#### **Grants Received**

#### **Biochemistry and Microbiology**

Vincent E. Sollars received research support from the NASA West Virginia Space Grant Consortium in the form of a \$12,000 fellowship for Melinda Varney, a Ph.D. student in his laboratory. Titled "Survivin as a mediator of dietary omega-3 fatty effects on hematopoiesis," the grant will help to identify genes that are involved in the regulation of survivin by fatty acids. The one-year grant comes through the Graduate Research Fellowship Program.

Hongwei Yu received two grants from the NASA WV Space Grant Consortium: "Novel biopolymers for space exploration" and "Developing a genetic system to evaluate the radiation effect on DNA damage and repair." The two oneyear grants total \$40,000 in direct costs.

# Pharmacology, Physiology & Toxicology

Piyali Dasgupta was awarded a \$12,000 research grant from the American Retina Foundation to investigate "Nicotinic receptor signaling in ARMD."

Nalini Santanam is project leader for "Epicardial fat biomarkers in patients with coronary artery disease in the Appalachian region," a two-year National Institutes of Health/National Center for Research Resources translational grant awarded as a supplement to the West Virginia IDeA Networks of Biomedical Research Excellence (WV-INBRE) project. She also is mentor and evaluation coordinator for the WV-INBRE grant, which was renewed for four years.

# Faculty pursue, demonstrate excellence

This edition we bring you a wide range of accomplishments from students, staff and faculty pursuing at their peak, demonstrating excellence in education and great accomplishments in research. Among these are examples of scholarship in teaching demonstrated by scholars in our Academy of Medical Educators.

This issue includes Scholar Spotlights on Dr. Gary Rankin, chair of the Department of Pharmacology and Physiology, and Dr. Charles McCormick, the new director of the Clinical Skills Lab. Dr. Rankin's department has won "best department" teaching awards for 16 consecutive years and led the state in National Institutes of Health pharmacology grant funding for the past 3 years. Dr. Charles McCormick is raising the bar for teaching as his students' evaluations attest he meets William Arthur Ward's definition of a great teacher:

"The mediocre teacher tells.

The good teacher explains.

The superior teacher demonstrates.

The great teacher inspires."

In midst of economic downturn, JCESOM faulty are working hard to achieve excellence in their assigned roles.

Darsbana Shah

### **Awards & Honors**

#### **Internal Medicine**

In resident competitions at the 2009 West Virginia Chapter Scientific Meeting of the American College of Physicians, Tae Hoon Lee had the winning case presentation and Yousef Darrat won the research competition.

# Pharmacology, Physiology, and Toxicology

Nalini Santanam received Marshall University's MU-Advance Merit Award. PROFESSIONAL DEVELOPMENT PROGRAM WEBSITE:

musom.marshall.edu/fdp/



# Gary Rankin: Setting the bar high in teaching and research

Gary O. Rankin, PhD, is professor and chair of the Department of Pharmacology, Physiology and Toxicology. He received his doctoral degree from the University of Mississippi in medicinal chemistry and after completing postdoctoral training at the Medical College of Ohio joined the faculty of the medical school in 1978 as one of the four original members of the Department of Pharmacology. He became chair in 1986

Dr. Rankin has published more than 135 peer-reviewed articles and 15 book chapters, primarily in the fields of pharmacology and toxicology. His research has appeared in many prestigious scientific journals, including the Journal

of Pharmacology and Experimental Therapeutics, Toxicology and Applied Pharmacology, Toxicology, and the American Journal of Physiology.

With funding from several agencies including the National Institutes of Health, his research has mainly focused on how chemicals induce toxicity to the kidney. Dr. Rankin has examined mechanisms by which drugs (antiepileptic drugs), agricultural agents (fungicides, herbicides) and industrial chemicals (halogenated anilines) are converted to toxic intermediates (metabolites) by the body and how these metabolites damage kidneys. His laboratory, in conjunction with the West Virginia Office of the Medical Examiner, is also examining how pharmacogenetics (altered DNA) may play a role in unexpected death due to the drug methadone.

