BIOMEDICAL SCIENCE
LITERATURE
ADMINISTRATION OF JUSTICE

The Vilcek Foundation presents the recipients of the 2020 Vilcek Foundation Prizes

Vilcek Prize in Biomedical Science	Xiaowei Zhuang
Vilcek Prizes for Creative Promise in Biomedical Science	Kıvanç Birsoy Viviana Gradinaru Martin Jonikas
Vilcek Prize in Literature	Edwidge Danticat
Vilcek Prizes for Creative Promise in Literature	Yaa Gyasi Valeria Luiselli Jenny Xie
Vilcek Prize for Excellence in Administration of Justice	Robert A. Katzmann

Contents

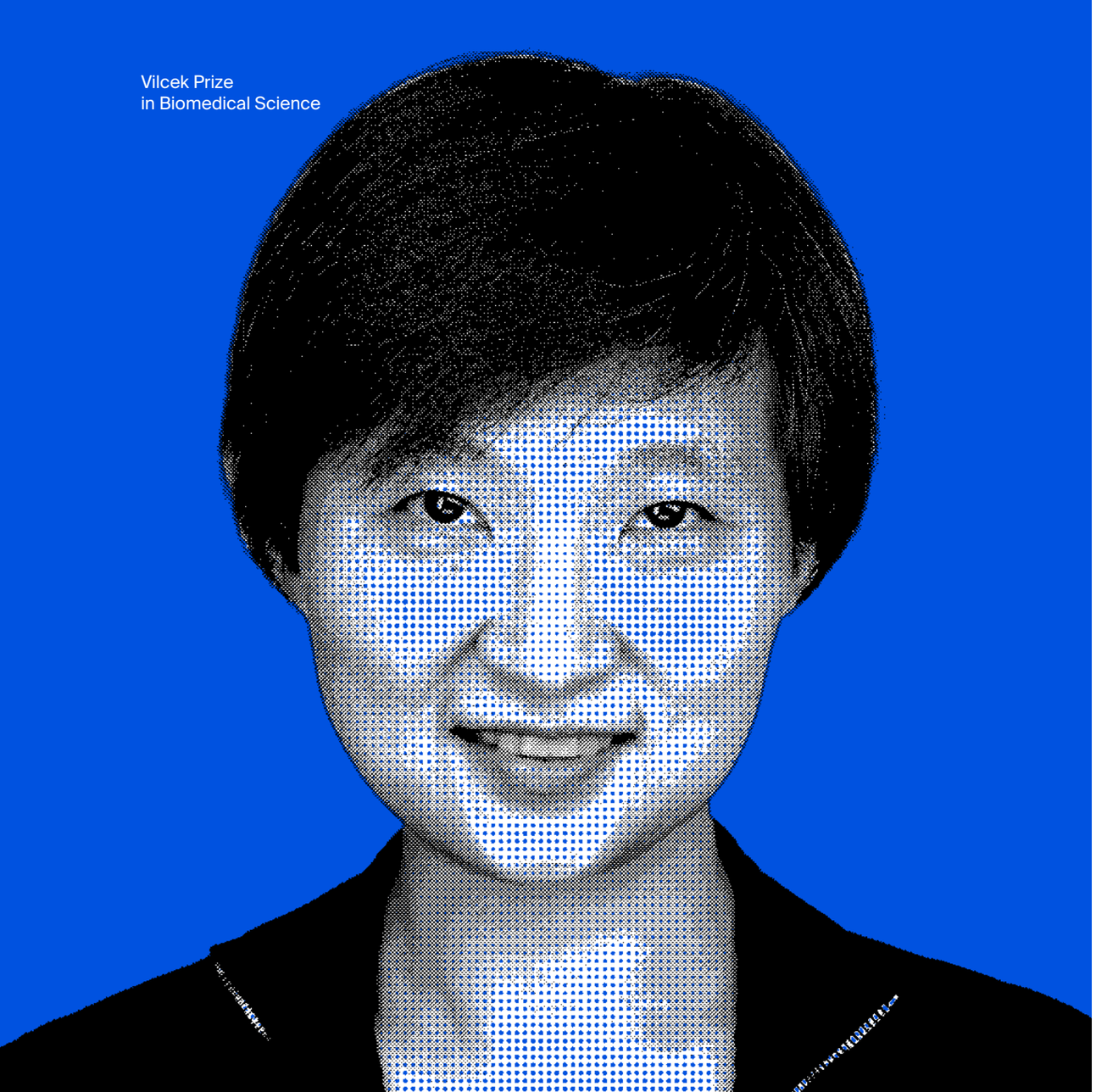
The Vilcek Foundation

The Vilcek Foundation was established in 2000 by Jan and Marica Vilcek, immigrants from the former Czechoslovakia. The mission of the foundation, to honor the contributions of immigrants to the United States and to foster appreciation of the arts and sciences, was inspired by the couple's respective careers in biomedical science and art history, as well as their personal experiences and appreciation for the opportunities they received as newcomers to this country.

Left: Jan and Marica Vilcek
Right: The Vilcek Foundation

The Vilcek Foundation Prizes

The Vilcek Foundation Prizes were created to spotlight and support the immigrant contributions that are invaluable to the United States. Each year, the Vilcek Prizes honor immigrants with records of major accomplishment in the biomedical sciences or the arts and humanities, while the Vilcek Prizes for Creative Promise commend young foreign-born professionals in the same fields. The Vilcek Prize for Excellence is awarded to an immigrant who has demonstrated unparalleled achievements in their field, or to an advocate who has championed immigrant causes.



XIAOWEI ZHUANG
CHINA

Xiaowei Zhuang's approach to science is resolutely visual. Over a distinguished career, Zhuang, a professor at Harvard University and a Howard Hughes Medical Institute Investigator, has fashioned ingenious methods of imaging to observe the fretwork and interplay of molecules in cells. Marked by unerring scientific instincts and a refined aesthetic sensibility, her work in the fields of super-resolution fluorescence microscopy and genome-scale imaging is the apotheosis of the adage "show, don't tell." Zhuang has unveiled fine structures in animal cells previously unknown to science as well as profound insights into animal physiology and behavior. Her work has earned her coveted honors, including memberships in the U.S. National Academy of Sciences, Chinese Academy of Sciences, and European Molecular Biology Organization, and a 2019 Breakthrough Prize in Life Sciences.

Zhuang's fascination with science was inspired by the academic environment in which she was raised. She was born in China's Jiangsu province to a physicist father and a mechanical engineer mother, both university professors. Even before she began elementary school, her father spotted her scientific precocity. At the age of 6, she correctly guessed the physical forces acting on a cup of water resting on a table. Later, as it became clear that physics

was her calling, her father urged her to move to the United States after she graduated with a bachelor's degree in physics from the University of Science and Technology of China.

