

March 2010
Issue 20

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EMT In The News...

Hunt for dioxin substitutes to fight autoimmune disease (Health Digest)

Oregon State University's Nancy Kerkvliet has been studying dioxins for three decades. With her help, OSU is hunting for substitute chemicals for a toxic dioxin to fight diseases that are triggered when the immune system mistakenly attacks the body.

Obsession With Nanotech Growth Stymies Regulators

Oregon State University's Stacey Harper was quoted in an AOL News Special Report.

Acute Pesticide Poisoning in Oregon

NPIC is referenced in an overview of Pesticide Poisoning in Oregon from the Department of Human Services' CD Summary.

Dr's Blythe and Craig to be inducted into Greyhound Hall of Fame

Two Oregon State University researchers, Dr's Linda Blythe and A. Morrie Craig, whose studies of canine physiology, injuries and health led to policy changes in greyhound racing as well as other venues, will be inducted this spring into the Greyhound Hall of Fame's pioneer section. In honoring the OSU researchers, the National Greyhound Association praised them for bringing science to greyhound racing: "Their efforts, in and out of the laboratory, have greatly contributed to the sport's credibility, integrity and the quality of care given to canine athletes."

Linking Site Specific Contaminant Mixtures to Biological Responses

Dr. Kim Anderson at the Oregon State University SRP is working to refine and combine two technologies to assess the toxicity of bioavailable contaminant mixtures present in the environment. Building upon lab work and field trials conducted at a Superfund Megasite in the lower Willamette River (Portland, OR), her research team created a bio-analytical tool that can assess multiple biological responses to environmentally relevant mixtures in a whole organism vertebrate model.

Toxicology Outreach Program

On February 26, high school freshmen from Southridge High School came to Oregon State University to learn about the various different programs offered by the University. One of their first stops was EMT, where they learned about dose response curves. Using yeast as a model system, the 26 students determined the relative toxicities of common household compounds (Comet, salt, powdered milk), by measuring the amount of CO₂ produced. The event was led by Steven O'Connell, Kate Saili and Diana Rohlman.



Lab News, Awards, and Publications from the Anderson Lab

Hillwalker WE, Allan SE, Tanguay RL, Anderson KA. (2010) [Exploiting lipid-free tubing passive samplers and embryonic zebrafish to link site specific contaminant mixtures to biological responses](#), *Chemosphere*. In Press.

Congratulations to **Julie Layshock** from Superfund Research Program Project 4 who won **BEST GRADUATE** student poster at the annual North American Society of Environmental Toxicology and Chemistry (SETAC) meeting in New Orleans, Nov. 2009. With over 3,000 attendees and hundreds of graduate student posters in the competition, it is a great recognition of her and her hard work.

Congratulations to **Sarah Allan** - First Runner Up Student poster award at the 2009 SRP Conference: **Allan, SE, Hillwalker, WE, Sower, GJ, Wilson, GR, Smith, BW, Tanguay, RL & Anderson, KA.** Site-specific toxic effects in zebrafish embryos exposed to passive sampling device extracts linked to differences in environmental contaminant mixtures, NIEHS Superfund Research Program Annual Mtg, NY, NY, 2009

Lab News and Publications from the Craig Lab

On December 7-8, Anita Holman, Karen Walker and Dr. Craig attended the 2009 Seed League Growers meeting in Salem, Oregon to distribute information about the [Endophyte Service Laboratory](#) (ESL). The ESL tests feed materials (typically tall fescue and perennial ryegrass hay) for ergovaline, lolitrem B and ergot alkaloids to ensure 'safe feeds' are being given to livestock. Clients include hay brokers who want to be confident the product they are selling is safe for livestock and veterinarians who are trying to rule out causes of disease in clinical cases.

Publications

Duringer JM, LR Swan, DB Walker, AM Craig. [Acute aquatic toxicity of western juniper \(*Juniperus occidentalis*\) foliage and Port Orford cedar \(*Chamaecyparis lawsoniana*\) heartwood oils](#). *Environmental Monitoring and Assessment*.

Lab News, Awards, and Publications for the Dashwood Lab



Rod Dashwood and graduate student Christine Larsen attended the 4th International Conference on Polyphenols and Health, in Harrogate, U.K. (December 7-11, 2009). Chris won top award for her poster presentation entitled "The green tea polyphenol epigallocatechin-3-gallate (EGCG) suppresses HGF/Met signaling in human colon cancer cells."

