<table>
<thead>
<tr>
<th>ID</th>
<th>8668</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>NIH SEPA Funding for ISE Exhibits—Program Overview and Grant Writing Workshop</td>
</tr>
<tr>
<td>Day/Time/Location</td>
<td>Saturday, September 21, 2019: 11:45 AM - 1:00 PM, Metro Toronto Convention Centre, Meeting Room 711</td>
</tr>
</tbody>
</table>
Contact Person
Tony Beck
National Institutes of Health (NIH)
beckl@mail.nih.gov

SEPA website, https://nihsepa.org/
• Search projects by state, year of award, topic.
• Annual PI Conference reports
• Updates on:
  • SEPA and SEPA STEM Games SBIR/STTR funding opportunity announcements (FOAs)
  • 2020: Separate Webinars for SEPA formal/classroom and SEPA ISE/science center & museum proposals
National Institutes of Health (NIH)

NIH SEPA Funding for ISE Exhibits—Program Overview and Grant Writing Workshop

Tony Beck, National Institutes of Health
Greg DeFrancis, Montshire Museum
Timothy Hecox, Oregon Museum of Science & Industry
Anja Scholze, Tech Museum of Innovation
Martin Weiss, New York Hall of Science
Overview

NIH SEPA Funding for ISE Exhibits—Program Overview and Grant Writing Workshop
National Institutes of Health (NIH)
R25 Research Education
R25 Research Education
5 years, $1.35M
R25 Research Education
5 years, $1.35M
Any area of NIH basic or medical research
R25 Research Education
5 years, $1.35M
Any area of NIH basic or medical research
Next receipt date June/July 2020
SEPA Distribution

FY18 AWARDS

P-12 STEM Projects

Museum Exhibits

SEPA Public Radio Stations

NIH National Institute of General Medical Sciences
Projects by Year of Award

https://nihsepa.org/
https://nihsepa.org/
https://nihsepa.org/
<table>
<thead>
<tr>
<th>Project Title</th>
<th>Institution</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planarians and the pharmacology of addiction: an in vivo model for K.12 education</td>
<td>Temple University – Louis Katz School of Medicine, Philadelphia PA</td>
<td>01/10/2014</td>
<td>08/30/2018</td>
</tr>
<tr>
<td>A Partnership in Neuroscience Education</td>
<td>Temple University, Pittsburgh PA</td>
<td>04/15/2014</td>
<td>02/20/2019</td>
</tr>
<tr>
<td>Resources for Education and Action for Community Health in Ambler (REACH Ambler)</td>
<td>University of Pennsylvania – School of Medicine, Philadelphia PA</td>
<td>08/27/2012</td>
<td>07/15/2017</td>
</tr>
<tr>
<td>Investing in the Future: Collaborative Research Experiences for Students and Teachers</td>
<td>Pennsylvania State University, Hershey Med Ctr, Hershey, PA</td>
<td>08/15/2008</td>
<td>08/31/2009</td>
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<tr>
<td>If a Starfish Can Grow a New Arm, Why Can’t It?</td>
<td>Pittsburgh Tissue Engineering Initiative, Pittsburgh, PA</td>
<td>02/06/2007</td>
<td>02/28/2012</td>
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<tr>
<td>Regenerative Medicine Partnership in Education (Phase III)</td>
<td>Temple University, Pittsburgh PA</td>
<td>04/01/2008</td>
<td>08/31/2010</td>
</tr>
<tr>
<td>Partnership in Biomedical Discovery</td>
<td>Temple University, Pittsburgh PA</td>
<td>04/01/2009</td>
<td>03/31/2011</td>
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<tr>
<td>Heart of the Matter</td>
<td>Franklin Institute, Philadelphia PA</td>
<td>06/05/2005</td>
<td>06/29/2006</td>
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<tr>
<td>Tissue Engineering Show and Educational Partnership</td>
<td>Temple University, Pittsburgh PA</td>
<td>08/15/2005</td>
<td>08/25/2006</td>
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<tr>
<td>Universe Within</td>
<td>QED Communications Inc., Pittsburgh PA</td>
<td>08/31/2001</td>
<td>03/29/1995</td>
</tr>
<tr>
<td>Science Teachers Workshops for Computer Training</td>
<td>Carnegie Mellon University, Pittsburgh PA</td>
<td>08/30/1991</td>
<td>03/28/1995</td>
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</tbody>
</table>
Planarians and the pharmacology of addiction: an in vivo model for K-12 education
Temple University – Lewis Katz School of Medicine, Philadelphia PA
1R25DA033270-01A1 : 07/15/2014 - 06/30/2018