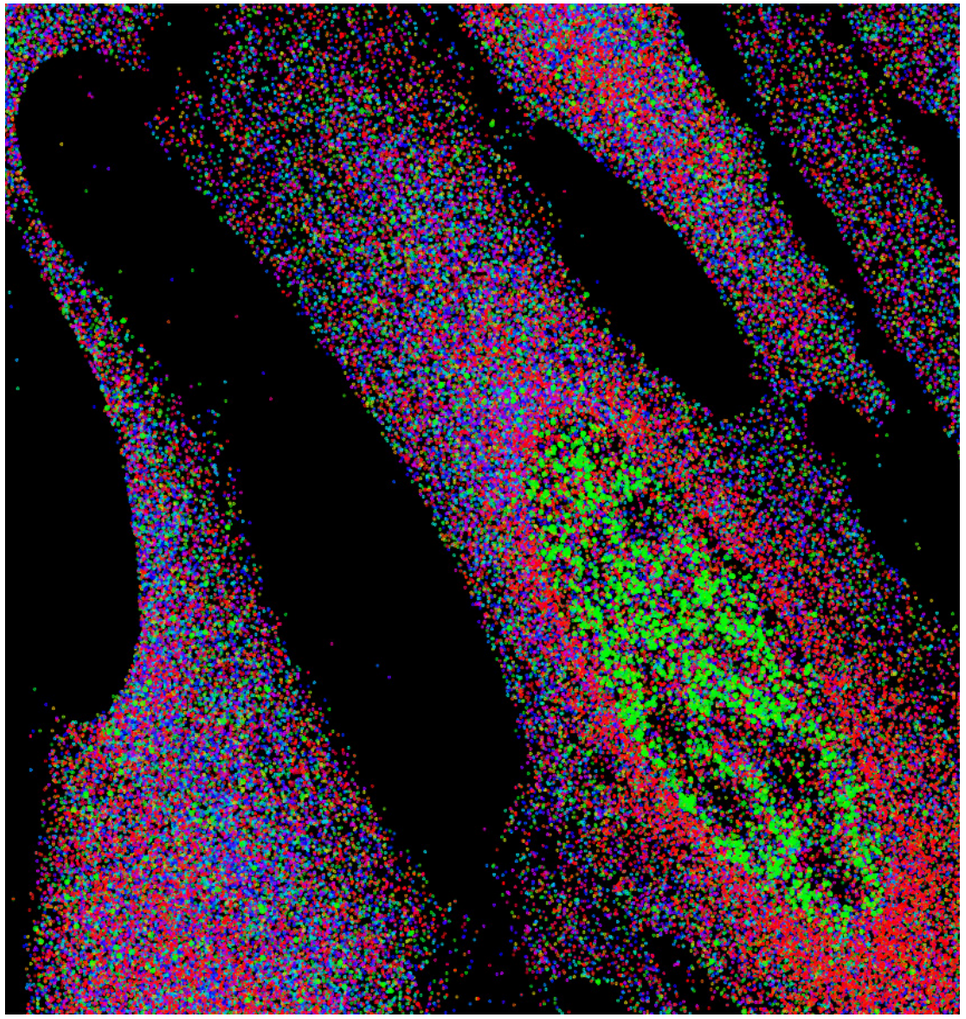
In 1991, Zhuang enrolled for a doctorate at the University of California, Berkeley. With physicist Yuen-Ron Shen, an inspiring mentor, Zhuang worked on the physics of interfaces using nonlinear optics, publishing studies with implications for improving liquid crystal displays in electronic devices. But she soon forsook her pursuit of pure physics. In 1997, supported by a postdoctoral fellowship, Zhuang joined the lab of Stanford University physicist Steven Chu, who won a share of the Nobel Prize in Physics that year for his work on using lasers to explore the physics of atoms.

Zhuang's apprenticeship with Chu marks a pivotal stage in her career. Chu encouraged her to follow her instincts but never to lose sight of the long view. Heeding his advice, Zhuang pivoted to biophysics, a field that combines the profundity of physics with the immediacy of biology. In Chu's lab, Zhuang marshaled her expertise in physics to visualize the workings of individual molecules. She used a technique called single molecule fluorescence resonance energy transfer to observe the structure and dynamics of RNA enzymes, which play life-sustaining roles in cells.

