

Program in Science, Technology, and Society

The Program in Science, Technology, and Society (STS) helps MIT offer an education that teaches scientists and engineers to engage the social and cultural dimensions of their work at the highest levels. This education sets MIT apart from the numerous engineering schools worldwide that turn out technical specialists. The STS Program continues to distinguish itself as the leading department, and graduate program, of its kind in the United States.

Educational Activities

Undergraduate

In 2018–2019, 68 students from 19 different majors were active STS concentrators. Three students worked on their minor in STS. Of the minors, two were majoring in Biological Engineering. The third, and only minor who graduated this year, did a double major in Physics and Earth, Atmospheric, and Planetary Sciences. Three students worked with us on Undergraduate Research Opportunities Program (UROP) projects.

Mehitabel Glenhaber graduated with a double major in STS and Comparative Media Studies (CMS) this spring. Her STS thesis, “‘Space Became Their Highway’: The L-5 Society and the closing of the Final Frontier,” was advised by Associate Professor William Deringer. The full major in STS may be pursued only as a second major in conjunction with another degree program, and this was the first time that the primary major was outside of the schools of engineering and science.

STS held an event in November called the STS Spring Showcase, targeted to our concentrators, minors, and majors. Five spring instructors, including this year’s undergraduate officer, Professor Deringer, gave five-minute talks about an object that would be discussed in their upcoming spring classes.

There was a slight change to the STS concentration requirement this year. Instead of requiring that students take at least one STS Tier I class and at least one STS Tier II class for their three-subject concentration, they can take any three STS subjects.

Professor Jennifer Light and Associate Professor of Anthropology Graham Jones spearheaded the creation of the new Computing and Society Concentration for undergraduates. It draws together classes from nine SHASS units and introduces students to critical thinking about computation and its technologies, making clear the direct relevance of SHASS fields to the work they are doing in science and engineering classes, as well as their future careers. Professor Deringer will serve as the first advisor for this concentration in the upcoming year.

Subjects and Enrollment

STS offered 23 undergraduate subjects and 14 graduate subjects in AY2019, including four Communication Intensive in the Humanities, Arts, and Social Sciences (CI-H) subjects. We continue to emphasize collaboration with other areas of MIT and offered 17

subjects jointly with the following academic programs: Aeronautics and Astronautics; Anthropology; Electrical Engineering and Computer Science; Global Studies and Languages; History; Institute for Data, Systems and Society; Philosophy; Nuclear Science and Engineering; Physics; Political Science; and Women's and Gender Studies.

Four new STS undergraduate subjects were offered this year: STS.011 Engineering Life: Biotechnology and Society, taught by Professor Robin Scheffler; STS.047 Quantifying People: A History of Social Science, taught by Professor William Deringer; STS.052 Living with Risk: Threats, Accidents, and Disasters in a Technological Age, taught by Professor Deborah Fitzgerald; and STS.058 Space Exploration and Interplanetary Habitation, taught by Marie-Pier Boucher. One new graduate subject was offered jointly with the History Section. STS.414J Risk, Fortune, and Futurity was created and taught by Professor Deringer and Assistant Professor of History Caley Horan.

Undergraduate enrollment totaled 522 students, which included majors from 27 different MIT programs plus Harvard University and Wellesley College students. The three majors with the largest representation were Electrical Engineering and Computer Science (Course 6), Mechanical Engineering (Course 2), and Physics (Course 8). First-year students were highly represented in our classes, with an enrollment of 93 over the year. Graduate enrollment totaled 141 students from 23 different programs, including Aeronautics and Astronautics, Architecture, Engineering Management, Electrical Engineering and Computer Science, Management, Mechanical Engineering, Media Arts and Sciences, and Urban Studies and Planning, as well as programs at Harvard.

