



EARS IGERT newsletter

Volume II, Issue I
April 2011

Inside This Issue

Greeting s	1
IGERT trainee meeting at Miami U.	1
Trainee and Faculty publications and presentations	2-5
Meet our Faculty and Trainees	6
IGERT winter workshops and webinar	7
Upcoming Events	8



EARS IGERT is funded by NSF

EARS IGERT Newsletter

IGERT TRAINEE MEETING AT MIAMI UNIVERSITY ON JANUARY 22, 2011

Greetings!

We hope that you have all enjoyed a respite during spring break and are focusing on a successful end of the semester.

On January 22, a meeting of the EARS-IGERT fellows was held at Miami University. The event included students from both Kent State University and Miami University. Students began by discussing the status of their research projects. This process helped the group to gain additional insight into a diverse array of academic disciplines.

IGERT faculty and trainees have been hard at work as they continue to focus on their coursework requirements, collaborative projects and attendance at professional development workshops.

Dr. David Woods, from Miami University's Information Technology Services, continued the meeting with an introductory workshop on structuring and managing large datasets. The workshop included an explanation of how databases work, examples of how to organize and query datasets, and suggestions for working with large datasets.

We are in the final stages of the review process of applications for third cohort trainees for the 2011-2012 academic year. This is a challenge with so many qualified candidates. The selected candidates will be named in the next edition of the newsletter — so stay tuned.

Students continued the meeting with a tour of the Miami EARS-IGERT trainee's laboratory facilities. The tour included glimpses into each student's lab as well as the Center for Advanced Microscopy & Imaging. Students then met in their respective cohorts over lunch to prepare an update of their cohort project.

A discussion of the project updates began with the 2009 (1st) cohort agreeing to complete work on their informational website on lake science and technology (<http://www.lakescientist.com/>). The 2010 (2nd) cohort completed the meeting by presenting their ideas on a cohort project aimed at enhancing the EARS-IGERT website. The project goals included improving the content to increase student interest and understanding for future recruitment. An in-depth discussion of the project with members of both cohorts and institutions led to a more cohesive and well-structured plan.

Happy Spring!

In one day, students were able to learn about other academic disciplines, receive an introduction to database systems, examine a variety of laboratory facilities, and share a wealth of ideas to enrich the group's cohort projects. Meetings such as this serve as a testimony to the power of group collaboration and free-flowing exchange of ideas.



"In all things that are purely social we can be as separate as the five fingers, yet one as the hand in all things essential to mutual progress"
~ Booker T. Washington

IGERT Trainee Presentations and Publications

Jael Edgerton, Sarah Hicks, G. Patricia Johnston, Kevin Rose, Susanna Scott, and Laura Webb have achieved success as trainees in the EARS IGERT program for their recent presentations and publications. Thanks to each of you for all of your dedication and efforts.

Great job and



SARAH HICKS (1st Cohort—KSU)

Presentations

“Improvement in Response Time of VA LCD by Polymer Stabilization,” S. E. Hicks, S. P. Hurley, R. Zola, and D. -K. Yang, Poster Presentation given at the Graduate Student Senate Symposium, Kent State University, April 2011.

“Liquid Crystal Elastomer Films and their Potential in Sensing,” S. E. Hicks, D. -K. Yang, and Q. -H. Wei, Poster Presentation given at the 2010 Liquid Crystal Day, Kent State University, October 2010.

“Improvement in Response Time of VA LCD by Polymer Stabilization,” S. E. Hicks, S. P. Hurley, R. Zola, and D. -K. Yang, Poster Presentation given at the 23rd International Liquid Crystal Conference, Krakow, Poland, July 2010.



Publications:

“Polymer Stabilized VA Mode Liquid Crystal Displays” S. E. Hicks, S. P. Hurley, R. Zola, and D. -K. Yang, IEEE Journal of Display Technology, in review.

SUSANNA SCOTT (1st Cohort—Miami U)

Presentations

“Ecosystem metabolism - Response to storm events”, Susanna Scott, Greximar Mercado, Jing Zhang ,and Mike Vanni. Presentation given to American Society of Oceanography, Santa Fe, New Mexico, June 2010.



