Research Experience and Training Coordination Core [1]

The overall goal of the Research Experience and Training Coordination Core (RETCC) is to develop trainees that are uniquely qualified to solve current and future environmental problems due to their cross-disciplinary and holistic education, research skills and social understanding. The Research Experience and Training Coordination Core created and assembled a catalogue of specially designed didactic and laboratory courses, workshops, and seminars. These bring trainees from all ISRP research projects together to acquire basic knowledge in complementary disciplines, get insight into research methods, risk assessment, data management and analysis, ethical considerations, and other overarching aspects of environmental pollution research and prevention/mitigation. They will do this by:

1) Identifying, promoting, evaluating, and tracking an interdisciplinary approach to training. Trainees are exposed to all activities within the ISRP, from hazard identification and quantification to biomedical risk assessment and hazard remediation. This interdisciplinary approach is only possible because the entire ISRP team participates in the mentoring and training of our trainees. We developed a multiple mentor model and require trainees to take courses in disciplines outside their primary discipline.

2) Coordinating training in ISRP methods and application. We will promote student participation in courses, workshops, and seminars specifically created by ISRP faculty for our trainees. These include a “PCBs in the Environment” course, a risk assessment seminar, hands-on training in the Analytical Core’s laboratories, and participation in our all-ISRP monthly meetings.

3) Coordinate opportunities for trainee participation in the Community Engagement Core (CEC) and the Research Translation (RT) activities. In anticipation of their future work with different societal groups, our trainees are exposed to and interact with the communities they serve. Trainees disseminate their research to constituents using a variety of means, communicating with laypersons and experts alike.

4) Interact with the Data Management and Analysis Core (DMAC) to provide training in data management, analysis, and data sharing. The RETCC will interact with DMAC to ensure that every student obtains training in research data management, data analysis, and other relevant areas (lab notebook best practice, poster design, professional presentation skills, etc.).
5) Provide opportunities to enhance trainees’ professional career development. To be successful, our trainees have to acquire communication and leadership skills. The RETCC offers/coordinates workshops in presentation techniques, one-on-one career counseling, individual development plans (IDPs), and networking and leadership opportunities.

Gabriele Ludewig, PhD, Core Leader

Dr. Ludewig is a professor in the College of Occupational and Environmental Health and is the Director of Graduate Studies for the Human Toxicology Program at the University of Iowa. She is a member of the Diversity Committee of the College of Public Health at the University of Iowa. In 2016 she won the prestigious John Doull Award by the Central States Society of Toxicology. Dr. Ludewig oversees, plans, and coordinates all aspects of the ISRP Training Program.

James Ankrum, PhD, Co-Investigator

Dr. Ankrum is an Assistant Professor in Biomedical Engineering at the University of Iowa. He is a Co-Investigator for Project 1 of the ISRP. Dr. Ankrum is a researcher for the Center for Computer-Aided Design, the Fraternal Order of the Eagle Diabetes Research Center, and is a member of the Pappajohn Biomedical Institute.

Jonathan Doorn, PHD, Co-Investigator

Dr. Doorn is Professor in Pharmaceutical Sciences and Experimental Therapeutics and is the Division Head, Department of Pharmaceutical Sciences and Experimental Therapeutics / Division of Medicinal and Natural Products Chemistry at the University of Iowa. He is Co-Investigator of Project 1 of the ISRP. He was awarded the 2019 University of Iowa College of Pharmacy Award for Teaching Excellence.

Greg LeFevre, PhD, Co-Investigator

Dr. LeFevre is an Assistant Professor in Civil and Environmental Engineering at the University of Iowa. He is a researcher at the IIHR -- Hydroscience & Engineering, Center for Biocatalysis and Bioprocessing, and the Center for Global & Regional Environmental Research. He is a Co-Investigator for Project 5 of the ISRP. In 2019 he was awarded a National Science Foundation’s prestigious CAREER award for his stormwater research.
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Links
[1] https://iowasuperfund.uiowa.edu/support-cores/cross-disciplinary-training