Doctoral Program

The doctoral program in History, Anthropology, and Science, Technology, and Society (HASTS) is run by STS with collaboration from the History Section and the Anthropology Program. The program is administered by STS, which awards the degrees. History professor Tanalís Padilla continued to serve as the director of graduate studies this year.

The HASTS program received 147 applications for September 2019 admission. We admitted 5.4% of the applicants and had a 62.5% yield. Five students will join us this fall. This group of incoming students holds undergraduate degrees in history and science; advertising; geosciences and American studies; psychology; and philosophy. They have master's degrees from Oxford University, Binghamton University (SUNY), MIT, and two from University of Cambridge.

In AY2019, 35 students were enrolled in the graduate program, including four who graduated in September 2018 and February 2019. Two graduates have postdoctoral fellowships—one at The Johns Hopkins University and the other at Getty Research Institute; the third is the executive director of a nonprofit, and the fourth is a research fellow at Orient-Institut Istanbul. Other alumni have moved to new faculty positions within the last year including to the Department of History at Columbia University; Department of Biomedical Ethics at the University of Pennsylvania; and History and Medical Humanities at Rice University. In addition, two recent alumnae moved to research positions at Johns Hopkins University and Boston University.

Projects, Grants, and Initiatives

Professor David Mindell and Elizabeth Reynolds, executive director of MIT Industrial Performance Center and lecturer in the Department of Urban Studies and Planning, received an award from the Ralph C. Wilson Jr. Foundation to research the Work of the Future over a two-year period from November 1, 2018–December 31, 2020.

The National Science Foundation Doctoral Dissertation Improvement Research Grant (DDIRG) was awarded to doctoral student Michelle Spektor, titled “From Documents to Data: The Politics of National Biometric Identification Systems in the 21st Century,” was awarded on May 1, 2019. Professor Jennifer Light serves as the principal investigator.

The National Science Foundation three-year project led by Professor David Kaiser, titled “INSPIRE: Testing Bell’s Inequality with Astrophysical Observations,” was extended for an additional year, and will conclude August 31, 2020.

Professor Emeritus Louis Bucciarelli completed his final year of a two-year grant from the National Science Foundation to support a collaborative research project titled “Liberal Studies in Engineering—Broadening the Path to the Profession: Feasibility Study.” The project ended August 31, 2018.

Ongoing Program Activities

STS activities bring a wide variety of distinguished scholars to the MIT campus. In AY2019, STS collaborated with Anthropology Program and History Section to produce two joint events surrounding democracy, citizenship, and technology.

The events were held in the fall. The first event, Social Media and Democracy, was moderated by our own program head, Professor Jennifer Light, with a discussion panel including Siva Vaidhyanathan, University of Virginia; Joan Donovan, Data and Society; and, Daniel Weitzner and David Edelman, both from MIT. The second event, Elections and Technology, was merged with the annual Arthur Miller Lecture on Science and Ethics to bring together a panel discussion featuring Dan Wallach, Rice University; Daniel Kreiss, University of North Carolina, Chapel Hill; and Moon Duchin, Tufts University; and, was moderated by Alex Reiss-Sorokin, graduate student in the HASTS Program.

Both events were well received, with well over 100 people in attendance. The Arthur Miller Lecture on Science and Ethics also funded a sit-down buffet dinner reception for all in attendance after the panel discussion. This was greatly appreciated as it helped foster an environment for continued discussion in smaller groups with both speakers and attendees. It was very well received and the Miller family have expressed their continued support for this forum.

In spring, STS administered the annual Benjamin Siegel Prize. The prize is awarded to the MIT student submitting the best written work on issues in science, technology, and society. Competition for the prize, in the amount of \$2,500, is open to undergraduate and graduate students from any school or department of the Institute. This year’s committee awarded the prize to MIT Comparative Media Studies/Writing graduate student Samuel R. Mendez for his paper “All of Us? A Case for Ritual Communication in Community Engagement for Health Equity”.