He is the principal investigator for the West Virginia INBRE award from the National Institutes of Health. This program involves Marshall University, West Virginia University and numerous West Virginia primarily undergraduate institutions (PUIs) with goals that include improving the biomedical research capacity and competitiveness of the State and providing research opportunities for undergraduate students at PUIs. An important part of this award is the Appalachian Cardiovascular Research Network (ACORN) which studies the role of genetics in cardiovascular disease. The program also hosts undergraduate students at Marshall University and West Virginia University in a summer biomedical research program each year.

Dr. Rankin has been active in leadership roles in many professional organizations, including serving as president of the Association of Medical School Pharmacology Chairs, Mechanisms Specialty Section of the Society of Toxicology, and the Division of Toxicology for the American Society for Pharmacology and Experimental Therapeutics.

## **Invited Speaker**

#### **Biochemistry and Microbiology**

Vincent E. Sollars gave an invited talk at the 2009 annual research retreat for the Mary Babb Randolph Cancer Center at West Virginia University. His topic was "Omega 3 fatty acids reduce myeloid progenitor cell frequency in the bone marrow of mice and promote progenitor cell differentiation."

## **Meeting Presentations**

#### **Anatomy and Pathology**

Darshana Shah presented "Art and science of teaching" at the Association of American Medical Colleges' Early Career Woman Faculty Professional Development Seminar in July. At the AAMC's Group on Faculty Affairs Professional Development Conference in San Francisco in August, she presented a workshop titled "How to keep the fire burning without being consumed by the flames" with Terri Turner and Charlene Dewey, as well as a poster titled "Getting off the ground: junior faculty mentoring program at Marshall University."

#### **Biochemistry and Microbiology**

Aaron Holley, Kelley Kiningham, Douglas Spitz, Dean Edwards, Jeffrey Jenkins and Michael Moore presented "Progestin stimulation of manganese superoxide dismutase and invasive properties in T47D human breast cancer cells" at the annual meeting of the Endocrine Society, Washington, D.C., in June.

Hongwei Yu presented a poster describing the role of the mucoid biofilm-coupled protein LptF in P. aeruginosa at the American Society for Microbiology meeting in May in Philadelphia. Co-authors were graduate students Heath Damron and Jennifer Napper.

#### **Family and Community Health**

Kathleen O'Hanlon presented on "Chemical peels, microdermabrasion and medical aesthetic skin care" at the American Academy of Family Physicians' Annual Assembly in Boston in October. She also gave an invited talk on "Skin Problems and Diseases" at Newport Beach, Calif., in June.

#### **Internal Medicine**

Tae Hoon Lee (PGY 3) and Joe E. Gerges El Khoury presented a case report on ranitidine-induced hepatitis as a poster at the October meeting of the American College of Gastroenterology in San Diego.

Continued on page 3

# Meeting Presentations (continued from page 2)

# Pharmacology, Physiology & Toxicology

Kathleen Brown, Ted Witte, H. Luo, Yi Charlie Chen, Elsa Mangiarua, Larry Grover, Richard Egleton, Elaine Hardman and Piyali Dasgupta presented a poster at the 13th World Conference on Lung Cancer in San Francisco titled "MG624, an alpha7-nicotinic receptor antagonist, inhibits cell proliferation and angiogenesis in human small cell lung cancer."

Jia Fei, Carla Cook and Nalini Santanam presented "Linoleic acid and its oxidized form regulate proteasome-mediated turnover of peroxisome proliferators-activated receptors in aortic smooth muscle cells" at the Arteriosclerosis, Thrombosis and Vascular Biology Annual Conference 2009 in Washington, D.C.

Nalini Santanam and Jia Fei presented two posters at the 6th Metabolic Syndrome, Type II Diabetes and Atherosclerosis Congress in Berlin, Germany, in May: "Aporphine alkaloid, boldine modulates adiponectin levels in 3T3-L1 cells," with Bangning Yu and Carla Cook, and "Gender differences in epicardial fat adipokines in aging Fisher 344 x Brown Norway hybrid rats," with Eric Blough.

Khyra Fullen, Jia Fei, Carla Cook, and Nalini Santanam presented "Linoleic acid and its oxidized form induce peroxisome proliferator-activated receptor in a time-dependent manner in vascular smooth muscle cells" at the WV-INBRE symposium in Huntington.

