

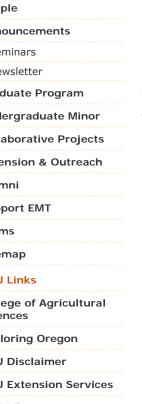
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EMT Home » Announcements » Current Newsletter.

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Dept. Of Environmental & Molecular Toxicology Newsletter

2006, Issue 8

April 1, 2006

WELCOME NEW EMPLOYEES



Clayton Cornell has joined the NPIC group as a Faculty Research Assistant.



Kathryn Pannemann has joined the NPIC group as a Faculty Research Assistant.

GOODBYE AND THANK YOU

Gene Johnson of the Anderson Lab retired on February 28th. Gene has been with the department for several decades and will be sorely missed.

Tamara Musafia of the Baird Lab's last day with the department was March 31st. She is currently looking for another position.

Graham Corley-Smith of the Buhler Lab. Dr. Corley-Smith is presently concluding the detail of a proposed research project with Dr. Randall Peterson at Harvard University, and if things go according to plan, Graham plans on moving to Boston in mid-2006 to commence a chemical screen on zebrafish with the goal of finding molecules that can be modified to act as drugs for humans. Graham wishes to thank all of those who made his time at OSU both enjoyable and productive. With six publications for 2005, he leaves with broadened prospects for the future.

Kristen Larson of the NPIC group has left the department to manage the Portland International Guesthouse (a hostel) with her

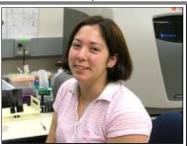


husband Tom. We wish her the best of luck in her new adventure.

ANNOUNCEMENTS

On March 9, 2006, the Faculty Senate voted to approve our newly revised <u>Scientific and Scholarly Misconduct Policy</u>. The policy was accepted by President Ray on March 10, 2006 and became effective on that date. Should you have any questions please contact John M. Cassady, Ph.D., OSU's Vice President for Research.

PROFESSIONAL ACCOMPLISHMENTS, AWARDS, SPECIAL EVENTS - JANUARY-MARCH, 2006



Castle Funatake (Kerkvliet Lab) received the Paper of the Year 2006 award from the Society of Toxicology Immunotoxicology Specialty Section for her paper "Cutting Edge: Activation of the Aryl Hydrocarbon Receptor by 2,3,7,8-Tetrachlorodibenzo-pdioxin Generates a population of CD4+CD25+ Cells with Characteristics of Regulatory T cells". The paper was published in The Journal of Immunology, 2005, volume 175, pages 4184-4188.



Stephanie Smith-Roe

(Buermeyer Lab) received a Student Advisory Committee Travel Award to attend the Society of Toxicology 45th Annual Meeting in San Diego. As a member of the Student Advisory Committee, Stephanie helped to coordinate the "Lunch With an Expert" program, in which students attending the SOT meeting are matched with toxicologists working in academics, industry, or government in order to learn more about those career paths.

While at the meeting, Stephanie also received an award - "Carcinogenesis Specialty Section 2006 Student Award for Best Scientific Paper -2nd Place", and lastly, she was interviewed by Janet Raloff, a reporter for *Science News*, on the topic of her poster. Stephanie's data suggests that individuals at risk for loss of the DNA mismatch repair pathway may be particularly susceptible to the effects of a food-borne

carcinogen present in cooked meat. If the article makes it into *Science News*, it should be out by the end of March.



Susan Tilton's (Williams Lab) paper, "Toxicogenomic profiling of the hepatic tumor promoters indole-3-carbinol, β -estradiol and β -naphthoflavone in rainbow trout", was selected as the Highlight paper for the March 2006 issue of Toxicological Sciences.

The Toxicological Highlight is: Gallagher, E.P. (2006) Using salmonid microarrays to understand the dietary modulation of carcinogenesis in rainbow trout, *Toxicol. Sci.* 90:1-4.

Getting selected for the Highlighted paper in an issue is really nice recognition-Congratulations!



Junga Lee (Curtis Lab) and Lauren Courter (Baird Lab) both received Graduate Student travel awards to this year's SOT meeting.

Lauren was also invited to speak at a conference in UCLA after she gave a platform presentation titled "Correlation between Gene Expression in Human Cells and Tumor Initiation in SENCAR Mice on Exposure to a Standardized Complex Mixture derived from Diesel Exhaust"

Congratulations to both of you!



Fred Tilton (Tanguay Lab) won best presentation in Reproductive and Developmental Toxicology at the SOT San Diego meeting through the RDT specialty section.

Fred received a travel award for \$150, \$150 in Taylor and Francis Books, and cash.

Congratulations Fred!