Knights Science Journalism Fellowship Program

The 2019 academic year at the Knight Science Journalism (KSJ) Fellowship program and our digital magazine *Undark* was particularly celebratory, as we commemorated the KSJ program's 35th anniversary in October 2018, accepted the highly prestigious George K. Polk Award on behalf of *Undark* in February, and honored the first recipients of our new Victor K. McElheny Award in Science Journalism, named for the KSJ founding director, in April.

We began the year in August 2018 welcoming the 36th class of Knight Fellows—10 distinguished journalists selected from a competitive pool of more than 120 applicants. The 2018–2019 Fellows—Pakinam Amer, Magnus Bjerg, Talia Bronshtein, Lisa De Bode, Tim De Chant, Jason Dearen, Jeffrey DeViscio, Elana Gordon, Rachel Gross, and Amina Khan—came from a range of high-end publications, including *Nature Middle East*, *STAT*, *NOVA*, *Associated Press*, and *Los Angeles Times*.

In August, we also welcomed our new associate director, Ashley Smart, a former KSJ fellow and a long-time editor at *Physics Today*, who replaced David Corcoran in mentoring fellows, planning our biweekly seminar series, managing the KSJ website (including the internship editing), and working for *Undark* as the op-ed editor. Smart was also put in charge of overseeing the selection process and award ceremony for the inaugural Victor K. McElheny Award.

Director Deborah Blum, who leads the program and serves as publisher of *Undark*, published her sixth book in September 2018. A narrative science history of American food safety, *The Poison Squad* was named a 2018 Notable Book by *The New York Times* and was optioned as a documentary film by PBS.

In addition, KSJ hired a new audience engagement editor, Frankie Schembri, a graduate of the MIT Graduate Program in Science Writing (GPSW), who continues to increase the readership and recognition of *Undark*. The award-winning magazine is edited by former *New York Times* journalist Tom Zeller, Jr. In 2018, long-time associate editor Jane Roberts was promoted to deputy editor of *Undark*. She now trains and oversees four GPSW interns in conducting fact-checking for *Undark*.

The KSJ's 35th anniversary was marked in October with an evening dinner event for alumni and friends of the program at the MIT Media Lab. This special occasion was also our formal launch event for the Victor K. McElheny Award. The award honors outstanding coverage of science, public health, technology, and environmental issues at the local or regional level—a special concern of Victor's, who also pledged a highly generous gift to help endow it. Director Deborah Blum and staff continued fundraising for the Victor K. McElheny Award in 2018 by securing a seed grant from the Rita Allen Foundation to inaugurate, promote, and carry out the annual competitive award. By February, more than 100 entries were received, and a select panel of judges nominated a team of reporters from the *Charleston Post and Courier* for their investigative series "Into the Gulf Stream" that shed light on a little-known impact of climate change and an overlooked risk of offshore drilling in the eastern U.S. The reporting team, Tony Bartleme, Chad Dunbar, and Emory Parker, were recognized for their achievement with

an afternoon award ceremony at MIT's Samberg Conference Center in April. Afterward, the award recipients enthusiastically joined the KSJ for a fun-filled evening at our second science trivia party at Mamelah's restaurant during the 12th Cambridge Science Festival. The "bonus round" questions were based on their investigative reporting for "Into the Gulf Stream," and the winning team secured their title by correctly answering questions about the piece. The event sold out every table, even after being expanded over last year's science trivia event.

This year, in only its third year of publication, *Undark* received the prestigious George K. Polk Award for environmental reporting. The prize, announced at the National Press Club in Washington on February 19, 2018, recognized the work of two-time Pulitzer Prize-winning photojournalist Larry C. Price and contributing *Undark* reporters for a seven-part series on global air pollution, published between August and December 2018, called "*Breathtaking*." Conceived and orchestrated by *Undark*'s editorial team and supported in part by the Pulitzer Center on Crisis Reporting, the *Breathtaking* project visited seven countries on five continents to document—in text, drone footage, still photography, and innovative 360-degree video—the impacts of fine particulate air pollution.