“Effects of Storm Inputs on Ecosystem Metabolism”, S. Scott, W.H. Renwick, R. Batt, G. Mercado, and M. Vanni. Presentation given to American Society of Oceanography, San Juan, Puerto Rico, February 2011.

Publications

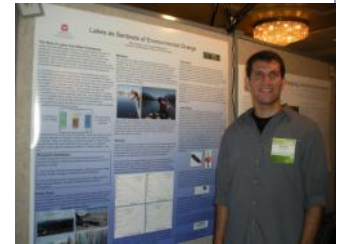
Scott, S.E. and Y. Zhang. Benthic community colonization on leaf detritus in a sandy-bottomed stream: Effect of burial/exposure regime shifts. *In review*

Scott, S.E. C.L. Pray, W.H. Nowling and Y. Zhang. Interaction of native and invasive consumers in a stream ecosystem: Implications for ecosystem functioning. *In prep.*

KEVIN ROSE (1st Cohort—Miami U)

Publications

Tucker, A.J., C.E. Williamson, **K.C. Rose**, J.T. Oris, S.J. Connelly, M.H. Olson, and D.L. Mitchell (2010) Ultraviolet Radiation affects invasibility of lake ecosystems by warmwater fish. *Ecology*, 91(3) 882-890.



Saros, J.E., **K.C. Rose**, D.W. Clow, V.C. Stephens, A.B. Nurse, J.R. Stone, A.P. Wolfe, and C.E. Williamson. (2010) Melting Alpine Glaciers Enrich High-Elevation Lakes with Nitrogen. *Environmental Science and Technology*, 44: 4891–4896.

Williamson, C.E and **K.C. Rose** (2010) When UV meets Water. *Science*, 329: 637-639.

Cabrol, N.A., U. Feister, E.A. Grin, D.P. Hader, H. Piazena, **K.C. Rose**, J. Mack, C. Demergasso, G. Chong, and S. Milam. (**in review**) Short Wavelength Solar Radiation and Ozone Loss in the Tropical Andes. *Nature Geoscience*.

Kara, E.L., P. Hanson, D. Hamilton, M. Hipsey, K. McMahon, J. Read, L. Winslow, J. Dedrick, **K. Rose**, C. Carey, S. Bertilsson, D. Motta Marques, L. Beversdorf, T. Miller, C. Wu, Y.F. Hsieh, E. Gaiser, and T. Kratz. (**in review**) Time-scale dependence in numerical simulations: Assessment of physical, chemical, and biological predictions in a stratified lake at temporal from scales of hours to months. *Environmental Modeling & Software, Environmental Modeling and Software*.

Presentations (continued next page)

Rose, K.C. 2011. Understanding physical constraints on the vertical structure of CDOM and Chlorophyll. GLEON 12 Meeting, Ramot, Israel. April 2011. Invited Poster Presentation.

Read, J.S., D.P. Hamilton, I. Jones, W. Eckert, K. Muraoka, A. Rimmer, N. Kimura, C.H. Wu, P. Verburg, J. Lenters, J. Brookes, P. Staehr, F. Peeters, D. Pierson, **K.C. Rose**, E. Gaiser, S. Maberly, E. de Eyto, J. Kling, R. Adiran, G. Koch, G. Zhu, and M. Gibbs. Physical variability in temperate lakes: **A global analysis of high-frequency instrumented buoy data from 25 lakes**. GLEON 12 Meeting, Ramot, Israel. April 2011. Invited Poster Presentation.

Rose, K.C., Winslow, L., Read, J., and Kara, E. 2010. **Improvements in Whole Ecosystem Metabolism: Integrating Physics into biological dissolved oxygen models**. Global Lake Ecological Observatory Network (GLEON) 12 Meeting, Ramot, Israel. April 2011. Invited Poster Presentation.

Kevin Rose Presentations, continued

Presentations

Williamson C.E., **Rose, K.C.**, Fischer J.M., Everhart J., Winder M., and J.E. Saros. 2010. **Water transparency to UV radiation as a sentinel of climate and land-use-driven changes in the terrestrial landscape: potential consequences for zooplankton and invasive invertebrates.** 10th Biennial Scientific Conference on the Greater Yellowstone Ecosystem. October 11-13, 2010, Yellowstone National Park, Wyoming, USA. Oral Presentation.

