



FYI: THE NEWSLETTER OF THE DAVIS HEART AND LUNG RESEARCH INSTITUTE AT OSU

November 2006

Institute Intramural Thematic Grants Awarded

The Institute's Intramural Thematic Grants Program exists to encourage and support Institute investigators in developing programs and careers in the four thematic research areas of emphasis and growth of the Institute. This fall, twelve investigators were funded for a total of \$831,855. Congratulations to the following investigators:

<i>PI</i>	<i>Thematic Program(s)</i>	<i>Mechanism</i>	<i>Funded Budget</i>	<i>Title</i>
Sarkar, Anasuya	Inflam & Fibrosis	BF-AS	\$25,465	RIP2/Caspase-1 mediated NF-kB signaling
Bringardner, Benjamin	Inflam & Fibrosis	BF-BB	\$37,500	CCL3 and Ets2 are important contributors to murine and human pulmonary fibrosis
Sesharidri, Sudarshan	Inflam & Fibrosis	BF-SS	\$10,890	Role of pyrin in Francisella mediated apoptosis
Crouser, Elliott	Inflam & Fibrosis	RDG-EC	\$50,000	Immunologic properties of nuclear and mitochondrial DNA binding proteins
Elton, Terry	Inflam & Fibrosis	RDG-TSE	\$50,000	LPS and miR-155 gene regulation
Boyaka-Cormet, Estelle	Inflam & Fibrosis, Myocyte, Ischemia	RDG-ECB	\$50,000	Regulation of cell surface expression of CFTR by COPI
Eubank, Tim	Inflam & Fibrosis, Reg Med	RDG-TE	\$50,000	Inhibition of breast cancer growth and metastases by GN-CSF
Angelos, Mark	Ischemia & Metab	RDG-MA	\$30,000	Low flow reperfusion and ROS production in the heart
Raman, Subha	Ischemia & Metab	RDG-SR	\$50,000	In vivo myocardial characterization to predict outcomes in non-ST elevation acute coronary syndromes
Janssen, Paul	Ischemia & Metab, Reg Med, Myocyte Bio	RDG-PJ	\$50,000	Time-dependent contribution of calcium handling and myofilament properties to ischemia-reperfusion injury
Lacombe, Veronica	Myocyte Biol & Disease, Ischemia	BF-VL	\$28,000	Novel role of advanced glycation end-products in diabetic diastolic dysfunction
Sen, Chandan	Reg Med	PPIG-CS	\$200,000 x 2 years	Mechanism regulating wound vascularization

NIH Support of OSU Biomedical Research Continues Upward

The latest funding report from NIH demonstrates that OSUMC has earned double-digit percentage increases in support from the federal agency for 2 years in a row and doubled its annual NIH funding in the past 6 years.

“This consistent upward trend in NIH funding is the result of strategic planning to commit resources into the research enterprise and especially to recruit and retain our most talented scientists,” says Fred Sanfilippo, MD, PhD, Medical Center CEO.

“The important story behind these numbers is that more financial support means more opportunities for discovery that can be translated into improved patient care,” says Caroline Whitacre, PhD, OSUMC’s associate vice president and vice dean for Research.

You can read the complete news story on OneSource.

Biomedical Research Tower Grand Opening Celebration - Nov. 3

OSU Medical Center's newest facility, the 14-story Biomedical Research Tower, will open Friday, Nov. 3 with a Grand Opening Celebration from 3-5 p.m. The tower will be the largest research facility on campus and home to 122 faculty and their research teams.

All OSU Medical Center faculty, staff and volunteers are invited to join the celebration. Remarks and the official dedication will take place at 3:30 p.m. in the Biomedical Research Tower, 460 W. 12th Ave. Parking will be available in the Neil Avenue Garage, accessible between Campbell Hall and Lazenby Hall. For more information about the Biomedical Research Tower, please visit <http://medicalcenter.osu.edu/research/researchtower/>.

Kudos

Drs. **Naeem Ali** and **James O’Brien** of the Division of Pulmonary, Allergy, Critical Care and Sleep Medicine are recognized in this year's Forty Under 40 Class. This Business First program annually identifies individuals who, through hard work, charitable contributions or community involvement, stand out from their peers.