# Medical Education Research Certificate Program Workshops Offered

The Professional Development Program is hosting six core workshops of the Association of American Medical Colleges' Medical Education Research Certificate program (MERC). The program is designed to offer tools to pursue scholarship in medical education.

A grant from the Huntington Clinical Foundation allowed Marshall to become one of only a handful of schools hosting program workshops on-site. Six workshops of the participant's choosing are required in order to qualify for the official certificate from AAMC. Each of the workshops focuses on a key skill or area in educational research. Workshops are typically three hours long and are facilitated by an experienced medical education researcher. The workshops emphasize opportunities for hands-on activities and active participation so as to maximize the applicability of the workshop principles.

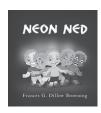
MERC allows maximum 30 participants in each workshop. To learn whether there are open seats for the four workshops remaining in the series, contact Darshana Shah.

- March 6: Qualitative Analysis Methods in Medical Education Sheila Chauvin, professor, Department of Internal Medicine and School of Public Health, Louisiana State University
- April 20: Questionnaire Design and Survey Research Larry D. Gruppen, Josiah Macy, Jr., Professor of Medical Education and chair, Department of Medical Education, University of Michigan Medical School
- June 1: Program Evaluation and Evaluation Research Linda Perkowski, associate dean for curriculum and evaluation, University of Minnesota Medical School
- \* Sept. 23 (tentative): Scholarly Writing: Publishing Medical Education Research - Sonia Crandall, professor, family and community medicine affiliate, Maya Angelou Center for Health Equity, Wake Forest University School of Medicine

# **Staff Accomplishment**



"Neon Ned," Frances Browning's book about a boy who changes colors according to his mood, has been published by Strategic Book Publishing. Fran, an accomplished story writer, is an administrative associate with Finance & Administration who has been with the medical school for 21 years. She is a graduate of the Institute of Children's Literature in West Redding, Conn., and has published several short stories and poems.



Neon Ned is available locally at Empire Books & News, and online at Amazon and Barnes & Noble.

# Peer Reviewed Publications

#### **Biochemistry and Microbiology**

Aaron Holley, Kelly Kiningham, Douglas Spitz, Dean Edwards, Jeffrey Jenkins and Michael Moore: **Progestin stimulation of manganese superoxide dismutase and invasive properties in T47D human breast cancer cells**. Journal of Steroid Biochemistry and Molecular Biology. 117, 23-30.

Hongwei Yu, Heath Damron and Dongru Qiu: Pseudomonas aeruginosa sensor kinase KinB negatively controls alginate production through AlgWdependent MucA proteolysis. Journal of Bacteriology 2009 April; 191: 2285-95.

#### **Internal Medicine**

Eyad Hamoudeh and Abid Yaqub: **Evaluation of secondary causes of bone loss in a primary care setting**. Endocrine Practice. 2009 Jul-Aug; 15(5):410-4.

Abid Yaqub: Familial Hurthle cell carcinoma on thyroid: A case report and review of literature. West Virginia Medical Journal; 2009 Jul-Aug; 105(4):23-8.

Todd Derreberry and Abid Yaqub: **Parathyroid FNA and hormone assay**. West Virginia Medical Journal; 2009 Sep-Oct; 105(5):30-34

# Pharmacology, Physiology & Toxicology

Larry Grover, Jennifer Cooke and Rich Spangler: Venlafaxine treatment stimulates expression of brainderived neurotrophic factor protein in frontal cortex and inhibits longterm potentiation in hippocampus. Neuroscience; September 15, 2009, Issue 162.

Bangning Yu, Carla Cook and Nalini Santanam: **Plant alkaloid, Boldine prevents oxidation induced downregulation of adiponectin in 3T3-L1 cells**. (2009) Journal of Medicinal Food 12(5):1-10.



# **Chuck McCormick: Inspiring students as director of Clinical Skills Lab**

Chuck McCormick, MD, associate professor of family and community health, has become the medical school's new clinical skills director.



In this role, he is responsible for preparing students to transition from the classroom to the clinical setting. The areas of focus are interviewing skills, physical examination techniques, and introducing the concept of clinical decision making and differential diagnosis.

