Physiology News, August 2007
Issue 7

DEPARTMENT OF CELLULAR & INTEGRATIVE PHYSIOLOGY
INDIANA UNIVERSITY
School of Medicine

NEWS

Statewide Physiology Retreat

The Statewide Departmental Retreat was held Monday, August 20, 2007 at the Marriott Downtown, 8:00 a.m. – 5:00 p.m., in the Indiana Room. The TENTATIVE date for 2008 will be in October. Watch for further details.

Seminars

David Basile is eager to collect ideas for seminar speakers for the upcoming Spring semester; please probe your minds for appropriate potential speakers to invite. Keep in mind two goals for the seminar program; 1) involvement of faculty, particularly those who have not presented in this forum for some time. If you feel like it has been too long, please step up to the plate. 2) We would like to increase talks by local IU/Purdue speakers, as suggested by Dr. Sturek. Collaborators in other departments represent great opportunities. Thank you very much for all of your help. (dpbasile@iupui.edu)

HOLIDAYS ARE HERE!

Note that, during the Christmas and New Year Holidays, several departments/divisions are on limited schedules, if not closed. Also, when placing orders, make sure there will be someone in your lab to accept packages.

Our Holiday Office Hours

Thanksgiving Holiday – The Office will be closed November 22-23, 2007
Christmas Holiday – The Office will be closed December 24-25, 2007
New Years Holiday – The Office will be closed December 31-January 1, 2008
Office Hours for December 26-28 will be 7:00 a.m. – 4:00 p.m.

Urgent – Payroll Time Sheets for the pay period ending 11/17/07

Due to the Thanksgiving Holiday, time sheets for the pay period ending 11/17/07 must be turned into the office no later than 11/19/07 at 4:00 p.m. Payroll will be

closed on 11/20/07 at 12:00 p.m. and no further processing of time sheets will be allowed. Any time sheets turned in after close of payroll will be on your next pay check

LET'S HAVE LUNCH TOGETHER FOR THE HOLIDAYS. PHYSIOLOGY HOLIDAY PITCH-IN - Wednesday, December 19th, 11:00 – 1:00 p.m., in the conference room MS 331. The department will furnish the meat and paper goods. **A Pick-in Sign up sheet** will be located in the mail room. Your item(s), can be brought to the office or conference room in the morning and we in the office can set up everything. Also, we do have enough outlets for crock pots and such. It has been a long time since we had a pitch-in.

Congratulations to G. Tanner

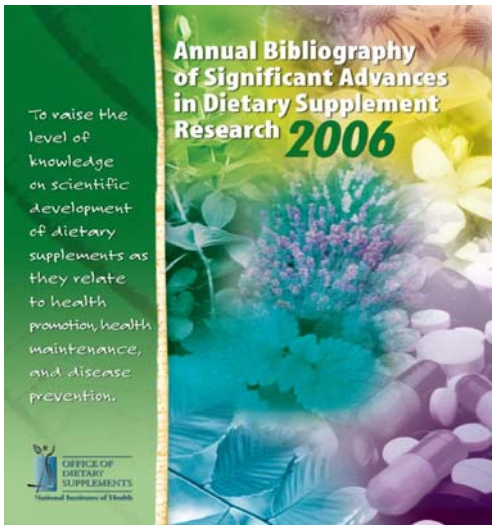
Cover Article

Cellular Microbiology (2007) **9**(2), 413–424 doi: 10.1111/j.1462-5822.2006.00799.x First published online 31 August 2006

Real-time studies of the progression of bacterial infections and immediate tissue responses in live animals

Lisa E. Månsson,1 Keira Melican,1 Jorrit Boekel,1 Ruben M. Sandoval,2 Isabelle Hautefort,3 George A. Tanner,4 Bruce A. Molitoris2 and Agneta Richter-Dahlfors1*

1Department of Microbiology, Tumor and Cell Biology, Karolinska Institutet, S-171 77 Stockholm, Sweden. 2Division of Nephrology, Department of Medicine, Indiana Center for Biological Microscopy, Indianapolis, IN 46202, USA. 3Pathogen Molecular Microbiology, Institute of Food Research, Norwich NR4 7UA UK. 4Department of Cellular and Integrative Physiology, Indiana University School of Medicine, Indianapolis, IN 46202, USA.



Congratulation!

G. Chen, P. Liu, GR Pattar, L Tackett, P Bhonagiri, AB Stawbridge, and JS Elmendorf. Molecular Endocrinology (Mol Endocrinol.) 2006 20 (4): 857-870

The National Institutes of Health, Office of Dietary Supplements is pleased to offer you the Annual Bibliography of Signifi cant Advances in Dietary Supplement Research for the eighth consecutive year. This publication contains annotations of 25 original papers, which were selected from about 300 papers related to dietary supplements that appeared in more than 45 peer-reviewed scientific journals in 2006. The bibliography provides a snapshot of research published on dietary supplements, the quality of the research, funding sources, and journals publishing the findings

Congratulations!

