The Iowa Superfund Research Program (ISRP) is a highly integrated research center focusing on the sources, exposures, remediation and toxicities of polychlorinated biphenyl (PCBs) congeners found in air.

The integrated nature of the Center across biomedical and environmental science and engineering disciplines has led to vital discoveries. These interdisciplinary successes are made possible by our organizational infrastructure, which enables frequent and regular exchange of ideas, experiments, and data between our projects and cores.

The major goal of the Administrative Core is to maintain a structure that promotes integration of research, enables timely communication and research translation that raises the quality and impact of the center activities, and provides vision and direction to ensure the center’s continued success in conducting outstanding research and engaging with stakeholders. It will do this by:

1) Providing program leadership and organizational infrastructure to ensure synthesis of findings and integration of activities.

A review of the Iowa Superfund Research Program was completed at an External Advisory Committee [2](EAC) virtual meeting in late October 2020. The goal was to review and get feedback from the EAC regarding our five projects, the newly formed Data Management and Analysis Core, and our community engagement efforts. Representatives from the EPA, ASTDR, and NIEHS attended and provided their
thoughts on PCB issues, remediation, and community input. Fifteen trainees presented 3-minute summaries of their research. The EAC were especially pleased at how well the projects and cores were integrated.

To lay a background for our current research, five project leaders gave informal interviews with Dr. Scott Spak, the ISRP Research Translation Coordinator, in the fall of 2020 to describe the research they had been doing since 2006. Presenting were Dr. Keri Hornbuckle, Dr. Jerry Schnoor, Dr. Larry Robertson, Dr. Michael Duffel, and Dr. Peter Thorne. In an informal podcast like interview, the researchers described their discoveries, how their research had changed over 15 years, how they interacted with communities, and the role of trainees in their research.

The Administrative Core coordinated many meetings; the most productive include monthly meetings where each Project or Core is assigned to report to our ISRP community, and the weekly meetings of the Analytical Core (AC). In 2020, the AC weekly meetings were adapted to include the new Data Management and Analysis Core (DMAC). During these meetings, the DMAC developed the process and procedures for assisting researchers with data management and analysis. These new joint meetings also allowed trainees to present their findings with recommendations on data sharing and analysis.

The Administrative Core led a discussion with the ISRP Executive Committee regarding efforts to increase diversity and inclusiveness in our projects and cores. It also applied for a diversity supplement from the Superfund Research Program.

2) Provide administrative and fiscal services, support, and oversight to ensure robust stewardship of available resources.

The Director, together with a Center Administrator and a Fiscal Manager, provided programmatic and financial services, support, and oversight. The ISRP is housed under and supported by IIHR—Hydroscience & Engineering, which has extensive experience managing multidisciplinary and multi-institutional projects ranging from thousands to tens of millions of dollars.

3) Disseminate ISRP scientific and environmental health discoveries through effective research translation.

The Research Translation Coordinator facilitated many activities to transfer our research to communities, EPA, ASTDR, NIEHS, and other Superfund Research Programs. These included inviting these participants to our EAC meeting and inviting and sharing links to the talks by the five project leaders from 2006-2020. The talks were recorded and will be uploaded to a YouTube site in the next few weeks.

New courses developed by RT Coordinator Spak have increased the formal instructional offerings on hazardous substance remediation by ISRP for the UI campus and the world. Eight Generational Planning - Envisioning Regenerative Cities, was awarded the 2020 Curriculum Innovation Award. A new comprehensive graduate course on brownfields economics, policies, testing, remediation, environmental justice, and redevelopment was developed in 2020. Both courses are in evaluation and refinement before contribution to open courseware platforms.
Investigator-initiated Research Translation efforts continued and expanded across ISRP, supported by the Admin Core and RT Coordinator. The CEC began forming a Statewide Advisory Board on PCBs in schools, and CEC and Admin Core investigators responded to inquiries on PCBs in schools from national news media, state agencies, school districts, and communities across the country. FAIR sharing of data with publications, enhanced by the DMAC, was a primary means of increasing research translation to academic communities during this reporting period. The Synthesis Core continued to provide samples of PCBs and metabolites to researchers at US institutions and SRP centers. We have consulted with the State of California General Attorney’s office, Department of Environmental Justice, regarding their approach to remediation of PCBs in schools.

Keri Hornbuckle, PhD: Program Director (Principal Investigator) and Core Leader

As Principal Investigator of the ISRP and Core leader, Dr. Hornbuckle is responsible for all aspects of the Superfund Project. Dr. Hornbuckle will provide coordination and facilitate interactions among researchers within the program projects and cores.

Hans-Joachim Lehmler, PhD: Deputy Director

As Deputy Director of the ISRP, Dr. Lehmler assists the Director in scientific and administrative oversight of the program and in facilitating effective and timely communication of research findings and interactions among the investigators in the individual projects and cores. He also leads Project 1.

Scott Spak, PhD, Research Translation Coordinator

Dr. Spak has led the Research Translation Core since 2015. Spak will continue to be responsible for day-to-day management and direction of the ISRP research translation efforts. In addition, he will serve as Co-Leader for the DMAC, leading the Data Management aims of that core. Spak will serve on the ISRP Executive Committee and work to ensure overall and investigator-initiated research translation activities are implemented and well-integrated with the ISRP and supportive of the specific aims of all components, where applicable.

David Purdy, Program Administrator

David assists with program management, grant writing and reporting, conference coordination, trainee guidance and development, website creation, and interactions with the External Advisory Committee, Superfund Research Program, and other Superfund Research Centers.

Suzanne Doershuk, Fiscal Manager

Ms. Doershuk brings extensive prior experience with NIH account management and will provide fiscal oversight and budgetary support for the overall center. She will work closely with Hornbuckle, Lehmler, and Purdy to assure strong fiscal oversight of program resources.

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