



Alfred P. Sloan
FOUNDATION

December 2015

Program Updates from the VP and Program Director Doron Weber

THEATER

Sloan and EST Showcase New Science Plays During *First Light Festival*, December through February



This year's [First Light Festival](#), an annual theater showcase with workshops, readings, productions, and special events celebrating the Ensemble Studio Theatre/Sloan Science & Technology Project, runs from December 7, 2015 through February 28, 2016. Now in its second decade,

the innovative EST/Sloan partnership has commissioned, developed, and produced hundreds of new plays that explore the worlds of science and technology and challenge the existing stereotypes of scientists and engineers in the popular imagination. This year's highlights include [Please Continue](#) (February 3-28, 2015), a play about Stanley Milgram by Frank Basloe; [Boy](#) (February 23-April 9, 2016 at the Clurman Theatre), a play about sexual identity by Anna Ziegler; and [Truth Values](#), a one-woman show by MIT-trained mathematician Goia de Cari about her experience navigating the male-dominated world of mathematics. Ziegler is best known for *Photograph 51*, an acclaimed Sloan-produced play about Rosalind Franklin's role in the discovery of DNA structure (see more details below). EST is the recipient of a current three-year Sloan grant to commission, develop, produce, and disseminate new science plays in New York and across the country.

Nicole Kidman wins Best Actress Prize for *Photograph 51* in London



In November, [Nicole Kidman won the Best Actress prize](#) at the London Evening Standard Theatre Awards for her portrayal of X-ray crystallographer Rosalind Franklin in *Photograph 51* by Anna Ziegler, previously supported by Sloan. The play about Franklin's contributions to the discovery of the structure of DNA just completed a sold-out run at London's Noël Coward Theatre. The prestigious Evening Standard Theatre Awards were established in 1955 and are equivalent to New York's Drama Desk Awards. In her [acceptance speech](#), Kidman explained that she took the Franklin role to honor her late father, a biochemist. *Photograph 51* was the EST/Sloan mainstage production with support from both the Manhattan Theatre Club and EST/Sloan partnerships in 2010 and staged at the 2011 World Science Festival with a Sloan-supported panel including three of Rosalind Franklin's scientific colleagues from the 1950s. The Franklin story is now in development as a film, and Ziegler's screenplay

based on her play won a Tribeca Film Institute/Sloan Filmmaker Fund Production Award in 2011.



TELEVISION

Sloan-Supported Civil War Medical Drama *Mercy Street* to Premiere on PBS on January 17



The first season of [Mercy Street](#), a Sloan-supported medical drama, will premiere on PBS stations across the country at 10:00 pm on January 17, in a coveted time slot following *Downton Abbey*. Produced by Ridley Scott (*The Martian*) and starring Josh Radnor (*How I Met Your Mother*), the six-part series follows the lives of the staff and patients at a Civil War hospital in Alexandria, Virginia who experience the era's medical advances first-hand. A blend of hospital drama and

family saga, the series includes characters from both sides of the Civil War and examines the scientific breakthroughs that occurred in nursing care and the treatment of battlefield trauma as a result of the war. The American-made series—a full-scale, star-studded scripted drama—marks a unique and unprecedented production for PBS, which usually imports scripted dramas from the UK. The PBS Foundation was the recipient of a pilot grant in 2013 for a six-part, fact-based historical drama about how the Civil War drove innovations in medical science.

CUNY TV's *Science Goes to the Movies* Goes National



CUNY TV's [Science Goes to the Movies](#)— a science-themed film review show conceived, developed, and produced by the Foundation—was selected for national distribution by PBS's Executive Programming Services after a successful first season, only the second CUNY TV show ever to achieve this distinction. Hosted by journalist and author Faith Salie and neuroscientist Heather Berlin, the show has already attracted strong interest from PBS stations across the country. Episodes feature reviews and discussion with clips of current and classic films, from *The Imitation Game* and *Interstellar* to

Blade Runner and *The Theory of Everything*. Guests have included physicist Vinod Menon, astrophysicist Anne Rice, and cryptologist Rosario Gennaro. Season one episodes are available on the [CUNY TV website](#). CUNY TV was the recipient of a 2014 grant to pilot a 13-part TV series co-hosted by a journalist and a scientist that reviews the latest movies and television shows through the lens of science and technology and received another grant in 2015 to continue the series.