Marthah DeLorme (Craig Lab) has been awarded a FEMS Young Scientist Meeting Grant to assist her in attending the FEMS Meeting 06-05: 5th Joint RRI-INRA Symposium on Gut Microbiology - Research to Improve Health, Immune Response and Nutrition from June 21-23, 2006 in Aberdeen, United Kingdom.

Congratulations Marthah!



Brinda Mahadevan (Baird Lab) gave a platform presentation titled "Bulky DNA Adduct Repair Enzyme XPA in Early Development of Zebrafish" and also co-chaired the session on "alternative models for assessment of toxicity" at the SOT conference.

Brinda will also be presenting a poster at the AACR meeting April 1-6th (Washington D.C.) titled "Altered Gene Expression in Response to Diesel Exhaust Particulate Matter (SRM 1650a) in MCF-7 Cells Detected with DNA Microarrays"



Tamara Musafia (Baird lab) has a first author publication titled "Long-Term effects of a standardized complex mixture of urban dust particulate on the metabolic activation of carcinogenic polycyclic aromatic hydrocarbons in human cells in culture" Toxciocological Sciences 88(2), 358-366, 2005. We will be saying farewell to Tamara, as her last day in the Baird lab was March 31st, 2006

Lijoy Mathew (Tanguay Lab) received Honorable Mention in the Molecular Biology Specialty



Section Student Award of SOT, 2006.



Xin Huo (Buermeyer Lab) successfully defended her MS thesis, "Functional analysis of the pathogenic mutation MLH1-E578 G on human MLH1 activity in DNA mismatch repair", in Genetics on January 5th.

Congratulations Xin!



IPPC's Farmscaping for Beneficials Project (FSB) received its first grant award for creating and enhancing habitats for predacious ground beetles on four Oregon organic vegetable farms this summer. Project coordinator, Gwendolyn Ellen, has been working part-time on FSB, a participatory, conservation biological control project, with local organic vegetable farmers for the past two years. In August, 2005 her position became full-time enabling her to not only coordinate the project but spend more time fund-raising as well. The two year grant award of \$19,068 was from USDA's Sustainable Agriculture Research and Education Program.



Mario Ambrosino (Jepson Lab) successfully defended his Ph.D. thesis on March 17th.

Mario will continue working at EMT as a Research Associate.

OTHER ACCOMPLISHMENTS, AWARDS, SPECIAL EVENTS - JANUARY-MARCH, 2006

Xin Huo (Buermeyer Lab) and Ting Wu were married on January 18th.



Congratulations to the happy couple!



The **EMT Department** raised \$915 or 5490 lbs of food for this year's OSU Food Drive! This was a fantastic result and our deepest appreciation goes out to everyone who donated – whether by participating in the book & CD sale, the bake sale or by other means of donating. Fantastic effort and fantastic result!!

OSU surpassed their goal of 350,000 pounds of food and raised 358,023 pounds of food! We cannot thank you all enough for your part in this very worthy cause!



Dixie Jackson (NPIC) gave birth to a 7lb 9oz girl at 4:00 am on March 21st. Mother and baby are doing fine!

Welcome baby Keira Alexandra Jackson!



The National Pesticide
Information Center (NPIC) has
recently extended its service by
taking inquiries regarding
antimicrobial pesticides, in
addition to other pesticide
products, via their toll-free
number, email, and website (
http://npic.orst.edu).

NPIC provides unbiased, science-based information about a wide variety of pesticiderelated subjects. NPIC operates

7 days a week, 6:30am-4:30pm (PT), and can be reached at 1-800-858-7378.

Meet the NPIC staff and learn more about NPIC during their Open House on Thursday, April 20, from 2:00-4:00pm in Weniger Hall, Room 314.



JayLene Seeley (EMT Program Assistant) was selected to receive a scholarship to the Oregon Women in Higher Education Conference, which she attended on January 27th at the Governor Hotel In Portland. JayLene was the first Classified employee to ever be receive this honor.



Angie Perez (Anderson Lab) would like to introduce you to her new pet...el Nutrea.

Last seen in her backyard, el Nutrea has been described as a "horrible little creature" and "proof that some animals just don't know when to see a dentist."

RECENT PUBLICATIONS

Andreasen, E.A., Mathew, L., And Tanguay, R.L. (2006) Regenerative growth is impacted by TCDD: Gene expression analysis reveals extracellular matrix modulation. *Toxicol Sci.* 2006 Jan 27; [Epub ahead of print].

Bennett, **S.E.**, **and Kitner**, **J.** (2006) Characterization of the Aldehyde Reactive Probe Reaction with AP-site DNA: Influence of AP-Lyase on Adduct Stability. *Nucleosides, Nucleotides, & Nucleic Acids* (in press).