C. Subah Packer, Ph.D., was presented with the -- Glenn W. Irwin, Jr., M.D., Experience Excellence Award during Employee Recognition Convocation on September 11, 2007 at the University Conference Center and Hotel.

$11M Grant Will Enhance Cardiac Care in Children

The National Institutes of Health has provided $11.5 million in support to the Indiana University School of Medicine for the only institutional grant looking at the cause and treatment of heart failure in children.

Congenital heart disease is the most common birth defect in children and many of those structural abnormalities can lead to heart failure. This pediatric cardiology research grant is part of a strategy to encourage new collaborations among basic scientists, clinical cardiologists and heart surgeons.

Loren J. Field, Ph.D., professor of medicine and of pediatrics, is the principal investigator of the integrated project involving six IU School of Medicine faculty, all affiliated with the Herman B Wells Center for Pediatric Research and the Pediatric Cardiology Division of the James Whitcomb Riley Hospital for Children.

"The focus is to perform basic research to understand the origins and potential treatment of heart failure in the young," said Dr. Field. "There is virtually no comprehensive research program looking at the whole picture. This funding will allow us to evaluate everything from what happens when the fetal heart develops to how damaged heart tissue can regenerate in infants who experience heart failure."

Three teams are involved in investigating pediatric heart disease. They are:

Tony Firulli , Ph.D., and Simon Conway, Ph.D., who will explore what causes heart abnormalities in development;

Mark Payne, M.D., and Lei Wei, Ph.D., who will look at how heart cells die - either naturally or through disease - and how that may contribute to heart failure.

Dr. Field and Weinian Shou, Ph.D., who will study how heart cells can be made to regenerate.

The grant supports projects that will first analyze how abnormal regulation of genes can lead to abnormal heart formation. Another project will look at the developed heart and seek ways to block the signals and pathways that that cause heart muscle to die. The researchers also will try to determine what actually controls the number and size of heart muscle cells as the heart develops.

Dr. Payne, a pediatric cardiologist, noted that this research may also impact adults with congenital heart defects.

"Surgical interventions in youth can lead to functional problems that manifest later in life," said Dr. Payne. "Yes, we can fix the heart very early in life but we can't restore it perfectly. So if we can find clues about how heart formation goes wrong, and how to repair or regenerate the damaged young heart, we may be able to prevent the complications which currently occur in later life." Randall Caldwell, M.D., director of pediatric cardiology at the IU School of Medicine, said the funding and research can have a profound effect on how heart failure in children is treated in the future. In the past 18 years, 105 heart transplants have been performed in children at Riley Hospital. In recent years, only four or five transplants have performed yearly due to advances in surgical interventions and treatment of congestive heart failure, which reduce the need for transplants. "Ideally, physicians will need to do many fewer heart transplants in children if scientists find the answers to the questions being addressed in this research project," said Dr. Caldwell. The grant funding will boost the research at Riley Hospital and hopefully will lead to innovative clinical treatments. Moreover, the research recognition from the grant will help IU recruit top flight cardiologists and pediatric cardiology researchers, enhancing the quality of care Hoosier children with heart disease will receive at Riley Hospital

Ghassan Kassab, who holds the Thomas J. Linnemeier Guidant Foundation Chair in Biomedical Engineering, received $250,000 in BioCrossroads seed funding for his LumenRECON device, which measures blood vessels when placing cardiac stents.

CONGRATULATIONS to Ian!! – Scored 1.2 on his AHA Postdoc Fellowship application!! This competitive funding is an important step in Ian's career.

CONGRATULATIONS to Reina!! – Scored 1.3 on her AHA Predoc Fellowship application!!

Contract & Grant Administration

The National Science Foundation (NSF) has removed the requirement for 1% institutional cost share effective with awards issued on or after June 1, 2007. Important Notice No. 07-3 has been issued to announce this long awaited change and to provide information on the tracking of NSF cost share past, present, and future. The Important Notice is available at http://www.fms.indiana.edu/cg/imp_notice/07-3.asp

Research and Sponsored Programs

The *RESEARCH ENTERPRISE* is the major mode of communication from the IUPUI Office of Research and Sponsored Programs (R&SP). The *ENTERPRISE* is published monthly, distributed by e-mail, and contains time sensitive research information as well as links to information on grants and contracts, funding opportunities, research compliance, and research centers. This information is updated monthly. The Office of Research and Sponsored Programs appreciates your feedback on this publication http://www.iupui.edu/~resgrad/#announcements