Board certified in family medicine, geriatrics, and hospice and palliative care medicine, he has worked with the Family and Community Health Department for 20 years with a focus on resident education in the office, hospital and nursing home settings. He developed the longitudinal nursing home experience for second- and third- year family medicine residents at Huntington Health and Rehabilitation Center.

Dr. McCormick has been recognized for his educational contributions to the family medicine department, most recently receiving the "Best Clinical Preceptor" and the "Outstanding Faculty Member" awards for 2008-2009.

His clinical practice focuses on geriatrics and hospice and palliative care. He is a Hospice medical director of the nursing home team that provides care to patients in long-term care facilities receiving hospice services through Hospice of Huntington. At Cabell Huntington Hospital he is the director of senior services and the medical director of the Transitional Care Unit.

Lucas Dvoracek, Jeffrey Kreisberg,
Jordan McKinney, Gabrielle Schmid,
Amanda Francis, Katie Kacmarik,
Huey Lee, Melinda Detrick, Donald
Primerano, Nalini Santanam and
Robert Kreisberg: Lovastatin inhibits
oxidized- L-A-phosphatidylcholine
B-arachidonoyl-gamma-palmitoyl
(ox-PAPC)-stimulated mRNA and
protein synthesis in human aortic
endothelial cells by depleting stores of
geranylgeranyl pyrophosphate. (2009)
Atherosclerosis PMID: 19595352

#### **PIES Events Set**

Six new Professional and Institutional Enhancement Seminars blend a pleasing taste of collegiality with insights into meeting the challenges of academic medicine.

Register online at: http://musom.marshall.edu/fdp/ private/PIES2010/Default.asp.

# New Faculty Welcomed in Meet and Greet session



At a December Reception, Dr. Bob Nerhood shares some thoughts with new faculty and the current faculty and staff who joined in welcoming them.



Dr. Joe Gerges El Khoury, standing at left, talks with Drs. Omolola and Adenrele Olajide and Dr. Tipu Saleem.



Dr. Jung Han Kim, left, and Dr. Krista Denning converse with Dr. Don Primerano.

## **New faculty**

#### **Anatomy & Pathology**

Krista L. Denning, MD Kausar J. Jabbar, MD Magdalena N. Muchlinski, PhD Maria A. Serrat, PhD Vincent A. Graffeo, MD

#### **Biochemistry & Microbiology**

Wei-ping Zeng, PhD

#### Family & Community Health

Michael E. Kilkenny, MD (part-time)

#### **Internal Medicine**

Peter Ottaviano, DO Samson T. Teka, MD (part-time) Amy C. Chambers, RN, MSN Holly L. Dyer, PA-C Omolola B. Olajide, MD Adenrele A. Olajide, MD Rajesh Sehgal, MD Eva Patton-Tackett, MD

#### Neuroscience

Holly J. Dudash, PA-C Carol A. Foster, MD Rita P. Gandhy, MD, MPH Jeffrey D. Miles, MD Lawrence E. Clapp, MD (part-time) Nagar A. Rao, MD (part-time)

#### **Obstetrics & Gynecology**

Sarah K. Price, MD

#### **Orthopaedic Surgery**

Steven R. Novotny, MD Rene M. Battista, PA-C Vincent Battista, MD David George, PA-C

#### **Pediatrics**

Deborah L. Klimek, MD (part-time)

# Pharmacology, Physiology & Toxicology

Travis B. Salisbury, PhD Jung Han Kim, PhD

#### **Psychiatry & Behavioral Medicine**

Margie L. Zdrojewski, PsyD Benjamin R. Lafferty, MD

#### Surgery

Dustin E. Robinson, MD



# Dr. Paulette S. Wehner: GME under new leadership



Dr. Paulette S. Wehner has become Marshall's new associate dean for graduate medical education, coordinating and overseeing the medical school's residency and fellowship training programs in cardiology, endocrinology, family medicine, internal medicine, medicine/pediatrics, obstetrics/gynecology, orthopedic surgery, pediatrics, pulmonary medicine and surgery.

