
Cardiac CT & MR Symposium

Subha Raman, MD and Lon Simonetti, PhD have organized a weekend symposium on Cardiac CT and MR July 28 & 29. The morning lecture sessions will be free to all OSU faculty and staff. Case review sessions, which can be applied towards Level 1 certification in Cardiac CT, will be available to faculty at a nominal fee, and free to all fellows and students. Pre-registration is required. Please contact Ellen Yokoyama for more information (ellen.yokoyama@osumc.edu, 3-9992).

Do Something Great This Summer

Summer is here and that means vacations, outside picnics, no school! Summer also means that due to busy schedules and nice weather the amount of blood donations decreases in the time of greatest need. Make sure to schedule a time to donate blood at one of the next medical center blood drives: 8/6 Doan Hall, 8/22 Meiling Hall, and 9/7 Doan Hall. Visit www.givelife.org (sponsor code "buckeyes") or call 293-LIFE to register for these or other upcoming drives. Walk-ins are welcome but may experience delays. Donors must wait eight weeks between donations. Learn more about the Buddy giveaway on the Health and Wellness page located under Workplace on OneSource.



Mercury's Link to Heart Disease Begins in Blood Vessel Walls

Heavy metals and other toxins have been linked to many human diseases, but determining exactly how they damage the body remains a mystery in many cases.

However, new research at Ohio State that focuses on a relatively obscure, misunderstood protein suggests mercury's link to heart disease can be traced to activation of this enzyme, which triggers a process leading to plaque buildup in blood vessel walls. The study examined three forms of mercury, matching their characteristics in the environment. Each form caused changes in the behavior of cells that line the blood vessel walls and that can lead to cardiovascular diseases. The research was published in a recent issue of the International Journal of Toxicology.

"Mercury has been implicated as a risk factor in cardiovascular disease because of environmental concerns both from contamination and the atmosphere. But no one has looked at heavy metal regulation of this enzyme," says Narasimham Parinandi, PhD, director of the Lipidomics and Lipid Signaling Laboratory at OSU Medical Center, and senior author of the study. "If we understand this regulation and know how to block it, we can come up with proper ways to prevent the activity."

Solid Organ Transplant for the Intensivist II Conference

Save the Date! On Friday, September 21st the Medical Center's Continuing Medical Education will host "Solid Organ Transplant for the Intensivist II." The conference will be held at the Convention Center at Easton. This is the second year of the annual conference, which brings to OSU experts in the field of Critical Care and Transplantation.

Welcome Dr. Thomas Ryan, the new Heart Center Director

Dr. Thomas Ryan joined the Ohio State University Heart Center on July 1, 2007 as director. He is also the John G. and Jeanne Bonnet McCoy Chair in Cardiovascular Medicine and holds appointments as professor of internal medicine and physician-scientist leader for the Medical Center's heart signature program – *which unites the Davis Heart and Lung Research Institute and the Ross Heart Hospital under one leader*. Says Dr. William Abraham, director of the division of cardiovascular medicine at Ohio State, "Tom Ryan's clinical and research expertise will add a new dimension to our imaging program. He also will be a major asset to our ongoing attraction of high-quality faculty, staff and students."

Ryan is currently a diplomate of the American Board of Internal Medicine, a fellow of the American College of Cardiology, and is the new president of the American Society of Echocardiography. He has served as associate editor of American Heart Journal and the Journal of the American Society of Echocardiography and has authored or coauthored more than 200 published articles, book chapters and abstracts. He is coauthor of Feigenbaum's Echocardiography, the leading textbook in the field of cardiovascular ultrasound. He has participated in more than 30 funded research projects, delivered more than 140 invited lectures throughout the world, and has mentored numerous cardiology fellows and doctoral students in cardiovascular imaging research.

Ryan said the quality of the people at Ohio State were key to his decision to accept the new position. "I was very impressed with the leadership and faculty, and the vision and enthusiasm, on all levels," he said. "It's clear to me that the Heart Center is 'on the way up' with all the necessary ingredients to get to the top. I'm just excited about the opportunity to be a part of something special and to be at a place where people want to be the very best. I look forward to working with faculty, staff, nurses and administrators to keep the Heart Center going in the right direction."



