

Laura Erwin, Ph.D.



J. David Jentsch, Ph.D.

# Interview with Laura Erwin, Ph.D., 2020/2021 ACNP-AMP BRAD Fellow

Interviewed by J. David Jentsch, Ph.D.

The ACNP Animal Research Committee, in collaboration with Americans for Medical Progress (AMP), is pleased to announce the selection of Dr. Laura Erwin as the 2020-2021 ACNP/AMP Biomedical Research Awareness Day (BRAD) Fellow. BRAD encompasses a set of ongoing activities intended to educate students and the broader public about the importance of biomedical research, including the humane study of animals in it.

Dr. Erwin is currently a Postdoctoral Fellow at Harvard Medical School. She received her Ph.D. in Pharmacology at the Louisiana State University Health Sciences Center. She has dedicated her career to both empirical biomedical research on drug addiction, as well as outreach and education.

The ACNP Animal Research Committee thanks Paula Clifford and Logan France DVM from

AMP for their ongoing contributions to this program and to the identification of exceptionally qualified fellows, including Dr. Stephanie Maddox (2018-2019) and Dr. Katie Serafine (2019-2020).

#### 1) What is the research question(s) being addressed by your postdoctoral studies?

As a postdoctoral fellow, I am currently conducting behavioral research to delineate the behavioral pharmacology of novel psychoactive synthetic cannabinoids – with an emphasis on the involvement of CB1 and non-CB1 receptor mechanisms. Preclinical studies have identified synthetic cannabinoids as being THC-like; yet, accounts of emesis, hallucinations, and seizures have been reported with their usage. In one set of studies, I am examining the potential hallucinogen-like effects of potent synthetic cannabinoids. In another line of work, I am using noninvasive electroencephalogram (EEG) to investigate the neurological disruption caused by cannabinoid ligands that differ in affinity and efficacy.

#### How and why are animal subjects critical to your ability to address that question?

Research in animal subjects has made groundbreaking contributions to the understanding and treatment of substance use disorders as well as other behavioral disorders. Experimental animals play an essential role in this work because understanding how the central nervous system, individual or genomic factors, and historical and contextual influences on ongoing behavior interact in normative and non-normative behavior cannot be modeled in isolated tissue or in cellular or molecular preparations or with computer-based models. On the other hand, the use of experimental animals allows one to study problems in a way that is directly translatable to the human experience. For example, some of my research has focused on predicting the subjective effects of novel compounds in humans by using very well-established methods to characterize their distinctive stimulus effects in vivo. Additionally, pharmacological tools like receptor antagonists can be used in such procedures to illuminate physiological and/or neurochemical mechanisms that may contribute to those stimulus effects. This kind of evaluation simply wouldn't be possible in other non-living models.

## 2) What past efforts have you made to engage in outreach and advocacy, and why is this effort so important to you?

I have been actively committed to both outreach and advocacy since beginning graduate school at Louisiana State University Health Sciences. I joined the student government and served as the Vice President of Community Outreach, and, subsequently, as President. Through these roles, I was able to develop programs that allowed me to serve the greater New Orleans area, creating food banks and organizing fundraisers. Through the Washington Fellows program with American Society of Pharmacology and Experimental Therapeutics (ASPET), I served as a 2018 Fellow and a 2020 Fellows Guide, and I now serve as a Program Committee Member. The Washington Fellows program allows scientists to travel to Washington, D.C. to meet with

congressional representatives and to advocate for the importance of biomedical research. In addition, Fellows assist in the development of ASPET policy positions and publish op-eds. Over the last several years with the Washington Fellows, I have discovered how frighteningly easy misinformation about science is perceived by those outside of our community. Therefore, I believe that promoting an active discourse not only with the public, but also peer-to-peer about outreach, advocacy, and support for the sciences is foundational.

### 3) What personal and professional benefits have you experienced during your efforts at advocacy and outreach?

My advocacy efforts have helped me become a more effective communicator in both my personal and professional life. To have a bigger impact, it is critical to make science accessible through effective communication. The Washington Fellows program has forced me to rethink how I speak about science; essentially, what is the language of science for the larger community? Engaging in advocacy and outreach can help scientists hone communication skills. I believe we live in a world of misinformation that makes effective communication a necessity now, more than ever.

### 4) What specific plans do you have to promote the neuropsychopharmacology field in the context of BRAD?

As the 2020-2021 ACNP/AMP BRAD Fellow, I am eager to expand BRAD within the ACNP and neuroscience community. The project, "Support a Scientist," aims to increase ACNP participation in BRAD by providing a platform for scientists to talk about their research with a wider audience. It will also help to increase the public's understanding of the importance of anxiety / mood disorders, substance use disorders, and other psychiatric disorders, and why animals are an essential part of these studies. The "Support a Scientist" project will be made up of short videos that feature individual scientists and their work. Each video will provide a "face" to science, establish the importance of a specific area of research, highlight the role of animal research in the study, and offer insights into what it means to conduct animal research.

### 5) How can the ACNP's membership aid your efforts?

ACNP members can suggest which scientists to highlight for our upcoming project "Support a Scientist". We believe this will demonstrate support within the society for scientists conducting animal research. In addition, this project will highlight the tremendous contributions to science by ACNP members and emphasize the breadth of research being conducted by ACNP members.

ACNP members are also encouraged to attend the ACNP-AMP BRAD Panel at the upcoming Annual ACNP meeting. This panel (Dr. Logan France, Dr. Katie Serafine, and Dr. Thomas Prevot) encompasses a wide range of experiences and will provide attendees with strategies on

how to engage with various audiences on the importance and benefits of animal research. The scheduled times for these sessions are listed below.

Monday, December 7th 1:00-1:30 pm and 3:30-4:00 pm CST

Wednesday, December 9th 10:30-11:00 am and 4:30-5:00 pm CST