A Partnership in Neuroscience Education
Duquesne University, Pittsburgh PA
R25OD016516 : 04/15/2014 - 02/28/2019

Resources for Education and Action for Community Health in Ambler (REACH Ambler)
University of Pennsylvania – School of Medicine, Philadelphia PA
R25OD010521-01 : 08/27/2012 - 07/31/2017
Scientastic! Are You Sleeping? is an Emmy® Award-winning show, which blends live-action with 2-D and 3-D animations that incorporates a fictional plot with interviews from actual doctors and scientists, to view at [http://thepartnershipineducation.com](http://thepartnershipineducation.com)
A Partnership in Neuroscience Education

Scientastic! Are You Sleeping? is an Emmy® Award-winning show, which blends live-action with 2-D and 3-D animations that incorporates a fictional plot with interviews from actual doctors and scientists, to view at http://thepartnershipineducation.com

Project Information

Project ID: R25OD016516
Project Type: Precollege Education
Project Status: Active
Funding Years: 04/15/2014 - 02/28/2019
State: PA

Institution:
Duquesne University
Department: Department of Biological Sciences
Address: Duquesne University Administration Bldg. 600 Forbes Avenue Room 301A Pittsburgh, PA 15282

Project Contact(s):
Pollock, John, PhD
Role: PI / Project Leader
Phone: 412-855-4043
Email: pollock@duq.edu
# A Partnership in Neuroscience Education

## Scientastic! Are You Sleeping?

*Winner of two Emmy® Awards*

[Image of Scientastic! Are You Sleeping?](http://thepartnershipineducation.com)

### Project Information

- **Project ID:** R25OD016516
- **Project Type:** formal
- **Project Status:** active
- **Funding Years:** 04/15/2014 - 02/28/2019
- **State:** PA

### Institution:

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**Department:** Department of Biological Sciences

**Address:**
Duquesne University Administration Bldg. 600 Forbes Avenue Room 301A
Pittsburgh, PA 15282

### Project Contact(s):

- **Pollock, John, PhD**
  - **Role:** PI / Project Leader
  - **Phone:** 412-855-4043
  - **Email:** pollock@duq.edu

### Project Description

High-caliber, rigorously-tested STEM teaching tools for the 21st century

**Scientastic! Are You Sleeping?** is an Emmy® Award-winning show, which blends live-action with 2-D and 3-D animations that incorporates a fictional plot with interviews from actual doctors and scientists, to view at [here](http://thepartnershipineducation.com).
What does SEPA fund?

Duration reported: 1991 – 2019
Awards issued: 51
Estimated total funding: $67M

SEPA-funded museum projects are listed on the SEPA website, [https://nihsepa.org/](https://nihsepa.org/)
The Genetics of Taste Lab is the first community scientist-driven human genetics lab in the country.

- **GENES AND GRAINS** (2018-2019)
- **SAVORY AND SOUR STUDY** (2017-2018)
- **THE SCIENCE OF SOUR STUDY** (2016-2017)
- **A SWEET-TASTING STUDY** (2015-2016)
- **FATTY ACID TASTE STUDY** (2013-2015)
- **BITTER TASTE STUDY** (2009-2013)
More Than Just a Taste of Citizen Science
Denver Museum of Nature & Science
http://www.dmns.org/genetics
PI: Nicole Garneau

The Genetics of Taste Lab is the first community scientist-driven human genetics lab in the country.

- GENES AND GRAINS (2018-2019)
- SAVORY AND SOUR STUDY (2017-2018)
- A SWEET-TASTING STUDY (2015-2016)
- FATTY ACID TASTE STUDY (2013-2015)
- BITTER TASTE STUDY (2009-2013)
Weighing the Evidence: Making Informed Health Care Decisions
Science Museum of Minnesota
https://nihsepa.org/project/weighing-the-evidence-making-informed-health-care-decisions-a-traveling-exhibit/
PI: Laurie Fink

• Unique collection of historical and contemporary quack medical devices donated to the Science Museum of Minnesota when the Museum of Questionable Medical Devises closed in 2002.
• Improve visitors’ critical analysis skills and ability to review evidence so that they can make informed health care decisions.
Weighing the Evidence: Making Informed Health Care Decisions
Science Museum of Minnesota
https://nihsepa.org/project/weighing-
PI: Laurie Fink

- Unique collection of historical and contemporary quack medical devices donated to the Science Museum of Minnesota when the Museum of Questionable Medical Devises closed in 2002.
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Weighing the Evidence: Making Informed Health Care Decisions
Science Museum of Minnesota
https://nihsepa.org/project/weighing-the-evidence-making-informed-health-care-decisions
PI: Laurie Fink