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Charlie Rose Brain Series Airs Episode on Biology of Sports-Related Brain Trauma



In November, New York's Channel Thirteen and PBS stations nationwide aired the fourth episode of *Charlie Rose Brain Series: Brain Science and Society on the Biology of Sports-Related Brain Trauma in Childhood*, including concussions from football and other contact sports. The episode featured experts and patients in a timely discussion of an important and controversial medical issue. Previous episodes in the series, available on the [Charlie Rose website](#), have covered The Brain and Gender

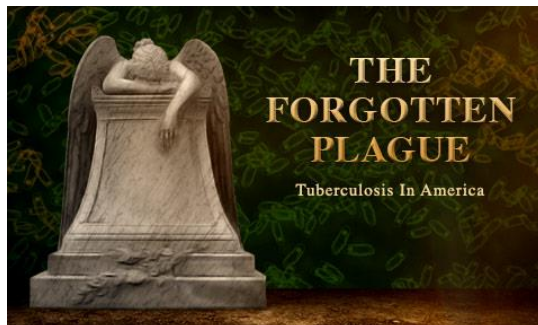
Identity, The Brain and the Biology of Parenting, and Aggression and the Brain. WNET is the recipient of a current grant to produce 10 hour-long episodes on the brain to be broadcast on PBS and Bloomberg.

Sloan-Supported Documentary *Cancer: The Emperor of All Maladies* Wins duPont Award



Cancer: The Emperor of All Maladies, a PBS documentary with Ken Burns based on the Pulitzer Prize-winning book by Siddhartha Mukherjee, has won a 2016 [Alfred I. duPont - Columbia Award](#) for excellence in broadcast journalism. The duPont Awards are regarded as equivalent to the Pulitzer Prizes for broadcast, documentary, and digital news. WETA was the recipient of a 2014 grant to produce the six-hour PBS documentary on the past, present, and future of cancer science.

American Experience "Forgotten Plague," on Tuberculosis, Nominated for Writers Guild Award



"[The Forgotten Plague](#)," an *American Experience* film on the history of tuberculosis in America, was honored with a nomination for Best Documentary Script for the [2016 Writers Guild Awards](#). The film chronicles how the disease, the nation's leading cause of death for nearly 200 years, shaped medical and scientific pursuits, social habits, economic development, and government policy. *American Experience* is produced by WGBH, the recipient of a 2013 grant to research and produce four primetime films on

PBS's *American Experience* on the role of science, technology, and engineering in history.



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FILM

Sloan and San Francisco Film Society Announce Inaugural Science in Cinema Prize



On December 13, Sloan and the San Francisco Film Society (SFFS) presented the inaugural SFFS/Sloan Science in Cinema Prize to [The Martian](#) at an event featuring producer Aditya Sood, author Andy Weir, and NASA scientist Christopher McKay. The award is part of a broader SFFS/Sloan [Science in Film Initiative](#), a new partnership with SFFS announced in October that encompasses three programs. The Science in Cinema Prize will be presented each year

to a narrative film that emphasizes the role of science in daily life or challenges stereotypes regarding scientists, engineers and mathematicians. The SFFS/Sloan Science in Cinema Filmmaker Fellowship will help a filmmaker develop an in-progress work that is focused on science and technology. The recipient will receive a \$35,000 cash grant as well as a two-month residency at FilmHouse, the Film Society's production studio. Finally, the Sloan Science in Cinema at the San Francisco International Film Festival will showcase narrative works that focus on scientific themes.

Susan Sarandon to Executive Produce Sloan-supported Documentary on Hedy Lamarr



Oscar-winning actress and producer Susan Sarandon [announced](#) that production is underway on a Sloan-supported documentary about Hedy Lamarr produced by her company Reframed Pictures for PBS's *American Masters*. *Hedy: The Untold Story of Actress and Inventor Hedy Lamarr* is slated for film festival screenings and a theatrical release for fall 2016 with a PBS broadcast to follow in early 2017. In addition to being a major Hollywood star from the 1930s through the 1950s, Lamarr was a pioneering inventor who worked with composer George Antheil on a key frequency-hopping innovation that paved the way for future advances like WiFi and cell phones. Sloan has long supported books, films, and plays about Lamarr, beginning with an [EST/Sloan Foundation commission](#) in 2000 of the play [Frequency Hopping](#) by Elyse Singer, produced in New York in 2008. The film is supported

by a grant to Creative Visions to produce an *American Masters* documentary for PBS on Hedy Lamarr's remarkable life and scientific achievements.



