



## **Nominations for Appointment to the Grants Working Group (GWG)**

### **Appointment of New Members**

#### **Margot Mayer-Pröschel, PhD**

Margot Mayer-Pröschel is an Associate Professor in the Department of Biomedical Genetics at the University of Rochester Medical Center with a secondary appointment in the Department of Neurobiology & Anatomy, and Member of the Program for Stem Cell and Regenerative Medicine at the University of Rochester, NY. She received a Ph.D. from the Institute of Virology & Immunology at the University of Würzburg. She moved to the Department of Developmental Biology at the Ludwig Institute for Cancer Research in London for post-doctoral training before joining the Department of Biomedical Genetics at the University of Rochester in 2000.

Dr. Mayer-Pröschel's research is focused on the role of glial cells in development, disease and injury repair. Her lab studies the impact of nutritional and genetic insults on the development of the fetus and the consequences of such insults to the CNS development at later stages. She is also part of a research team that establishes cell therapy approaches in spinal cord injury, Parkinson and traumatic brain injury.

Dr. Mayer-Pröschel has served as an ad hoc reviewer for over 20 peer reviewed Journals including Glia, Journal of Neuroscience, Developmental Biology, Brain and the Journal of Comparative Neurology. She sits on the editorial boards for Neural Regeneration Research, Autism Insights, and Biomedicine and is a Member of the Society for Neuroscience, the American Society for Neurochemistry (ASN) and the International Society for Neurochemistry (ISN). Dr. Mayer-Pröschel is also a member of the NIH Fellowship study sections for Neurodevelopment and Synaptic Plasticity. She has been issued 11 patents and has received multiple awards for her research and her mentorship.

#### **Tom Wilkie, PhD**

Tom Wilkie is an Associate Professor in the Department of Pharmacology at UT Southwestern Medical Center in Dallas, TX. Tom is Director of the first year graduate student Core Course and co-Director of the graduate track "Mechanisms of Disease and Translational Science". Tom has attended ABRCMS in support of under represented minorities in biomedical research the past two years and is planning a post baccalaureate program for URM at UT

Southwestern.

Tom's research is focused on G protein signaling in metabolism and pancreatic disease. Tom's most important contributions include the initial demonstration that RGS proteins are GTPase activating proteins (GAPs) for Gi class alpha subunits and they initiate  $Ca^{2+}$  oscillations evoked by Gq-coupled GPCR agonists. Tom showed that Rgs gene expression is useful as a biomarker for active GPCR signaling in embryonic progenitor cells of the pancreas, in hepatopancreatic stem cells, liver and pancreas of metabolically stressed adults, and during initiation and progression of Pancreatic Ductal Adenocarcinoma (PDA). Recently, Tom found Rgs genes that suppress PDA metastasis. The therapeutic objectives of Tom's work are to find early markers and improved chemotherapeutics for PDA, and to determine the mechanism of drug action.

Tom was born and raised in Berkeley, CA, and is a product of Berkeley baseball at Grove Street and San Pablo Parks. He played on the Berkeley Stars semi-pro team while he earned his BA (1980) in Biochemistry at UC Berkeley. Tom earned his PhD (1986) at the University of Washington, Seattle, in the laboratory of Richard Palmiter, studying mosaicism and transmission ratio distortion in transgenic mice. Tom was a postdoctoral fellow in Melvin Simon's laboratory at Caltech, and with Mike Strathmann, identified the four classes of G protein alpha subunits in metazoa; Gi, Gq, Gs and G12/13. Recent work as an independent investigator shows RGS proteins integrate Gi- and Gq-signaling with other pathways to control cellular responses to complex stimuli.

### **Reappointment of Scientific Members to the Grants Working Group**

Grants Working Group Members originally appointed in 2008 have terms that are now expiring or just expired. We are seeking the reappointment of the individuals listed in the table below. Their updated biographies follow. In accordance with the rules set forth by Proposition 71, reappointments should be staggered into thirds, each with a 2, 4, or 6-year term.

#### **Proposed Reappointments to GWG**

<b>Last</b>	<b>First</b>	<b>Term (Yrs.)</b>	<b>Expertise</b>
Flake	Alan	6	In Utero Cell & Gene Therapy; Pediatric Surgery
Rojas	Mauricio	4	Stem Cells in Lung Repair & Injury
Schwob	James	4	Neural Development; Olfactory Projection; Neurogenesis

#### **Alan W. Flake, MD**

Alan Flake is an attending surgeon in the Division of General Thoracic & Fetal Surgery at the Children's Hospital of Philadelphia where he holds the Ruth and Tristram C. Colket, Jr. Endowed Chair in Pediatric Surgery and acts as Director

of the Center for Fetal Research. He is also Professor of Surgery and Obstetrics and Gynecology at the University of Pennsylvania School of Medicine. Dr. Flake earned his B.S. degree at the University of Arkansas and received his M.D. from the University of Arkansas for Medical Sciences, Little Rock. He subsequently completed a General Surgery residency program and Research Fellowship in Fetal Biology and Therapy at the University of California, San Francisco. He then went on to complete a pediatric surgery fellowship at the Children's Hospital Medical Center in Cincinnati, Ohio.

Dr. Flake has led a National Institutes of Health (NIH) funded research laboratory directed toward surgical correction of fetal anomalies and fetal stem cell and gene therapy for over 20 years. Clinically, Dr. Flake actively participates as a Fetal Surgeon in the Fetal Diagnosis and Treatment Program at the Children's Hospital of Philadelphia with interests in fetal diagnosis and therapy, *in utero* stem cell and gene therapy, extracorporeal support of the extreme premature infant (the artificial placenta/uterus), and minimally invasive neonatal and pediatric surgery.