International Federation of Adipose Therapeutics and Science

Keith March is currently serving as president of IFATS (International Federation of Adipose Therapeutics and Science) and will host the group's fifth annual meeting here in Indianapolis, October 18-20, 2007, at the Hyatt Regency Hotel. IFATS is an international group of scientific researchers, clinicians and private industry representatives working together to foster collaborations for adipose biology and related technology. Check out the web-site at www.ifats.org

Publications

Savage JJ, Hunter CS, Clark-Sturm SL, Jacob TM, Pfaeffle RW, **Rhodes SJ**. Mutations in the LHX3 gene cause dysregulation of pituitary and neural target genes that reflect patient phenotypes. Gene 2007. Accepted for publication.

Miller, S.J., Norton, L.E., Murphy, M.P., Dalsing, M.C., and **Unthank, J.L**. The role of the renin-angiotensin system and oxidative stress in spontaneously hypertensive rat mesenteric collateral growth impairment. Am. J. Physiol. Heart Circ. Physiol. 292: H2523-H2531, 2007.

Pfaeffle RW, **Savage JJ, Hunter CS,** Palme C, Ahlmann M, Kumar P, Bellone J, Schoenau E, Korsch E, Bramswig JH, Stobbe HM, Blum WF, **Rhodes SJ.** Four novel mutations of the LHX3 gene cause combined pituitary hormone deficiencies with or without limited neck rotation. J Clin Endocrinol Metab. 2007 May;92(5):1909-19. Epub 2007 Feb 27. PMID: 17327381 [PubMed - indexed for MEDLINE]

Savage JJ, Mullen RD, Sloop KW, **Colvin SC**, Camper SA, Franklin CL, **Rhodes SJ.** Transgenic mice expressing LHX3 transcription factor isoforms in the pituitary: effects on the gonadotrope axis and sex-specific reproductive disease. J Cell Physiol. 2007 Jul;212(1):105-17. PMID: 17311285 [PubMed - in process]

Mullen RD, Colvin SC, Hunter CS, Savage JJ, Walvoord EC, Bhangoo AP, Ten S, Weigel J, Pfaffle RW, **Rhodes SJ.** Roles of the LHX3 and LHX4 LIM-homeodomain factors in pituitary development.Mol Cell Endocrinol. 2007 Feb;265-266:190-5. Epub 2007 Jan 8. PMID: 17210222 [PubMed - in process]

Rajashekhar G, Grow M, Willuweit A, **Patterson CE, Clauss M**. Divergent and Convergent Effects on Gene Expression and Function in Acute versus Chronic Endothelial Activation.Cellular & Integrative Physiology, Indiana Center for Vascular biology & Medicine, Indianapolis, Indiana, United States. Physiol. Newsletters:

G. Rajashekhar et al. "Continuous endothelial cell activation increases angiogenesis: Evidence for the direct role of endothelium linking angiogenesis and inflammation" J Vasc Res 43: 193-204 (2006) has been elected, by evaluation of an official award committee of the European Society for Microcirculation, as the winner of 2006's JVR/ESM Prize

Chen, N.X., K.D. O'Neill, X. Chen, D. Duan, E. Wang, **M. Sturek**, **J.M. Edwards**, and S.M. Moe. Fetuin-A uptake in bovine vascular smooth muscle cells is calcium dependent and mediated by annexins. *Am. J. Physiol.: Renal Physiol.* 292:F599-F606, 2007.

Knudson, J.D., **U.D. Dincer, I.N. Bratz, M. Sturek, G.M. Dick, and J.D. Tune.** Mechanisms of coronary dysfunction in obesity and insulin resistance. *Microcirculation* 14:317-338, 2007.

Mattern, H.M., **P.G. Lloyd, M. Sturek,** and C.D. Hardin. Gender and genetic differences in bladder smooth muscle PPAR mRNA in a porcine model of the metabolic syndrome. *Mol.Cell.Biochem.* 302:43-49, 2007.

Le, T.T., I.M. Langohr, M.J. Locker, **M. Sturek**, and J.-X. Cheng. Label-free molecular imaging of atherosclerotic lesions using multimodal nonlinear optical microscopy. *J. Biomed. Opt.* (In press).

Sturek, M., M. Alloosh, J. Wenzel, J.P. Byrd, J.M. Edwards, P.G. Lloyd, J.D. Tune, K.L. March, M.A. Miller, E.A. Mokelke, and I.L. Brisbin, Jr. Ossabaw Island miniature swine: cardiometabolic syndrome assessment. In *Swine in the Laboratory: Surgery, Anesthesia, Imaging, and Experimental Techniques*, Second Edition. M.M. Swindle (Ed.). Boca Raton: CRC Press, pp. 397-402, 2007. [CD supplement includes 28 figures and 44 videos.]

