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### Do You Have a Buddy?

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There is still time to earn your Buddy the Blood Drop bobble head doll. Anyone who has donated blood at the Medical Center three times since January 1, 2006 is eligible to receive this thank you gift. Start racking up your three donations by giving blood at the next drive on **Monday, April 2** in the Ross Heart Hospital lobby from 11 am. – 5 pm. Visit [www.givelife.org](http://www.givelife.org) (sponsor code “buckeyes”) or call 293-LIFE to register. Learn more about the Buddy giveaway on the Health and Wellness page located under Workplace on OneSource.

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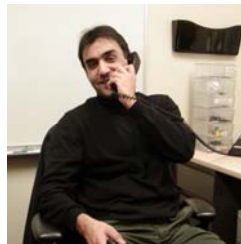
### New DHLRI Employees

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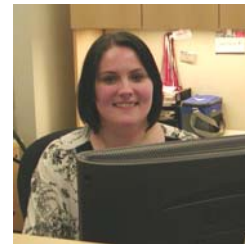
This is a new addition to the FYI. If you have a new employee in your area, please contact Kirsten Houck or Colette Tornik and we’ll feature them here. The individuals listed below are the latest additions to the DHLRI Administrative Staff.



**Jennifer Prak**  
Human Resources  
Personnel Officer  
(cubicle area in 110 DHLRI)



**Manzoor Wani**  
Laboratory Services  
Coordinator  
(612 DHLRI)



**Colette Tornik**  
Receptionist  
(front desk in 110 DHLRI)

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### New Protocol Courier Service

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The Office of Research is providing a new courier service for researchers submitting materials for IRB, IACUC, and IBC review. Submissions may be dropped off at any of six Campus locations between 8 am and 4 pm on business days. These locations are: the Agricultural Engineering Building, Bolz Hall, Bricker Hall, **Davis Heart & Lung Research Institute**, Graves Hall, and Stillman Hall. The location in DHLRI is in the mailroom (110Q). Place items in the bin marked “OSURF Courier Pickup.” The courier makes daily rounds delivering materials to OSURF and the Office of Responsible Research Practices (ORRP). Please visit the ORRP website: <http://www.orrp.osu.edu/news/detail.cfm?News=193> for more details about this new service. Please direct questions to Kelli Cyrus at (cyrus.17@rf.ohio-state.edu) or 688-8457.

## 24/7 Heart Monitor Among Top State Science Stories

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Excerpt from **The Columbus Dispatch**: In 2006, a 54-year-old Kentucky truck driver entered Ohio State University Medical Center and became the first person in the United States to receive a permanent device that will let him monitor his heart 24 hours a day, seven days a week. The installation of the HeartPod in September was one of the top stories in Ohio science last year. The thin wire running through Lonnie Marshall's femoral vein, from his hip to a sensor in his heart, allows him to measure his heart function. "This is real George Jetson science," said **Dr. William Abraham**, an Ohio State cardiologist leading an international study of the device, one of several scientists use as monitors. Some sensors are as small as a grain of rice.

## New Opportunities for Vitamin E

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Excerpt from **Inside R&D Alert. NEW OPPORTUNITIES FOR VITAMIN E** 29 Sep 2006: Dr. Chandan Sen and his research team have studied the alpha-TCT form of natural vitamin E and found that when taken orally it can reach the blood of people at amounts sufficient to protect nerve cells. Current research provides the first insight indicating that the TCT form of natural vitamin E may help protect against stroke, breast cancer, and high cholesterol. TCT levels in the standard American diet are very low. Even most vitamin E supplements available commercially do not contain TCT. Sen and his team found that TCT taken orally could be transported to vital organs even in the absence of TTP, tocopherol transfer protein, which carries vitamin E from the liver to the other organs. This is valuable because some people have a genetic shortage of TTP and suffer from ataxia. Sen and his research team have published the results of testing that demonstrate tocotrienol's potential health benefits. *In vitro* testing of nerve cells showed that TCT significantly protected against glutamate, a chemical that kills neurons by over-stimulating them under conditions of stroke and other pathologies. Sen and his colleagues are moving toward more in depth analysis of the mechanisms that are responsible for the neuroprotective effects of TCT. They are also considering preclinical trials to test whether TCT can prevent stroke

## Kudos

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Pedram Ghafourifar, Ph.D. has accepted the position of Honorary Organizing Committee Member and Scientific Committee Member of the International Conference of Oxidative Stress, Havana-Redox 2007.