The work whetted her appetite for biological imaging, and when she accepted an assistant professorship at Harvard University in 2001, she chose to focus on imaging. At Harvard, she set to work on a technical hurdle facing light microscopy, which was a method of choice since the late 17th century to peer inside living cells.

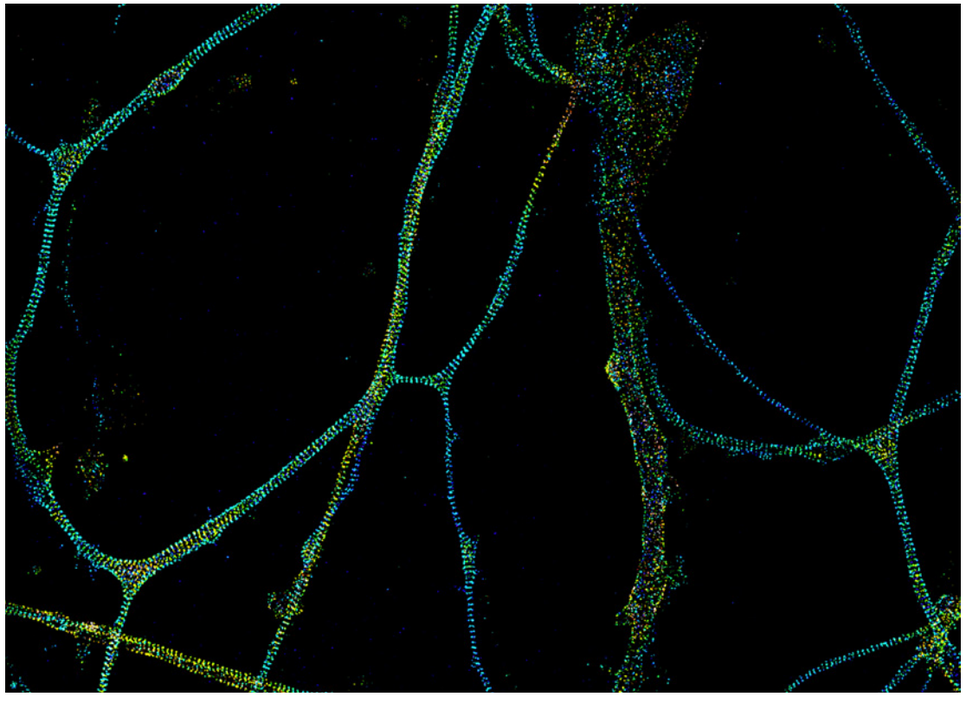
The hurdle, named diffraction barrier, had long stymied researchers' efforts to visualize the hidden world of cells at high resolution. It stems from the inability to focus light on a spot small enough to distinguish objects spaced less than 200 nanometers apart, capping the lateral resolution of conventional light microscopes at that limit. But many molecules in living cells are no more than a few nanometers in size, and observing interactions between molecules meant that approaches to surpass the diffraction barrier had to be invented. These approaches came to be known by the umbrella term "super-resolution imaging."