Edwards, J.M., X.L. Long, M. Alloosh, G.M. Dick, P.G. Lloyd, E. A. Mokelke, and M. Sturek. Adenosine A_1 receptors in neointimal hyperplasia and in-stent stenosis in Ossabaw miniature swine. *Cor. Art. Dis.* (In press).

Langohr, I.M., H. HogenEsch, G.W. Stevenson, and **M. Sturek**. Vascular-associated lymphoid tissue (VALT) in swine (*Sus scrofa*). *Comp. Med.* (In press).

Funding - Report Period: 10/06/06 – 06/28/07

NAME	AGENCY REPORT	PROPOSAL/AWARD	BEGIN/END - DATES
Basile, D.	Ohio State University Research	New	06/06-05/07
Bohlen, H.G.	NIH-NHLBI	Contin/Competing	02/07-01/08
Clauss, M.	Altana Pharma, Inc.	New	08/06-04/07
	Eli Lilly & Co.	New	12/06-11/08
Elmendorf, J.	NIH-NCCAM	New	09/06-09/07
Gunst, S.	NIH-NHLBI	Contin/Competing	04/07-03/08
	AM LUNG ASSN	New	07/07-06/08
Oboukhov, A	AM HEART ASSN	Supplement	07/06-06/07
	NIH-NHLBI	New	12/06-06/07
Pavalko, F.	NIH-NIAMS	New	06/07-05/08
	NIH-NIAMS	Non-Competing/Cont	04/07-03/08
Sturek, M.	NIH-NHLBI	Contin/Competing	05/01/06
	NIH-NCRR	Non-Competing/Cont	05/07-04/08
	NIH-NHLBI	Non-Competing/Cont	05/07-04/08
Witzmann, F.	AFOSR	Non-Competing/Cont	12/06-11/07

New Research - June 2007

PI	Agency	Type	Project Title	Begin	End	Total ($)

Harold Glenn Bohlen	Texas A&M University	New Research	Influences of Lymph Flow on the Lymphatic Pump	4/10/2007	3/31/2008	37,875
Kenneth Nephew	Purdue University	New Research	Novel Bioconjugates as Probes of Estrogen Receptors	5/1/2007	4/30/2008	40,338
Fredrick Pavalko	National Institute Arthritis Musculoskeletal Skin	New Research	Mechanical Signaling through Osteoblast Focal Adhesions	6/1/2007	5/31/2008	293,153

Sturek, M. Co, - Collaborative Biomedical Research 3 Pilot Grant, Indiana University/Purdue University, W. Tao, Principal Investigator, $50,000

July 2007 Staff Anniversaries

40 Years of Service

Stanley Stump ~ Cellular & Integrative Physiology

Special Invitations, Seminars, Forums, Presentations, Awards & Memberships

Rui Duan was a runner-up in the American Association of Anatomists Langman Award, a research presentation competition at the Experimental Biology 2007 meeting. Rui also won an $500 IUPUI Graduate Student Organization Educational Enhancement Grant to apply toward travel to the Exp. Biology meeting.

Rong Zhao and Wuqiang Zhu won $500 IUSM Travel Grants in December 2006.

Ketrija Touw received the Diabetes and Obesity Fellowship (T32 training grant) for 2007-08.

Emily Blue was awarded a second year of support from the Diabetes and Obesity T32 Training Grant.

Ryan Widau received the Cancer Biology Training Fellowship for 2007-08.

Angela Nevins (post-doc in Gallagher lab) also received the Cancer Biology Training Fellowship.

Simon J. Rhodes was the keynote talk at the Human Growth Foundation annual meeting entitled "*Gene Regulation in Pituitary Hormone Deficiency Diseases*", June 16, 2007, Clearwater, Florida.

Ami Rice, MS, MD Student (2008, pending) and 2005 Alpha Omega Alpha Honor Medical Society Carolyn L Kuckein Student Research Fellows was one of 5 national winners in the 2006 American College of Physicians (ACP) National Medical Student

Abstract Competition. Ami's research accomplishment is featured in the June ACP Newsletter http://www.acponline.org/chapters/in/as_highlights06.htm.

The Rhodes lab received an RSFG award (along with the Herring and Basile lab).

Richa Sharma has been awarded an American Physiological Society (APS) 2007 Undergraduate Summer Research Fellowship (http://www.the-aps.org/education/ugsrf/2007awards.asp) to continue her work on the effects of DMSO on bladder function in the laboratory of C Subah Packer, PhD, Associate Professor of Cellular & Integrative Physiology.