A multi-investigator NIH grant involving Drs. Dashwood, Williams and Ho was successfully renewed for another 5 years. This P01 program project, entitled "Comparative Mechanisms of Cancer Chemoprevention" (R.H. Dashwood, Program Director) was funded by the US National Cancer Institute for \$8.45 million, and will investigate genetic and epigenetic mechanisms involved in cancer prevention by dietary factors.

Dashwood Lab News Continued...

Three students completed their graduate studies in the Dashwood laboratory: Kate Cleveland (EMT), Chris Larsen (MCB), and Hui Nian (MCB).

March 2-6, Dr. Dashwood served on the NIH grant review panel for Botanicals Research Center (BRC) applications.

Publications

[Dashwood RH](#) and Ho E (2008) Dietary agents as histone deacetylase inhibitors: sulforaphane and structurally-related isothiocyanates. *Nutr Rev*, **66**, S36-S38.

Delage B and [Dashwood RH](#) (2008) Dietary manipulation of histone structure and function. *Ann Rev Nutr* **28**, 347-366.

For a complete list of Dr. Dashwood's recent publications, please go to:

<http://lpi.oregonstate.edu/staff/dashwoodbio.html#publications>

Lab News, Awards, and Publications for the Harper Lab

Dr. Harper was awarded \$12,686 from the National Cancer Institute to serve as a subject matter expert for the ICR Nanotechnology Working Group.



Kate Cleveland joins the Harper laboratory. Kate recently graduated from EMT with a MS in 2009. Kate will work to effectively curate data into the Nanomaterial-Biological Interactions knowledgebase and enable manual upload of data from other research groups. Welcome Kate!

Publications

Harper, S.L., J. Hutchison, B.L.S. Maddux and R.L. Tanguay. 2010. Integrative strategies to understand nanomaterial-biological interactions. *International Perspectives on Environmental Nanotechnology: Applications and Implications* 2: 51-56.

Lab News, Awards, and Publications for NPIC

NPIC and EHSC launch PestiByte

PODcasts *in Spanish!*



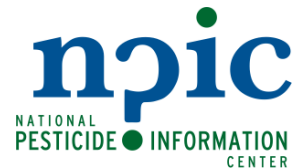
PestiBytes are 1-2 minute interviews, often based on common pesticide questions. Fifteen episodes are currently available in English on the NPIC website, the EHSC website and iTunes. The first Spanish episodes were produced in March. All episodes are available for radio-play! The

series was created by the National Pesticide Information Center, and produced by the Environmental Health Sciences Center's Outreach & Education team.

Competitive Funding Awarded by US EPA for three more years!

The National Pesticide Information Center has been operating at OSU for 15 years. With the

announcement in February, three more years of funding have been awarded to the project, which is directed by Dave Stone. Dr. Fred Berman, a veterinarian and toxicologist at OHSU, will join Dan Sudakin and Jeff Jenkins as a Co-Principal Investigator.



Lab News, Awards, and Publications for the Tanguay Lab

Congratulations to the following individuals for their SOT Research & Travel Awards

Jill Franzosa – First place Molecular Biology Specialty Section

Kate Sali – Best Abstract Travel Award for the Neurobehavioral Teratology Society Meeting

Sumitra Sengupta – Third place Drug Discovery Specialty Section Poster Award

Tamara Tal – First place Molecular Biology Specialty Section Postdoctoral Research Award

Tamara Tal – Second place Neurotoxicology Specialty Section Postdoctoral Poster Award

Election to Office: Jill Franzosa – Molecular Biology Specialty Section

Tamara Tal – Pacific Northwest Association of Toxicologists (PANWAT) Postdoctoral Representative



Congratulations Everyone!

Goodbye and Goodluck



Dr. Pangyi Kim is interested in understanding the risk that that pharmaceutical in municipal drinking water pose to human and environmental health. Specifically he is interested in exploring the possibility that these chemicals act as endocrine disrupting chemicals to cause long lasting adverse biological outcomes. He came to OSU to develop the molecular tools to study endocrine disruption in zebrafish. He has taken these new skills back to Korea where he will expand his research program. We hope to continue to collaborate in this important area. Pangyi brought a unique perspective to the Tanguay group during his stay and will be missed.