From Rita Alevriadou, Ph.D.: Charles (Chad) Jones III, MS in BME, and currently a 2<sup>nd</sup> year medical student who is doing research in my lab, has been granted a Research Fellowship Award by the Samuel J. Roessler Memorial Scholarship Fund for his project entitled "Shear-induced alteration in oxygen consumption and mitochondrial reactive oxygen species generation in vascular endothelial cells." The award covers the period 01/01/07 to 04/30/07 for part-time research. Let's congratulate Chad for receiving this prestigious fellowship!

From Orlando "Lon" Simonetti, Ph.D.: OSU medical student Jason Hughson has been granted a Roessler Fellowship Award by the Samuel J. Roessler Memorial Scholarship Fund for his project entitled "Correlation of MRI assessment of diastolic dysfunction with catheter-based assessment of left ventricular filling pressures." This project will be performed under the direction of DHLRI members Orlando Simonetti, Ph.D. and Subha Raman, MD. Congratulations, Jason!



**Jason Hughson**  
Roessler Fellow

## New Awards: Federal, State, and Foundations

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PI: Beth Besecker  
Co-PI: Mark Wewers  
Sponsor: NHLBI, Award No. 1 F32 HL086186-01  
Title: Zinc importer SLC39A8 and lung epithelial cell survival  
Amount: \$116,846  
Start date: 1/8/07      End date: 1/7/09

PI: Philip Diaz  
Sponsor: NHLBI Contract No. HHSN268200736189/N01  
Title: Long-term oxygen treatment trial (LOTT) regional clinical center  
Amount: \$1,930,969  
Start date: 10/31/06      End date: 8/31/12

PI: Patrice Hamel  
Sponsor: Muscular Dystrophy Association, Neuromuscular Disease Research Grant  
Title: Unraveling the mitochondrial redox pathway in cytochrome *c* maturation  
Amount: \$311,980  
Start Date: 1/01/07      End Date: 12/31/09

PI: Paul Janssen  
Sponsor: American Heart Association, Established Investigator Award  
Title: Cardiac relaxation; frequency dependent relaxation and load induced remodeling  
Amount: \$500,000  
Start Date: 1/01/07      End Date: 12/31/11

PI: Clay Marsh  
Co-PIs: Haifeng Wu, Susheela Tridandapani  
Sponsor: NHLBI, Award No. 2 R01 HL06717-05A2  
Title: Intracellular pathways of monocyte survival  
Amount: \$1,837,500  
Start date: 2/5/07      End date: 1/31/12

PI: Sanjay Rajagopalan  
Sponsor: NIH/NIDDK U01 DK066597, (PI Beck, subcontract with the Cleveland Clinic)  
Title: Frequent hemodialysis network coordinating center: MRI core lab frequent dialysis network investigators  
Amount: \$53,820  
Start date: 9/1/06      End date: 8/31/07

PI: Sanjay Rajagopalan  
Co-PI: Qinghua Sun  
Sponsor: NIEHS, Award No. 7 R01 ES013406-04  
Title: Air pollution exposure/atherosclerosis: vascular mechanisms  
Amount: \$352,208 – transfer of award  
Start date: 8/2/06      End date: 7/31/07

PI: Svetlana Borisovna Tikunova  
Sponsor: NHLBI, Award No. K99 HL087462  
Title: Influence of troponin C on the rate of cardiac muscle relaxation  
Amount: \$180,000  
Start date: 12/01/06 End date: 11/30/08

## New Industry Support

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PI: Curt Daniels  
Sponsor: CoTherix, Inc.  
Title: REVEAL registry  
Amount: Clinical trial  
Start date: 1/18/07 End date: 12/30/07

PI: David Feldman  
Sponsor: Scios, Inc.  
Title: TMAC A051  
Amount: Clinical trial  
Start date: 10/13/06 End date: 9/30/08

PI: Sashwati Roy  
Co-Is: Chandan Sen, AJ Cardounel, Savita Khanna  
Sponsor: Carotech, Inc.  
Title: Vitamin E tocotrienol and brain health  
Amount: \$275,000  
Start date: 10/01/06 End date: 9/30/07

PI: Namita Sood  
Sponsor: CoTherix, Inc.  
Title: VISION trial  
Amount: Clinical trial  
Start date: 11/30/06 End date: 5/1/08

PI: Namita Sood  
Sponsor: Actelion  
Title: COMPASS 2 drug study  
Amount: Clinical trial  
Start date: 1/31/07 End date: 12/31/09

PI: AJ Cardounel  
Co-I: Jay Zweier  
Sponsor: Molecules for Health  
Title: Ribonucleotide reductase inhibitors for restenosis  
Amount: \$10,000  
Start date: 5/5/06 End date: 6/15/07



## Recent Publications

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Chen Z, Suntres Z, Palmer J, Guzman J, Javed A, Xue J, Yu JG, Cooke HJ, Awad H, Hassanain HH, Cardounel AJ, Christofi FL. Cyclic AMP Signaling Contributes to Neural Plasticity and Hyperexcitability in AH Sensory Neurons Following Intestinal *Trichinella spiralis* - induced Inflammation. International Journal of Parasitology. (In Press).

