

Agenda: SPAN Leadership Committee/Training Core Leaders WebEx

Tuesday, Feb 5 from 3-4 pm ET

Attendees:

- Gianni Algarin-Rivera (PROTECT)
- Alessandra Bryant (PROTECT)
- Danielle Carlin (SRP)
- Chris Duncan (NIEHS)
- Rocio Estrella (University of Arizona)
- David Hein (University of Louisville)
- Bernhard Hennig (University of Kentucky)
- Kristin Hicks (PROTECT)
- Stephanie Kim (Boston University)
- Priyanka Kushwaha (University of Arizona)
- Adeline Lopez (MDB)
- Gabriele Ludewig (University of Iowa)
- Raina Maier (University of Arizona)
- Craig Marcus (Oregon State University)
- Pamela Mellon (UCSD)
- Jennifer Moore (University of Kentucky)
- Denise Moreno (University of Arizona)
- Trevor Penning (University of Pennsylvania)
- David Purdy (University of Iowa)
- Thomas Sheahan (Northeastern University)
- Lura Slowinski (Northeastern University)
- Bruce Stanton (Dartmouth)
- Brittany Trottier (SRP)
- Jean van Seventer (Boston University)
- J. Zach Hilt (University of Kentucky)

Agenda Items:

- **Highlights from the Developing a Data Science Competent EHS Workforce Workshop – Chris Duncan, Ph.D., NIEHS**
 - Training in data science is important to SRP, NIEHS, and the National Institutes of Health.
 - NIEHS had a workshop on developing a data science competent environmental health science (EHS) workforce.
 - The workshop was held in August 2018.
 - NIEHS supports the idea that data drives discovery. Types of data include imaging, molecular, genomic, clinical, population data, and more. These data sets are becoming increasingly complex and presenting new challenges in sharing, accessing, analyzing, and interpreting big data.
 - Data science has emerged to meet these challenges. It uses quantitative and analytical approaches, processes, and systems to extract knowledge.

- Goal of the workshop was to develop a strategy to build a data science competent EHS workforce by understanding the current state of the science, relating [Big Data to Knowledge \(BD2K\)](#) accomplishments to EHS training goals, and building EHS training in data science.
- Session 1 focused on understanding the current state of data science in the EHS domain as it relates to training. They looked at use cases to identify limitations of current training in each of the cases. They discussed common competencies across EHS, unique needs for NIEHS, and gap areas in training resources. Session 1 helped identify key gaps and barriers for EH data science, including integrating diverse data streams, cross-domain communication and awareness, and data science training needs across the career span.
- Session 2 examined resources and related BD2K accomplishments to EHS training goals. They discussed what could be learned from the BD2K initiative, what BD2K training initiatives were most relevant to EHS, and how NIEHS can attract and develop trainees or junior scientists with quantitative backgrounds. A few themes that came out of this discussion included: EHS has a solid foundation on which to build data science training; research and training are inherently interconnected for EHS data science and the importance of hands on experience; the importance of collaborative problem solving and approaches; and the need for heterogeneity of opportunities.
- Session 3 focused on building EHS training in big data science. The goal was to examine existing NIEHS training resources relevant to data science and how to increase training emphasis in big data. They discussed what a data scientist looks like in the context of EHS research, common impediments to training, and how leading-edge data science training methods can be introduced to EHS teams. Themes identified included the need for customized training in diverse areas and niches, the need for creative approaches to target scientists early on, and the need for FAIR EHS datasets and tools to support data science training. Duncan stressed the importance of having exciting data sets available for trainees to practice connecting environmental pollutant exposures with health outcomes for training exercises. The workshop participants also discussed the need for EHS-relevant open access data and case studies, and the need to maximize data depositories.
- The big picture take-home messages from the workshop included: improving access to EHS data to drive innovation; creating EHS data science core curricula, online courses, and short courses; supporting data science training across all career stages and data science competencies; fostering partnerships between health researchers and quantitative scientists; and expanding stakeholder network within and outside of EH.
- Duncan highlighted an exciting upcoming opportunity for junior data scientists: [2019 Data Science Innovation Lab](#), June 24-28 in Winston-Salem, North Carolina. The theme is Data Science Challenges in Rural Health and Environmental Exposures. The goal is to foster interdisciplinary collaborations to address challenges. Applications are due **March 10**.
- Danielle mentioned that one of the speakers at the workshop talked about [BD2K ERUDITE](#), which helps trainees identify training courses and customize their learning curriculum. ERUDITE is open access software.
- A participant asked about the goal to support the creation of short courses and modules, and whether there was an intention to offer grant funding or supplemental support to develop these materials. Danielle mentioned that if training core leaders were interested in brainstorming about a short course for trainees that was broadly applicable to all trainees in the program, there could be discussion about a potential administrative supplement.
- The Northeast SRP meeting is planning to have a short training session on big data, but they may consider expanding it and offering a webinar to the broader SRP group.