Zhuang developed one of the most widely used super-resolution imaging methods. Dubbed STORM, or stochastic optical reconstruction microscopy, the approach harnessed fluorescent molecules that can be switched on and off using light. Her lab discovered such light-switchable dyes, and Zhuang used low light levels to activate no more than a fraction of the dye molecules labeling the target structure in cells, such that the images of individual dye molecules could be separated and the molecules' positions determined. She then repeated this sparse sampling to generate a complete image that covered all of the target. A year later, Zhuang extended the boost in resolution to the third dimension. She acquired meticulously detailed images of cellular structures, such as clathrin-coated pits, which are membrane cavities that serve to ferry cargo, and microtubules, which are filamentous tubes that act as highways in cells.



Genome-scale RNA imaging of individual cells by multiplex error-robust fluorescence in situ hybridization (MERFISH). 10,050 genes are imaged here and different genes are denoted by different colors.

Before long, Zhuang showed that STORM could unearth novel insights into structures hidden in cells. Zhuang revealed a backbone structure in axons, which are the main strands of brain cells through which electrical signals travel. In this backbone, actin rings were wrapped around the shafts of axons, each ring separated from the next by 180–190 nm. Such precise spacing, Zhuang found, stemmed from 180–190 nm-long tetramers of the protein spectrin, which serves as a spacer connecting the actin rings. She and others later showed that this structure also exists in dendrites, which are branching protrusions of neurons. Zhuang dubbed this backbone "membrane-associated periodic skeleton," which provides elasticity and stability to the axons as well as a template for organizing signaling proteins and ion channels on the surfaces of brain cells to support the cells' functions.



Membrane-associated periodic skeleton (MPS) in neurons revealed by stochastic optical reconstruction microscopy (STORM).

"When I checked to see who else had won the prize, I was amazed... I realized how many great immigrant scientists there are in this country."

Zhuang next focused on gene expression as a proxy for cellular identity. Because different types of cells in the body carry different signature gene expression profiles, visualizing and quantifying RNA molecules—immediate products of gene expression—can help create a molecular catalog of cell types that compose tissues. Zhuang developed an imaging method called MERFISH, or multiplexed error-robust fluorescent in situ hybridization, which took molecular imaging to the genome scale. Using MERFISH, Zhuang simultaneously imaged thousands of genes in single cells and charted networks of genes. MERFISH is a key tool in an ambitious international effort aimed at developing an entire human cell atlas—a master catalog of all the major cell types that make up a human being.