Grants

Congratulations to the Following Individuals...

Andrew Beurmeyer and John Hays have received a new NIEHS-funded R21 grant for the next two years!
"MMR-Coupled Translesion DNA Synthesis During Suppression of PAH-Induced Mutation"

NPIC's long-standing EPA-funded grant has been renewed!

Robert Tanguay's NIEHS training grant has been renewed!
"Mode of Action of Environmental Toxicants"

Dave Williams' and Sharon Krueger's FMO grant is being funded for four years!
"Flavin-Containing Monooxygenase in Lung"

Upcoming Events

Julie Layshock Thesis Defense

May 4, 2010 | 9 am | ALS 1019

"Beyond the 16 EPA Priority Pollutant PAHs: Environmental Characterizations of Oxygenated PAHs and Dibenzopyrene Isomers"

Alex Nechiporuk Seminar

May 18, 2010 | 2 pm | ALS 4001

"Development of the mechanosensory lateral line system in zebrafish"
To learn more about Alex, [click here](#)

Cheryl Lyn Walker Seminar

May 24, 2010 | 2 pm | ALS 4001

Title: TBA
To learn more about Cheryl, [click here](#)

EMT Spring Picnic

May 27, 2010 | 6 pm | Avery Park

Be on the lookout for flyers and announcements regarding this event!

Kara Hitchko-Klaas Thesis Defense

June 2, 2010 | 3 pm | ALS 4000

Title: TBA

Mark Your
Calendars!





EMT PARTners

Thanks to the vision set forth by Dr. Marcus last year, an association of research & professional personnel was officially formed this winter!

The group will foster collaboration within the department by providing a forum for research assistants and associates, lab technicians and administrative professionals. A representative of the group was invited to join EMT's Executive Advisory Council (EAC) in addition to representatives from TEAM Tox and the post-docs in EMT.

Welcome our new officers!

Kaci Buhl (NPIC) - President, EAC representative Jennifer Duringer (Craig lab) - Vice President, TEAM Tox liaison Jennifer Przybyla (Anderson lab) - Secretary/Treasurer

First, they worked together to organize the Department's food drive efforts. They held a soup lunch in the ALS building and another in Weniger Hall.

They also held a bake sale, and altogether, EMT raised over \$500.00 for Linn-Benton Food Share!

Next up for EMT PARTners: exhibiting a booth at Pet Day in collaboration with TEAM Tox and NPIC called, "Pets and Pesticides." <http://oregonstate.edu/vetmed/pet-day>

Welcome to the Department!



Jamie Pennington
FRA | Kerkvliet Lab



Chris Holm
FRA | Aqua Tox Lab



Do Hyung Kim
GRA | Kerkvliet Lab



Liz Alperin
FRA | SARL Lab



Carrie Barton
FRA | SARL Lab



Lixin Li
FRA | Craig Lab



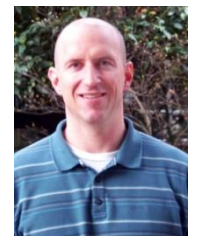
Allison Cardwell
FRA | Aqua Tox Lab



Sam Bradford
FRA | Kerkvliet Lab



Lane Tidwell
GRA | Anderson Lab



Jeff Wirtz
FRA | Aqua Tox Lab

EMT greatly appreciates your tax deductible donations. These donations are a big help, and will go towards the continuation of the SROP Program, outreach activities, alumni receptions, student scholarships, and other Center activities. If you would like to make a donation, please see <http://emt.oregonstate.edu/support-emt>

Searching for your stories in the EMT Newsletter?

We may not have gotten them!

At the end of every term, we start collecting information for the EMT newsletter highlighting information from the previous term. We try our best to get everyone's stories and new lab updates included in these newsletters. Please make sure you send your information to [Jenna Bissinger](mailto:jenna.bissinger@oregonstate.edu) for it to be considered for the newsletter. If for some reason, your e-mail is received after the publishing of the current newsletter, we will make our best efforts to make sure that the information goes into the next one!

It's never too early to send in your stories and updates!

Thank you for your support and generosity!

