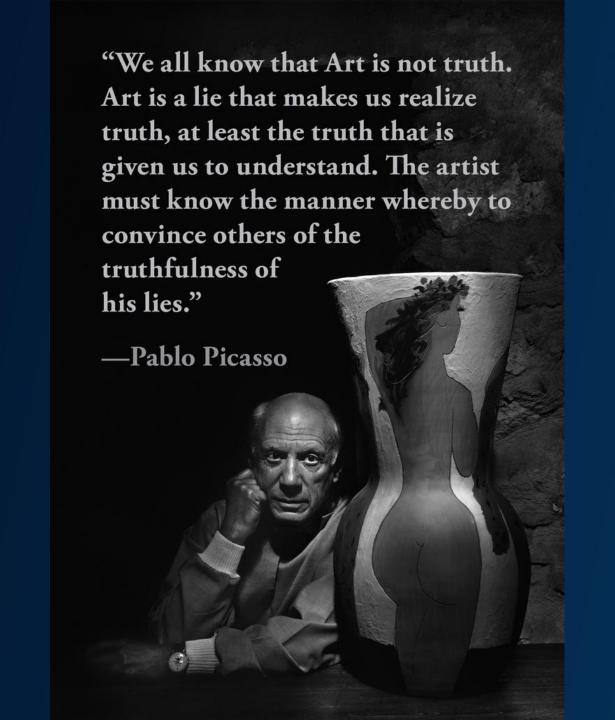


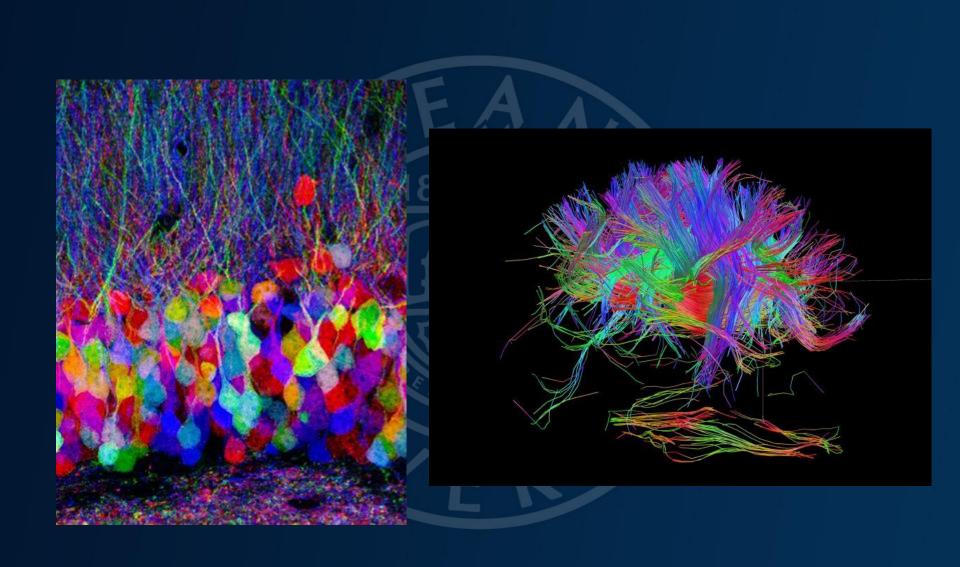
Art as Science, Science as Art

Provost Brown Bag Lunch
February 13, 2018
New Research Opportunities!

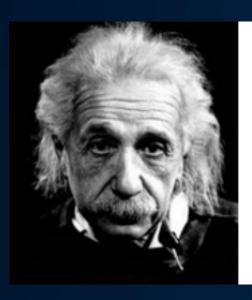


Ben Langford, BFA Photography, RISD





Science



"The most beautiful thing we can experience is the mysterious. It is the source of all true art and all science. He to whom this emotion is a stranger, who can no longer pause to wonder and stand rapt in awe, is as good as dead: his eyes are closed."

Albert Einstein

Breaking Through

There's nothing quite like the rush that comes with making a true creative breakthrough. It can leave you giddy and breathless—almost suspended in the moment, as President Rosanne Somerson 76 ID points out on page 42.

Maybe the elation comes in part from how difficult it is to get there. When artists and designers step into the unknown in making something new, it takes effort—pushing, pulling, hitting the wall (or banging your head against it)—along with tenacity, perseverance and a true belief in process to transform ideas and imagination into tangible form. Curiosity, risk, experimentation and the sting of failure all play into it.

Ultimately, though, something shifts and there's a surge of excitement. Even if it doesn't come as a eureka-moment, the way forward becomes clear. Breakthroughs offer the reward of personal affirmation, satisfaction and renewal—and ideally, shared recognition from people who respond with their own sense of wonder.

In this issue, alumni of all ages and working in disparate disciplines help unpack the many ways in which breakthroughs are the elusive elixir of creative practice that keep them thirsty for more.

- Liisa Silander



STEAM Projects

Examples and Funding Sources

Federal Funders

National Science Foundation

- Advancing Informal STEM Learning (AISL)
- Education & Human Resources Core Research (ECR)

National Endowment for the Arts

- Art Works public
- Arts Learning students

National Endowment for the Humanities

Collaborative Research Grants

US Department of Education

Promoting equitable access in teaching and learning

US Department of Agriculture

HSI Education Grants Program

Foundation Funders

American Honda Foundation

 Youth education, with a focus on STEM subjects and the environment, characterized by the following qualities: imaginative, creative, forward-thinking, scientific, humanistic and innovative. (Awards: up to \$75,000)

ESA Foundation STEM Grant (Entertainment Software Association)

 Programs and services that utilize technology and/or computer and video games to educate America's youth and young adults. (Awards: up to \$50,000)

The Braitmayer Foundation

 Proposals utilizing innovative practices in K-12 education throughout the US; interested in PD opportunities for teachers (Awards: up to \$35,000)

Examples of STEAM Projects

| Funder/Award | |
|---|--|
| NSF AISL \$1.23 million | Project STEAM: University of Alaska Fairbanks Centered on the theme, "Colors of Nature" Optics and biology content to art-interested girls through art-infused science experiences |
| NSF – Research Coordination Network planning grant \$50,000 | Sing About Science: University of Washington Uses music as a tool for engaging student interest and learning in biology. Students write and perform songs to reinforce learning of science content. The website offers songs, music videos, lesson plans, quizzes and links to research about the utility of music to learning and enhancing memory. |
| NSF \$1.17 million (and) NEH \$35,000 | New York World's Fair Project: University of Central Florida Uses 3D simulation of the 1964-65 fair as an educational tool to expand the understanding of science, technology, engineering, and mathematics. Discovery points afford opportunities for in-depth interaction with STEM. The PI is a historian working with new technologies. |
| University of California, Davis | The Art-Science Fusion Program : A campus-wide program that teaches science through the creation of public art. Specific projects on campus have included mosaic pillars featuring evolution, genomics, plant-microbe interactions, weeds, and food and farming. The project has also developed 9 undergraduate art-science fusion courses. |



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