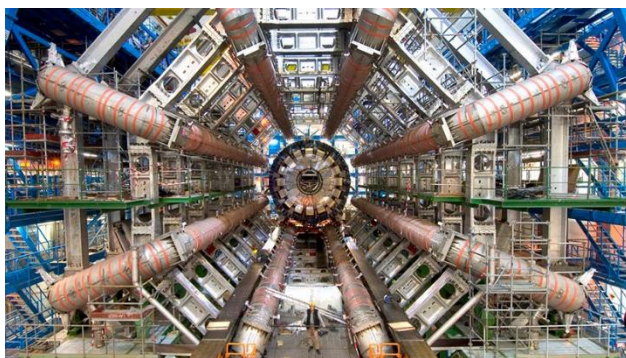
Sloan Joins Science & Entertainment Exchange and Sundance to Co-Host Science in Film Forum



The Sloan Foundation and [The Science & Entertainment Exchange](#), together with the Sundance Institute, hosted a standing-room only *Science in Film* forum at NeueHouse on November 20. The event, moderated by actress Kerry Bishé (*Halt and Catch Fire*), featured four short films made by four previously awarded Sloan filmmakers collaborating with four scientists. The films included *The Inner Life*, about the microbiome, created by Flora Lichtman with Martin Blaser, who directs the Human Microbiome Program at NYU; *Chuck and Barb*

Go Hunting, about two amateur fossil hunters, created by Katy Scoggin and introduced by Smithsonian marine fossil expert Nick Pyenson; *Puppy Love*, about a couple who receive the hormone oxytocin, created by Bent Jorgen-Perlmutter with Columbia post-doctoral researcher Zoe Donaldson; and *The White Guard*, about devices used to measure the eternal, created by Braden King with radio astronomer Summer Ash. All films are available to view on the Museum of the Moving Image's [Sloan Science and Film website](#). The Science & Entertainment Exchange is the recipient of a current three-year grant to sustain and strengthen the role of science in Hollywood and provide support and exposure for the Sloan Film Program.

Particle Fever Receives Science Communication Award from National Academies



[Particle Fever](#), a 2014 Sloan-sponsored documentary about the Nobel Prize-winning discovery of the Higgs Boson at the Large Hadron Collider in CERN, won the [National Academies of Science, Engineering, and Medicine's 2015 Communication Award](#) in the Film/Radio/TV category. The National Academies recognized producer David Kaplan, a former Sloan Research Fellow and physics professor at Johns Hopkins University featured in the film, and director Mark Levinson, a trained particle physicist, with the

\$20,000 prize for creating “an engrossing, minute-by-minute diary of the roller-coaster nature of scientific discovery.” Women Make Movies, Inc. was the recipient of a grant to provide support for wide theatrical release and enhanced outreach and an educational campaign around the film *Particle Fever*.



RADIO

PRX Sloan-Supported *Transistor* Podcast Reaches 25th Episode



The STEM-themed [Transistor](#) podcast, launched in February 2015 to feature new women voices and new scientific stories, completed its 25th episode this month. Alternately hosted by NASA astrophysicist Michelle Thaller, NYU neuroscientist Wendy Suzuki, and Harvard-trained biologist Christina Agapakis, the series explores curiosities and current events in science and beyond from scientists, reporters, and special guests. Episodes have examined the [effects of exercise](#) on the brain, [gender biases in scientific research](#), and the history behind two of the world's [most powerful telescopes](#). PRX is the recipient of a current two-year grant to support a three-pronged approach to expand science-themed audio content for radio broadcast, podcast, and video.

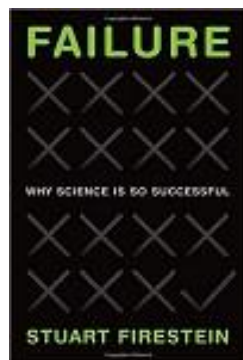
BOOKS

Our Robots, Ourselves, by David Mindell, is Published



[Our Robots, Ourselves](#), by [David Mindell](#), Frances and David Dibner Professor of the History of Engineering and Manufacturing and Professor of Aeronautics and Astronautics at MIT, was published in October by Viking. The book examines the latest science in robotics and the evolving relationship between humans and machines. Mindell was the recipient of a STEM book grant in 2013 for the research and writing of a book about automation and robotics.

Stuart Firestein's *Failure: Why Science Is So Successful* is Published



[Failure: Why Science Is So Successful](#), by neurobiologist and Chair of Columbia University's Department of Biological Sciences [Stuart Firestein](#), was published in October by Oxford University Press. The book details the importance of failure in the processes that lead to scientific discovery and gives "an insider's view" of how science is really done. Firestein was the recipient of a STEM book grant in 2013 to support the research and writing of a book on failure and its role in science for the general public. Failure follows on [Ignorance: How it Drives Science](#), another Sloan-supported book by Firestein, published to critical acclaim in 2012.