The **Indiana APS Frontiers in Physiology Local Site Team (LST)** http://www.the-aps.org/education/LST/Indianapolis/index.htm lead by Subah Packer is pleased to announce that two of the seventeen 2007-08 APS Frontiers in Physiology Professional Development Fellowships granted nationally have been awarded to Indiana science teachers http://www.the-aps.org/education/frontiers/awd2007.htm. The successful Indiana teachers are Erin Odya of Warren Central High School hosted by Subah Packer and Norm Leonard of Pike High School hosted by Steve Miller. The Indiana APS Frontiers in Physiology Local Site Team also collaborated with the Kentucky LST lead by Jeff Falcone http://www.the-aps.org/education/LST/Louisville/index.htm in presenting a full day Workshop on "Physiology of Fitness: Exercising the Body and Mind" at the Columbus Learning Center in Columbus, Indiana on June 12, 2007. The workshop targeted southern Indiana and Louisville, Kentucky area science educators. Inquiry pedagogy and creating an equitable learning environment were modeled in the teaching of exercise physiology.

Subah Packer is happy to share that her 2006 T35 Scholar, Maria Dominguez, was awarded an APS/NIDDK Minority Travel Fellowship Award to attend the Experimental Biology (EB'07) meetings in Washington DC, April 28 - May 2, 2007.

2/07 ***Sturek***, M. "Ossabaw miniature swine model of the cardiometabolic syndrome". IBC's 5th Annual Targeting Metabolic Syndrome Conference, Boston MA.

5/07 ***Sturek***, M. "Ossabaw miniature swine model of the metabolic syndrome and multiple organ system complications: opportunities for translational research". Seminar, Eli Lilly & Company, Indianapolis, IN.

6/07 ***Sturek***, M. "Coronary artery disease, restenosis, and Ca^{2+} regulation in the spectrum of diabetes". Seminar, Department of Physiology, Loyola University Medical Center, Maywood, IL.

8/07 ***Sturek***, M. "The Ossabaw pig: a metabolic syndrome model for pre-clinical to clinical translation". Seminar, Eli Lilly & Company, Indianapolis, IN.

10/07 ***Sturek***, M. "Ossabaw miniature swine model for metabolic syndrome". Seminar, 2nd Annual Metabolic Syndrome Forum, Marcus Evans Conferences, Boston MA.

Sympathy

Condolences go out to the families of Drs. Ochs, Tanner, Packer and Gunst. It has been a difficult year for them and their families. If you have a tragedy in the family that you would like to share with other members of the department, please notify the office. The department always sends flowers with Condolences from Faculty, Staff and Students.

Surprise Birthday Party

Dr. Bohlen's lovely wife, Jenny surprised Glenn with a Sweet 60 Party, Saturday, October 14, 2006, at the Indiana Downs. The sixth Race was named "The Bohlen Old Timers Classic." Very nice. *Note: All pictures were destroyed*

Name a Pig!!

Jim Byrd of M. Sturek's lab, has received roughly 120 names, (some duplicates) for their future pigs. Thanks for your contributions, keep the names coming.

Graduations & Moving on!

Chad Hunter is finishing his PhD in August and has accepted a postdoc position with Dr. Roland Stein at Vanderbilt University in Nashville, TN.

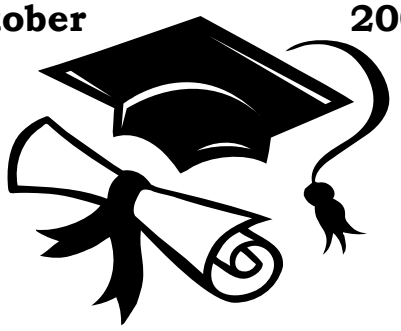
Krysti Renner will be receiving her masters through the physiology department this fall and will be attending medical school in Kirksville Missouri.

Stephanie Colvin received the Elizabeth Steele Creveling Memorial Scholarship through the biology department here at IUPUI.

Rachel Mullen passed her qualifying examination through the biochemistry department this spring.

Graduates since October 2006

Omar El-Mouyrni
Alicia McCarthy
Jason Triplett
Nicki Bell
Eric Rodenberg



Alumni

An update on a Physiology Dept alumnus. Lloyd Williams graduated from the Masters program in 2000 having worked in Robert Considine's lab. He was accepted to the MD/Ph.D. program at Tufts. He has completed the Ph.D. and is now starting his 4th year of medical school (info below). More importantly Dr. Considine, would like to point out that several years ago Lloyd established a nonprofit called HelpMercy International (www.helpmercy.com) which provides support to the Macha hospital in Zambia. This group has accomplished a significant amount of work due to Lloyd's diligence (see below). This all occurred while Lloyd is in medical school.

Welcome!