Dr. **B. Rita Alevriadou**, Associate Professor of BME & Internal Medicine at OSU, gave an invited talk at the Biomedical Engineering Society (BMES) Annual Meeting (Oct 11-14, Chicago, IL) entitled: “Reactive nitrogen species inhibit mitochondrial respiratory complexes in sheared endothelial cells”. Coauthors were: Zhaosheng Han, Charles I. Jones III, Guruguhan Meenakshisundaram and Yeong-Renn Chen.

Phil Diaz and collaborators have been selected as one of the sites for the NHLBI sponsored "Long Term Oxygen Treatment Trial". OSU is the lead site in a consortium including Univ of Cincinnati and Univ of Kentucky. This study as per Phil will “define the appropriate indications for supplemental oxygen in mild-moderate hypoxemia and expand our portfolio of clinical/translational research involving COPD, it will have important implications for the majority of patients on supplemental oxygen.”

Charles I. Jones III (MS from OSU BME and currently a medical student at OSU), who works in the Alevriadou lab, presented a poster at the BMES Annual Meeting entitled: “Shear stress regulates the respiration of cultured vascular endothelial cells”. Coauthors were: Zhaosheng Han,

Guruguhan Meenakshisundaram, Yeong-Renn Chen, Govindasamy Ilangovan and B. Rita Alevriadou.

New Members

Membership for the following individuals was recently approved. Please join us in welcoming them to the institute!

Charles Cook, MD; Investigator (Surgery)

Jonathan Davis, PhD; Associate Investigator (Physiology & Cell Biology)

Andre Palmer, PhD; Member (Chemical & Biomolecular Engineering)

Sanjay Rajagopalan, MD; Investigator (Cardiovascular Medicine)

OSU Heart Center Development Adds Staff

Heart Center Development is pleased to announce the addition of two new staff members. **Erin Essak** has accepted the position of Development Officer 2 in the Heart Center. Erin comes to us from the Wexner Jewish Student Center/OSU Hillel where she was Director of Campus and Community Initiatives. She offers an impressive skill set and strong community ties along with her enthusiasm for the heart program. As an OSU alum, Erin looks forward to being back on campus to contribute as a vital member of our Power to Change Lives Campaign. We welcome her to her DHLRI office on November 6th.

Doreen Fast has recently accepted the Office Assistant position in support of Heart Center Development. Doreen comes to us from the OSU Sleep Disorder Center at UH East, and has previously worked for the Division of Pulmonary, Allergy, Critical Care and Sleep Medicine. She will support both development officers Stacey Hartley and Erin Essak. Doreen will start on October 30th.



Recent Publications

Abraham WT. New approaches to monitoring heart failure before symptoms appear. *Rev Cardiovasc Med.* 2006;7 Suppl 1:S33-41.

Magalang UJ, Rajappan R, Hunter MG, Kutala VK, Kuppusamy P, Wewers MD, Marsh CB, Parinandi NL. Adiponectin inhibits superoxide generation by human neutrophils. *Antioxid Redox Signal.* 2006 Nov-Dec;8(11-12):2179-86.

Presley T, Kuppusamy P, Zweier JL, Ilangovan G. EPR Oximetry as a Quantitative Method to Measure Cellular Respiration: A Consideration of Oxygen Diffusion Interference. *Biophys J.* 2006 Sep 29; [Epub ahead of print]

Rajaram, M.V.S., Ganesan, L.P., Parsa, K.V.L., Butchar, J.P., Gunn, J.S., and S. Tridandapani (2006) Akt/PKB modulates macrophage inflammatory response to *Fransicella* infection and confers a survival advantage in mice. *J. Immunol.* (In Press)

Su X.-F., Q. Li, K. Shrestha, E. Cormet-Boyaka, L. Chen, P.R. Smith, E.J. Sorscher, D.J. Benos, S. Matalon, and H.-L. Ji. Inter-regulation of proton-gated Na⁺ channel 3 and cystic fibrosis transmembrane conductance regulator. *J. Biol. Chem.* (2006 Sep 29) [epub ahead of print].

