

Ethan Allen, Ph.D.

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- Foster shared vision, data-driven decision-making, and mutually beneficial collaborations
- Advocate, liaison, and nurture learning synergies among science, education, and funding communities
- Share expansive knowledge of and skills in research, systems analysis, and communication

LEADER

Design, develop, and implement a broad spectrum of powerful science education programs

Principal Investigator: (1) *Water for Life*; (w4l.prel.org), advance community-based science education in the United States Affiliated Pacific Islands via international \$2.6M, National Science Foundation project; (2) *Food, Energy, & Water: Leveraging & Organizing Toward Self-sustainability*, awarded \$204K supplement

Director of External Evaluation: *Ike Wai*, University of Hawai'i 5-year, \$20M NSF EPSCoR project, monitor progress in modeling Hawai'i's groundwater resources and educating UH students in stewardship

Co-Principal Investigator: (1) *Middle School Science Systemic Change Partnership*, built collaboration benefiting ~75,000 students in four school districts, (2) *Partnership for Inquiry-Based Science*, re-vitalized science in all Seattle public elementary schools, (3) *Family Science*, nurtured university-school district alliance

Founding Director: *University of Washington's K-12 Institute for Math and Science Education*, inaugurated coalition among 140+ UW science and math education outreach programs

Founder: *Chicago Science Literacy Network*, aligned two dozen independent organizations for enhanced delivery of services to Chicago Public Schools

Science Director: *Kaleidoscopes: Reflections of Science and Art*, co-conceptualized and co-developed Smithsonian-sponsored, NSF-funded traveling exhibition that toured internationally for three years

FUND RAISER

Articulate common interests effectively among science, education, and funding communities

Federal & State

National Science Foundation: \$300,000 (2017), \$204,000 (2015), \$2,599,000 (2012), \$1,026,000 (2001), \$1,575,000 (1998), \$250,000 (1994), \$165,000 (1994), \$67,000 (1985)
National Oceanic and Atmospheric Administration: \$146,000 (2016)
Illinois State Board of Education: \$1,000,000 (1994)
U. S. Department of Energy: \$350,000 (1996), \$650,000 (1995)
Eisenhower Program: \$50,000 (1996)
University of Hawaii (NSF EPSCoR evaluation contract): \$457,000 (2016)

Corporations

The Boeing Company: \$75,000 (2001), \$150,000 (1999)
ConAgra, Inc.: \$70,000 (1991)
Bristol-Myers Squibb: \$100,000 (1991)

Private Foundations

Bullitt Foundation: \$40,000 (2003)
Seattle Foundation: \$40,000 (2002)
Dr. Scholl Foundation: \$50,000 (1991)
Amoco Foundation: \$50,000 (1997), \$50,000 (1996)
Seaver Institute: \$262,000 (1999), \$50,000 (1999)
Howard Hughes Medical Institute: \$465,000 (2001), \$500,000 (1998)

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COMMUNICATOR

Make complex materials accessible to broad audiences through multiple media and formats

Host: *Likable Science*, weekly live-streamed, half-hour-long series of >150 video interviews on how aspects of STEM are integral and fascinating parts of all people's daily lives (2013 – present). See <https://www.youtube.com/playlist?list=PLQpkwcNJny6k-dYsOV3JMmWWn5ObapwCy>

Presenter: Pacific Education Conf., PRIMO, Global STEMx Conf., CDC's Reducing Disaster Risk conf., American Association for Advancement of Science, National Science Teachers Association, Hawaii Science Teachers Association, ASTC, Society for Neuroscience, Chicago public radio, etc. (1978-present)

Workshop Facilitator: Smithsonian Institution, Harvard University, Tufts University, University of Washington, University of Texas, Seattle Public Schools, Urban Gateways Center for Arts Education, National Staff Development Council, Majuro (Marshall Islands) Public Schools, et al. (1987 – present)

Visiting Assistant Professor: Psychology Department, University of Oregon (1989)

Instructor: Psychology Dept., University of Oregon (1986); Science Communication, Univ. Washington (2005 - 2010)

Author: Book; publications in popular venues and peer-reviewed journals; grant proposals and reports; position papers; product assembly directions; museum exhibit labels; co-author with Nobel Laureate Leon Lederman

EDUCATION

Ph.D., University of Oregon, Systems & Integrative Biology, 1983

B.A., State University of New York at Binghamton, Biology, 1973

CAREER SUMMARY

Director, Water for Life: Pacific Resources for Education and Learning, Honolulu (2011-present). Lead NSF-funded informal science education project in four countries, and all aspects of PREL's STEM planning and implementation across Hawai'i, three US territories (American Samoa, CNMI, Guam), and the Freely Associated States (Palau, Marshall Islands, and Federated States of Micronesia).

Education & Outreach Manager: Center for Nanotechnology (2004-2010) and Genetically Engineered Materials Science and Engineering Center (2006-2010), University of Washington. Directed K-12, public, undergraduate, and doctorate option education programs.

Director, Educational Partnerships: Institute for Systems Biology (2002-2003), Dept. Molecular Biotechnology University of Washington (1998-2002). Nurtured professional learning collaborations among teachers, administrators, and scientists for regional systemic science education renewal, including securing ~\$4,000,000 in federal and private support over four years.

Associate Director for Policy and Planning: Teachers Academy for Mathematics and Science, Chicago (1994-1997). Built partnerships among schools, government agencies, and community organizations. Articulated Academy programs and vision. Aligned Academy programs with National Science Education Standards.

