

Date: July 2, 2014
To: Scientific Management Review Board
From: John Archie Pollock, Ph.D.
RE: Public Comment • Pre-college Engagement in Biomedical Science

Since 1996 I have worked closely with museums to produce and install informal science education exhibits, displays and movies that teach children and the general public about a wide range of biomedical topics including cell biology, neuroscience, tissue engineering, regenerative medicine, diabetes, heart transplant, immune system, Charles Darwin and the fundamental principles of evolution, and stem cells among others. Several of the exhibits are in use in museums across the country and have also been adopted as components of standard curriculum by school districts. A pilot television show has been turned into a hour feature, which is currently in distribution to over 100 public television stations nation-wide reaching millions. Our first iPad/iPhone/Android App received over 600,000 downloads in the first 4 months, and was simply on the topic of broken bones. Collectively, my projects alone have touched tens of millions of people.

My team and I have taught museum educators, and public school teachers how to use these materials and have provided accessible teacher's guides, student workbook and English Language Learner resources. What my team and I do has been demonstrated to be effective as evaluated with children, teachers and parents and published in several papers and reports. What we do is scalable. Since the year 2000, the majority of the research, production and discovery work of how people learn from my creative products has been funded by two NIH R25 Science Education Partnership Awards (R25 5 RR15619 and R25 RR020403). These projects have also allowed me to train several waves of young professionals in how you can teach biomedically relevant fundamental principles of science to children and the general public. These young professionals are on their way to develop their own careers in this arena.

Of all the governmental agencies that support STEM education, the NIH is the only agency that has the depth and capacity to properly address topics as they relate to biomedicine and health. It is only the NIH that has the opportunity to not only inspires young people into realizing that these are topics that they can understand and appreciate, but that they can excel and master. This lets young people see themselves as the next generation of translational scientist and research physician. A fantastic secondary opportunity from SEPA projects done well is that health science literacy improves not only for the students, but also for the public at large. An informed electorate becomes invested in their own health.

Failing to support SEPA and other STEM related activities at the NIH will not only deplete the pool of potential new scientists and biomedical researchers, but will also further weaken our general public understanding of health, modern medicine and biomedical research.

Sincerely,



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