I am honored to introduce the Summer 2015 issue of Science Education and Civic Engagement: An International Journal. This special issue will serve as a lasting tribute to Alan J. Friedman and his legacy of advancing science education, both in and out of the classroom. Alan’s work at and with different institutions, including the Lawrence Hall of Science, the New York Hall of Science (NYSCI), and the National Center for Science and Civic Engagement (NCSCE), often crossed disciplinary boundaries but always focused on the importance of making learning real and relevant.

In my opening remarks to the “Celebrating the Life and Work of Alan Friedman” Thinking of Alan Friedman memorial held at NYSCI on Saturday, June 14, 2014, I noted how I turned to Alan for his advice, guidance, wisdom, and expertise after I became President of that institution in 2008. He had retired from NYSCI in 2006, after a wonderful 22 years of service. In my mind, Alan was a larger-than-life legend. What I found when I met Alan was a humble man who exhibited a fundamental humanity in his approach to life and work. He did not realize how much his presence, his passion, and his vision for engaging the public in science would continue to influence what we do day in and day out at NYSCI and throughout the field.

The issue begins with personal memories from Alan’s colleagues and is followed by scholarly pieces on a range of informal science education projects and activities, involving engagement by students of all ages in issues of civic importance. Alan was the inspiration and founding director for SENCER-ISE (Science Education for New Civic Engagements and Responsibilities-Informal Science Education), an initiative of NCSCE to encourage learning across the sectors. This issue features three contributions by SENCER-ISE partners.

In the first section, Ellen Mappen, Sheila Grinell, Eric Siegel, Alan Gould, Wm. David Burns, and Priya Mohabir all speak to the multifaceted contributions Alan made to science education and to other fields. David Ucko bridges the gap between this section and the next by looking at how basic tenets of the SENCER framework align with those of informal science education. This section ends with a reprint of “In Memoriam,” which David Burns wrote on May 5, 2014 to share the sad news of Alan’s death with the SENCER community.

Two point of view articles open the next section. Martin H. Smith, Steven M. Worker, Andrea P. Ambrose, and Lynn Schmitt-McQuitty address the benefits that out-of-school science programming can have on the academic achievement of K–12 students. Michelle Kortenaar, Allison Sribarba, and Tamar Kushnir discuss a SENCER-ISE project that engages undergraduate students in developing tools for parents and other caregivers to encourage children’s scientific exploration.

The issue also features seven project reports, which show the diversity of work in informal science education and the many connections with institutions of higher education. Jennifer A. da Rosa, Sarah S. Durkin, Rachel Hetlyn, Mark Murray, and Angela Leimkuhler Moran focus on United States Naval Academy undergraduates who facilitate informal STEM education outreach events for K–12 students and teachers and on the impact of this civic engagement on the Naval Academy students. Jill Denner, Jacob Martinez, Heather Thiry, and Julie Adams describe an afterschool program that engages Latino elementary school students in computer science concepts. Michelle Kortenaar, Allison Sribarba, and Tamar Kushnir discuss a SENCER-ISE project that engages undergraduate students in developing tools for parents and other caregivers to encourage children’s scientific exploration.

Robert E. Pyatt introduces the concepts behind his informal science outreach workshops called “Weird Science,” and discusses some of the challenges he has encountered in his work. Kathryn Stofer explores the existence of agriculture-related content in science centers.
and the potential support around research efforts for global sustainable agricultural production that also could encourage public involvement and action on the issue. Nellie Tsipoura and Jay Farrell Kelly describe their SENCER-ISE project, in which community college students and citizen scientists work together in a forest conservation effort.

Finally, two research papers provide the results of connections between informal science education and higher education institutions. Linda Fuselier writes about an intergenerational program focusing on the restoration of forest health ecosystems that involves a general education environmental science course, an outdoor education center, and elder participants in a SENCER-ISE project. Jenifer Perazzo, Carl Pennypacker, David Stronck, Kristin Bass, Jesus Heredia, Rainbow Lobo, and Gabriel Ben-Shalom provide results from Afterschool Science and Math Integration (ASAMI), a project that integrates middle school common core mathematics concepts and the Next Generation Science Standards to engage English Language Learners.

I join David Burns in thanking all the contributors to this issue; the articles they have written show the diversity of the field that we know as informal science education and the value of working across sectors to enhance learning, not just by students and the public who visit science centers or view science media but also by educators. This was Alan’s goal and his legacy.

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Dr. Margaret Honey joined the New York Hall of Science (NYSCI) as President and CEO in November of 2008. Under her leadership, NYSCI has adopted Design-Make-Play as its signature strategy to promote STEM engagement and learning. The defining characteristics of this sensibility – deep involvement with content, experimentation, exploration, problem solving, collaboration and curiosity – are the very ingredients that develop inspired and passionate STEM learners.

Throughout her career, Dr. Honey has been widely recognized for her work using digital technologies to support children’s learning across the disciplines of science, mathematics, engineering and technology. Prior to joining NYSCI, she was vice president of Wireless Generation, an education technology company. Earlier, she spent 15 years as vice president of the Education Development Center (EDC) and director of EDC’s Center for Children and Technology. While at EDC, Dr. Honey was the architect and overseer of numerous large-scale projects funded by organizations including the National Science Foundation, the Institute for Education Sciences, The Carnegie Corporation, The Library of Congress, the U.S. Department of Education, and the U.S. Department of Energy. She also co-directed the Northeast and Islands Regional Education Laboratory, a 40 million dollar federally-funded initiative designed to help educators, policy-makers and communities improve schools by helping them access and leverage the most current research about learning and K–12 education.

A graduate of Hampshire College with a doctorate in developmental psychology from Columbia University, Margaret Honey has helped to shape the best thinking about learning and technology with special attention to traditionally underserved audiences. She has directed numerous research projects including efforts to identify teaching practices and assessments for 21st century skills, new approaches to teaching computational science in high schools, collaborations with PBS, CPB and some of the nation’s largest public television stations, investigations of data-driven decision-making tools and practices, and with colleagues at Bank Street College of Education, she created one of the first internet-based professional development programs in the country. From her early involvement in the award-winning and groundbreaking public television series “The Voyage of the Mimi” to her decade-long collaboration on the education reform team for the Union City (NJ) school district, Margaret Honey has led some of the country’s most innovative and successful education efforts.

Dr. Honey has shared what she’s learned before Congress, state legislatures and federal panels, and through numerous articles, chapters and books. She currently serves as a board member of National Academies of Sciences, Board on Science Education, and on behalf of the National Research Council, has chaired the consensus study Toward Integrated STEM Education: Developing A Research Agenda, the workshop report on IT Fluency and High School Graduation Outcomes, and co-authored a report on Learning Science: Computer Games, Simulations, and Education. Dr. Honey also serves as a member of the National Science Foundation’s Education and Human Resources Advisory Committee.