NIH P-12 STEM Funding Opportunities

Tony Beck, PhD
Director, Office of Science Education – Science Education Partnership Award (OSE/SEPA)
Office of Director, NIH
CADRE supports and connects researchers and developers in K-12 STEM education.

Early Career in STEM Education R&D

Closing the STEM Achievement Gap

A Framework for Assessing Environmental Literacy

A Longitudinal Randomized Trial Study of Middle School Science for English Language Learners

Across the Sciences: Multidisciplinary Learning for Teachers through Multimedia

Agency in Sustained Problem-Based Inquiry: Learning Science Through and as Innovation

SEPA

SCIENCE EDUCATION PARTNERSHIP AWARD

Supported by the National Institutes of Health
SEPA SCIENCE EDUCATION PARTNERSHIP AWARD
Supported by the National Institutes of Health
Genesis:
- Increase the numbers of urban, rural and minority students considering research and medical careers

Partnerships:
- Scientists and clinicians partnering with educators, community organizations and science centers

Goals:
- Career opportunities for minority and underserved students
- Public health literacy
  - Teacher professional development
  - Student and teacher laboratory internships
  - Mobile laboratories bring science to rural communities
FY16 SEPA Portfolio

- R25 Science Education, PAR-14-228
- $250K/Year X 5 Years ($1.3M)
- FY16 Budget: $17.1M
- SEPA Awards:
  - Type 5 (71)
  - Type 1 (22)
  - BD2K: Admin. Suppl (~8)
  - U13 (SEPA), R13 (Mobile Lab Coalition), (1 ea.)
- SBIR/STTR
  - Serious STEM Games, PAR-14-325, PAR-14-326
  - Type 5 & Type 1 (~20)
SEPA Evaluation – 15 years of evolution

PROJECT LEVEL (PAR-14-228)
• 10% of budget
• Independent evaluator
• Classroom-based P-12 projects
  • Randomized Controlled Trial (RCT)
  • Matched Case Comparison
• Research plan must include a Logic Model
• Advisory Committee for independent feedback

PROGRAM LEVEL
• SEPA Evaluation Feasibility Study, 2005 (OPASI [$50K], Westat)
• SEPA Process Evaluation, 2014 (SEPA [$900K], Westat)
Citizen Science

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20502

September 30, 2015

MEMORANDUM TO THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: John P. Holdren
Assistant to the President for Science and Technology and
Director of the Office of Science and Technology Policy

SUBJECT: Addressing Societal and Scientific Challenges through Citizen Science and
Crowdsourcing

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Big Data to Knowledge (BD2K) Advancing Biomedical Science Using Crowdsourcing and Interactive Digital Media (UH2)
RFA-CA-15-006

UH2 Exploratory/Developmental Cooperative Agreement Phase I

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An Analysis of Citizen Science Based Research: Usage and Publication Patterns

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Rise of the citizen scientist
From the oceans to the soil, technology is changing the part that amateurs can play in research. But this greater involvement raises concerns that must be addressed.
SEPA - Barcode Long Island: Exploring Biodiversity in a Unique Urban Landscape
High School Students and Teachers and Families
Cold Spring Harbor Laboratory, R25 OD 16511, , R25 OD15619

SEPA - Teaching to Learn: WV-HSTA Students Take CBPR to Their Community
High School Students and Teachers and Families
West Virginia University; R25 OD10495

SEPA - Montana Tech Phagedigging Program, Building the Biomedical Pipeline,
High School Students and Teachers and Families
Montana Tech Of The University of Montana; R25 OD16533

SEPA - More than just a taste of citizen science
Museum: Students, Teachers, Parents, Community
Pending Award FY16
SEPA - The Zoo in You: Exploring the Human Microbiome

Oregon Museum of Science and Industry, Portland, OR
R25 RR032210, Grant Period: 03/01/2011 - 02/29/2016
SEPA Mobile Labs

BU CityLab Mobile Bus (1995)

Pitt CTSA Mobile Tractor Trailer (2008)

Purdue SOVM Mobile Vet Van (2016)
NIH Science Education Partnership Award (SEPA) (R25) PAR-14-228

- 5 Years, $1.3M
- Any NIH-Related Research Area
- Formal P-12 and ISE
- Rigorous Evaluation

- Receipt dates: June 22, 2016, 2017, 2018, 2019
STEM Games for Learning
PHASE I Feasibility Study
- Budget Guide: $150K (SBIR); $150K (STTR) Total Costs
- Project Period: 6 months (SBIR); 1 year (STTR)

PHASE II Full Research/R&D
- $1M (STTR), $1M (SBIR) over two years

PHASE IIB Competing Renewal/R&D
- Clinical R&D; Complex Instrumentation/Tools to FDA
- Many, but not all, ICs participate
- Varies ~$1M/year; 3 years

PHASE III Commercialization Stage
- NIH, generally, not the “customer”
- Consider partnering and exit strategy early
Serious STEM Games for Pre-College and Informal Science Education Audiences (STTR) (R41/R42) PAR-14-325

Serious STEM Games for Pre-College and Informal Science Education Audiences (STTR) (R41/R42) PAR-14-326

• Receipt dates: February 2017, 2018, 2019
SEPA Website: www.nihsepa.org
Science is the belief in the ignorance of experts.

Richard Feynman, “What is Science?”, address to science teachers, 1966