Dr. Wehner, who will continue as program director for Marshall's cardiovascular fellowship, is director of the cardiac catheterization laboratory at Cabell Huntington Hospital and medical director of the hospital's cardiac rehabilitation program. She also is medical director of the Women's Heart Institute at St. Mary's Medical Center. An active researcher,

she is principal site investigator at St. Mary's for the VIRGO trial, a study being conducted in conjunction with Yale University to evaluate heart attacks in young women.

Since joining the Marshall faculty in 1995, Dr. Wehner has repeatedly received awards from medical students for her teaching, and she was named "Outstanding Program Director" in 2001. She is a member of Alpha Omega Alpha, as well as a fellow of the American College of Cardiology, the American College of Physicians, and the American College of Chest Physicians. She has been a member of Marshall's Academy of Medical Educators since its inception in 2004.

She is a graduate of the University of Notre Dame and earned her medical degree at Marshall, where she also did her residency and fellowship training.

# Academy members' educational research presented at national meetings

Educational research by members of the Academy of Medical Educators has been presented at two national meetings.

Four projects were presented at the national Generalists in Medical Education meeting in November:

- Pilot Pediatric Electrocardiogram Curriculum for First-Year
   Pediatric Residents Waseem Ostwani, Bob Miller and Darshana Shah
- Enhancing Educational Effectiveness of Bedside Rounds
   William Nitardy, Bob Miller and Darshana Shah
- Evaluation of Teaching Methods and CXR Interpretation Skill of Senior Medical Students - Shadi Obeidat, Nancy Munn, Fadi Alkhankan and Darshana Shah
- Do Erroneous Reports of Computer- Interpreted Electrocardiogram Influence Analysis by Medical Trainees? - Yousef Darrat, Darshana Shah, Nessren Benhamed, Todd Gress and Mehiar El-Hamdani

At a Harvard Medical School "Showcasing Scholars' Innovations" poster session at the Association of Medical Colleges annual meeting, Darshana Shah, Elizabeth Armstrong, Linda Spatig and David Irby presented **A Qualitative Application of Kirkpatrick's Model for Evaluating Academy of Medical Educators**.

#### **Journal Reviewers**

#### **Biochemistry and Microbiology**

Vincent E. Sollars provided manuscript review for Current Signal Transduction Therapy.

Michael R. Moore reviewed manuscripts for the American Journal of Physiology, International Journal of Cell Biology, and Cell Biology International.

Hongwei Yu reviewed journals for Infection and Immunity, Journal of Bacteriology, Journal of Clinical Microbiology, and Molecular Microbiology.

#### Neuroscience

Bryan R. Payne became an ad hoc reviewer for the Journal of Neurology, Neurosurgery and Psychiatry.

# Pharmacology, Physiology & Toxicology

Nalini Santanam was a reviewer for Atherosclerosis, Journal of Medicinal Food, and Free Radical in Biology and Medicine.

## **Grant Review Activity**

#### **Biochemistry and Microbiology**

Vincent E. Sollars participated in an NIH review panel for two rounds of challenge grants. He also participated in the grant panel of the US Army Medical Research and Material Command's Peer Reviewed Medical Research Program.

# Pharmacology, Physiology & Toxicology

Nalini Santanam was a grant reviewer for a National Institutes of Health special emphasis panel in the Endocrinology, Metabolism, Nutrition and Reproductive Sciences review group. She also was a reviewer for the American Heart Association's Cardiovascular Committee 2B.

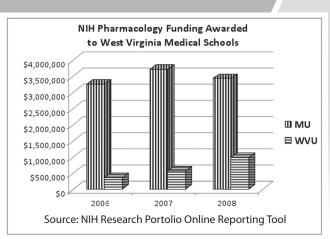


#### Student team scores decisive state "medical jeopardy" win

With a final score of 1661 to 470 and -160, Marshall students defeated teams from West Virginia University and the osteopathic school in the 2009 state-level American College of Physicians Doctor's Dilemma (TM) Competition. Shown here with faculty sponsor Lynne Goebel, MD, (right) are team members Nathan Hill (holding scoreboard), Brent Glover (lower right), Coben Thorn and Andrea Orvik.



# Marshall demonstrates excellence at state level



"We are what we repeatedly do. Excellence, then, is not an act, but a habit."
- Aristotle



#### CONTACT INFORMATION

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