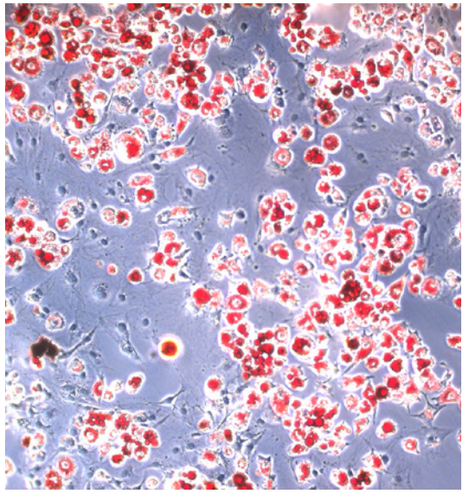
The ultimate goal of the Human Cell Atlas project is to uncover novel insights into human biology, and Zhuang has already made inroads toward that goal. Working with Harvard colleague Catherine Dulac, Zhuang used MERFISH and single-cell RNA sequencing to identify more than 70 distinct subtypes of neurons in a region of the mouse brain called the hypothalamic preoptic region, implicated in sleep, thirst, and social behaviors. Many of these neurons had never been described before, and Zhuang's efforts helped map their molecular identities, spatial organization, and functional links. In the process, a bounty of insights emerged on the neuronal basis of mating, parenting, and aggression in mice. Collectively, these insights hinted at the possibility of gleaning links between brain physiology and human behavior at an unprecedentedly fine scale.

Working at the forefront of imaging, Zhuang has made stellar contributions to science. Zhuang says moving to the United States broadened her view, which was pivotal to her success as a scientist. Her career is a shining example of immigration's role as a cornerstone of the U.S. scientific edifice. "I was truly honored when I heard about the Vilcek Prize. Afterwards, when I checked to see who else had won the prize, I was amazed. All of a sudden, I realized how many great immigrant scientists there are in this country," she says.

KIVANÇ BIRSOY TURKEY

Kıvanç Birsoy uses a counterintuitive approach to combat cancer. At a time when researchers are formulating treatments based on tumors' common genetic defects rather than their precise location in the body, Birsoy's approach returns the spotlight to the tumor microenvironment. An assistant professor at Rockefeller University, Birsoy has uncovered metabolic changes in cancer cells that stem from the altered environments in which they grow. These changes have unveiled potential therapeutic targets for an array of cancers. Along the way, Birsoy's work has uncloaked hidden aspects of normal cell metabolism that carry wide-ranging implications for treating human diseases.

From an early age, Birsoy was drawn to science. Born in the Turkish city of Izmir, whose storybook shoreline is lapped by the azure waters of the Aegean Sea, Birsoy was raised in a middle-class family. Despite the picturesque setting, his childhood unfolded against the backdrop of political instability tied to the Turkish military coup d'état of 1980. So it is understandable that his father (a dentist) and his mother (a high-school biology teacher) urged Birsoy to become a doctor—a career with assured job prospects. Birsoy, however, was disinclined to pursue medicine instead, nursing scientific ambitions. In high school, he became enamored with biology, winning coveted honors as part of the school's biology olympiad team and



Accumulation of lipid in cancer cells.

whetting his scientific appetite with enterprising stints of lab research. He followed his passion with an undergraduate degree in molecular genetics from Bilkent University in Ankara and resolved to pursue graduate research in the United States.

In 2004, Birsoy joined the lab of Rockefeller University's molecular biologist Jeffrey Friedman, who vaulted to prominence with the discovery of the appetite-regulating hormone leptin. There, Birsoy studied the molecular underpinnings of how fat cells develop. Working with a colleague, Birsoy identified a group of fat cell precursors called white adipose progenitor cells in the fat tissues of mammals—an advancement that could help unravel the onset of obesity. Birsoy pursued his interest in metabolism as a postdoctoral fellow in the lab of David Sabatini at the Massachusetts Institute of Technology. In Sabatini's lab, he set out to develop tools to probe the metabolic basis of human diseases, particularly cancer. "At the time, there was little understanding of how cancer cells rewire their metabolism to survive," says Birsoy.

At MIT, Birsoy used clustered regularly interspaced short palindromic repeats (CRISPR), a tool that has revolutionized researchers' ability to rapidly make precise genetic changes to cells, to probe metabolic changes in cancer. He began by demonstrating the role of mitochondria—energy factories of animal cells—in supporting cell growth and proliferation. Countervailing a long-held view that mitochondria's primary role in cancer is to serve as a source of energy for runaway division, Birsoy's gene manipulation experiments revealed that mitochondria's ability to make the amino acid aspartate is crucial for cancer.

