Presenter Biographies

Leslie Atkins, Assistant Professor Science Education & Physics
California State University , Chico
Dr. Atkins earned her Ph.D. from the University of Maryland in 2004, where she worked with the Physics Education Research Group studying analogies in scientific discourse. Prior to coming to Chico State , she worked in informal science education at Dartmouth College and in research-based curriculum development and teacher professional development at LessonLab Research Institute. She is currently an assistant professor in the physics and science education departments at California State University , Chico . Her interests lie in understanding of what it means to “think like a physicist” and creating classrooms and curriculum that promote this kind of thinking, particularly for the preparation and professional development of K-12 teachers.

Anita Bernhardt, Science & Technology Specialist
Maine Department of Education
Ms. Bernhardt serves as the Science and Technology Specialist for the Maine Department of Education. In this role, Ms. Bernhardt collaborates on state and regional efforts to strengthen science and technology education. Ms. Bernhardt is also involved in the development of MEA and the MHSA, Maine’s State Science Assessments. Before stepping into the role of Science and Technology Specialist, she coordinated the review of Maine’s Learning Results,the state standards document. Ms. Bernhardt taught middle school science for 23 years in both Maine and New York State. Ms. Bernhardt earned her M.Ed from the Harvard Graduate School of Education and her B.S. in Biology from Bates College.

Patricia Bernhardt, Life Science Teacher
James F. Doughty Middle School , Bangor , Maine
Ms. Bernhardt, BA in Biology (1979) and a MA in Curriculum (1988) and Instruction for California State University, has been teaching for 21 years at the high school and middle school levels, and is currently a grade seven life science teacher at James F. Doughty Middle School in Bangor, Maine.  During her time at the James F. Doughty Middle School , she has coached spring track at the middle school level and field hockey at both the high school and middle school level.  She has been student council advisor, started a science club, and ran the science fair when there was a state competition.  Additionally, along with her 8th grade science colleague, she started an aquaculture tank which students keep in operation to demonstrate the fragility and stability of ecosystems.  She has written two funded grants for the aquaculture tank.  Before moving back to Maine , Patricia taught at the Bryant Alternative High School where she chaired the one person science department.  During this time, the school had on-site day care to accommodate the number of students already parenting.  As a result, there was a large gender imbalance (mostly women) in her classes.  One of the goals of this program was to encourage students to continue their education. The population of this school was culturally and ethnically diverse.

Yvonne Davis, Education Program Coordinator
Acadia Partners for Science and Learning
Ms. Davis was formerly Director of Career and Technical Education for the State of Maine .  She is experienced in the development of programs that meet the needs of a diverse population of learners.  At Acadia Partners project she is responsible for coordinating work with schools and individual teachers and participates in teacher observation and in curriculum development.

Diane Ebert-May, Professor, Plant Biology
Michigan State University
Dr. Ebert-May is a Professor in the Department of Plant Biology at Michigan State University . She provides national leadership for promoting professional development, evaluation and improvement of faculty, postdoctoral scholars, and graduate students who actively participate in creative research about teaching and learning in the context of their discipline. Ebert-May’s research team is developing and testing a model for faculty change in teaching undergraduate biology, and is investigating the impact of students’ design and use of models to build conceptual connections. She is PI of project FIRST III (Faculty Institutes for Reforming Science Teaching), an NSF-funded project that is developing an assessment database that will store assessment data from undergraduate science courses. Her most recent NSF-funded project is FIRST IV, a professional development program to help postdoctoral scholars create their first introductory biology course in preparation for their academic position. Her recent book, Pathways to Scientific Teaching, is based on active learning, inquiry-based instructional strategies, assessment and research. She teaches plant biology and introductory biology to majors, and environmental science to non-majors in large enrollment courses, and a graduate-level seminar on scientific teaching. Her plant ecology research continues on Niwot Ridge , Colorado , where she has conducted long-term ecological research on alpine tundra plant communities since 1971.