Saros J.E., Wolfe A.P., **Rose K.C.**, and C.E. Williamson. 2010. **Melting Alpine Glaciers in the Beartooth Mountains Enrich Lake Ecosystems with Reactive Nitrogen and Reduce Biodiversity.** 10th Biennial Scientific Conference on the Greater Yellowstone Ecosystem. October 11-13, 2010, Yellowstone National Park, Wyoming, USA. Oral Presentation.

Rose, K.C., Winslow, L., Read, J., and Kara, E. 2010. **The Role of Lake Physics in Regulating Lake Metabolism across GLEON.** Global Lake Ecological Observatory Network (GLEON) 11 Meeting, October 2010, Nanjing, China. Invited Poster Presentation.

Williamson C.E., Saros J.E., Kissman C., **Rose K.C.**, Fischer J.M., and J. Everhart. 2010. **Water transparency to UV radiation in mountain lakes: consequences of climate-driven changes in terrestrial inputs for light, temperature, and nutrient regulation of trophic interactions.** Global Change and the World's Mountains Conference, September 26-30, 2010, Perth, Scotland. Oral Presentation.

Fischer J.M., Olson M.H., Everhart J.C., **Rose, K.C.**, Williamson C.E., and R.D. Vinebrooke. 2010. **Factors influencing the distribution of *Daphnia middendorffiana* in alpine lakes of the Canadian Rockies.** Global Change and the World's Mountains Conference, September 26-30, 2010, Perth, Scotland. Oral Presentation.

Kissman C.E.H., Williamson C.E., Saros J.E., and **K.C. Rose.** 2010. **Climate change induced trophic forcing effects on the zooplankton community in an alpine lake.** Global Change and the World's Mountains Conference, September 26-30, 2010, Perth, Scotland. Oral Presentation.

Rose K.C., Williamson C.E., Saros J.E., and C.E.H. Kissman. 2010. **What can dissolved absorbance tell us about lake ecology?** Global Lake Ecological Observatory Network (GLEON) Meeting 10, May 10-15 2010, Torres, Brazil. Oral Presentation.

Rose K.C., Williamson C.E., Saros J.E., and C.E.H. Kissman 2010. **Indicators of Allochthony.** American Society for Limnology and Oceanography Conference, June 6-10, 2010. Santa Fe, New Mexico, USA. Poster Presentation.

Hanson P., Kara E., Hamilton D., McMahon T., Hipsey M., Hsieh Y., Carey C., **Rose K.C.**, and L. Winslow. 2010. **Prediction of phytoplankton blooms: using sensor data to work at the edge of knowledge.** American Society for Limnology and Oceanography Conference, June 6-10, 2010. Santa Fe, New Mexico, USA. Oral Presentation.

Kissman C.E.H., Williamson C.E., Saros J.E., and **K.C. Rose.** 2010. **The Role of Climate Induced Trophic Forcing in Alpine Lake Ecosystems: Coupling Plankton Dynamics to Sediment Signals.** American Society for Limnology and Oceanography Conference, June 6-10, 2010. Santa Fe, New Mexico, USA. Poster Presentation.

Solomon C.T., Bruesewitz D.A., Richardson D.C., **Rose K.C.**, and M.C. Van de Bogert. 2010. **Drivers of Variation in Pelagic Community Respiration: Evidence from High-frequency Free-water Measurements in Lakes around the Globe.** American Society for Limnology and Oceanography Conference, June 6-10, 2010. Santa Fe, New Mexico, USA. Oral Presentation.

Kara E.L., Hanson P., McMahon K.D., Hamilton D., Hipsey M., Bertilsson S., Wu C., Hsieh Y., Winslow L., and **K.C. Rose.** 2010. **Modeling Phytoplankton Bloom Dynamics in Lake Mendota, WI with DYRESM CAEDYM.** American Society for Limnology and Oceanography Conference, June 6-10, 2010. Santa Fe, New Mexico, USA. Oral Presentation.

Saros J.E., Wolfe A.P., Clow D.W., **Rose K.C.**, and C.E. Williamson. 2010. **Melting Alpine Glaciers Enrich Lake Ecosystems With Reactive Nitrogen and Reduce Biodiversity.** American Society for Limnology and Oceanography Conference, June 6-10, 2010. Santa Fe, New Mexico, USA. Oral Presentation.

