national collaborators. Some areas of interest consist of postoperative pain, postoperative nausea and vomiting, perioperative hypertension, and monitoring devices.

His clinical research activities are also leading to peer-reviewed abstracts and manuscripts in anesthesia-related journals, and recent publications include Anesthesiology, Anesthesia & Analgesia, and Neurosurgical Clinics of North America. His scholarly activities include published reviews and book chapters. This work has been presented at numerous national and international anesthesiology and neurological surgery meetings. Dr. Bergese is often an invited speaker at national or international conferences and meetings and is quickly gaining national recognition.

Dr. Bergese has been appointed as director of clinical trials and neurological research in the Department of Anesthesiology. He will work closely with Dr. Christofi (vice chair of Anesthesiology) to further develop clinical research infrastructure, provide research education, and develop a nationally-recognized research program in neurosciences that integrates basic, clinical, and translational research to promote anesthesiology.

New Funding (continued from page 1)

- **Dr. Hassanian** also submitted a R01 grant entitled “The role of profilin 1 in vascular remodeling” to the VCMB study section in NHLBI Institute of NIH in November. Arthur Strauch, PhD with the Department of Physiology is a co-investigator.
- **Hamdy Hassanian, PhD and Sergio Bergese, MD** received a $27,000 grant from The Medicines Company for the “Assessment of the efficacy of clevidipine on vasospasm using a profilin-1 transgenic mice model.” The grant award is from May 12, 2009 through June 30, 2010.
- **Dr. Bergese** recently received the following industry grants:
  1) Evaluation of respiratory related algorithms in the hospital setting (Covidien; $147,085)
  2) Studying the effectiveness of triple therapy with palonosetron, dexamethasone and promethazine for prevention of post operative nausea and vomiting in high risk patients undergoing neurological surgery and general anesthesia (Eisai Company Ltd; $93,168)
  3) A phase 2, randomized, double-blind, placebo-controlled, proof of concept study to evaluate the analgesic efficacy and safety of intravenous CR845 during the postoperative period in subjects undergoing laparoscopic-assisted hysterectomy (Premier Research Group, PLC; $13,732)
  4) Evaluating the accuracy of continuous non-invasive blood pressure algorithm in hospital operating room and acute care (Covidien; $255,470)
Faculty-authored Publications

Sergio Bergese, MD

Uribe AA, Baig MN, Puente EG, Viloria A, Mendel E, Bergese SD. Current intraoperative devices to reduce visual loss after spine surgery. Accepted for publication in *Neurosurg Focus*.


Fievos L. Christofi, PhD and Hamdy Hassanain, PhD


Roger Dzwonczyk, PE


Thomas Papadimos, MD


Robert Small, MD

Twa MD, Roberts CJ, Karol HJ, Mahmoud AM, Weber PA, Small RH. Evaluation of a contact lens embedded sensor for intraocular pressure measurement. Accepted for publication in *J Glaucoma*.
Promotions & Leadership Activities in Research

- Robert H. Small, MD was promoted to associate professor on the regular clinical track.
- Mark Gerhardt, MD, PhD was promoted as associate professor with tenure.
- Fievos L. Christofi, PhD served on the NIH Clinical Integrative and Molecular Gastroenterology (CIMG) study section of NIDDK; he was also appointed as a permanent CIMG member on July 1.
- Welcome to new faculty with a research interest: Thomas J. Papadimos, MD (professor RCT; clinical epidemiology regarding infections in the ICU and their prevention), Joseph Werner, MD (assistant professor RCT; wound healing), Andy Rozmiarek, MD (assistant professor RCT), and Katie Figg, MD (neuroanesthesia Fellow).
- Dr. Christofi presented “Second Messengers in Neuroplasticity” as a symposium speaker at the Joint European and American International Motility meeting in Chicago. He was also an invited poster rounds judge in the “Nerves, Glia and ICCs and Intestinal Motility” session, and a discussant at a satellite international meeting of “Frontiers in Enteric Neurosciences.”
- Dr. Christofi served as reviewer of peer-reviewed articles submitted to Gastroenterology, American Journal of Physiology, Neurogastroenterology and Motility, BJP, and IBD.
- Constantino Benedetti, MD and Dr. Christofi served on the OSUMC P & T Committee in November.

Landacre Honor Society Fair a Great Success

Many thanks to our staff and faculty who participated in a very successful Landacre Honor Society Research Fair on October 13.

A special thanks to Keri Hudec, Iveta Grants, Roger Dzwonczyk and Gretel Monreal for their efforts in gathering information for the pamphlet, slide presentation, and follow-up materials. They did a tremendous job in helping to organize our booth and participation in this important event.

Thanks also to everyone who provided information for the fair, and those who took the time to attend and to talk with students about research, specifically Mark Gerhardt, Hamdy Hassanain, Hamdy Awad, Gretel Monreal, Kelly Rosborough, Roger Dzwonczyk, Adolfo Viloria, and Alejandra Antor.

Many opportunities exist in our department to support medical student researchers. The Samuel J. Roessler Memorial Medical Scholarship Fund provides grants for OSU College of Medicine students to pursue research. Applications are available at The Landacre Honor Society at 1190 Graves Hall. Our faculty have served as advisors to medical students, NIH Road Map scholars, NIH Fellows, students in the medical scientist program, and Roessler scholars. Contact Fievos L. Christofi, PhD or Sergio Bergese, MD for more information.

Center for Biostatistics

Soledad Fernandez
Research Assistant Professor
293-3641

Erinn Hade
Senior Consulting Research Statistician
293-6425

Lianbo Yu
Research Scientist
293-5791

Xiaoli Zhang
Research Scientist
293-6472