In AY2019, Knight Fellows audited a range of courses at MIT and Harvard and developed individual research projects that uniquely leveraged their time with us. Projects ranged from researching the case of a pharmaceutical compounding center that exposed hundreds of people to deadly fungal infections, to developing ways to harness cloud computing's decentralization for journalism, to finding pathways to human empathy through virtual reality. In addition, the fellows engaged with an extensive curriculum of seminars, workshops, tours, and field trips designed by the KSJ faculty and staff to introduce them to top researchers and research sites in New England, hone their writing and science reporting, and boost their media production skills. KSJ hosted more than 40 semiweekly science and journalism skill seminars over the course of the year, featuring a roster of distinguished speakers, including leading scholars from MIT and Harvard, such as SHASS Dean Melissa Nobles, David Mindell, Nancy Krieger, Rosalind Picard, Feng Zhang and Benjamin Decker; science policymakers like Gina McCarthy; and acclaimed journalists like Helen Branswell, Christie Aschwanden, and Carl Zimmer. Seminars are open to the public; each week we send announcements inviting the MIT community to join, and we frequently welcome student, faculty, and staff attendees from around the Institute.

The KSJ also organized four training workshops for the fellows in AY2019. One focused on mobile photography and was taught by Duy Linh Tu from Columbia University. Iby Caputo, a former KSJ fellow and a Columbia University adjunct, taught one focused on podcasting and audio storytelling. The third focused on statistics for journalists and was taught by Jessica Ancker, of the medical bioinformatics department at Cornell University. Finally, former Knight fellow and environmental journalist and author Meera Subramanian held a writing workshop in the spring. Fellows embarked on multiday field trips to meet with researchers at the Marine Biological Laboratory and the Woods Hole Oceanographic Institution in Woods Hole, Massachusetts, and in Bar Harbor, Maine, at the Jackson Laboratory and the Mount Desert Island Biological Laboratory. In addition, fellows received travel stipends that enabled them to conduct research for

their projects or attend a conference of their choosing. One fellow traveled to Mexico City and surrounding areas with a team of public health specialists; another traveled to Los Angeles to join a group of artists and scientists exploring new methods for creating immersive virtual reality experiences. Several fellows also attended the Online News Association Meeting in Austin, Texas, in September; the AAAS Annual Meeting in Washington, DC, in February; and the popular March 2019 conference, *The Power of Narrative*, hosted by Boston University.

With continued funding from the Kavli Foundation, and a new grant from the Gordon and Betty Moore Foundation, the KSJ also devoted a significant part of the year to supporting science journalism nationally through improved training and education. In 2019, Kavli renewed the grant for another year, which is enabling the planning of a sixth symposium for science editors ahead of the Online News Association meeting in New Orleans this September. The Knight Science Journalism program is supported by an endowment from the John S. and James L. Knight Foundation, and by additional alumni and foundation gifts.

Faculty

Assistant Professor Dwaipayan Banerjee completed the third year of his appointment at MIT. He was on research leave over this period, consecutively taking a junior faculty research leave and an Old Dominion leave. Over this leave period, Professor Banerjee successfully completed two book manuscripts: “*Enduring Cancer, Life, Death and Diagnosis in Delhi*” (forthcoming in 2020, Duke University Press) and “*Hematologies: The Political Life of Blood in India*” (forthcoming in 2019, Cornell University Press). Towards the progress of the book, Professor Banerjee convened a book workshop and garnered positive reviews from both workshop participants and press reviewers. He also began work on a new project, *A Counter History of Computing in India*. This project was awarded the Levitan Prize in the Humanities by MIT. He continued his membership at the American Anthropological Association, presenting research on the social experience of cancer in India at the annual conference in San Jose, California. Over this year, Professor Banerjee gave the keynote address at Harvard’s Ways of Knowing conference and gave an invited talk at the Science Studies colloquium at the University of San Diego. He also attended the annual South Asia conference at the University of Madison, presenting a paper on creativity in ethnographic writing. He was also an invited participant at a book workshop at the Watson Institute at Brown University. Continued his publishing work, Professor Banerjee contributed two research articles in leading journals. The first, “*Analysis of Social Science Research into Cancer Care in Low- and Middle-Income Countries,*” was published in the *Journal of Global Oncology*. The second, “*Cancer and Secrecy in Contemporary India,*” was published in *BioSocieties*. Professor Banerjee also served his discipline by peer reviewing for its flagship journals, *Medical Anthropology Quarterly*, *Medical Anthropology*, *American Ethnologist*, the *Journal of the Royal Anthropological Institute*, and *Cultural Anthropology*.