IGERT Trainee and Faculty Presentations and Publications

JAEL EDGERTON (1st Cohort—KSU)

Presentations

Johnson, L.T., T.V. Royer, L.G. Leff, J.M. Edgerton, A.M. Baxter, M.P. Brennan and D.M. Oviedo-Vargas. 2009. The influence of dissolved organic matter on denitrifier community composition and denitrification rates in an agricultural head-water stream. Ecological Society of America., Albuquerque, NM, August 2010.

Edgerton, J.E., A.M. Baxter, L.T. Johnson, L.G. Leff and T.V. Royer. 2009. Effects of physical and chemical factors on denitrifier community composition and denitrification rates in agriculturally impacted streams. North American Benthological Society. Grand Rapids, MI, May, 2010.

G. PATRICIA JOHNSTON (2nd Cohort—KSU)

Presentations

Biogeochemistry of anaerobic contaminated sediments, Lacawac Workshop, 2010.

L. Farnham; C.G. Johnston; G. P. Johnston & J. Simmeonson. QUEST: A forum for student scholarship. April 5, 2011 Youngstown State University. Poster presentation: *Development and Application of a Sequential Extraction Procedure for Characterization and Analysis of Elemental Pollutants in Contaminated River Sediments and Soils.*

C. G. Johnston & G. P. Johnston "Bioremediation of Polycyclic Aromatic Hydrocarbons", book chapter submitted for the book titled Microbial Biotechnology Energy and Environment, CABI, Oxfordshire, United Kingdom.

G. P. Johnston: Use of indigenous SRB in the treatment of acid mine drainage. Presentation to Biology Department, Universidad Nacional Agraria La Molina, Lima, Peru.



LAURA WEBB (2nd Cohort—KSU)

Presentation

Webb, L.D., and J.E. Evans, OSL geochronology reveals high rates of floodplain aggradation during suburbanization of the Ottawa River watershed, NW Ohio, USA. Geological Society of America, Abstracts with Programs, 42(5), October 2010.

CRAIG WILLIAMSON, Co-PI (Miami U)

Publications



Saros, J.E, K.C. Rose**, D.W. Clow, V.C. Stephens, A. Nurse, H.A. Arnett, J.R. Stone, C.E. Williamson, and A.P. Wolfe. 2010. Melting alpine glaciers enrich high-elevation lakes with reactive nitrogen. *Environmental Science and Technology* 44:4891-4896.

Staehr, P.A., D. Bade, M.C. Van de Bogert, G.R Koch, C.E. Williamson, J.J. Cole, and T. Kratz. 2010. Lake metabolism and the diel oxygen technique: State of the Science. *Limnology and Oceanography Methods* 8:628-644.

Williamson, C.E., and K.C. Rose**. 2010. When UV meets freshwater. *Science* 329:637-639.

Presentations (continued next page)

Kissman, C.E.H., C.E. Williamson, J.E. Saros, and K.C. Rose. 2010. The role of climate induced trophic forcing in alpine lake ecosystems: Coupling plankton dynamics to sediment signals. American Society of Limnology and Oceanography Summer Meeting, Santa Fe, New Mexico, June 6-11, 2010.

Rose, K.C., C.E. Williamson, J.E. Saros, and C.E.H. Kissman. 2010. Indicators of allochthony in high mountain lakes. American Society of Limnology and Oceanography Summer Meeting, Santa Fe, New Mexico, June 6-11, 2010.

Craig Williamson Presentations, continued

Presentations

Saros, J.E., A.P. Wolfe, D.W. Clow, K.C. Rose, and C.E. Williamson. 2010. Melting alpine glaciers enrich lake ecosystems with reactive nitrogen and reduce biodiversity. American Society of Limnology and Oceanography Summer Meeting, Santa Fe, New Mexico, June 6-11, 2010.

Tucker, A., C.E. Williamson, J.T. Oris, A. Gevertz, and M. Olson. 2010. Water temperature and ultraviolet radiation transparency interact to control invasive warm-water fish establishment in nearshore Lake Tahoe. American Society of Limnology and Oceanography Summer Meeting, Santa Fe, New Mexico, June 6-11, 2010.