Ghafourifar P, Sen CK. Mitochondrial nitric oxide synthase. Front Biosci. 2007; 12:1072-8.

Guzman J, Yu JG, Suntres Z, Bozarov A, Cooke H, Javed N, Auer H, Palatini J, Hassanain HH, Cardounel AJ, Javed A, Grants I, Wunderlich JE, Christofi FL. (2006). ADOA3R as a Therapeutic Target in Experimental Colitis: Proof by Validated High-density Oligonucleotide Microarray Analysis Inflamm. Bowel Dis. Aug;12(8):766-789.

Hassanain, H., Gregg, D., Marcelo, Zweier, J. L., Souza, H.P., Selvakumar, B., Ma, Q, Moustafa-Bayumi, M., Binkley, P.F., Zweier, J., Flavahan N.A., Morris, M., Dong, C., and Goldschmidt-Clermont, P. (2007). Hypertension caused by transgenic over-expression of Rac 1. Antioxidant and Redox Signaling. 9 (1): 91-100.

Hiranandani N, Bupha-Intr T, Janssen PML. SERCA over expression reduces hydroxyl radical injury in murine myocardium. Am. J. Physiol. Heart. Circ. Physiol. 2006; 291:H3130-3135.

Jiang, J.G., Chen, R.J., Xiao, B., Yang, S., Wang, J.N., Cowart, L.A., Wang, D.W., and Xia, Y. Regulation of endothelial nitric-oxide synthase activity through phosphorylation in response to epoxyeicosatrienoic acids. Prostaglandins Other Lipid Mediat. 82: 162-174, 2007

Nazarewicz RR, Zenebe WJ, Pariahr A, Larson SK, Alidema E, Choi J, Ghafourifar P. Tamoxifen induces oxidative stress and mitochondrial apoptosis via stimulating mitochondrial nitric oxide synthase. Cancer Res. 2007; 66 (in press).

Wei, Q., and Xia, Y. Proteasome inhibition down-regulates endothelial nitric oxide synthase phosphorylation and function. J. Biol. Chem. 281: 21652-21659, 2006

Xia, Y, Berlowitz, C.O., Zweier, J.L. PIN inhibits nitric oxide and superoxide production from purified neuronal nitric oxide synthase. Biochimica et Biophysica Acta 1760:1445-1449, 2006

## DHLRI Faculty and Staff Town Meeting

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On Wednesday, March 15<sup>th</sup>, there will be a DHLRI Town Meeting in 170 (auditorium) at 3:30 pm. This meeting will provide updates on current activities of the Institute. The feedback received via the Town Meeting surveys will be discussed. There will be light refreshments in the lobby following the meeting.



## Upcoming Programs and Events

**March 15: DHLRI Town Meeting;** 3:30 pm., DHLRI 170

**March 16: Due Date - DHLRI Research Retreat Abstract Competition;** for a submission form, email Kirsten Houck ([Kirsten.Houck@osumc.edu](mailto:Kirsten.Houck@osumc.edu)) or click here: [http://medicine.osu.edu/sitetool/sites/pdfs/dhlri/2007\\_DHLRI\\_Abstract\\_Submission\\_Form.pdf](http://medicine.osu.edu/sitetool/sites/pdfs/dhlri/2007_DHLRI_Abstract_Submission_Form.pdf)

**March 21: Discovery Series;** Rajiv Ratan, MD, PhD, Burke Professor of Neurology and Neuroscience, Weill Medical College of Cornell University; Executive Director, Burke-Cornell Medical Research Institute; noon, DHLRI 170.

**March 30: Research in Progress:** Nechama S. Kosower, MD; noon, DHLRI 165.

**April 6: Research in Progress:** Estelle Cormet-Boyaka, PhD; noon, DHLRI 165.

**April 13: Research in Progress:** Sashwati Roy, PhD; noon, DHLRI 165.

**April 20: Research in Progress:** Daren Knoell, PharmD, PhD; noon, DHLRI 165.

*To submit news items, for more information, or to unsubscribe, contact the editors: [Kirsten.Houck@osumc.edu](mailto:Kirsten.Houck@osumc.edu) and [Colette.Tornik@osumc.edu](mailto:Colette.Tornik@osumc.edu). The newsletter is also available online at <http://heartlung.osu.edu>.*

