

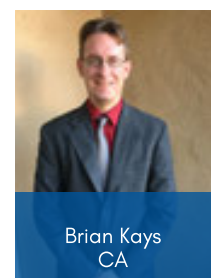
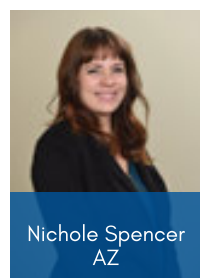
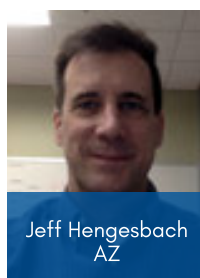
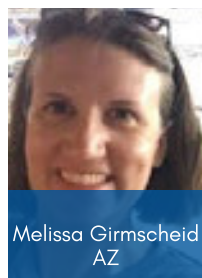
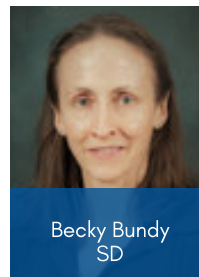
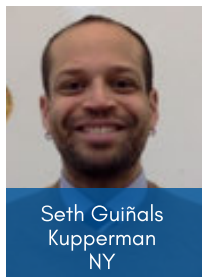
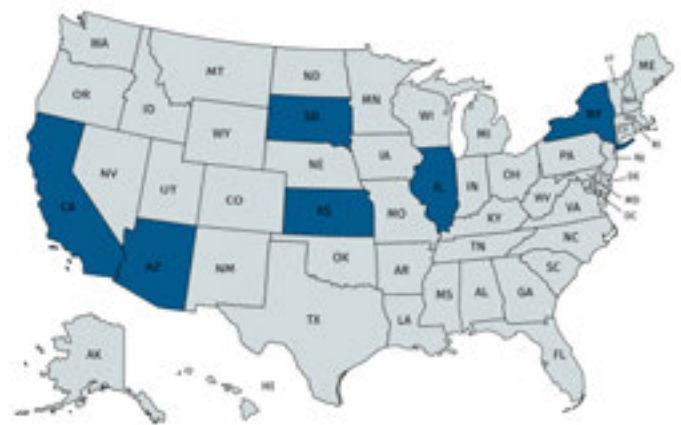
2018 AAPT/AIP Master Teacher Policy Fellowship

The American Association of Physics Teachers and the American Institute of Physics is pleased to announce the 2018-2019 AAPT/AIP Master Teacher Policy Fellowship.

This fellowship brings together a dozen **K-12 teachers of physics and physical science** to Washington, DC to develop and revise their own plans for effecting change in policy that relates to physics education. The program aims to support and empower teacher-driven efforts to improve education policy on topics including, but not limited to, standards for learning, instructional resources, assessments, recruitment and retention of physics teachers, professional development, and teacher preparation.

Across eight days in July, these fellows will work to learn about how federal, state, and local government interact, and take home a plan to implement for the 2018-2019 school year.

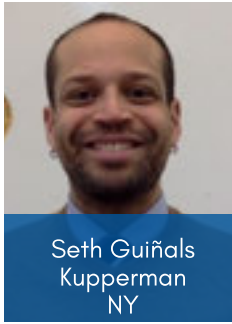
Looking for your local Fellow? Pages 2-4 have details on each Fellows' project proposal. See <https://www.aapt.org/k12/> for further details.



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2018 AAPT/AIP Master Teacher Policy Fellowship



Seth Guñals
Kupperman
NY

"The backbone of our country's industrial, technological and economic future is the students we graduate in the STEM fields. In order to provide the greatest equity, opportunity and deepest understanding of the nature of the scientific endeavor, we rely on a capable teaching force. To **overcome our nationwide shortage of committed STEM teachers**, we must implement supports on the municipal, state and national level to incentivize our most promising young people to be instructors of STEM so they can educate and inspire our custodians of future knowledge. "



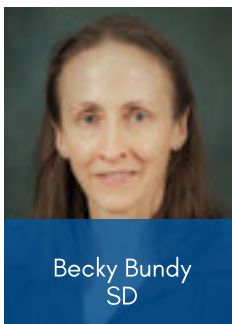
Katie Martino
NY

"I am looking forward to learning from my colleagues and initiating positive change within physics education policy. Quality physics education is imperative at all grade levels (K-12). With **proper support for teachers and proper guidance from teachers**, there is limitless potential for our students to create the next great innovation(s). Physics education policy possesses the power and responsibility to create that opportunity for our students. The results from these changes could potentially influence science education and science progress for our entire country."