Associate Professor William Deringer completed his fourth year as a member of the STS faculty in AY2019, and his third as Leo Marx Career Development Assistant Professor. During the year he continued research toward his current book project, “*Discounting: A History of the Modern Future (in One Calculation).*” That project traces the history

of “exponential discounting”—a powerful calculation widely used to place a “present value” on future economic outcomes—from their early-modern origins through the present. Much of his research work during the year focused on excavating the social history behind some of the earliest printed discounting tables, which emerged in England during the 1610s–1620s. He presented the results of that research—“Just Fines: Discounting Tables, Church Lands, and Algorithmic Fairness, c. 1628”—at an invited talk at the University of Ottawa Telfer School of Business in May. He also presented preliminary results of that research at the Max Planck Institute for History of Science in Berlin, the History of Science Society annual conference, and at the Public Economics lunchtime workshop in MIT’s Department of Economics. Professor Deringer also spoke at the World Economic History Congress at MIT on his first book, *Calculated Values: Finance, Politics, and the Quantitative Age* (Harvard University Press, 2018). During the academic year, *Calculated Values* was reviewed in seven academic journals and was shortlisted for the Oscar Kenshur book prize from the Center for Eighteenth-Century Studies at Indiana University. In addition, he welcomed the publication of the 2018 edition of the annual History of Science Society journal *Osiris*, on the theme of “Science and Capitalism: Entangled Histories,” which he co-edited along with Lukas Rieppel of Brown University and Eugenia Lean of Columbia University, and which contained a new research article by him as well (“Compound Interest Corrected: The Imaginative Mathematics of the Financial Future in Early Modern England”). At MIT, Professor Deringer initiated two new subjects, STS.047 Quantifying People: A History of Social Science” (undergraduate) and STS.414 Risk, Fortune, and Futurity (graduate seminar, co-taught with History professor Caley Horan), and taught his undergraduate subject STS.002 Finance and Society. He also collaborated with an interschool team on the development of a new first-year exploratory subject, SP.246 The Future: Global Challenges and Questions. His service contributions included serving as the undergraduate officer for STS, as a member of the graduate admissions committee for the HASTS doctoral program, and as a faculty fellow of the SHASS Burchard Scholars Program (fall 2018). During the year, Professor Deringer successfully passed review for promotion, and will begin as associate professor without tenure (AWOT) in July 2019.

Professor Deborah Fitzgerald completed two articles this year, both of which are in press. One considers the idea of expertise as applied to agriculture, and charts the rise of scientific expertise in that arena. The other explores the role of World War II in the industrialization of food, focusing on the creation of “time-insensitivity” in food production and consumption, and will appear in a special issue of *ISIS*. This is part of her book manuscript on WW II. She was interviewed by MIT’s *Spectrum* on this research as well. She presented her work at the European Rural History Organization in Spain in September, organized two sessions at the Agricultural History Society annual meeting, and commented on a session at the History of Science annual meeting. In addition, she was keynote at a conference on the importance of humanities and social science education in science-oriented universities at the University of Grenoble-Alpes. She was also interviewed on this topic by *Chemical Engineering News*.