New Employees

Please join us in welcoming these new employees to the DHLRI. Contact Kirsten.Houck@osumc.edu to announce a new employee in the next issue.



Lori Arnold, Accountant
(cubicle area in 110 DHLRI)

- Xiaofeng Bao - Post-Doctoral Researcher, PI: Villamena
- Sergey Semenov- Visiting Scholar, PI: Khramtsov

Karel Smith is happy to announce the addition of Lori Arnold, Accountant, to the DHLRI Administrative Staff. Welcome Lori!



Cannon Drive Speed Limit Decreased

The speed limit on Cannon Drive has recently been decreased from 35mph to 25mph. This street is an area with high pedestrian traffic, particularly during rush hours. Please keep this in mind for your own safety, as well as the safety of others.



Security Tips- Using Shared Computers

Adapted from the July Edition of the [CIO News Brief](#).

Many of us access the Internet from different locations - a friend's house, an Internet café, or the library. Sharing a computer is a great convenience, but you must take extra precautions to safeguard your personal information. Here are some tips to help protect you when you using a shared computer.

Do not check the "Remember my ID on this computer" box. When a computer "remembers" you, it usually sets a persistent cookie on the computer that allows the Web site to identify you. If you check this option, you'll remain signed in after you close the browser. This is a convenient option if you are the only user of a computer, but if you share a computer, do not check this option. **Never save passwords.** Many Web browsers and other programs will offer to save passwords for you - do not use this feature on a shared computer!

Never leave a computer unattended while signed in. If someone uses the computer in your absence, they can easily access your account information. **Always sign out completely.** If you use a public or shared computer, it's especially important to sign out completely. Always click the "Sign Out" link when you are finished accessing your accounts.

Keep an eye out for "shoulder surfers." Use caution - people may try to watch your fingers as you type your password. **Avoid confidential transactions.** Don't use a public or shared computer to log in to a bank account or other online service that accesses confidential information. You should access these Web sites only on a trusted computer.

Clear the browser's cache. The browser keeps a cache, containing a copy of Web pages you visited. The cache may be stored on the computer's local drive. Clearing the cache is simple, and will prevent subsequent computer users from viewing the sites you visited while online. Check your browser's Help menu for details on how to clear the cache.

Beware of spyware. Any computer that you do not personally control is hard to trust. It could have spyware, such as keystroke loggers, or other malicious software installed. If a computer is infected with spyware, even clearing the browser cache or restarting the browser will not protect you.



Kudos

Dr. Periannan Kuppusamy, Professor of Internal Medicine, has received another NIH grant to support his outstanding cardiovascular research program. This grant proposes to explore the transplantation of immature cells in the infarct area of the heart as an alternative strategy to fight end-stage heart failure.

Dr. Thomas Ryan, director of the Ohio State University Heart Center, was elected president of the American Society of Echocardiography.

Dr. Daren Knoell was appointed to the FDA's Pulmonary-Allergy Drugs Advisory Committee.

The James V. Warren Award was awarded to **Dr. Mahmood Khan** a post-doctoral fellow in Dr. Kuppusamy's lab for his research within the department of Internal Medicine.

Ryan Roberts (Marsh Lab), placed first in the Professional Biological Sciences and **Sudarshan Seshadri** (Wewers lab), placed third in the Edward Hayes Graduate Research Forum.

Anasuya Sarkar (Wewers lab) received recent notice of grant funding from the American Heart Association! The project is entitled “Monocyte Caspase-1: Role in Plaque Disease.” The award begins July 1, 2007, and has been approved at the level of funding indicated below:

Period 1 Start Date: 07/01/2007, End Date: 06/30/2008, Total: \$42000

Period 2 Start Date: 07/01/2008, End Date: 06/30/2009, Total: \$44000

In **Dr. Andrea Doseff**'s lab:

- **Janet Doolittle**, an honor student, was awarded the Mayers Summer Research Internship.
- **Mitila Arasu** was awarded the Glenn-Stokes Summer Research Internship.
- **Laura Beasley** received the REU-national Science Foundation Summer Internship.
- **Courtney Nicholas**, second year graduate student, won second place in oral presentations at the Molecular Life Sciences Interdisciplinary Graduate Programs Symposium.