Elizabeth Haynes, Mathematics Teacher
Troy Howard Middle School , Belfast , Maine
Ms. Haynes has 20+ Years of teaching experience (from Grade 2 to college) in both mathematics and life/physical sciences.  She is presently employed as a Title I mathematics teacher for sixth grade at Troy Howard Middle School in MSAD #34, Belfast .  She has been active in building a more enriched environmental education curriculum for grades 6-8 by advising an Environmental Club.  This year she has also worked with the Future Teachers’ Club at the University of Maine and some MST students to develop a pen pal mentorship program in mathematics.

W. Tad Johnston , Mathematics Teacher
William S. Cohen School , Bangor , Maine
Mr. Johnston, a mathematics educator for 29 years, currently teaches mathematics to seventh and eighth graders at the William S. Cohen School in Bangor .  He has taught mathematics in grades 5-12 in public and private schools and methods courses at the University of Maine and the College of the Atlantic .  He also worked as a mathematics facilitator for the Maine Mathematics and Science Alliance during the five-year State Systemic Initiative and recently spent seven years as a mathematics specialist for the Maine Department of Education.  He received the Presidential Award for Excellence in Mathematics Teaching while at Orono High School in 2000 and was named the Employee of the Year for the Maine Department of Education in 2004.  Tad is an active member of the Association of Teachers of Mathematics in Maine and has served ATOMIM as Regional Rep, Newsletter Editor, and President.

Mary Madden, Associate Research Professor, University of Maine

Carolyn Malstrom, Director of Curriculum for Biomedical Sciences
Project Lead The Way, Inc.
Dr. Malstrom joined Project Lead The Way, Inc. in January 2006. As the Director of Curriculum for the Biomedical Sciences she oversees the development of the curriculum for the courses in the Biomedical Sciences™ Program and she assists in the professional development of the teachers implementing the courses. Dr. Malstrom earned her Ph.D. in Molecular Cell Biology from The Pennsylvania State University. Prior to joining Project Lead The Way she taught Biology, Advanced Placement Biology, and Biotechnology for eight years at Patapsco High School in Baltimore County , Maryland . While working at Patapsco High School she did extensive curriculum writing for both the Office of Science and the Office of Instructional Technology. She presented at several workshops and taught numerous professional development courses in both science and technology integration for Baltimore County teachers. She was awarded a Distinguished Service Award from the Teachers Association for Baltimore County for her work on a biotechnology curriculum. In addition to teaching at the high school, Dr. Malstrom was an adjunct faculty member at the Community College of Baltimore County where she taught General Biology, Introduction to Biology, Microbiology, and Genetics. Before beginning her teaching career, Dr. Malstrom conducted research in Molecular Immunology at the University of Maryland , Baltimore ; the United States Department of Agriculture Beltsville Agricultural Research Center; and the National Animal Disease Center .

Sarah Nelson, Assistant Research Professor
Senator George J. Mitchell Center for Environmental and Watershed Research at the University of Maine .
Dr. Nelson attended Johns Hopkins University in Baltimore and Columbia University in New York , graduating from Columbia with a Bachelor’s Degree in Art History.  After working in museums and volunteering with the Water Quality Monitoring program on the Assabet River in Massachusetts , she moved to Maine and received Master’s and Ph.D. degrees in Ecology and Environmental Sciences at the University of Maine . Dr. Nelson was a Canon National Parks Science Scholar and a Fitz Eugene Dixon fellow. She is currently a professional geochemist with a focus on mercury in the environment, and recently co-edited a special issue of Environmental Monitoring & Assessment (11 papers) dedicated to mercury biogeochemistry at Acadia National Park . She is a veteran of a several citizen science projects and currently works with Acadia Partners for Science and Learning to develop research projects that connect teachers and schools with scientific research.