Later, as assistant professor at Rockefeller, where he returned in 2016, Birsoy extended those findings, demonstrating that a range of human cancers—including blood, stomach, breast, and lung cancer—lose the ability to make aspartate when faced with low oxygen levels. Conversely, cancer cells resistant to oxygen deprivation trigger a mechanism that allows them to absorb aspartate from their surroundings. These findings suggest that blocking aspartate synthesis or uptake might represent a therapeutic strategy against cancer—one that might supplement radiation and chemotherapy.

Birsoy's demonstration of the role of metabolites in supporting tumor growth and proliferation relied on custom instruments he built from scratch. Dubbed nutrostats, the instruments can be used to grow cancer cells in precisely controlled, nutrient-limiting conditions that closely mimic the cells' natural environments in the human body. "There are thousands of metabolites in the human blood serum, and we still don't know which types of cancers are sensitive to particular nutrient depletions," explains Birsoy.

Pursuing that line of inquiry, Birsoy used the nutrostats, along with a DNA barcoding technique, to probe the nutrient dependencies of a rare type of immune cell cancer called ALK+ anaplastic large cell lymphoma (ALCL). Birsoy found that ALCL cells lose the ability to make cholesterol, resulting in the buildup of the cholesterol precursor squalene. Accumulated squalene, it turns out, gives the cells a growth advantage, particularly in the toxic environment of tumors. More importantly, they are unable to make their own cholesterol, which is crucial for survival and proliferation, the cancer cells take up LDL cholesterol from their surroundings. Birsoy found that this cholesterol uptake is mediated by a protein called the LDL receptor and blocking or crippling the receptor kills the cancer cells, unveiling a potential drug target for this rare cancer type.

"The lymphoma work was inspired by the first-line chemotherapy drug asparaginase, which is used to treat leukemias," says Birsoy. Many leukemias lack the ability to make the amino acid asparagine, relying on blood-borne asparagine for survival. The drug asparaginase breaks down asparagine in blood, killing cancer cells in the process. "So far, this is the only documented metabolite dependency exploited to develop a drug for blood cancer, and we wanted to explore other metabolites critical in other cancers," adds Birsoy. Eventually, Birsoy hopes to determine whether FDA-approved drugs that lower blood LDL cholesterol levels, such as statins and proprotein convertase subtilisin/kexin type 9 (PCSK9) inhibitors, might provide therapeutic benefits in ALCL.

In the coming years, Birsoy's work is poised to unearth a host of altered metabolic states that could serve as drug targets in cancer. Along the way, he hopes to uncover how normal mammalian cells rejigger their metabolism in response to nutrient deficiencies. Birsoy attributes his early success to the intellectual ferment and abundant opportunities for blue-sky projects in the United States. "Immigrating from a Middle Eastern country was a challenge, even back then, but I am glad I made the effort because it has certainly proved critical to my career," he says.

"Immigrating from a Middle Eastern country was a challenge, even back then, but I am glad I made the effort because it has certainly proved critical to my career."

Vilcek Prize
for Creative Promise
in Biomedical Science

VIVIANA GRADINARU ROMANIA

Viviana Gradinaru's talent for straddling disciplines has earned her a spot among today's preeminent young scientists. Part of a familiar breed of researchers who have used their expertise in physics to explore the mysteries of biology, Gradinaru has fashioned sophisticated tools for neuroscience. A professor of neuroscience and biological engineering at California Institute of Technology, she has developed ways to precisely control the activity of brain cells in living animals, explored the neuronal basis of deep brain stimulation for Parkinson's disease, uncovered neural circuitry underlying sleep disturbances, and fashioned advanced vectors for gene therapy that could someday help treat human diseases.

Gradinaru was born in Vaslui in northeastern Romania. Raised in a farming community under a communist regime, she grew up under straitened circumstances. Her parents, both factory workers, wished to give Gradinaru the higher education they had forgone. From an early age, Gradinaru developed an interest in engineering and fastened on physics in high school, encouraged by an inspiring teacher with an infectious love of the subject. Her talents were recognized when she was selected for the national physics olympiad in Romania, and thanks to a coveted fellowship, she pursued undergraduate physics at the University of Bucharest. But Gradinaru soon realized there was little support in Romania for high-stakes

> "working in the United States has given me tremendous access to diverse ways of thinking and different kinds of talent, and that's an approach that is sure to give results."