Williamson, C.E., J.M. Fischer, E.P. Overholt, S.M. Bollens, and J.K. Breckenridge. 2010. Shedding light on zooplankton diel vertical migration: Integration of abiotic and biotic drivers across transparency gradients. American Society of Limnology and Oceanography Summer Meeting, Santa Fe, New Mexico, June 6-11, 2010.

Williamson, C.E., J.E. Saros, C.E.H. Kissman, K.C. Rose, J.M. Fischer, and J. Everhart. 2010. Water transparency to UV radiation in mountain lakes: consequences of climate-driven changes in terrestrial inputs for regulation of trophic interactions. Global Change and the World's Mountains Conference; Perth, Scotland, September 26-30, 2010.

Fischer, J.M., M.H. Olson, J.C. Everhart, K.C. Rose, C.E. Williamson, and R.D. Vinebrooke. 2010. Factors influencing the distribution of *Daphnia middendorffiana* in alpine lakes of the Canadian Rockies. Global Change and the World's Mountains Conference; Perth, Scotland, September 26-30, 2010.

Invited Seminar: Williamson, C.E. 2010. Ultraviolet radiation: Beneficial and detrimental effects in lakes. Dartmouth College, October 8, 2010. **CEW met with the Dartmouth IGERT fellows and discussed the EARS IGERT and potential for collaborations between this polar environment IGERT and EARS.**

Williamson, C.E., K.C. Rose, J. Mack, J.E. Saros, J.M. Fischer, J. Everhart, and M. Winder. 2010. Water transparency to UV radiation as a sentinel of climate and land-use-driven changes in the terrestrial landscape: Potential consequences for zooplankton and invasive invertebrates. 10th Biennial Scientific Conference on the Greater Yellowstone Ecosystem, October 13, 2010.

Tucker, A., C.E. Williamson, J.T. Oris, A. Gevertz, and M. Olson. 2010. Water temperature and ultraviolet radiation transparency interact to control invasive warm-water fish establishment in a cold, clear, high-elevation lake. Poster presentation at the 10th Biennial Scientific Conference on the Greater Yellowstone Ecosystem, October 13, 2010. **Won honorable mention award for best student poster.**

Saros, J.E., A.P. Wolfe, K.C. Rose, and C.E. Williamson. 2010. Melting alpine glaciers in the Beartooth Mountains enrich lake ecosystems with reactive nitrogen and reduce biodiversity. 10th Biennial Scientific Conference on the Greater Yellowstone Ecosystem, October 13, 2010.

Gevertz, A.K., A.J. Tucker, C.E. Williamson, and J.T. Oris. 2010. Differential tolerances to UVR and fluoranthene exposure: Comparisons between native and non-native fish species of Lake Tahoe (CA/NV). SETAC North America 31st Annual Meeting, Portland, OR, USA; November 7-11, 2010.

Meet Our Faculty and Trainees

Dr. Virginia Johnson Anderson
Professor of Biological Sciences
Towson University In Maryland

I am the External Evaluator on our EARS IGERT grant. I graduated from Lamar University (TX) in biology, taught middle school science for 5 years on a USAF dependents' school in Michigan, and earned her a Masters from the University of Georgia on an NSF Outstanding Teachers' Fellowship. Immediately I began teaching general biology at Towson State College. I then taught life sciences, microbiology for nurses, and scientific writing, had three wonderful children, and spent 7 years commuting 50 miles each way to earn my doctorate at the University of Maryland (1985).



Since 1990, I have given assessment workshops at over 200 community colleges, colleges, universities, and professional schools in the United States and abroad. I have directed two major NSF urban science initiatives (\$400,000+), worked on 8 national grants in the last 5 years, and am best known as the co-author of

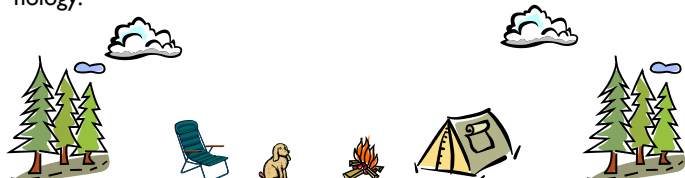
Grading: A Tool for Learning and Assessment in College (Walvoord and Anderson, Jossey-Bass, 1998, 2010).