Under Dr. Flake's leadership, the Center for Fetal Research is exploring innovations in prenatal treatment, particularly in the areas of gene and stem cell therapy, and for life-threatening anatomic malformations and diseases. In just the last few years, the Center's investigations have yielded important insights into the potential of stem cell therapy to treat sickle cell disease, a strategy that if successful could have implications for all hemoglobinopathies and immunodeficiency disorders. In addition, the Center has recently developed technology for physiologic support of the extreme premature infant, a development that could have major implications for the treatment of prematurity.

Dr. Flake has published extensively with authorship of over 340 peer-reviewed publications and over 100 review articles and book chapters. He is on the editorial board or has served on the board of many hematology, stem cell, and fetal therapy related journals and has participated on numerous NIH study sections.

### **Mauricio Rojas, MD**

Mauricio Rojas is an Assistant Professor in the Division of Pulmonary, Allergy and Critical Care Medicine, Department of Medicine, University of Pittsburgh. Prior to this, he was the Associate Director at the Center for Translational Research in the Lung at Emory University as well as a Scholar at Emory's McKelvey Lung Transplant Center. Dr. Rojas earned his undergraduate degree at the Universidad Nacional de Colombia in Bogota, Colombia followed by his graduate degree in the university's medical school. He spent several years as a research associate in the National Institute of Immunology, where he became the Coordinator of Immunology. He then left Columbia to become a visiting scientist and post doc at Vanderbilt University, Department of Microbiology.

During his postdoctoral training at Vanderbilt, Dr. Rojas' research was focused in the study of intracellular signals involved in the action of several growth factors.

Part of his work was to develop a new group *in vivo* inhibitors of protein-protein interactions. This work resulted in the development of a novel technology to deliver proteins into the cell. Dr Rojas holds the patent for this technology: US patent number 6,248,558 (6/19/01) and US patent number 6,432,680 (8/13/02). Results of Dr. Rojas' research efforts have been published in numerous scientific journals including *Parasite Immunology*, *Vaccine*, *The Journal of Immunology*; *Lancet*; *Biochemical and Biophysics Research Communication*; *Nature Biotechnology*; *Journal of Biological Chemistry*; *American Journal of Physiology Lung Cellular and Molecular Physiology*; *American Journal of Respiratory Cell; Molecular Biology*; and *American Journal Respiratory and Critical Care Medicine*. In addition, Dr Rojas serves as reviewer for several journals including: *TIPS*; *Critical Care Medicine*; *American Journal of Respiratory and Critical Care Medicine*; *American Journal of Physiology Lung Cellular and Molecular Physiology*; and *Inflammation Research*.

Dr. Rojas's research, is supported by multiple NIH and Department of Defense grants, and focuses on mechanisms of lung repair and regeneration by adult mesenchymal stem cells in different models of lung injury. He recently had expanded his observations on the role of aging on the biology of mesenchymal stem cells and the consequences in the development of chronic lung diseases like pulmonary fibrosis and COPD.

#### **Dr. James E. Schwob, MD, PhD**

Dr. Schwob is George A. Bates Professor of Histology, Professor in the Department of Neuroscience (secondary), and Professor of Developmental, Molecular and Chemical Biology (primary) at Tufts University School of Medicine. He received his B.S. degree from the University of Iowa and his M.D. and his Ph.D. in neural sciences from Washington University. Following an internship, residency, and postdoctoral fellowship at Washington University School of Medicine and Barnes Hospital, Dr. Schwob was Assistant Professor at SUNY Health Science Center, Syracuse; ultimately he became Professor and Chair of the Department of Cell and Developmental Biology. In 2000, he departed for Tufts University School of Medicine where he was appointed Chair of the Department of Anatomy and Cellular Biology, a position that he filled from 2000-2013, at which time the School undertook a broad and comprehensive reorganization and reduction in number of the Basic Science Departments at Tufts.

Dr. Schwob's laboratory studies the development and regeneration of the primary olfactory projection as a model for the processes of neural recovery after injury and the assembly of the nervous system during embryogenesis. For the past 15 years, he has been particularly focused on identifying and characterizing the nature of the neurocompetent tissue stem cells responsible for ongoing neurogenesis and recovery after injury. Currently, Dr. Schwob is implementing transgenic and FACS strategies to purify the putative stem cell population he has identified for the purposes of expression profiling and in vitro and in vivo CFU assays. His studies of olfactory dysfunction, particularly as a consequence of aging, have suggested that the activation of dormant stem cells thereby rejuvenating olfactory neurogenesis is a therapeutic strategy to combat sensory

decline, a major problem in an expanding geriatric population. His near-term goal is to identify small molecules that are effective in implementing that strategy. A further near-term goal is to use purified stem cells from the nasal epithelium to generate the specialized glia of the olfactory nerve; these are able to facilitate anatomical and functional recovery after spinal cord injury when transplanted into the damaged cord.

In addition to his own funded laboratory, Dr. Schwob has served as the Director of the NIH-funded MSTP at Tufts University School of Medicine since 2007. National service has included membership on the Advisory Council to the National Institute on Deafness and Other Communication Disorders and on the Council of Councils serving as advisory to the Division of Program Coordination, Planning and Strategic Initiatives of the Office of the Director, NIH.