Venkatakrishnan CD, Tewari AK, Moldovan L, Cardounel AJ, Zweier JL, Kuppusamy P, Ilangovan G. Heat Shock Protects Cardiac Cells From Doxorubicin-Induced Toxicity By Activating p38MAPK and Phosphorylation of Small Heat Shock Protein 27. *Am J Physiol Heart Circ Physiol*. 2006 Jun 16; [Epub ahead of print]

Wang Y, Zeigler MM, Lam GK, Hunter MG, Eubank TD, Khramtsov VV, Tridandapani S, Sen CK, Marsh CB. The role of the NADPH oxidase complex, p38 MAPK, and Akt in regulating human monocyte/macrophage survival. *Am J Respir Cell Mol Biol*. 2006 Aug 24; [Epub ahead of print]

Zhaosheng Han, Yeong R. Chen, Charles I. Jones, Guruguhan Meenakshisundaram, Jay L. Zweier, and B. Rita Alevriadou, "Shear-Induced Reactive Nitrogen Species Inhibit Mitochondrial Respiratory Complex Activities in Cultured Vascular Endothelial Cells", *Am J Physiol Cell Physiol* (October 4, 2006). doi:10.1152/ajpcell.00389.2006 (article in press)

CIO News Brief Provides IS Information

One of the goals at OSU Medical Center is to become a workplace of choice. Providing news and information about technology that will impact our mission areas and your job is important. In response to feedback about being more informed about Medical Center Information System initiatives, MedCenter IS is pleased to introduce CIO News Brief, a monthly newsletter written and produced by our staff.

Similar to how OneSource is organized, the newsletter will highlight MedCenter IS initiatives going on in our three mission areas of research, education and patient care. Also, you will find a section called Workplace, which offers information, such as handy tips, that we hope will help you in your job.

The newsletter is available every month on OneSource. To read the current issue, please visit <http://www.medctr.ohio-state.edu/Departments/InfoSys/Docs/CIO%20News%20Brief.pdf> or visit the department homepage on OneSource by going to the Departments section on the OneSource homepage and click on Information Systems (MedCenter IS).

Bleed Scarlet, Give Life

Help the Buckeyes beat Blue in the OSU-Michigan Blood Battle by donating blood Nov. 3 from 7:30 a.m. – 5:30 p.m. in the Ross Heart Hospital Lobby. Donors will receive a commemorative 25th Anniversary Blood Battle pin. Register online at www.givelife.org (sponsor code "buckeyes") or call 293-LIFE to schedule an appointment. Walk-ins are welcome but may experience delays. Remember, donors must wait eight weeks between donations.

Vote November 7

The State of Ohio is urging you to "Change Our World - Vote Your Conscience" on November 7. General Election candidates and statewide issues can be viewed at the Secretary of State's website <http://www.sos.state.oh.us/sos/ElectionsVoter/CurrentElection.aspx?Section=1768>.

The university's Board of Trustees has issued a statement to memorialize the consensus they reached at the Friday (9/22) board meeting relating to State Issue 3, also known as the Learn and Earn Amendment to the Ohio Constitution, that proposes to use proceeds from expanded

gambling in the state of Ohio to fund college grants and scholarships at in-state colleges and universities. Read the full statement online at <http://www.osu.edu/news/newsitem1457>.

2006 Bucks for Charity is Oct. 2 through Dec. 8.

This OSU Medical Center and University tradition provides faculty, staff and students with an opportunity to support more than 300 not-for-profit organizations. OSU Medical Center has a financial goal this year of \$326,000. Pledge cards are available from your area's key worker. View the [2006 Resource Guide](#) online or ask for a copy from your key worker. A copy is also available in the DHLRI Administrative offices at the reception desk. If you do not know who your key worker is, please ask your manager.

Questions may be directed to the Bucks for Charity Co-Chairs at Michelle.Graf@osumc.edu or Marc.Mays@osumc.edu. Please consider giving a tax deductible one-time gift, or donate by using payroll deduct, to the organizations in the resource guide.

Code Blue Coverage for Medical Emergencies

Response to life threatening medical emergencies, or "code blue" situations, is provided in the Davis Heart and Lung Research Institute by the Medical Center. If a medical emergency occurs, call the hospital operator at 6-3133 and state the location of the incident. A code blue team will be immediately dispatched to the location.

If you'd like a phone sticker with this and other emergency numbers, you can pick one up at the DHLRI front desk in room 110.

Holiday Closures

The university will be closed to observe the following holidays in November:

Friday, November 10: Veterans Day observance
Thursday, November 23: Thanksgiving Day
Friday November 24: Columbus Day observance



November Programs and Events

November 2: DHLRI AHA Practice Session; 1:00 pm, 170 Davis Heart & Lung.