Professor Fitzgerald’s service to the profession included writing promotion and tenure letters for scholars at Cambridge University, University of Michigan, the Korean Advanced Institute of Science and Technology (KAIST), University of Delaware,

Washington University in St. Louis, University of California Santa Cruz, University of Tennessee at Knoxville, Perdue University, Iowa State University, and University of Texas at Austin. She read manuscripts for MIT Press and University of Washington, served on a selection panel for the American Council of Learned Societies (year 2), and evaluated applications for the American Academy in Berlin, the Radcliffe Institute, and the Guggenheim Foundation. Within the department she continued to co-chair the Seminar in Environmental and Agricultural History (formerly Modern Times Rural Places), now in its 19th year. She chaired the tenure committee for senior hire Kate Brown, and served on a committee to organize the coming year's colloquia. She also taught two undergraduate classes, one an introduction to the field and the other an exploration of "risk society." She was primary advisor to eight MIT freshmen as well. Professor Fitzgerald continued to serve on the President Reif's Open Access Publishing committee, the MIT Commencement Committee, the Center for International Studies selection committee, the School of Humanities, Arts, and Social Sciences Gender Equity Committee.

Professor David Kaiser completed a book during the 2018–2019 academic year, "Quantum Legacies: Dispatches from an Uncertain World" (to be published by the University of Chicago Press in 2020) as well as seven research articles in physics and the history of science and several other brief essays. He continued to co-direct the Density Perturbations Group in MIT's Center for Theoretical Physics with Professor Alan Guth, which focuses on theoretical studies of early-universe cosmology. Together with Professor Anton Zeilinger (University of Vienna), Professor Kaiser also continued to lead the international Cosmic Bell collaboration, which has designed and conducted novel experimental tests of quantum entanglement. The group's most recent experiment (published in *Physical Review Letters* in August 2018) constrained classes of alternative models to quantum mechanics more dramatically than ever before. By using real-time astronomical observations of light from very distant quasars, the experiment constrained various departures from ordinary quantum mechanics to have been set in motion no more recently than 8 billion years ago. The experiment was featured in a cover story in *New Scientist* magazine and was also the subject of a one-hour documentary film, "Einstein's Quantum Riddle," which premiered on US Public Television Stations in January 2019. He also consulted on and appeared in a new BBC documentary film about Albert Einstein and Stephen Hawking, which premiered in the United States in March 2019, and was a guest on the National Public Radio program *Science Friday* to discuss early experiments on the speed of light. Professor Kaiser spent several weeks during summer 2018 as a visiting scholar at Balliol College, University of Oxford, as part of the MIT-Balliol exchange program. During the year he also delivered invited colloquia and public lectures at the Institut Astrophysique de Paris, the Boston Museum of Science, Florida State University, the Jet Propulsion Laboratory, Harvey Mudd College, the University of Illinois at Urbana-Champaign, and the American Museum of Natural History. Professor Kaiser chairs the Editorial Board of the MIT Press, serves as an associate editor of *Historical Studies in the Natural Sciences*, and serves on the advisory boards for *Nautilus* and *Undark* magazines. He served on the MIT Working Group on Social Implications and Responsibilities of Computing, on the search committee for a new director of the Max Planck Institute for the History of Science in Berlin, on the Alumni Advisory Board for the Department of Physics and Astronomy at Dartmouth College, and chaired the Committee on Honors and Prizes for the History of Science

Society. He served as the principal advisor for one postdoctoral scholar (in Physics), five PhD students (four in HASTS, one in Physics), and as a dissertation committee member for another eight PhD students (three in HASTS, three in Harvard's Department of History of Science, one in Physics and Astronomy at Dartmouth College, and one in History at the University of Texas at Austin).

