The overall goal of the Training Core 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.

To achieve this goal the Training Core will focus on these aims:

**Aim 1: Recruit qualified and motivated students and postdoctoral scholars**

In 2018 the ISRP successfully recruited several very promising new trainees into the program. This success was facilitated by the offer to first year students to do 3-months rotations in the laboratory of ISRP faculty. In addition to these traditional students, the ISRP supported one short term (3-months) internship of an international student of Food Science from the University of Wuerzburg and an 18 months Research Internship of a research fellow in Reproductive Endocrinology from the University of Iowa.

**Aim 2: Devise a teaching program for cross-disciplinary and cross-border learning**

ISRP members are offering an exciting new course entitled “PCBs in the Environment”. This course is designed and coordinated by Dr. Keri Hornbuckle, PL of the ISRP Analytical Core and Project 4 and now the new PI of the ISRP. Project leaders and staff of several core and research projects serve as co-instructors. The course is structured into nine modules, with each module incorporating in-depth examination of the literature by the students, laboratory experiments, computer modeling, written reports and presentations. Sources, Analytical Chemistry, Metabolism, Animal Models, Inhalation Toxicity, Modeling, and Remediation of PCBs and other aspects were each covered in an individual module.

Also new is a 3-part seminar series about “Community Engagement and Participation”, presented as part of the
Toxicology seminar. This series introduces trainees to the concept of working with communities to solve problems of the communities. Many trainees also are involved with visits to East Chicago and assisting when junior high students visit the ISRP lab. Trainees may also elect to learn about disseminating results via social media by working with our Research Translation staff.

**Aim 3: Provide a state of the art broad and rigorous laboratory research training to prepare students to conduct independent, problem-oriented environmental research**

The current fourteen ISRP trainees are being mentored by ten different faculty members across five departments at the University of Iowa. In addition to rigorous laboratory training, trainees are now being offered the opportunity to learn data analysis, data management, and how to make data more Findable, Accessible, Interoperable, and Reusable (FAIR).

**Aim 4: Build personal and professional connections among students and among students and national and international scientists, other professionals, and lay persons to prepare students for leadership roles in environmental research**

Dr. Robertson, Co-CL of the Training Core, organized again the Iowa get-togethers during the Annual Meetings of the Society of Toxicology. During this meeting, our current trainees can meet and interact with former trainees who are now working in academia, government and industry. Trainees also participated in several different national and international meetings. Such presentations include the talks of our two KC Donnelly awardees, Eric Uwimana and Victoria Parker, at this year’s Annual Superfund Research Program meeting in California. In addition, several of the presentations of our
Trainees were recognized by highly competitive awards. To give just one example: Jacob Jahnke received the best student presentation award at the 10th International PCB Workshop.

ISRP trainee Nick Herkert describes his project in the following video:

Gabriele Ludewig, PhD

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.

Larry Robertson, PhD

Dr. Robertson participates in the coordination of all Training Core related activities. His leadership role in the ISRP and activities related to the biannual PCB workshops and his strong connections to PCB scientists around the world provide many additional benefits for the Training Core.

Michael Duffel, PHD

Dr. Duffel is Associate Director of the Iowa Superfund Research Program and leads Project 3. He is a member of the University of Iowa Human Toxicology PhD Program where he mentors toxicology students in the College of Pharmacy and in the Division of Medicinal and Natural Products Chemistry. He has been awarded The Iowa Board of Regents Faculty Excellence Award.

Source URL (modified on 05/23/2019 - 15:36):
https://iowasuperfund.uiowa.edu/support-cores/cross-disciplinary-training

Links
[1] https://iowasuperfund.uiowa.edu/support-cores/cross-disciplinary-training