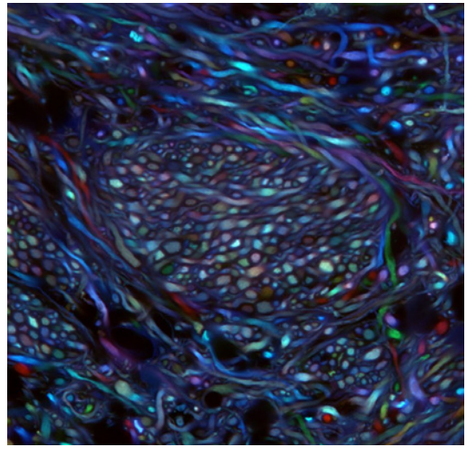
experiments in physics. So she applied to move to the United States and was accepted to study physics at Caltech.

At Caltech, however, Gradinaru learned that most projects in experimental physics involved small armies of researchers chipping away at monumental endeavors, such as large teams of particle physicists detecting signatures of subatomic particles in reams of data. "To me, that felt less rewarding than conceiving, designing, and executing an experiment from start to finish," she recalls. Which is why she pivoted to neuroscience, working with her undergraduate research mentor and neuroscientist Paul Patterson. The experience convinced her to pursue graduate research, and in 2005 she began a doctorate at Stanford University with neuroscientist Karl Deisseroth, whose widely acclaimed work in optogenetics—an approach to control the activity of individual brain cells in living animals using light—was just beginning to get off the ground.

With Deisseroth and colleagues, Gradinaru developed tools to probe the mechanism by which deep brain stimulation (DBS), a life-altering medical procedure for patients with Parkinson's disease, confers therapeutic benefits. She found that axons, which are slender stems of brain cells, and long-range neuronal projections are vital to therapeutic effects of DBS. The work triggered an avenue of research that preoccupied Gradinaru for the next several years. She began to look for ways to engineer and improve a set of tools called inhibitory opsins, which can be used to modulate brain circuits in animal models of disease. "I became, by necessity, a technology developer and protein engineer, and I ended up loving it," recalls Gradinaru. When she graduated with a PhD in 2010, she accepted an assistant professorship at Caltech after a brief stint in the biotech startup world.

At Caltech, working with colleagues, Gradinaru applied her skills to a wide range of problems in neuroscience, unearthing deep biological insights along the way. One crucial method she developed, dubbed PARS-CLARITY, can be used to clear tissues and render whole organs and entire bodies of rodents transparent for high-resolution visualization and mapping of normal as well as diseased structures, such as central and peripheral nerves, without damaging tissues. Today, PARS-CLARITY and its variants are used by researchers worldwide in combination with microscopy and molecular imaging methods. "These tissue-clearing methods helped us visualize, among other things, long-range neuronal projections and pathways, which is a prerequisite for identifying and restoring lost or damaged connectivity in disease," Gradinaru explains. "CLARITY has also expanded to other applications, such as monitoring microbial infections in animal models of diseases such as cystic fibrosis," she adds.

Another major technical advance by Gradinaru's team allows researchers to deliver genes to cells of interest in model organisms in a non-invasive manner. Using protein engineering, she developed gene delivery vehicles that ferry therapeutic genes to target cells when injected into the bloodstream. Some of these vectors, dubbed recombinant adeno-associated virus variants, are even capable of crossing the blood-brain barrier—a formidable hurdle facing therapeutic strategies targeting the brain. Breaching the barrier, the vectors deliver genes to the brain, potentially enabling the repair and restoration of damaged brain circuits without side effects. One such vector, Gradinaru reported in *Nature Biotechnology*, ferried genes throughout the central nervous system of rodents with a 40-fold higher efficacy than the current standard. Based on these advances, Gradinaru cofounded a biotech startup for the commercial development of gene therapy vectors for a range of human diseases.



Untangling the tangled webs inside our brains: the different colors represent pathways involving different cells that instruct diverse behaviors. Using optogenetics and tissue clearing via photoacoustic computed tomography (PACT), Caltech scientists could extract specific pathways for locomotion and reward.

On a related front, Gradinaru partnered with Caltech's Frances Arnold, who won a Nobel Prize in chemistry for her work in protein engineering, to improve opsins, the workhorse proteins of optogenetics. These improved opsins are more potent and noninvasive than conventional opsins and allow researchers to scale up and refine optogenetic approaches to study brain networks implicated in human diseases.