Professor Jennifer Light completed her first term of service as director of STS on June 30, 2019. Her revised book manuscript, "States of Childhood," was accepted for publication by MIT Press, and she published a paper in *Harvard Educational Review* in March 2019. Professor Light also wrote a book chapter in William Aspray, ed., "Historical Studies in Computing, Information, and Society" (forthcoming). Professor Light gave invited lectures to the University of Colorado Department of Information Science, MIT Department of Architecture, Dartmouth Department of Geography, and MIT New Engineering Education Transformation (NEET) Program. She participated as a moderator and commentator at panel discussions organized by the MIT HASTS Program, the History of Science Society, and the American Historical Association. Professor Light served on editorial boards for *IEEE Annals of the History of Computing*; *Historical Studies in the Natural Sciences*; *Information and Culture*; and *Journal of Urban History*. She refereed manuscripts for these journals, as well as several university presses, and also reviewed multiple tenure and promotion cases for peer institutions. At MIT, Professor Light served on dissertation and master's thesis committees for PhD students in HASTS, Urban Studies and Planning, and Architecture, participated on dissertation committees for students at Northwestern University (Screen Cultures) and Harvard (Anthropology), and hosted visiting students from Yale and the University of Cambridge. She received a d'Arbeloff grant to develop new course materials for the NEET Program. In addition to her regular duties as department head, Professor Light served on an associate professor without tenure committee in DUSP, participated on the Institute-wide Martin Family Society of Fellows for Sustainability selection committee and Working Group on Faculty Appointments for the MIT Schwarzman College of Computing, and chaired the committee that created the new HASS Concentration, Computing and Society, that will debut in fall 2019. In recognition of her contributions to the history of computing and information technology, the Charles Babbage Institute appointed her a senior research fellow for 2019–2022.

Associate Professor Robin Wolfe Scheffler passed several important milestones during his fourth year with the Program in Science, Technology, and Society, capped by his promotion to associate professor and the release of his first book, *A Contagious Cause: The American Hunt for Cancer Viruses and the Rise of Molecular Medicine*, with the University of Chicago Press—the leading press in the history of science—in spring 2019. Reflecting widespread interest in his work in scientific and academic venues, Professor Scheffler gave invited talks at the Fred Hutchinson Cancer Research Center, Haverford College (as a distinguished visitor), the American Philosophical Society, and served as a keynote speaker at the Northeastern Science and Technology Studies Conference and a paper "Political History of Molecular Medicine," at the American Association for the History of Medicine. He completed an article for the *Canadian Medical Association Journal* and blog posts for the National Library of Medicine on aspects of the history of cancer viruses. He is well into a collaboration with University of Virginia sociologist Natalie Aviles on the

organizational aspects of cancer virus research, for publication in *Social Studies of Science*. He also spoke about his book at the Harvard Bookstore and the University of Chicago Seminary Coop, as well as appearances on the New Books Network and WLWU in Chicago. Professor Scheffler's second project, "Genetown: The Biotechnology Industry in Greater Boston," has also made rapid progress and drawn broader attention. In this year, his work was featured in *Curbed* and *Spectrum*, and he is in the revise and resubmit stage for an article using humor as a source for labor ethnography in the context of a British biochemistry laboratory for publication in *Isis*, the leading journal in the history of science.