• Unique collection of historical and contemporary quack medical devices donated to the Science Museum of Minnesota when the Museum of Questionable Medical Devices closed in 2002.
• Improve visitors’ critical analysis skills and ability to review evidence so that they can make informed health care decisions.
The Zoo in You: Exploring the Human Microbiome
Oregon Museum of Science and Industry
https://omsi.edu/exhibitions/zoo-in-you/

Your body is home to trillions and trillions of microbes. Explore the "zoo" inside of you in this traveling exhibit, produced by the Oregon Museum of Science and Industry (OMSI) and funded by NIH SEPA.
Microscope Imaging Station
Exploratorium
http://www.exploratorium.edu/imaging-station/
PI: Charlie Carlson

PI: Charlie Carlson

Zebrafish
A model for heart development

Blood:
The body's vital defense force
Cut your finger? Out flows a superb infection-fighting, wound-healing stream.
SEPA ISE – Case Studies

NYHOS

SEPA ISE – Case Studies
SEPA ISE – Case Studies

Montshire

SEPA ISE – Case Studies
SEPA ISE – Case Studies

Tech

Montshire

OMSI

NYHOS

An inside look - NIH Grant Application and Review Process
Navigating NIH Peer Review
NIH Grant Process

https://www.eliteresearch.com/how-do-you-develop-a-logic-model
Department of Health and Human Services

Part 1. Overview Information

Participating Organization(s)
National Institutes of Health (NIH (http://www.nih.gov))

Components of Participating Organizations
National Institute of General Medical Sciences (NIGMS (http://www.nigms.nih.gov))

Funding Opportunity Title
NIH Science Education Partnership Award (SEPA)(R25)

Funding Opportunity Announcement (FOA) Number
PAR-20-XXX
SEPA Funding Opportunity Announcement (FOA)

Department of Health and Human Services

Part 1. Overview Information

Participating Organization(s)
National Institutes of Health (NIH)

Components of NIH
National Institute of General Medical Sciences (NIGMS)
National Institute of Allergy and Infectious Diseases (NIAID)

Funding Opportunity Title
NIH Science Education Education Partnership Award (SEPA)(R25)

Funding Opportunity Announcement (FOA) Number
PAR-20-XXX

Key Dates

Agency Contacts
<table>
<thead>
<tr>
<th><strong>Key Dates</strong></th>
<th></th>
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<tbody>
<tr>
<td><strong>Posted Date</strong></td>
<td>September 18, 2017</td>
</tr>
<tr>
<td><strong>Open Date (Earliest Submission Date)</strong></td>
<td>October 20, 2017</td>
</tr>
<tr>
<td><strong>Letter of Intent Due Date(s)</strong></td>
<td>30 days prior to the application due date</td>
</tr>
<tr>
<td><strong>Application Due Date(s)</strong></td>
<td>November 20, 2017; July 9, 2018; July 9, 2019, by 5:00 PM local time. Allowed for this funding opportunity announcement are due on the dates noted above. Applicants are encouraged to apply early to allow adequate time during the submission process by the due date.</td>
</tr>
<tr>
<td><strong>AIDS Application Due Date(s)</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Scientific Merit Review</strong></td>
<td>January/February 2018, October/November 2018, October/November 2019</td>
</tr>
<tr>
<td><strong>Advisory Council Review</strong></td>
<td>May 2018, January 2019, January 2020</td>
</tr>
<tr>
<td><strong>Earliest Start Date</strong></td>
<td>July 2018, April 2019, April 2020</td>
</tr>
<tr>
<td><strong>Expiration Date</strong></td>
<td>July 10, 2019</td>
</tr>
</tbody>
</table>
Agency Contacts

GrantsInfo (Questions regarding application instructions and process, finding NIH grant resources)
Email: GrantsInfo@nih.gov (preferred method of contact)
Telephone: 301-945-7573

Scientific/Research Contact(s)
Tony Beck, Ph.D.
National Institute of General Medical Sciences (NIGMS)
Telephone: 301-480-4623
Email: beckl@mail.nih.gov

Peer Review Contact(s)
Jonathan Arias, Ph.D.
Center for Scientific Review (CSR)
Telephone: 301-435-2406
Email: ariasj@csr.nih.gov

Financial/Grants Management Contact(s)
Christy Leake
National Institute of General Medical Sciences (NIGMS)
Telephone: 301-594-7706
Email: Christy.leake@nih.gov

Program Officer (PO)
Scientific Review Officer (SRO)
Grants Management Specialist (GMS)
FY20 SEPA REVIEW & AWARD CYCLE