Edward Prather, Associate Research Scientist and Senior Lecturer
Director of the Center for Astronomy Education, University of Arizona
Dr. Edward E. Prather is an Associate Staff Scientist with Steward Observatory and Senior Lecturer in the Department of Astronomy at the University of Arizona.  In 2000 earned his Ph.D in physics from the University of Maine. From 2001 through 2004 he served as co-director of the Conceptual Astronomy and Physics Education Research team known as CAPER, at the University of Arizona.  Since 2004 he has served as Executive Director of the NASA and NSF funded Center for Astronomy Education (CAE) at the University of Arizona.  Through collaboration with members of CAPER and CAE he has lead several rigorous research programs to investigate student understanding and learning difficulties in the areas of astronomy, astrobiology, physics, and planetary science.  The results from this research are used to inform the development, evaluation and dissemination of innovative instructional strategies and public outreach activities designed to intellectually engage learners and significantly improve their understanding of fundamental science concepts. Dissemination of this work is provided through CAE’s research-guided multi-day “Teaching Excellence Workshops”, which have been attended by over 1000 college faculty around the nation.  Recently members of CAE were awarded an NSF CCLI Phase III grant to create the Collaboration of Astronomy Teaching Scholars (CATS) Program.  Through the CATS program CAE has created a national collaboration of Astronomy faculty, post-docs, graduate and undergrad students who are actively engaged in fundamental research on issues of teaching and learning.

Alice Putti, Chemistry Teacher
Jenison High School , Jenison , Michigan
Ms. Putti has been teaching chemistry and AP chemistry at Jenison High School for the last 14 years.  In 2006, Alice was admitted to the first teacher cohort of Target Inquiry, an NSF funded professional development program at Grand Valley State University As part of the program, Alice and her colleagues each published two inquiry chemistry activities that met the Michigan High School Chemistry Content Expectations. For the last two years, Alice has presented on her inquiry work at national, state and local conferences.  Alice is also the founder of the West Michigan Chemistry Teacher\*s Association and a Reader for the AP Chemistry Exam. In her spare time, Alice enjoys reading, running, and spending time with her family.

Sarah Toman, Chemistry Teacher
Western Michigan Christian High School , Muskegon , Michigan
Ms. Toman as been teaching Chemistry and Algebra courses at Western Michigan Christian High School for the last 5 years and prior to that taught at Covenant Christian Academy in Colleyville Texas for two years.  In 2006, Sarah was admitted to the first teacher cohort of Target Inquiry, an NSF funded professional development program at

Grand Valley State University As part of the program, Sarah and her colleagues each published two inquiry chemistry activities that met the Michigan High School Chemistry Content Expectations.  For the last two years, Sarah has presented on her inquiry work at national, state and local conferences.  In her spare time, Sarah enjoys spending time with her family, being involved with her church, and traveling.

Tracy Vassiliev, Applied Science and Accelerated Physical Science Teacher Bangor Middle schools, Bangor Maine
Ms. Vassiliev, BS in Biology (1992), MS in Marine Bioresources (2006) and a MEd in Middle School Science and Gifted and Talented (2007), was initially a research scientist for the Lobster Institute in Orono, Maine but now is wrapping up her seventh year of teaching at the Bangor Middle Schools as a grade 8 Applied Science and Accelerated Physical Science teacher. She is also the gifted and talented teacher at both middle schools. Tracy has worked as an RET (research experience for teachers) for the University of Maine Sensors ! Program, and has been working with the University of Maine ‘s Forest Bioproducts Research Initiative every summer since 2007. Tracy has had the opportunity to present at the national level on several occasions throughout graduate school, at the National Marine Educators Conference in Portland , ME in 2007 and most recently co-presented at the 2008 National Science Teachers Conference in Boston , on collecting and using data in the middle school classroom. Tracy has worked with the Challenger Learning Center Education Committee for about six years and is currently involved with the C’s to Shining C workshop:  Connecting Climate Change to Curriculum, funded by the Maine Department of Education through a Mathematics and Science Partnership Grant.

Bill Zoellick, Program Development Director
Acadia Partners for Science and Learning
Mr. Zoellick is Program Development Director at Acadia Partners for Science and Learning.  He received an M.A.ed. degree from the University of Illinois where he studied curriculum evaluation with Dr. Robert E. Stake at the Center for Instructional Research and Curriculum Evaluation. After graduating from Illinois he pursued a career in computer science and is the author of a widely used text on file structures.  He has returned to educational research to work with natural resource education. Mr. Zoellick designs and administers citizen science research programs that connect with teachers and schools. He also chairs a working group within the National Park Service that tracks citizen science activity across the NPS system.