March 19, 2018

Members of the Society for Behavioral Neuroendocrinology:

At the annual meeting of the Society for Behavioral Neuroendocrinology in Long Beach, CA (2017), a group of faculty, postdocs, graduate students, and undergraduates gathered at the Workshop for Public Engagement and External Relations to discuss STEM public engagement within and beyond SBN. Right now, there is a National Call to Action for scientists to engage with the public in new and more effective ways. We consider it our professional and civic responsibility, as scientists and members of our communities, to respond. Although data show that Americans have a strong trust in scientists and confidence in science, policy decisions and actions by influential anti-science groups (e.g., creationists, anti-vaxxers) do not always reflect this confidence and trust. Evidence-based decision-making, critical thinking, and scientific inquiry are under attack, and political leaders regularly amplify false claims. By bridging the gap between diverse publics and the scientific community, we aim to increase support for science, trust in scientists, and funding for research and training. Engaging with the public also develops professional skills central to a successful scientific career, including enhanced communication, teaching, and leadership skills, and an enriched understanding of one's own research and field. Furthermore, many federal funding agencies look favorably upon public engagement.

We were extremely impressed by the many ways that SBN scientists already engage with members of the public in a wide range of communities. Beyond their research, teaching, academic, and life commitments SBN scientists: visit K-12 classrooms; create and present hands-on activities at science fairs, festivals, and nights; organize and volunteer with national events, such as the Brain Bee and Brain Awareness Week; organize and participate in service learning with kids and adults; host lab visits for students, family members, and community leaders; present and engage in discussions at Science on Tap, Nerd Nite, and Science Cafés; write children's books; write blogs; engage about science and #scicomm on Twitter; create educational materials; mentor high school and undergraduate students, including first generation students; organize internship programs; serve as faculty advisers to student organizations; organize and participate in NSF Research Experiences for Teachers; and more.

The majority of this engagement work is done without funding, professional recognition, or credit towards a degree or promotion and tenure. In response to this Call to Action for scientists to engage with the public and policy makers, and we want to support scientists—novice and experienced—in their engagement using evidence and shared knowledge to make it more effective and powerful. We also want to acknowledge the scientists who have a long history of engagement and recognize that many of these scientists are scientists of color, women, and members of other groups underrepresented in STEM fields.

Our public engagement goals are:

1. **Increase exposure and access to scientific ideas, research, training, and careers to people of all ages, races, ethnicities, gender identities, sexual orientations, physical abilities, religions, and countries of origin.** We aim to do this by: engaging kids when they are young and throughout their education; engaging with adults; engaging women and girls; reaching historically disadvantaged and underrepresented communities; actively recruiting undergraduates who may have been discouraged from STEM careers or do not know about the opportunities and potential; building communities within the sciences; hosting lab open houses; organizing and volunteering at community science events; developing and making education materials accessible that bring research into the classroom and incorporate data analysis and visualization; creating opportunities for community involvement in

research, and more. Increasing diversity and making science accessible also relies on a scientific community that is safe, inclusive, equitable, and committed to actively combating bias.

2. **Build strong connections with local communities** in order to involve community members in current and future research; work together towards common societal goals; disseminate information and discuss public health concerns (e.g., effects of shift work; maternal mental health), including dispelling dangerous misconceptions (e.g., vaccines causing autism); advocate for taxpayer funding for science and education, in part by sharing how our funded research contributes to scientific progress and positively impacts society and quality of life; support evidence-based decision-making in public policy; and influence public policy.

3. **Interact with members of the public in ways that positively affect the public's perception of scientists and science, increases trust in scientists, and promotes interest in and enthusiasm for science.** Relationships are critically important to public engagement. How scientists are perceived affects how the information we share is received and what actions are taken in response.

4. **Develop and participate in training** for effective communication using multiple media platforms, as well as face-to-face; engaging with a wide range of communities in effective and respectful ways, including communities underrepresented in STEM fields and policy makers; how to start new public engagement programs and replicate successful programs in new locations; integrating public engagement into academic careers; incorporating public engagement skills and experience into the graduate curriculum; and learning about career paths in science public engagement, such as policy, advocacy, and health.

We are enthusiastic about the role SBN has the power to play in achieving these public engagement goals. Our vision for SBN includes:

- Active **support** from the SBN community for public engagement, in particular from SBN leadership and established faculty.
- Distribute a **survey** to SBN members to document the public engagement efforts already taking place and identify experts, interested members who have not yet engaged, areas of high interest, and underserved communities and types of engagement. This information can inform future public engagement training, programs, and funding.
- Sponsor **training workshops** at the annual meeting for science communication; public engagement best practices; career paths involving STEM public engagement, and more.
- Establish an **award** (both at the faculty and trainee levels) to recognize outstanding public engagement by SBN scientists.
- Create a **small grants program** for public engagement programs and materials to support scientists doing public engagement work.
- Establish an **online platform**, as a part of the SBN website, for consolidating information gathered from the aforementioned survey, including but not limited to sharing public engagement resources, opportunities to engage, information about different engagement initiatives, training and career opportunities, funding options, experiences, advice, and planning coordinated local SBN engagement events across the country. A listserv could connect members who engage the public and build a community.

We thank all of the workshop attendees who contributed to these ideas and look forward to working with SBN leadership and members on improving and expanding public engagement within and beyond

SBN. Effective public engagement has a central role in ensuring the future of scientific research and, in turn, a thriving society. The urgency of these goals at this point in history is undeniable.

Sincerely,

Dr. Tessa Solomon-Lane
Postdoctoral Fellow, The University of Texas at Austin

Yesenia Cabrera
Ph.D. Student, University of California, Los Angeles

Julie Butler
Ph.D. Student, Louisiana State University

Dr. Marcia L. Collaer
Professor, Middlebury College

Dr. Hanne Hofmann
Assistant Professor, Michigan State University

Dr. Aubrey Kelly
Postdoctoral Fellow, Cornell University

Diana Lalitsasivimol
Ph.D. Student, University at Albany, SUNY

Dr. Christine Lattin
Assistant Professor, Louisiana State University

Megan Massa
Ph.D. Student, University of California, Los Angeles

Jennifer Merritt
Ph.D. Candidate, Emory University

Dr. Margaret Mohr
Postdoctoral Fellow, University of California, Los Angeles

Dr. Katharine Northcutt
Associate Professor, Mercer University

Dr. Lauren O'Connell
Assistant Professor, Stanford University

Dr. Amy Ross
Postdoctoral Fellow, Georgia State University