Timeline for Planning a Grant

- July 2020
- Nov 2020
- Mar – Apr 2021

RECEIPT DATE

REVIEW

SCORES

AWARDS

SUMMARY STATEMENT
FY20 SEPA REVIEW & AWARD CYCLE
Agency Contacts

Timeline for Planning a Grant

- **RECEIPT DATE**: July 2020, Nov 2020, Mar – Apr 2021
- **PO**, **SRO**, **GMS**
- **REVIEW**
- **SCORES**
- **SUMMARY STATEMENT**
- **AWARDS**
FY20 SEPA REVIEW & AWARD CYCLE

Agency Contacts

Timeline for Planning a Grant

- July 2020
- Nov 2020
- Mar – Apr 2021

PO
- SRO
- GMS

RECEIPT
DATE

REVIEW

SCORES

AWARDS

SUMMARY
STATEMENT
FY20 SEPA REVIEW & AWARD CYCLE

Agencies Contacts

Timeline for Planning a Grant

- July 2020
- Nov 2020
- Mar – Apr 2021

PO
SRO
GMS

RECEIPT DATE
REVIEW
SCORES
AWARDS
SUMMARY STATEMENT
PREPARATION - PART I

- Study FOA
- Assemble team
- Identify partners
- Draft research plan
- Email PO to schedule a call
PREPARATION - PART II

Electronic Application Process

1. Prepare to Apply & Register
   - Register with Grants.gov & eRA Commons

2. Find Opportunity
   - Submit in response to Funding Opportunity Announcement (FOA)

3. Prepare Application
   - Follow Application Guide & Instructions

4. Submit, Track & View
   - Submit via your organizational representative
   - Use eRA Commons to view & track

http://slideplayer.com/slide/5288203/
Review Panel
NIH Scoring System

Scored Review Criteria

- Significance
- Investigator(s)
- Innovation
- Approach
- Environment
NIH Scoring System

Scored Review Criteria

- Significance

- What we know now
- Prior funding
- Publications
- Outcomes
NIH Scoring System

Scored Review Criteria

- Investigator(s)
- Multi PI plan (MPI)
- Content expertise
- Learning stage
- Cultural relevance
- Evaluator
NIH Scoring System

Scored Review Criteria

- Innovation
- Hypothesis Driven
- Move the field forward
NIH Scoring System

Scored Review Criteria

- 3 Specific Aims
- Tightly organized
- Flow/Gantt charts
- Images & figures

Approach
Significance:

- Strengths
  - A well-organized proposal
  - Scientific premise is sound.
  - Proposed pedagogical plan for student learning is well supported by research
  - Past company and key personnel successes

- Weaknesses
  - No discussion of the competition
  - The applicants claim that the product will positively impact teachers’ effectiveness and content knowledge but does not offer evidence
  - No explicit link to NGSS, the relevant state science standards, or the national health education standards.
  - Gender differences do not appear to be considered.
Innovation:

- **Strengths**
  - The game as presented draws on previous successes of the team members.
  - Using real world examples and scientific data to engage students in STEM learning.
  - Including students and teachers – the end users – in the development of the game
  - While specific elements of application are not completely innovative, the entire package of materials is an innovative way to teach

- **Weaknesses**
  - It is not clear what differentiates this simulation game from others or how it will contribute uniquely to the market/student audiences
  - It seems the teacher is not part of the process during game play
  - The proposed product may not provide sufficient flexibility for use by many teachers and/or district curricula
Approach:

- **Strengths**
  - The application is clearly written.
  - The specific aims are clearly articulated.
  - NGSS science standards will be incorporated.
  - Teacher feedback is planned.
  - Comparisons between groups will include the biological (sex and age) and social (poverty and learning skills).

- **Weaknesses**
  - The approach seems overly ambitious.
  - Educational goals are not articulated in a measurable way.
  - Assessment plan is a marketing and usability study. It will not provide information for design and implementation.
  - No control is mentioned against which to evaluate the game.
  - The end user group that is informing the development of the product lacks diversity.
Approach:

- **Strengths**
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    - NGSS science standards will be incorporated.
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- **Weaknesses**
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  - Assessment plan is a marketing and usability study. It will not provide information for design and implementation
  - **No control** is mentioned against which to evaluate the game.
  - The end user group that is informing the development of the product lacks diversity
Use plain, simple language, short words and brief sentences. Don't let fluff and flowers and verbosity creep in.

Mark Twain
“This application was a pleasure to read”
QUESTIONS?
Our goal - a diverse pipeline

Supported by the National Institutes of Health