Julie Dahl
SD

"I'm looking forward to spending time with other like minded-individuals and building a plan to make a difference in science education policy. Currently, there is relatively little priority given to teaching and learning science in elementary grades. However, research shows the importance of early experiences in science to function productively as problem-solvers and an increased likelihood to choose science courses in high school (and beyond). This fellowship will provide an opportunity to advocate for policies to provide **high-quality elementary science programs**."



Becky Bundy
SD

"I look forward to making the connections and building the relationships that will enable me to make a meaningful impact on science in our elementary classrooms. Elementary students are naturally excited about science. Instead of pushing science to the side, making room for ever more math and English language arts, we should be **integrating science throughout the K-6 curriculum**. Only by leveraging the natural curiosity of our young students will we truly engage them in meaningful learning experiences. Additionally, science is a natural means for developing the critical thinking, logical argumentation, and thoughtful questioning skills required for informed participation in our representative democracy."



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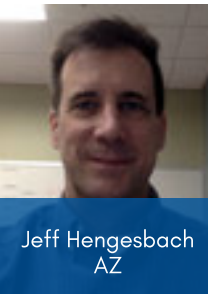
Melissa Girmscheid
AZ

"I love helping teachers find new ways to inspire their students. Physical science is rich with opportunities to spark creativity and problem-solving in our students and all that is required is the training for teachers. Helping **elementary teachers integrate more physical science** in their classrooms will, in turn, encourage more students to engage in the study of physics when they reach high school. I am looking forward to making important connections that my team and I can bring back to Arizona."



Nichole Spencer
AZ

"My policy focus motivates me because I am a product of an Arizona education that lacked access to a high school physics teacher. I know first hand how missing a physics experience can make college more difficult and I know first hand what it's like to lack the content knowledge needed to teach physical science. Through continued graduate education, support from physics professionals, and hard work and perseverance, I was able to build both my content knowledge and confidence in teaching physical science. College courses and teacher preparation programs should adequately prepare K-12 educators to teach physical science, and all students should have **access to high-quality physical science instruction.**"



Jeff Hengesbach
AZ

"Through this fellowship I hope to support **high-quality STEM teacher professional development.** I look forward to gaining confidence in my skills to influence policy and build a case for STEM teacher support."



Amanda Whitehurst
AZ

"Arizona is quickly becoming a physics desert. With few teachers left who are certified to teach physics, entire schools have decided it is simply easier to not offer physics to their students. Additionally, a decade of underfunding schools has created a teacher shortage and taken opportunities for professional development from teachers. Arizona students deserve teachers who are well prepared to teach all subjects and well compensated for their hard work on behalf of students. We would like to encourage policy that addresses both these issues. We want to **help create qualified physics teachers** by providing the financial assistance needed to help fill these high need positions."



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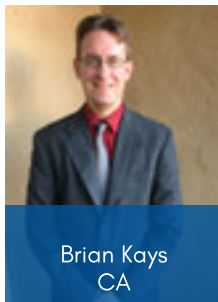
"I am driven by what education can and should be for every child. With a policy focus, we will be able to take in the whole picture and work together to **address the most challenging barriers to moving physics and science education** toward the vision put forth by the National Research Council. I am looking forward to being a member of this outstanding team of educators and leveraging the knowledge, experiences, and expertise of every member to help address the collective issues we identified. The resources and expertise of AAPT and AIP connect us, support us, and provide input throughout the process."



"I am excited to help other teachers create lessons with **authentic engineering practices** that align with **NGSS** in a project-based setting. I look forward to being able to grow as a teacher leader and learn how to successfully advocate for teachers."



"As a father to a young daughter, I have watched her experience **negative biases** on her ability to complete science, math, and engineering tasks simply **because she is a girl**. While I knew this problem existed, her struggles pushed me to learn more about the problem and recognize that something larger needs to be done. I am most looking forward to having the opportunity to network with other inspired individuals who are looking to make a difference."



"I have taught in all girls schools for almost 13 years and have seen the great need for **more women in the field** to demonstrate the possibilities of what is possible not only in Physics, but in all STEM fields. I am looking forward to the opportunity to grow as an educator, to learn ways to improve my field, and to gain great insight into how policy can converge with what is best for education."



