

Institute for Immunology

Department of Pathology and Laboratory Medicine

The Children’s Hospital of Philadelphia

421 Curie Boulevard

Philadelphia, PA 19104-6160

June 22, 2018

To members of the review committee,

I am writing this letter in support of “Improving reproducibility of recording and pre-processing experimental biomedical data”, a proposal that Dr. Brooke Anderson and her co-investigators, Michael Lyons, Mercedes Gonzalez-Juarrero and Marcela Henao-Tamayo are submitting in response to *RFA-GM-18-002: Training Module*. In this proposal, Dr. Anderson and her co-investigators plan to create training modules that are accessible and useful to laboratory-based researchers seeking to improve the reproducibility of experimental data recording and pre-processing in their research projects. The evaluation and testing of these modules will be important to ensure they can reach laboratory-based biomedical researchers. My research group includes students and trainees who can help serve as a pool of potential early users for the training modules that this team proposes to develop.

Inflammation is traditionally considered a defense response induced by infection or injury. However, inflammation can also be induced by tissue stress and malfunction in the absence of infection or overt tissue damage. Moreover, chronic infections can lead to prolonged inflammatory states that can have devastating consequences for organisms. Notably, chronic inflammation is now considered a key component of highly prevalent disorders such as obesity, atherosclerosis, inflammatory bowel disease or cancer. Thus, understanding the etiology of chronic inflammation in the context of highly prevalent disorders is critical for the development of novel therapeutic approaches. Thus, the overarching goal of my laboratory is to use novel mouse genetic tools to define the molecular mechanisms of chronic inflammatory disorders. Since I started my laboratory in May of 2014, we have used the revolutionary CRISPR/Cas9 system to rapidly generate novel genetic tools that allow us to precisely establish the molecular mechanisms involved in the development of chronic inflammatory conditions. In particular, we have used this technology to interrogate the role of non-coding RNAs (lncRNAs, miRNAs) transcribed from regions of the genome associated with the development of inflammatory pathologies.

I am excited about the series of training modules that Dr. Anderson and her collaborators propose to create through this project. These tools will provide important training to help laboratory-based biomedical researchers improve the reproducibility from the earliest stages of their research projects, including recording and pre-processing experimental data. I would be happy to encourage my students to participate as early users of the online training materials, to help provide feedback to ensure that the modules are useful, clear, and relevant to trainees in microbiology and immunology. Please contact me for any additional information.

Sincerely,



Jorge Henao-Mejia M.D., Ph.D.

Assistant Professor of Pathology and Laboratory Medicine

The University of Pennsylvania  
The Institute for Immunology

The Children’s Hospital of Philadelphia  
Biomedical Research Building II/III, Room 321  
Philadelphia, PA 19104

Lab: 215-898-2212

Email:   
[jhena@pennmedicine.upenn.edu](mailto:jhena@pennmedicine.upenn.edu)