- **Wetterhahn Award**
 - The winner of the 2018 Wetterhahn Award was announced at the SRP Annual Meeting (November 28 – 30, 2018).
 - Congratulations to Stephanie Kim of Boston University!
 - <https://www.niehs.nih.gov/research/supported/centers/srp/training/wetterhahn/index.cfm>
 - Wetterhahn Award applications for 2019 will be due August 1, 2019.
 - Feel free to reach out to Danielle if you have any questions.

- **KC Donnelly Externship**
 - Applications for 2019 were extended to **February 8, 2019**.
 - Brittany Trottier is the contact for the KC Donnelly Externship.
 - <https://www.niehs.nih.gov/research/supported/centers/srp/training/donnelly/index.cfm>
 - The KC Donnelly Externship is a great opportunity to enhance transdisciplinary training and for trainees to expand their research in a new area or develop new skills.
 - KC Donnelly award winners present at the SRP Annual meeting a year after the award.

- **CareerTrac**
 - Reminder to update and enter information for trainees.
 - Make sure highlights from trainees are in their career profiles.

- **Training Core Activities and Round-robin/sharing** of highlights (from the Superfund Centers and R01 grantees)

Reminder: If you'd like your activities included, please send them to Danielle Carlin (danielle.carlin@nih.gov) and Addie Lopez (alopez@michaeldbaker.com) at least 2 weeks before the next scheduled SPAN WebEx.

 - Oregon State University SRP Center:
 - OSU and UNM SRP Centers will host a reception for SRP trainees and mentors at the SOT Meeting in Baltimore, March 10 – 14. OSU and UNM have partnered for the last couple of years to host this reception, and it has been well received. The reception is on Monday evening from 8 – 10 pm.
 - OSU has recordings available of the stream from their recent Research Day "Environmental Public Health in the 21st Century" lectures posted on their website: <https://emt.oregonstate.edu/research-symposium/agenda>
 - Brown University SRP Center:
 - The engineering graduate students have formed the Continuum Society that meets weekly for trainees to present research talks. They are also hosting outside speakers to discuss opportunities for professional development.
 - The biomedical trainees have established BioCON-Bio Career Opportunities Now that will meet monthly for an invited seminar by scientists pursuing non-academic careers followed by dinner and a round table discussion of alternative career opportunities.
 - Northeastern:
 - They will host two webinars this spring. One will feature Leo Trasande and will be broadcast to the SRP and EPA community.

- The Center is planning the Northeast SRP meeting in April, which will be held in Boston. It will include 8 SRP Centers, including lots of talks and events for trainees.
- The team is getting back on track with trainee individual development plans (IDPs) after disruptions due to the hurricane. Northeastern IDPs are similar to SRP's KC Donnelly awards to allow trainees to visit other sites across the PROTECT group.
- University of Kentucky:
 - SRP E-posted notes had a nice highlight about Brittany Rice. She won a poster award and is a great example of a trainee going above and beyond to plug in to community outreach. She has been recognized by several outside institutions and within the University of Kentucky for her incredible work.
- **Reminder to send updates to SPAN Leadership Committee**
 - These will be taken September/January of each year (please limit to 1 – 2 graduate students/Post-Docs per Center to keep up with the listserv)
 - Please email your nominations to danielle.carlin@nih.gov and indicate the current status of the new member (e.g., graduate student or Post-Doc)

Membership on the SPAN Leadership Committee is a two-year term.

Additional Information:

- **SRP Website – for SPAN/Training**
 - <http://www.niehs.nih.gov/research/supported/srp/training/index.cfm>
 - Notes from all previous SPAN Teleconferences/WebEx Discussions are posted here.
 - Training Core Leaders, please send Adeline Lopez (adeline.lopez@nih.gov) any news items of interest to trainees (e.g., trainee success stories, pictures, job announcements, etc).
 - SRP e-posted: Trainee Highlights
- **SRP/NIEHS on Linked In:** <https://www.linkedin.com/groups/8565066>
 - Great resource for job announcements, all the job announcements that SRP sends out are posted there.