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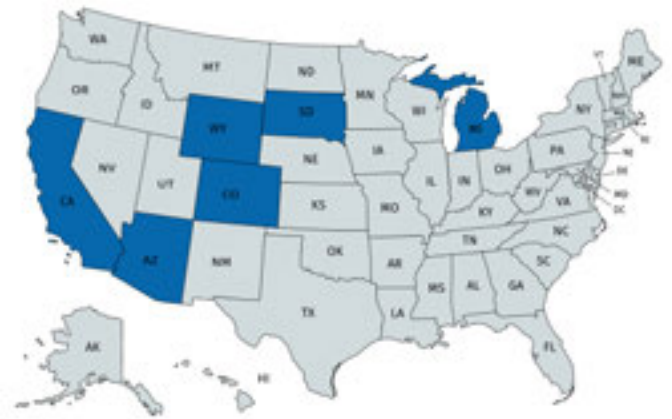


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Henry Fung
CA



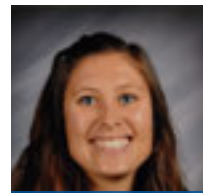
Ashleigh Hoff
SD



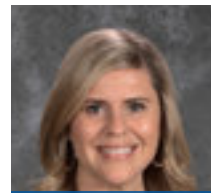
Brianna
Schmidt
SD



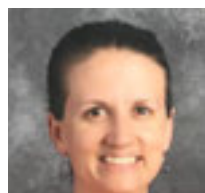
Becky Stober
CO



Shannon
Wachowski
WY



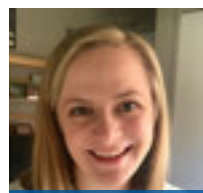
Julie Hatling
SD



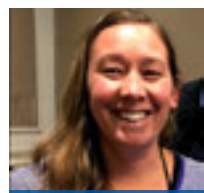
Melissa
Girmscheid
AZ



Ann Anderson
SD



Vanessa
Wentzloff
MI



Alisa Grimes
CO



Steven Dye
MI

2019 AAPT/AIP Master Teacher Policy Fellowship



Henry Fung
CA

"Currently at least half of my best high school physics students are female. However, only a small percentage of these students will study physics in college. **I would like to inspire more female and underrepresented students to continue their success in college and beyond.** I look forward to meeting teachers from across the country to promote physics education to underrepresented students."



Ashleigh Hoff
SD

"I am personally motivated by our policy focus because as a 2nd grade teacher, I see the innate desire for children to be involved in hands on science education. It is absolutely vital for today's learners to be involved in science learning to not only boost their questioning skills and knowledge but also to open up a world to them that they might not otherwise be exposed to. I'm looking forward to sharing information and resources with my community members and colleagues on implementation of science education and also **finding ways to advocate for science education at the lower elementary level.**"



Brianna Schmidt
SD

"My heart is in early science education. It is one of the few areas that young learners can relate to naturally and extends to almost every other aspect of learning. I look forward to finding **tools and resources to educate my colleagues and community about the importance of teaching science specifically in K-2.**"



Becky Stober
CO

"The lack of highly qualified physics teachers within secondary education personally motivates me because it leads to misunderstanding and unfounded dislike of the subject as a whole. Additionally, I think **it is important the teachers are treated as professionals with expertise to share.** Creating **research-based, professional development teams would provide that opportunity and compensation to honor the time of such teachers.** I am excited to learn more about the policy side of education and how I, as a teacher, can help share and influence future policies that better support student success."



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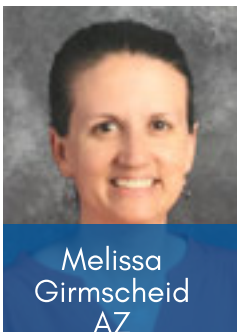
Shannon
Wachowski
WY

"As a science teacher in a rural high school **I was the only physics teacher in the district.** Finding a community of educators through a professional development program called Streamline to Mastery helped me grow as an educator. I want to help create programs like this for other physics educators. I want to be involved in making real, lasting change that will **create opportunities for physics educators.** I'm also looking forward to meeting others who are passionate about education, being a part of a strong community and learning from the other participants."



Julie Hatling
SD

"I am the K-4 Principal in my school district and have a son in one of our schools. I look forward to working on policy that could **bring more science education to our elementary schools in South Dakota.** I am looking forward to connecting with a network of like-minded individuals who offer ideas and support that could further our policy."



Melissa
Girmscheid
AZ

"The number of physics teachers in Arizona has dwindled over the past decade, meaning our students are missing out on the opportunity to take this valuable foundation course. As someone who chose her career path after taking physics in high school, **I know that Arizona is missing the chance for future physics teachers and other STEM professionals by not providing access to high school physics.** I am looking forward to the opportunity to learn from my colleagues and the organizations and agencies we visit. This fellowship will build my network of physics teacher nationwide and give me the policy knowledge to further our progress here in Arizona."