I have and will continue to visit both the Kent and Miami campuses to interview, work with, and be available to EARS IGERT students and faculty. I particularly value the synergy and creativity evident shown by both cohorts and the great potential of IGERT programs. Sometimes scientists are slow to recognize ground-breaking ideas. Why? Well, the second week I was in the NSF- sponsored masters' program, the Director called me in to say, "We don't think taking women of child-bearing age will work out. So remember, you are an experiment."

David Davis
Kent State University
1st Cohort

I am a third year student in the Ph.D. program at the Kent State University Department of Chemistry. I received my BS in biochemistry from Westminster College in 2008. Currently, my concentration is in organic materials synthesis, working under Dr. Robert Twieg. My present research interest is in materials synthesis of substituted oligophenyls and study of mesogenic properties of these compounds in relation to their core-tail geometry (substitution pattern).

I am a second year trainee in the EARS IGERT program, and hope to apply my research to the development of new sensing systems for use in measurement of metabolic and water quality parameters in freshwater lakes and streams. When I'm not in the lab, my personal interests include camping, skiing, film, board games and technology.



Adrienne Hopson
Kent State University
2nd Cohort

My father was a lawyer in the military so I grew up in numerous places. I graduated from Kubasaki high school in Okinawa, Japan. I received my B.S. from Southampton College of Long Island University in Psychology/Biology. I focused on marine mammal behavior.

I have worked as a dolphin research assistant in Beaufort, NC as well as several zoos, aquariums, and animal rehabilitation centers including the Cleveland Zoo, the Houston Zoo, The Living Seas Aquarium at Disney World, The Pine Knoll Shores Aquarium in North Carolina, and the Montauk seal and sea turtle rehabilitation center. I received my teaching certification in secondary biology from the University of Virginia. I have worked in public and private schools in Virginia, Ohio, and Texas. I have taught biology, general science, marine biology, and forensic science courses.

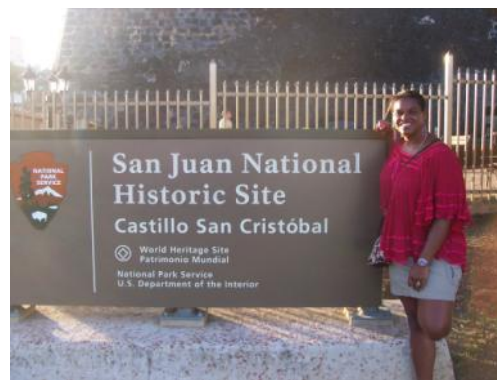


Listen to Dolphin
Cries and Chirps



At Kent State I am a student in Dr. Ferenc de Szalay's lab. My research will focus on two main areas, the acoustics of wetland invertebrates and the impacts of hydrology on wetland predator communities. For my research I hope to not only utilize environmental sensors to monitor physical aspects of the wetland community, but to also acquiring acoustic equipment to help me analyze the acoustics of wetland invertebrates. I hope to begin the initial phases of my research in Early May of this year.

In my free time I enjoy reading, going to the movies, and watching bad sci-fi and fantasy, the cheesier the better! I also like horseback riding and hope to resume regular lessons when the warm weather returns.



Growing up in the military has made me an avid traveler and I am always up for a good trip, near or far. I live in Bratenahl, a village of Cleveland,

with my two very large but very lazy dogs, Buster a Great Dane and Boomer, a Cane Corso mastiff. My parents, niece, and sister are close by. I have enjoyed being back with family. My husband is unfortunately still in Houston, Texas as he looks for a teaching job here in the Northeast Ohio area.

**WINTER
2011
WORKSHOPS**

The Kent IGERT recently hosted two workshops as part of their “Science Professional Development Workshops” series.

On February 7, Drs. Laura Leff and Jonathan Selinger presented “Scientific Writing: Publish or Perish? This workshop explored :

- ~ Writing of scientific papers
- ~ How to get started
- ~ Peer review
- ~ Editorial processes
- ~ How to approach manuscript writing
- ~ The importance of publication records



On March 7, the workshop theme was “Scientific Presentations.” Drs. Robin Selinger and Joe Ortiz shared their candid insights and personal experiences into giving successful presentations, including the importance of dressing appropriately for success. Topics at this presentation included:

- ~ Power Point do’s and don’ts
- ~ Scientific storytelling
- ~ Managing Q & A
- ~ Using a microphone
- ~ Chairing a session
- ~ Being prepared: just in case



In a recent survey about the workshops, responders noted that the workshops are helpful in the development of professionalism required for success in academics and private sector businesses.

