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Physiological Sciences GDP

The annual Experimental Biology conference is administered by the Federation of American Societies for Experimental Biology and sponsored by the American Association of Anatomists, American Physiological Society, American Society for Biochemistry and Molecular Biology, American Society for Investigative Pathology, American Society for Nutrition, Inc., and American Society for Pharmacology and Experimental Therapeutics. Additionally, many guest societies are present at the conference.

The cross-society nature of the conference always allows an excellent opportunity for both furthering my understanding of vascular biology as well as appreciating multiple perspectives on my research interest, e.g. cardiovascular physiology is often approached differently by investigators from the ASIP as compared to the APS. However, a very exciting addition to this year's program was symposia directed towards trainee development. Additionally, at my poster presentation, I received positive feedback and very constructive suggestions regarding my research.

The most exciting seminars of the conference were the award lectures. At the Landis Award Lecture, sponsored by the Microcirculatory Society, William Rosenblum gave an excellent seminar the coupled experimental data with a historical perspective that is so beneficial to a junior scientist, such as myself. Highlights included the observation that slight damage to the endothelium caused platelet activation- the first hints at a now commonly held notion that the inner lining of blood vessels actively inhibits clot formation. The most interesting aspect of this observation is that it was initially only investigated as an artifact in an experiment attempting to assay a completely different variable. Additionally, Dr. Rosenblum provided what appeared to be a censure of contemporary vascular biologists by reminding them that it is not appropriate to treat blood vessels of different tissues as the same- supporting this with data demonstrating the specificity of vasodilators in the brain versus the mesentery.

Gaining exposure to symposia sponsored by other societies (i.e. not APS), I attending a fascinating seminar by Donald McDonald on the effects of targeting the vasculature to treat tumors. Dr. McDonald found that attacking the endothelium (with antibody-based pharmacological agents) does not result in tumor destruction, because the smooth muscle cells that normally surround the endothelium provide are not killed and provide a scaffold for new endothelium to form on, keeping the tumor in tact. What made this talk so exciting was that Dr. McDonald's data supported hypotheses about vascular biology that our lab has developed in a completely different experimental system.

Aside from the academic talks, this years EB provided an excellent opportunity for me to develop as a scientist through trainee-directed symposia. Topics of interest included setting up a research laboratory and securing grant funding, managing a dual-career spousal relationship, and mastering the juggling act of a faculty member with a family. These are all issues I have thought about as a junior scientist, but it was so beneficial to hear first hand how someone handled them effectively.

At my poster presentation, I received positive feedback on the novelty of my observations as well as the thoroughness of my work. Additionally, attendees provided very beneficial suggestions for validating my approach to measuring blood flow.

Aside from the formal aspects of the conference, I had wonderful opportunities to socialize with colleagues that even received my first invitation for a post-doctoral fellowship over dinner. In all, the conference was a wonderful experience that was balanced with networking opportunities, furthering my understanding of vascular biology, gaining historical perspectives of my field, and developing an appreciation for how to succeed at life along with becoming a successful scientist.