Ann Anderson
SD

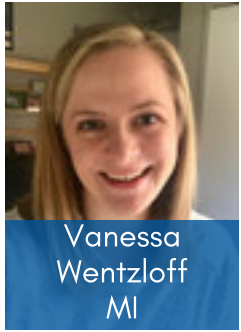
"I think of the possibilities of more students being exposed to the wonders of learning through science. Just imagine what could be if all students had more opportunities and more experience with science at the elementary level. **The idea of science being a priority in elementary education is exciting and something to strive for.** I'm looking forward to working with my cohort from South Dakota. The collaboration with leaders in science and education who can make a difference and meeting our state congressional leaders is something I am looking forward to. This is how change can occur."



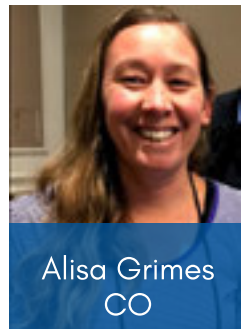
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"I want more teachers to have a say in what happens in the local and state governments. These policies directly affect us in the classroom. **I want more focus to be on the support systems to educate children and graduation requirements that are realistic to the 21st century workforce.** I am so excited to meet likeminded people in education who also want to give a voice to teachers. I am also looking forward to being in Washington, DC and meeting so many people (such as representatives and government departments) that directly affect education who I can share my story with."



"One in six Colorado teachers will leave the field within their first 5 years; this is why I am interested in **working on policy around ways to create a community to support physics teachers.** The AAPT master teacher policy fellowship program will continue to help me grow as an educator. I look forward to making a significant contribution to the field of education through my work on science education policy."



"I want everyone to have access to a scientific education and to become scientifically literate, but more importantly I want everyone to enjoy and to be inspired by science like I am. **My policy focus will give every student the opportunity to experience physics for themselves.** To meeting new people who are as passionate and as excited about physics education as I am and to learn new ways in how I can improve physics education for others."



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2018 - 2020 Program Leads & Advisors



Mark Hannum

Mark Hannum is the incoming AAPT K-12 Program Manager. Formerly, he was a lab technology teacher at Thomas Jefferson High School for Science and Technology, and was an Einstein Fellow at the NSF (2009-2010).



Rebecca Vieyra

Rebecca Vieyra is the former AAPT K-12 Program Manager. She is a doctoral student at the University of Maryland, currently manages, and was an Einstein Fellow at NASA (2014-2015).



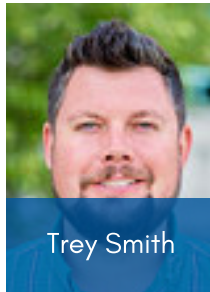
Bethany Johns

Bethany Johns, Ph.D., is a government relations advocacy associate for the AIP.



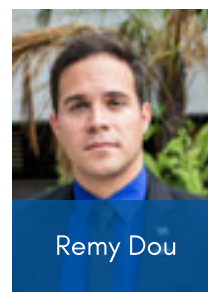
Jeff Milbourne

Jeff Milbourne, Ph.D., is an independent consultant and was an Einstein Fellow in the office of Representative Mike Honda (2014-2015).



Trey Smith

Trey Smith is a doctoral student at Northwestern University, and was an Einstein Fellow in the office of Senator Kirsten Gillibrand (2014-2015) before becoming a Library of Congress Teacher Fellow (2015-2016).



Remy Dou

Remy Dou, Ph.D., is a professor of science education at Florida International University, and was an Einstein Fellow at the NSF (2011-2013).



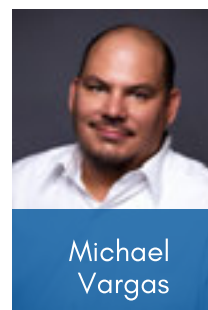
Rebecca Hite

Rebecca Hite, Ph.D., is a professor of science education at Texas Tech University, and was an Einstein Fellow in the office of Representative Danny K. Davis (2012-2013).



Kelli Gamez Warble

Kelli Gamez Warble is a graduate student in educational policy at the University of Arizona and a Teacher-in-Residence for the Department of Physics.



Michael Vargas

Michael Vargas is a high school physics teacher and policy advocate in the Arizona "Cactus Caucus."



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