Presentations from the workshops are available in Power Point slides. Please contact

mlnagell@kent.edu for additional information.

**IGERT
WEBINAR
March 1, 2011**

On March 1, 2011, the Kent IGERT, under the direction of Dr. Laura Leff, hosted a webinar in Cunningham Hall for an audience of science students and faculty. The featured speakers were LCI faculty and IGERT trainee, Valerie Finnemeyer. The focus was to bridge communication between science disciplines. Dr. Darren Bade opened the webinar with an introduction and discussion about sensors.

Presentations included:

Tony Jakli - Lyothermotropic Liquid Crystals as Potential Biosensors

Oleg Lavrentovich - -Lyotropic chromonic liquid crystals (LCLCs) – based sensors

Qi-Huo Wei - Sensors at Nanometer Scales

Deng-ke Yang - Cholesteric Liquid Crystals for Sensors

Valerie Finnemeyer - Liquid Crystal Optics in Portable Sensors

Chris Woolverton - Biosensors

The presentations were followed by a Q & A session. The topic for the session was “How can we work together to develop new technologies/sensors?”

The event was successful in generating new approaches in the use of liquid technologies and sensors.





Want more information? Contact us at the address , phone number or e-mail below. You can also go to the web page to get contact information for our faculty participants and find links to our participating

EARS IGERT
Department of Biological Sciences
Kent State University
Kent, OH 44242

Phone: 330-672-7828
Fax: 330-672-3713
lleff@kent.edu



For information on all
Aspects of Research and
Teaching

[http://
bioweb.biology.kent.edu/
igert/](http://bioweb.biology.kent.edu/igert/)

Upcoming events—2011

- ~ Chitra Rajagopal - Summer course at KSU May 16—June 3 (more below)
- ~ Final semester for 1st Cohort KSU/Miami trainees
- ~ New student orientation for 3rd Cohort trainees - August
- ~ Lacawac Sanctuary field experience in PA - September 8-11

Info about Lacawac workshop—2011



IGERT trainees (2nd and 3rd cohorts) are required to enroll for the first EARS IGERT event for 2011-2012, which will be held at the Lacawac Field Station in Pennsylvania. The event will start on the evening of September 8 and end the morning of September 11. Trainees will receive one credit for a ST course in biology for this event. Transportation, lodging and food will be provided. Additional details about the event will be sent to IGERT trainees and faculty this month—so save the date!

IGERT SUMMER COURSE OFFERING AT KSU Environmental Sensor Technology: Special Topic

Special topic: BSCI-50195/40195/70195: by Chitra Rajagopal

Course Description: Two credit hour course (Lecture –Lab: partially in-person and partially web-based) offered summer intersession (May16-June 3, 2011)

The course structure focuses on providing students with an interesting and stimulating learning experience in the field of Environmental wireless sensor technology and performing both isolated and collaborative tasks. Hands-on experience is made possible by the use of necessary firmware and other existing applications in the crossbow kit which enables students to implement WSN using sensors by integrating hardware and software components to easily develop and build prototype sensor networks individually or in group. Students in this course will study cutting-edge research papers that deal with various aspects of wireless sensor networks applied to Environmental sensing.

Please feel free to share information about IGERT with your colleagues and friends.

Copies of the newsletter can be downloaded from our web page at <http://bioweb.kent.edu/igert/> .

Ask us about marketing materials, too!

As always, thanks to the members
of the **EARS INTERNAL
COMMITTEE!** We've got one
representative in each of the par-
ticipating departments in Kent
State and Miami.



Miami

Geography, W. Renwick
Geology, H. Dong
Microbiology, R. Morgan-Kiss
Zoology, C. Williamson

Kent

Biology, A. Leff
Chemical Physics, Q. Wei
Chemistry, R. Twieg
Geology, A. Smith
Geography, M. Munro-Stasiuk