



APS AWARDS FELLOWSHIPS TO SCIENCE TEACHERS TO ENHANCE THEIR CLASSROOM TEACHING SKILLS

Wayne Birch, science teacher at Nashville Big Picture High School Hermitage, TN Wins a National Professional Development Fellowship

ROCKVILLE, MD (June 2018) – As a part of its continuing effort to promote excellence in K-12 science education, The American Physiological Society (APS) awarded its **2018 *Frontiers in Physiology Research Community Leaders Professional Development Fellowships*** to eight high school science teachers in seven states. The *Frontiers in Physiology* program pairs each teacher fellow with an APS member who is a researcher in physiology, giving the teacher a 7-8 week biomedical laboratory experience this summer. Seven researchers volunteered to host their local teachers this year. The award provides each teacher with fellowship payments and travel expenses of up to \$7,200. Travel expenses pay for the fellow to attend the APS annual scientific meeting, Experimental Biology 2019, in Orlando, FL. The scientific conference in the spring attracts more than 11,000 scientists annually.

Wayne Birch, a science teacher at Nashville Big Picture High School in Hermitage, TN is working in the laboratory of **Dr. Annet Kirabo, Ph.D.** an APS member and a professor at the **Vanderbilt University School of Medicine**.

By spending the summer learning research techniques and following the scientific process from start to finish, the teachers gain a greater understanding of science, which they then pass along to their students during the school year. Teachers learn about the clinical relevance of the research and the context of how it is applied to human health. This is an aspect of translational, or “bench to bedside,” research. They also learn effective education strategies that help them translate their research experience into classroom lessons.

“For many teachers this summer experience marks the first time they have ever participated in scientific research,” said Marsha Lakes Matyas, Director of APS Education Programs. “It gives them a new perspective on their teaching and the importance of hands-on, inquiry-based learning, which they can carry back to their students.”

Frontiers teacher fellows explore effective teaching strategies, understand the research process, and strategically enhance classroom lessons. From April 2018 to April 2019, teachers are actively involved and engaged in course assignments that help develop their leadership skills and dynamic discussions with their *Frontiers* colleagues across the nation.

As a class, they encourage and share teaching strategies and challenges in this virtual professional learning community. In the fall, the *Frontiers Community Leaders* will enhance and refine their leadership skills as they explore ways to share what they have learned about research within their own school communities and at regional, state, and national meetings. They will be challenged to share what they have learned with policyholders and communities of practice within the Life Science Teaching Resource Community (www.lifesciTRC.org). This award provides each teacher with support to develop a workshop to be presented at a science educator conference of their choice.

TRAINING SCIENCE TEACHERS FOR MORE THAN TWO DECADES

The *Frontiers* program began in 1990 with 10 high school science teachers who received fellowships for eight weeks of summer research in a physiology laboratory. Since then, more than 600 teachers and 270 APS members nationwide have participated in the program.

The program has helped teachers increase their understanding of scientific research methods and the importance of biomedical research. It also has helped teachers incorporate best teaching practices -- those that promote both excellence and equity in science education -- as recommended by the National Research Council's National Science Education Standards.

Frontiers in Physiology was recognized in April 2010 as a Model for Excellence in Science Education" by the National Lab Skills Symposium convened by the Center for Excellence in Education. *Frontiers' in Physiology* is sponsored by the APS, the National Institutes of Health (NIH) National Institute of General Medical Sciences (NIGMS), and the [Science Education Partnership Award Program](#).

The *Frontiers* program is one of several programs that APS administers to improve science education by building connections between teachers and researchers. The program announcement for the 2018 Fellowship is available online on the [Frontiers](#) website. For more information, visit [APS education programs](#).

The American Physiological Society is a professional scientific membership organization devoted to fostering scientific research, education, and the dissemination of scientific information. The APS supports a variety of educational activities including programs and fellowships to encourage the development of young scientists and science educators, with a particular focus on women and underrepresented minorities.



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