Forthcoming Sloan-Supported Book on African-American Women Mathematicians is Optioned for Film



[*Hidden Figures: The African American Women Mathematicians Who Helped NASA and the United States Win the Space Race: An Untold Story*](#), supported by a 2014 Sloan book grant, has been [optioned for film](#) by Fox 2000, with luminaries such as Oprah Winfrey involved. Written by researcher Margot Lee Shetterly, the daughter of one of NASA-Langley's first African-American engineers, *Hidden Figures* is a social and scientific history that details the experience of black female scientists and mathematicians at NASA in the 1940s-60s. Hollywood

interest has already brought more attention to the women featured in the book, such as [Katherine Johnson](#), who recently received the [Medal of Freedom](#) from President Obama in recognition of her contributions to space exploration. Shetterly is the recipient of a current one-year grant to support the research and writing of a book on the female African-American mathematicians who worked at NASA over six decades.

NEW MEDIA

Sloan Commissions Video on Basic Science Research for Science Philanthropy Alliance



Sloan recently commissioned a short video produced by the National Geographic Society to highlight the value of basic scientific research for [The Science Philanthropy Alliance](#) (SPA), now featured on the organization's [home page](#). SPA is a group of six foundations—the Sloan Foundation, the Gordon and Betty Moore Foundation, the Howard Hughes Medical Institute, the Kavli Foundation, the Research

Corporation for Science Advancement, and the Simons Foundation—that aims to substantially increase funding for basic scientific research from new philanthropic sources and to create a community of funders for discovery-driven scientific inquiry. SPA screened the video during two key events this fall: a meeting with representatives of 30 [Giving Pledge](#) members at Simons and the December SPA board meeting at Sloan. SPA will continue to use the video to promote its mission.



UNIVERSAL ACCESS TO KNOWLEDGE

Wikipedia Releases New AI Tool to Increase Editing Efficiency



ORES LOGO

The Wikimedia Foundation recently developed a [new set of algorithms](#) that analyzes new edits to distinguish between intentionally damaging edits and edits made in good faith that may contain errors or unknowingly violate Wikipedia policy. Known as the [Objective Revision Evaluation Service \(ORES\)](#), the algorithms comprise an [innovative new AI tool](#) that works by recognizing specific words and particular keyboard patterns associated with malicious editors. Wikimedia strategically developed ORES (logo pictured) to improve the Wikipedia's community's ability to attract and retain new editors. Novice editors often abandon Wikipedia after seeing their edits repeatedly undone due to unwitting mistakes. The ORES algorithms fix this problem by directing experienced editors to review the most damaging changes first and set these edits apart from well-meaning errors of inexperienced users. Several publications hailed this new AI tool as a significant technical advance. The Wikimedia Foundation is the recipient of a current grant to bolster Wikipedia's readership and editors, including more women, expand its mobile presence, and strengthen its technical infrastructure as it moves to self-sustainability.

DPLA Hires New Ebook Program Manager



In November, the Digital Public Library of America (DPLA) [announced](#) that Michelle Bickert would join the organization as ebook program manager. The position, crucial to expanding DPLA's [ebook program](#), was supported by a 2015 Sloan grant. DPLA currently partners with the White House, the New York Public Library, and the non-profit First Books on the [Open Ebooks Initiative](#), which will enable low-income students to access thousands of popular titles for free and will make hundreds of public domain titles accessible to all children. Bickert, most recently the Digital Arizona library coordinator at the statewide ebook initiative Reading Arizona, will play a key role in coordinating and expanding these efforts. The DPLA is the recipient of a current grant to complete its Nationwide Service Hub Network and to pilot an ebooks distribution program.



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INTERNATIONAL SCIENCE ENGAGEMENT

Sloan Pilot on Earthquake Science Convenes Scientists from 11 Countries at Singapore Earth Observatory



The Foundation convened a successful two-day conference on Earthquake Science at Nanyang Technological University's Earth Observatory of Singapore (EOS) on November 12 and 13. The conference featured presentations by scientists from 11 Asian nations, including Bangladesh, China, India, Indonesia, Myanmar, Nepal, Pakistan, the Philippines, Taiwan, Thailand, and Vietnam. Many scientists at the well-attended

presentations and lively poster sessions remarked on the rare opportunity to meet colleagues from the same region and share data and perspectives. EOS conducts research on geohazards in and around Southeast Asia, and focuses on acquiring scientific knowledge about complex natural phenomena and passing that knowledge on to affected populations. Nanyang Technological University is the recipient of a current planning grant to support a pilot meeting and the creation of a regional center of science and technology for South Asia and China.

Program Team: Doron Weber, *Vice President, Programs and Program Director* | Eliza French, *Program Associate* | Delia DiBiasi, *Senior Program and Investments Assistant*