New Faculty & Staff

Sarah Danielson joined the Gallagher lab as a research assistant in October 2006

Visiting International Graduate Students

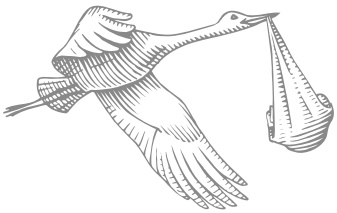
Dr. Pavalko, welcomes two international graduate students to finish their studies in his lab from October 07- September 09 . **HaiFang Wang and Zhou Qi Yang.** Welcome!

Incoming MS Students (Fall, 2007)

Benjamin Petty
Megan Kelly
Heather Sahm
Megan Marshall

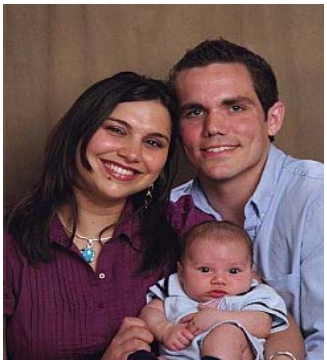
New & Expecting Arrivals *(future Physiologist)*

Emilia Nancy Touw was born 12-14-07 (8 pounds 15oz, 21 ¾ inches). Now she is 6 month old and is a pretty happy baby.



The latest addition to the

Richardson family.



Suzanne Young's son, Avery Young, was born Feb 5, 2007. He has an older brother Tyler who just turned Two in September

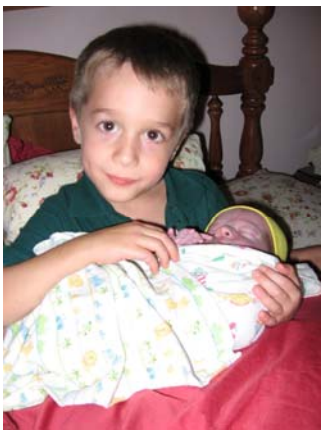
John Tune and family welcomed a baby girl early spring 2007.

Chad and Jill Hunter welcomed Lila Marie Born June 26, 6lbs. 3 oz.

Alicia McCarthy and Ahdy (Elmendorf's lab) welcomed their first child (a son) in August.

Emily Blue and family welcomed Cameron Oscar Blue, 7lb, 8 oz. October 3, 2007

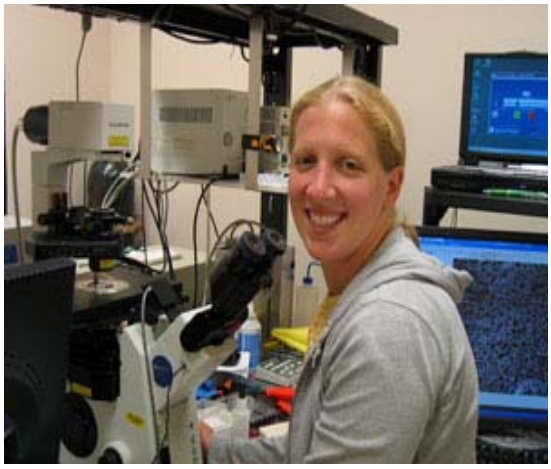
Big Brother Ryan and Cameron➔



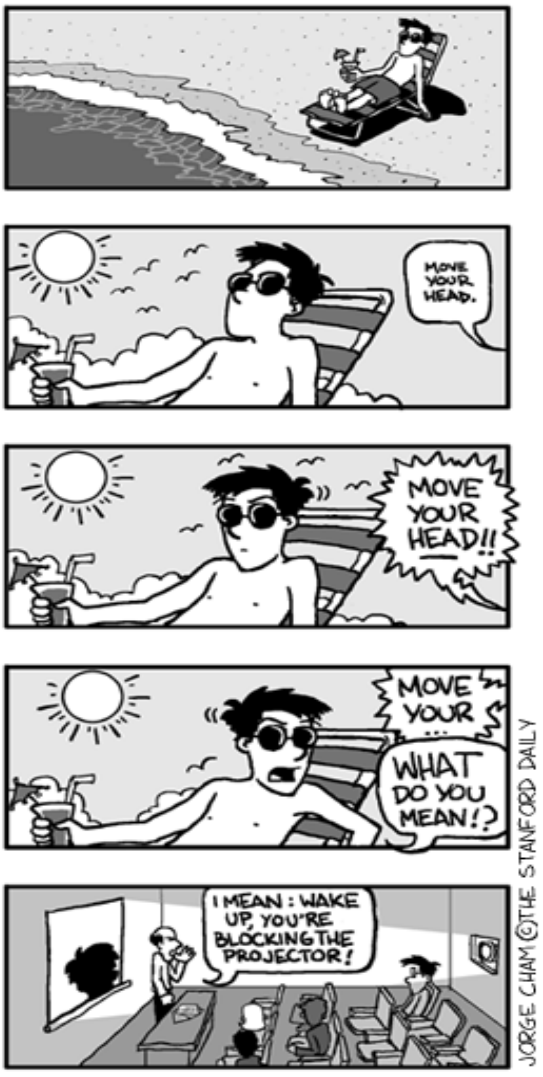
Anabelle Opazo Saez, previously of Susan J. Gunst's lab. Currently living and working in Essen, Germany. Welcomed Robert Maximillian on August 3, 2007.