November 3: Research in Progress; Jill Rafael-Fortney, PhD; Molecular & Cellular Biochemistry.*

November 15: 5th Annual Conference on Medical and Surgical Therapies; *High Touch, High Tech: Heart Failure for the 21st Century*, (formerly Heart Failure at the Shoe) featuring international heart failure expert Dr. Philip Poole-Wilson. Ross Heart Hospital. To register, visit <http://ccme.osu.edu>.

Mark your calendars:

The annual DHLRI **Holiday Reception and Distinguished Awards Presentation** will be on **Friday, December 8**. More information to come!

DHLRI will once again present a **Grant Writing Workshop** on **Monday, December 11**. See feature article below.

**Research in Progress presentations are held at noon on Fridays in 165 Davis Heart & Lung.*

DHLRI Grant Writing Workshop

The Institute's Education Committee is organizing a mini grant writing workshop on the Monday, December 11 from 10 am to 2 pm in room 165 of the DHLRI. The mission of this workshop is to help the young investigators of the institute to submit "High Quality Proposals" for funding from the American Heart Association, National Institutes of Health, and other organizations in Jan/Feb, 2006.

Several well established and successful senior investigators of the institute are going to give talks on topics including:

- Administrative Aspects of Grant Preparation
- Funding Sources
- Grantsmanship
- Aiming for a High Quality Proposal
- How does a reviewer perceive/evaluate the proposal?
- Preliminary Data fitting the Hypothesis
- Grant Submission and Career Development and
- Preparation of an Attractive Proposal.

All young investigators and their mentors are requested to attend the Grant Writing Workshop.

Lunch will be provided. Please contact Kirsten Houck to RSVP at Kirsten.Houck@osumc.edu.

Education Committee Hosts AHA Meeting Practice Session

The Education Committee is providing the opportunity for AHA meeting presenters to practice here at the Institute. The session is scheduled for November 2 at 1PM.

Presenters have already been scheduled and assigned presentation times, but **all interested investigators are encouraged to attend**, since providing feedback to presenters is a critical part of this process. There will an opportunity for questions and comments, and the option of providing written comments, for each presenter.

For more information, contact Cynthia Carnes at carnes.4@osu.edu.

The Lung and the Respiratory (Structure, Oxygen Transport) Workshop

The Mathematical Biosciences Institute will present the workshop “The Lung and the Respiratory (Structure, Oxygen Transport)” November 6-10 in the MBI Lecture Hall (Math Building Room 240).

Computational modeling promises a new era in the fundamental understandings of how lung morphometry and biomechanical/biomaterial properties impact lung function. With continuous improvement in imaging modalities, it is becoming increasingly possible to establish precise physical locations and degrees of structural or functional defects in the lung during disease. Such data will beg the question of how explicit defects of biological components, processes, and structure at specific anatomic locations alter function. Computational power now permits one to develop models that are closer anatomic replicas of a real lung, while incorporating the fundamental biophysical properties and relations for each exquisite component of each airway. Rational and efficient disease management can be enhanced by understanding or predicting how alterations in the individual components of lung structure and properties impact the emergent lung function.

View the schedule at <http://www.mbi.osu.edu/2006/ws3schedule.html>, and register at <http://www.mbi.osu.edu/applyworkshop.html>.

NIH E-Submission Training Dec. 5 - Registration Now Open

In preparation for the upcoming transition of R01s to electronic submission in February 2007, the NIH is hosting a training event on Tuesday, Dec. 5. The training session entitled "Preparing for Electronic Grant Application" is being offered via Webcast and at the Natcher Conference Center on the NIH Main Campus in Bethesda, Maryland. The session will focus on lessons learned from the past year's electronic submissions and on best practices for submitting online applications.

Applicants are encouraged to attend the hands-on computer labs being offered on-site at the NIH Main Campus in Bethesda, Maryland Dec. 4-6. Both events are free, but registration is required. For more information or to register, visit http://era.nih.gov/training/esub_120506/.

For more information on this newsletter, contact the editor at Chris.Brakenbury@osumc.edu. The newsletter is also available online at <http://heartlung.osu.edu>. To unsubscribe, please contact Chris via e-mail.