Gibson SL, Narayanan L, Hegan DC, Buermeyer AB, Liskay RM, Glazer PM. (2006) Overexpression of the DNA mismatch repair factor, PMS2, confers hypermutability and DNA damage tolerance. Cancer Lett. [Epub ahead of print]

Krueger SK, Siddens LK, Henderson MC, VanDyke JE, Karplus PA, Pereira CB, and Williams DE (2006) C-terminal truncation of rabbit flavin-containing monooxygenase isoform 2 enhances solubility. *Arch Biochem Biophys* (in press).

Krueger SK, **VanDyke JE**, **Hines RN and Williams DE** (2006) The role of the flavin-containing monooxygenase (FMO) in the metabolism of tamoxifen and other tertiary amines. *Drug Metab Reviews* (in press).

Mahadevan B, Arora V, Schild LJ, Keshava C, Cate ML, Iversen PL, Poirier MC, Weston A, Pereira C, Baird WM. (2006) Reduction in tamoxifen-induced CYP3A2 expression and DNA adducts using antisense technology. *Mol Carcinog*. 45 (2):118-25.

Mathew, L., Andreasen, E.A., and Tanguay, R.L. (2006) AHR activation inhibits zebrafish regenerative growth AHR activation inhibits zebrafish regenerative growth. *Mol Pharmacol.* 69(1): p. 257-265.

Myzak MC, Dashwood RH. (2006) <u>Chemoprotection by</u> <u>sulforaphane: Keep one eye beyond Keap1.</u> Cancer Lett. 233(2):208-18.

Orner GA, Roebuck BD, Dashwood RH, Bailey GS. (2006) Post-initiation chlorophyllin exposure does not modulate aflatoxin-induced foci in the liver and colon of rats. *J Carcinog.* 5(1):6 [Epub ahead of print]

Prasch AL, Tanguay RL, Mehta V, Heideman W, Peterson RE. (2006) <u>Identification of zebrafish ARNT1 homologs: 2,3,7,8-tetrachlorodibenzo-p-dioxin toxicity in the developing zebrafish requires ARNT1. Mol Pharmacol.</u> 69(3):776-87. Epub 2005 Nov 23.

Rodriguez-Proteau R, Mata JE, Miranda CL, Fan Y, Brown JJ, Buhler DR. (2006) <u>Plant polyphenols and multidrug resistance:</u> effects of dietary flavonoids on drug transporters in Caco-2 and <u>MDCKII-MDR1 cell transport models.</u> *Xenobiotica*. 36(1):41-58.

Schultz MM, Barofsky DF, Field JA. (2006) Quantitative determination of fluorinated alkyl substances by large-volume-injection liquid chromatography tandem mass spectrometry-characterization of municipal wastewaters. Environ Sci Technol. 40(1):289-95.

Smith-Roe SL, Lohr CV, Bildfell RJ, Fischer KA, Hegan DC, Glazer PM, Buermeyer AB. (2006) Induction of aberrant crypt foci in DNA mismatch repair-deficient mice by the food-borne carcinogen 2-amino-1-methyl-6-phenylimidazo [4,5-b] pyridine (PhIP). Cancer Lett. [Epub ahead of print].

Teraoka, H., Urakawa, S., Nanba, S, Nagai, Y. Dong, W., Imagawa, T., Tanguay, R.L. Svoboda, K.S., Handley-Goldstone H.M., Stegeman, J.J. and Hiraga, T. (2006) Muscular contractions in the zebrafish embryo are necessary to reveal thiuram-induced notochord distortions. *Toxicol Appl Pharmacol.* 212(1):24-34. [Epub 2005 Jul 26].

Tilton, S.C., Givan, S.A., Pereira, C.B., Bailey, G.S. and Williams, D.E. (2006) Toxicogenomic profiling of the hepatic tumor promoters indole-3-carbinol, β -estradiol and β -naphthoflavone in rainbow trout, Toxicol. Sci. 90:61-72.

Tilton, F., Ladu, J. K., Vue, M., and Tanguay, R.L. Dithiocarbamates have a common toxic effect on zebrafish body axis formation. (In Press, *Toxicology and Applied Pharmacology*)

Yu Z, Loehr CV, Fischer KA, Louderback MA, Krueger SK, Dashwood RH, Kerkvliet NI, Pereira CB, Jennings-Gee JE, Dance ST, Miller MS, Bailey GS, and Williams DE (2006) In utero exposure of mice to dibenzo[a,l]pyrene produces lymphoma in the offspring: role of the aryl hydrocarbon receptor. Cancer Res. 66(2):755-62.

Past Issues

ISSUE 7, JANUARY 2006
ISSUE 6, OCTOBER 2005
ISSUE 5, JULY 2005
ISSUE 4, APRIL 2005
ISSUE 3, JANUARY 2005
ISSUE 2, OCTOBER 2004
ISSUE 1, JULY 2004

If there is any information that YOU would like to include in the next newsletter, which is scheduled for July 1, 2006, please e-mail <u>JayLene</u> or <u>Tania</u>.

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