Congratulations DHLRI Intramural Thematic Grant Recipients

The DHLRI Intramural Thematic Grants Program exists to encourage and support Institute investigators in developing programs in support of the four thematic research areas. The following investigators were awarded funding for their proposals:

PI	DHLRI Thematic Program	Mechanism	Funding	Title
Janssen, Paul	Myocyte Biology	Program Project Initiated Grant	\$128,000	<i>Cardiac diastolic dysfunction</i>
Ziolo, Mark	Ischemia and Metabolism/Myocyte Biology	Research Development Grant	\$50,000	<i>NOS2 signaling and functional effects on cardiac contractility</i>
Carnes, Cynthia	Ischemia and Metabolism/Myocyte Biology	Research Development Grant	\$50,000	<i>Heart failure and atrial fibrillation</i>
Parinandi, Narasimham	Ischemia and Metabolism/Inflammation, Fibrosis and Immune Function	Research Development Grant	\$50,000	<i>Adiponectin in hyperoxic lung injury</i>
Periasamy, Muthu	Myocyte Biology	Research Development Grant	\$50,000	<i>Does SR CA2+ leak play a role in heart failure</i>
Amer, Amal	Inflammation, Fibrosis and Immune Function	Research Development Grant	\$50,000	<i>Caspase-1 controls the survival of intracellular lung pathogens in macrophages</i>
Gavrilin, Mikhail	Inflammation, Fibrosis and Immune Function	Research Development Grant	\$50,000	<i>Intracellular sensors for Francisella</i>
Rafael-Fortney, Jill	Myocyte Biology	Research Development Grant	\$40,000	<i>The role of claudin-5 in cardiomyopathy</i>

New Awards: Federal, State, and Foundations

PI: Simi Chacko, Mentor: Periannan Kuppusamy
Sponsor: American Heart Association – Great Rivers Affiliate, Predoctoral Fellowship
Title: *Tagging of mesenchymal stem cells with novel oxygen sensing nanoprobe*
Amount: \$42,000 Start date: 7/01/2007 End date: 6/30/2009

PI: Max Chotani
Sponsor: American Heart Association – Great Rivers Affiliate, Beginning Grant in Aid
Title: *Targeting expression and mobilization of vascular alpha2C-adrenoceptors*
Amount: \$121,000 Start date: 7/01/2007 End date: 6/30/2008

PI: Matthew Exline, Co-I: Mark Wewers
Sponsor: American Lung Association, Research Grant
Title: *Apoptosis in sepsis: the role of humanin, a novel anti-apoptotic peptide*
Amount: \$40,000 Start date: 7/01/2007 End date: 6/30/2008

PI: Periannan Kuppusamy, Co-I's: Pawel Kwiatkowski, Jay Zweier, Doug Kniss
Sponsor: NIBIB, Award No. 1 R01 EB006153-01A2
Title: *Noninvasive monitoring of in situ oxygenation and cell therapy in infarct heart*
Amount: \$1,350,000 Start date: 7/01/2007 End date: 5/31/2008

PI: Yoshinori Nishijima, Mentors: Cynthia Carnes, Sandor Gyorke
Sponsor: American Heart Association – Great Rivers Affiliate, Postdoctoral Fellowship
Title: *Calcium regulation during heart failure*
Amount: \$86,000 Start date: 7/01/2007 End date: 6/30/2008

PI: Anasuya Sarkar, Mentor: Mark Wewers
Sponsor: American Heart Association – Great Rivers Affiliate, Postdoctoral Fellowship
Title: *Monocyte caspase-1: role in plaque disease*
Amount: \$86,000 Start date: 7/01/2007 End date: 6/30/2008

PI: Yong Xia
Sponsor: NHLBI, Award NO. 1 R01 HL086965-01A1
Title: *Endothelial dysfunction in postischemic hearts*
Amount: \$1,850,000 Start date: 6/5/2007 End date: 5/31/2008