Science Exhibit Developer: Museum of Science and Industry, Chicago (1991-1993)

Research Associate: Institute of Neuroscience, Univ. Oregon (1990-1991)

Postdoctoral Fellow: Zoology Department, University of Texas (1987-1990)

Postdoctoral Research Associate: Psychology Department, University of Oregon (1983-1987)

TECHNOLOGICAL SKILLS

Maintain project website; image processing, data analysis, editing/word processing, presentation

Constructed computer and interfaces for dissertation data collection; designed and built electromechanical and optical devices for laboratory and exhibition use.

ALSO OF NOTE

Member: HIDEOE Science Content Panel (2014-2016); Speakers Association of Hawaii (2013-2015); American Association for the Advancement of Science (1977-present); UW Toastmasters (2004-2010; President, 2005-2007); Northwest Science Writers Association (2003-2010)

Reviewer: Pacific Educator; Science Books and Films; Journal of Staff Development; National Science Foundation; Illinois State Board of Education; technical advisor, The Kaleidoscope Book

Entrepreneur: American Visual Systems - designed, developed, patented, and marketed kaleidoscope kits carried by Carolina Biological, Edmund Scientific, FAO Schwarz, Neiman Marcus, Smithsonian, *et al.*

Volunteer: Hawaii Public Health Assoc. (President, BOD, 2016-2017; VP, 2015-2016); UW Professional Staff Organization (President, 2009-2010; VP 2008-2009)

Creator: Community service learning project where at-risk youth in Majuro (Marshall Islands) built solar stills to address community need for drinking water - <https://www.youtube.com/watch?v=O3XUnf8sLO8>

PUBLICATIONS

Allen, E. E. (2016) Water for Life. *Center for Advancement of Informal Science Education (CAISE)*. Spotlight, May 1, 2016. <http://www.informalscience.org/news-views/water-life>

Taborosi, D. & Allen, E. (2105) Water for Life: A Pacific Island Handbook for Education, Health, and Community Resilience. ISBN: 978-982-9123-93-0; 281 p. Island Research and Education Initiative; Pohnpei, FSM

Allen, E.E. (2013) STEM: What, Why, and How. Pacific Educator, Fall, 2013, pp 8-10

Allen, E. E., Barros, C. & Low, M. (2011) Understanding Sea Level Rise: Linking Science, Language, and Community for Pacific Island Students. Pacific Educator, Fall, 2011, pp 6-8

Allen, E. E. & Barros, C. (2011) An update on the PCEP. Pacific Educator, Fall, 2011, pp 9-10

Allen, E. E. & Bassett, D. R. (2008) Listen Up! The Need for Public Engagement in Nanoscale Science and Technology. Nanotechnology Law and Business, 5(4): 429-439

Allen, E. E. (2007) Challenges and Opportunities in Nanoscale Science and Technology Education. Washington Science Teachers Association Journal, March, 2007, 47(1): 16-20

Allen, E. E. (2005) Nanoscale Science and Technology: Connections with K-12 Education. New Horizons for Learning Online Journal 11(1), Winter 2005 <http://www.newhorizons.org/strategies/technology/allen.htm>

Allen, E. E. & Hood, L. (2000) Biotechnology, inquiry, and public education. Trends in Biotechnology 18: 329-330

Allen, E. E. & Lederman, L. (1998) Lessons learned: The Teachers Academy for Mathematics and Science. Phi Delta Kappan, October, 1998, 158-164

Allen, E. E. (1997) Two models of museum collaboration: Potential impacts on visitor behaviors. Visitor Behavior 12: 26-27

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- Allen, E. E. (1992) Scientific bases and the need for precision. In, Boswell, T., ed. The Kaleidoscope Book Altamont Press; Asheville, NC (also served as technical advisor for this volume)
- Allen, E. E. and Crews, D. (1992) Male sexual behavior and 2-deoxyglucose uptake in the red-sided garter snake (*Thamnophis sirtalis parietalis*). Brain, Behavior, and Evolution 40: 17-24
- Allen, E. E. and Crews, D., (1989) 2-deoxyglucose uptake following visual stimulation in squamate reptiles Brain, Behavior, and Evolution 34: 294-300
- Allen, E. E., Trombley, P. Q., and Gordon, B. (1988) 6-hydroxydopamine treatment and beta adrenergic receptor binding in kittens: Relation to visual cortical plasticity. Experimental Brain Research 72: 605-610
- Gordon, B., Allen, E. E., and Trombley, P. Q. (1988) The role of norepinephrine in plasticity of visual cortex. Progress in Neurobiology 30: 171-191
- Allen, E. E., Blakemore, L. J., Trombley, P. Q., and Gordon, B. (1987) Timing of 6-hydroxydopamine administration influences its effects on visual plasticity. Developmental Brain Research 32: 53-58
- Allen, E. E., Blakemore, L. J., Trombley, P. Q., and Gordon, B. (1987) Effect of desmethylimipramine on norepinephrine content and plasticity in kitten visual cortex. Brain Research 401: 397-400
- Trombley, P. Q., Allen, E. E., Soyke, J., Blaha, C. D. Lane, R. F., And Gordon, B. (1986) Doses of 6-hydroxydopamine sufficient to deplete norepinephrine are not sufficient to decrease plasticity in visual cortex. Journal of Neuroscience 6: 266-273
- Allen, E. E. and Fernald, R. D. (1985) Spectral sensitivity of the African cichlid fish *Haplochromis burtoni*. Journal of Comparative Physiology, A 157: 247-253
- Whitsel, B. L., Rustioni, A., Dreyer, D. A., Loe, P. R., Allen, E. E., and Metz, C. B. (1978) Thalamic projections in S-I in macaque monkey. Journal of Comparative Neurology 178: 385-410