Congratulations to Annebelle!

What are IU Graduate Students Saying?



My name is Pam Muriello, and I am a graduate student studying Biophysics and Biomolecular Imaging at Indiana University School of Medicine. The focus of my research is the effects of spherical aberration on multiphoton microscopy in deep tissue imaging. My advisor is Ken Dunn, the scientific director of the Indiana Center for Biological Microscopy. Pam Muriello's story can be found on the IU School of Medicine, Graduate School Home Page.



Only great minds can read this

Cna yuo raed tihs? Olny 55 plepoe out of 100 can.i cdnuolt blveiee taht I cluod aulaclty uesdnatnrd waht I was rdanieg. The phaonmneal pweor of the hmuan mnid, aoccdrnig to a rscheearch at Cmabrigde Uinervtisy, it dseno't mtaetr in waht oerdr the ltteres in a wrod are, the olny iproamtnt tihng is taht the frsit and lsat ltteer be in the rghit pclae. The rset can be a taotl mses and you can sitll raed it whotuit a pboerlm. Tihs is bcuseae the huamn mnid deos not raed ervey lteter by istlef, but the wrod as a wlohe. Azanmig huh? yaeh and I awlyas tghuhot slpeling was ipmorantt!. fi yuo cna raed tihs, yuo hvae a sgtrane mnid too.

Important message

University Implentation of Standardized Seal

The overarching goal for the Indiana University Integrated Image Program is to provide e a consistent, unifying identity – a visual system we can proudly use to clearly identify our campuses, schools, departments, and other units to the communities we serve. Consistent and widespread use of this program will communicate a greater sense of the scale and scope of Indiana University as a whole, and result in higher visibility and greater recognition for the individual elements that make it what it is.

A little history:

Marks – For generations, the initial letters of Indiana University, "IU" have been expressed in a number of designs to represent the university. While the variety is interesting, it does not support and unified presentation. In the new system, one representation, called the Block IU, and a contemporary version of the initial letters for Indiana University –Purdue University Indianapolis, IUPUI, form the cornerstones of visual communication.

Seal - Indiana University has a distinctive seal with a rich heritage. But the seal has sometimes been used as a default means of communication and occasionally without the gravity attached to its essential meaning. In the new system, the IU seal is reserved for specific ceremonial and executive-level applications, including permanent building insignias; diplomas; University ceremonies; and for stationery, presentation, Web sites, and invitations for the president, vice presidents, provost, chancellors, and trustees only.

Typography – A consistently applied typographic system supports the Indiana University Integrative d Image Program. The program introduces a proprietary type font suggesting the strength and tradition of the university. It imparts a classic, yet welcoming tone to IU communications.

Color - The use of carefully defined colors is critical to the new system. In addition to officially specified cream and crimson colors, recommended color palettes provide a range of options for development of official print and electronic communication.

The IU Seal is to be reserved for ceremonial and executive-level communication. Given that many universities have institutional seals of approximately the same continuous, the Block IU offers a more differentiating presentation. IU has also been represented in the past by a wordmark; however, while distinctive, it does not provide the flexibility to accomodated the complex identification system required by the university's various needs and has therefore been discontinued.

One version of the "IU" expression, created and first implemented in 2002, and referred to as the Block IU, has been selected as the foundational element for the Indiana University Integrated Image Program. It is graphically strong, simple, communicative and can be quite effective when integrated with other elements.

Adopting the Block IU as the standard across all media and increasing its presence will help meet the objectives of the program and provide synergies supporting the extensive presence of the university throughout the state and globally.

Integrated Image Signature Files

Introduction

The Integrated Image Program was initiated by the IU Trustees to help establish a unified, flexible set of standards and guidelines that will enable all elements of IU to contribute to and benefit from a cohesive identity system.

The files available here are for use by all Indiana University faculty and staff. For the full background on the Integrated Image Program, and to view the complete guidelines, see http://www.indiana.edu/~vpur/image/.

Who May Use These Files?