Professor Scheffler served this year as a faculty advising member of the weekly graduate student professional development seminar, providing feedback on conference papers and article drafts as part of that work. He also served as a reader of graduate student applications to HASTS. He supervised a qualifying examinations list on "Neuroscience and Society" for HASTS graduate student Eleanor Immerman, who passed her exams in February. Within MIT, he provided a guest lecture in the Course 20 senior capstone course, and began to serve as a member of the MIT Museum Life Science Advisory Committee and as an advisor and interviewee for MIT Video Productions. He remains a member of the Center for Environmental Health Sciences and of the steering committees for the Environmental Solutions Initiative Minor and the Global Health and Humanities Minor. He has also continued his service to history of science as a member of the History of Science Society's Suzanne J. Levinson Prize Committee, a steering committee member of the History of Science Society's Forum for the History of Health, Medicine and the Life Sciences, the American Association for the History of Medicine's Shyrock Prize Committee (2020), and as a reviewer of articles, books, and manuscripts. Professor Scheffler has also worked to expand his teaching in biology and society at the undergraduate level. In the fall, he taught 24.06 Bioethics in conjunction with the Philosophy Department and in the spring, he launched a new course with support of the Alumni Class Fund and the MIT Museum, STS.011 Engineering Life, which included a set of exhibits staged by the students during the Cambridge Science Festival that were viewed by nearly 300 people. His teaching efforts at the undergraduate level were recognized with a nomination for the Everett Moore Baker Award for Excellence in Undergraduate Teaching. He also designed and led a walking tour on the history of biotechnology, "Genetown" during the Independent Activities Period, which had 35 attendees from across the Institute.

Professor Merritt Roe Smith delivered an invited plenary lecture on "John H. Hall and Harpers Ferry's Role in the Industrial Revolution" as part of the 75th Anniversary Commemorative Program of the Harpers Ferry National Historical Park in May 2019. A month later he returned to the park to participate on a panel of authors who have written about Harpers Ferry's history. He also delivered a keynote address at the National Endowment for the Humanities Workshop for Teachers at the University of Massachusetts, Lowell, and the Tsongas Center of the Lowell National Historical Park on "The Rise of American Capitalism in International Context and the Emergence of the 'American system' of Manufacturing." After over 25 years at the helm, Professor Smith stepped down as the editor of the acclaimed Johns Hopkins University Press series in the history of technology, during which he oversaw the publication of over thirty monographs. He continues to serve on the editorial board of *Vulcan* (a journal

devoted to the history of military technology) and on the national advisory committees of the Thomas A. Edison Papers (Rutgers University), the American Precision Museum (Windsor, VT), and the Lincoln Prize in Civil War History (Gettysburg College). His committee service at MIT included the chairmanship of the Siegel Prize (essay) Committee, the Siegel Teaching Prize, and the Kate Brown Appointment Committee, for which he wrote the letter on Kate Brown's teaching. He also served on the Will Deringer AWOT committee in STS.

Professor Sherry Turkle was on academic leave this year, focusing on her intellectual memoir, which explores the relationship between personal experience and professional passion. The book is under contract to Penguin Books and is provisionally titled "The Memory Closet." She curtailed her speaking this year in order to devote herself to writing, but delivered several major addresses that sketch out the shape of her next project on technology and ethics. She delivered the Hitchcock lectures at the University of California at Berkeley in February, "The Assault on Empathy: The Promise of a Friction-Free Life" and "The Assault on Empathy: The Promise of Artificial Intimacy." She delivered keynote addresses at the inauguration of the MIT Schwarzman College of Computing and the 25th Anniversary Celebration of the founding of the Electronic Privacy Information Center (EPIC), and was class speaker for her Harvard College 50th class reunion. All of these presentations addressed the ethics of artificial intelligence and the new challenges of digital life. The presentation at Harvard focused on the costs of taking the aesthetics of the "friction-free" life, an engineering value, and projecting it into the social sphere. She also continued her work as an interpreter of digital culture in the wider media. This year she devoted her time to an eight-part HBO special on artificial intelligence directed by Bennett Miller, and to Alan Alda's podcast "Clear and Vivid."

Professor Turkle continues active board and non-profit work. This year she began a term on the Harvard College visiting committee, continuing as an advisor for the Children's Screen Time Action Network (a Project Campaign for a Commercial-Free Childhood) and the Boston Children's Museum; Professor Turkle is on the board of directors of EPIC and the Society of Responsible Robotics. She is also on the executive boards of *The Public Eye*; *Science, Technology, and Human Values*; and *Philosophy and Technology*.

Jennifer S. Light
Head