New Industry Support

PI: Emile Daoud
Sponsor: Biosense Webster
Title: NaviStar® ThermoCool® Catheter for the radiofrequency ablation of symptomatic paroxysmal atrial fibrillation PAF IDE #G030236
Amount: Clinical Trial Start date: 5/18/2007 End date: 12/31/2010

PI: John Hummel
Sponsor: Ablation Frontiers
Title: TTOP-AF
Amount: Clinical Trial Start date: 6/11/2007 End date: 12/31/2009

PI: Namita Sood
Sponsor: United Therapeutics
Title: TDE-PH-301, TDE-PH-302, TDE-PH-304, TDE-PH-305, TDE-PH-306,
TDE-PH-307
Amount: Clinical Trial Start date: 5/18/2007 End date 3/31/2008



Recent Publications

Baran CP, Opalek JM, McMaken S, Newland CA, O'brien Jr JM, Hunter MG, Bringardner BD, Monick MM, Brigstock DR, Stromberg PC, Hunninghake GW, Marsh CB. Important Roles for M-CSF, CCL2 and Mononuclear Phagocytes in the Pathogenesis of Pulmonary Fibrosis. *Am J Respir Crit Care Med.* 2007 Apr 12; [Epub ahead of print]

Oliver H. Voss#, Sanjay Batra#, Sunny J. Kolattukudy, M. Elba Gonzalez-Mejia, Jeffrey B. Smith*, and Andrea I. Doseff. Binding of Caspase-3 Prodomain to Heat Shock Protein 27 Regulates Monocyte Apoptosis by Inhibiting Caspase-3 Proteolytic Activation *J. Biol. Chem.* In Press

Ezzie ME, Crouser ED Considering an infectious etiology of sarvoidosis. *Clin. Dermatol.* 2007 May-Jun;25(3):259-66.

Nana-Sinkam SP, Lee, JD, Sotto-Santiago,S., Stearman, RS.,Choudhery, Q., Voelkel,N.F. and Geraci, MW, Prostacyclin Prevents Pulmonary Endothelial Cell Apoptosis Induced by Cigarette Smoke , *American Journal of Respiratory and Critical Care Medicine*, 2007 Apr 1;175(7):676-85. epub ahead of print, Jan 25

Nazarewicz R. R., Zenebe W. J., Parihar, A., Larson S. K., Alidema E., Choi J. and Ghafourifar P. (2006) Tamoxifen induces oxidative stress and mitochondrial apoptosis via stimulation of mitochondrial nitric oxide synthase. *Cancer Res.* 2007, 67, 1282-1290

Nazarewicz R. R., Ziolkowski W., Vaccaro P.S., Ghafourifar P. (2007) Effect of short-term Ketogenic diet on redox status of human blood. *Rejuvenation Res* (In press).

Parsons JP et al. Prevalence of exercise-induced bronchospasm in a cohort of varsity college athletes", *Medicine & Science in Sports & Exercises*, in press.

Ray, Andrew D., Magalang, Ulysses J., Michlin, Charles, Ogasa, Toshiyuki, Krasney, John A, Gosselin Luc E., Farkas, Gaspar A., Intermittent Hypoxia Reduces Upper Airway Stability in Lean but not Obese Zucker Rats *Am J Physiol Regul Integr Comp Physiol* (April 25, 2007), in press.

Stearman, R.S., Grady,M., Nana-Sinkam, P., Garcia,M., Geraci, M.W., Multifaceted Regulation of Human Prostacyclin Synthase Promoter in Lung Cancer Cell Lines, *Molecular Cancer Research*, 2007 Mar;5(3):295-308

Zenebe W. J., Nazarewicz R. R., Parihar M. S., Ghafourifar P. (2007) Hypoxia/reoxygenation of isolated rat heart mitochondria causes cytochrome c release and oxidative stress; Evidence for involvement of mitochondrial nitric oxide synthase. *J. Mol. Cell. Cardiol.* (In Press)

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