The marks shown here and all other trademarks, service marks, seals, logos, symbols, mascots, and slogans connected with Indiana University, as well as the university's name, are owned by the Trustees of Indiana University and administered by the IU Research and Technology Corporation. These items are protected under state, federal, and international law, and their use is licensed and controlled to protect IU's interests. The files may be used for the purpose of carrying out university business, and they may be shared only with those who need them for that purpose.

They must not be re-digitized, re-proportioned, or altered in any way, though they may be enlarged or reduced. It is possible to convert the files to other formats. However, doing so will compromise the integrity of the images. File conversion should be attempted only by experienced designers with the software and experience to ensure the integrity of the program.

Which Format Should Be Used?

The signature files will be available in EPS, TIFF, and GIF formats.

EPS
If you are using advanced graphics software (e.g., Illustrator) or desktop publishing programs (e.g., QuarkXPress, InDesign), use the EPS format. These images are vector-based, which means they can be sized up or down with no loss of resolution. If you do not have Illustrator, Freehand, Photoshop, or another graphics editing program, you will not be able to open these files, but you can place them into a desktop publishing file.

TIFF
TIFF images are supported in Mac, Windows, and Unix. TIFF files are best for photographs or other continuous-tone images, but less useful for these graphic images. The signature files in TIFF format are best used for PowerPoint or MS Word.

GIF
GIFs are compressed images for use on the Web.

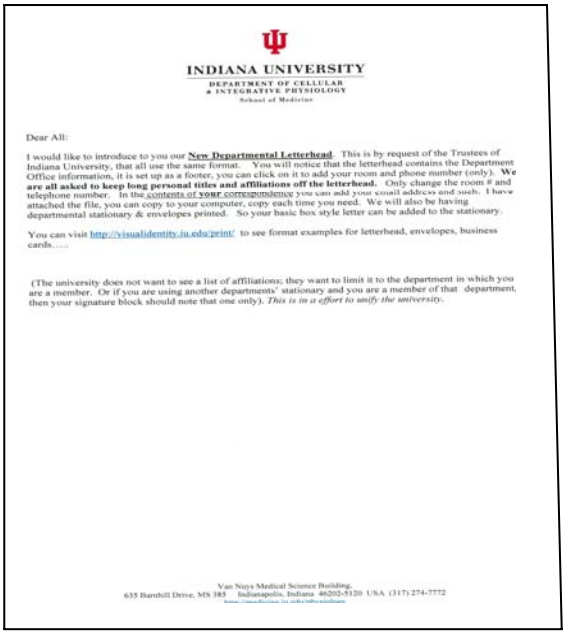
How Should the Signatures Be Used?

To maintain a unified identity for Indiana University, these files should be used anywhere the university, campus, school, or department name is normally used. A distinctive, consistent, and well-managed identity system will help us build recognition wherever and however we communicate.

For more detailed information, please follow the link below:
http://visualidentity.iu.edu/

This is a lengthy document, please take the time to look over. It shows correct and incorrect usage, correct format for business cards, envelopes, letterhead, web pages,,, etc.

This is what our unified letterhead looks like. I will send as an attachment to all. Again, you are asked to only change/if at all, email address and/or room number.
The rest needs to stay the same.



INDIANA UNIVERSITY
DEPARTMENT OF CELLULAR & INTEGRATIVE PHYSIOLOGY
School of Medicine

Dear All:

I would like to introduce to you our **New Departmental Letterhead**. This is by request of the Trustees of Indiana University, that all use the same format. You will notice that the letterhead contains the Department Office information, it is set up as a footer, you can click on it to add your room and phone number (only). **We are all asked to keep long personal titles and affiliations off the letterhead.** Only change the room # and telephone number. In the contents of **your** correspondence you can add your email address and such. I have attached the file, you can copy to your computer, copy each time you need. We will also be having departmental stationary & envelopes printed. So your basic box style letter can be added to the stationary.

You can visit http://visualidentity.iu.edu/print/ to see format examples for letterhead, envelopes, business cards.....

(The university does not want to see a list of affiliations; they want to limit it to the department in which you are a member. Or if you are using another departments' stationary and you are a member of that department, then your signature block should note that one only). *This is in a effort to unify the university.*

Van Nuys Medical Science Building,
635 Barnhill Drive, MS 385 Indianapolis, Indiana 46202-5120 USA (317) 274-7772

Message from Stanley Stump, LSP & Webmaster – 274-7322

To all: The IU School of Medicine's new Web design and content management system (CMS) went live in the fall of 2006. Our department has now joined the growing list of departments in the IUSM which have converted their web sites to the new web platform.

Our new URL is http://medicine.iu.edu/physiology. For the next few months the old web account will automatically redirect visitors to our new location. During this time period specific departmental URL's that you have bookmarked and/or given to other people should be changed.

Now we must continue updating the content of our site. Thank you.