Gradinaru says her future goal is to make noninvasive deep brain modulation for treating human neurodegenerative disorders a reality. The impressive pace and growing roster of her accomplishments suggest that the goal is within her grasp. "The strong foundation in quantitative sciences I received back home in Romania was certainly instrumental in my success. One reason I was able to make advances in optogenetics was that the physics behind it came naturally to me. That said, working in the United States has given me tremendous access to diverse ways of thinking and different kinds of talent, and that's an approach that is sure to give results," she says.

MARTIN JONIKAS FRANCE

Martin Jonikas' work in biology exemplifies the old saying about the oak and the acorn. Jonikas has shown that a microscopic single-celled organism may hold the key to solving some of humanity's most monumental challenges. Over a decade, Jonikas, an assistant professor of molecular biology at Princeton University, has paved the way to unlock the hidden potential of the green alga *Chlamydomonas* to ensure global food security. Using the tools of genetics, Jonikas has refined *Chlamydomonas* into a versatile model to study the molecular basis of photosynthesis—a process vital to food production on Earth.

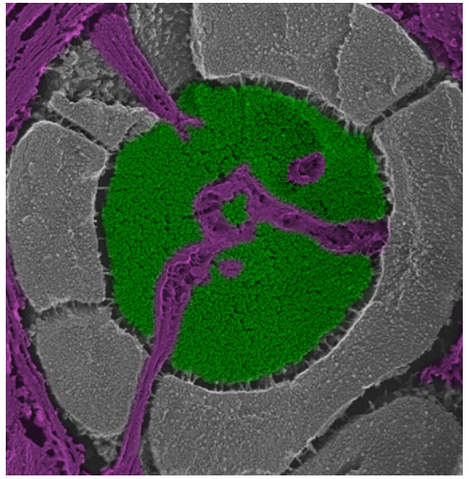
Jonikas was born in Paris, France, to a family that originally hailed from Poland. Raised in part by his maternal grandparents while his mother (a geophysicist) pursued an academic career and his father (a computer programmer) ran a small business, Jonikas was a naturally inquisitive child. When he was 8, the family moved to the United States, where his mother took a faculty position at the University of California, Berkeley. There, Jonikas' parents encouraged his vigorous curiosity and mechanical bent for crafting all manner of gizmos. Under the tutelage of his friends' parents, Jonikas blossomed, building remote-controlled gliders and robots.

Years later, he started a robotics team at Berkeley High School and continued to ply his mechanical skills as an undergraduate student of aerospace engineering at Massachusetts Institute of Technology, where he aced robotics contests.

While at MIT, Jonikas was so entranced by a molecular biology course taught by biochemist JoAnne Stubbe that he decided to change course and pursue a doctorate in biology. "She opened my eyes to the reality that the most amazing machines on Earth are living organisms," Jonikas says. Soon, Jonikas joined the lab of molecular biologist Jonathan Weissman at the University of California, San Francisco. Under the guidance of Weissman and together with then-postdoctoral fellow Maya Schuldiner and biochemist Peter Walter, Jonikas developed tools to probe genes involved in the proper folding of proteins in yeast cells.

Armed with expertise in high-throughput genetic analysis, Jonikas launched his own lab at the Carnegie Institution for Science on Stanford University's campus upon completing his PhD. There, he applied his skills to probe the biology of photosynthesis, the process by which carbon dioxide is converted into food by living organisms, veering toward a field of study that has since become the singular focus of his career.

At Stanford—and later at Princeton University, where he became an assistant professor in 2016—Jonikas focused on the alga *Chlamydomonas*, a research model for photosynthesis. At the time, however, only rudimentary tools were available to researchers working with *Chlamydomonas*. "The genetic toolbox for the alga was not nearly as well developed as it was for other models like yeast and bacteria," he recalls. Addressing that gap, Jonikas and colleagues developed a collection of more than 60,000 mutants in which specific genes had been disabled to examine their functions. The mutant collection serves as an invaluable resource for the research community; other researchers have used it to gain insights into diseases affecting cilia, which are whip-like projections from the surface of cells lining the human respiratory and digestive tracts, among other tissues. Jonikas' own work on the mutants led to the identification of more than 100 novel genes implicated in photosynthesis.



The Jonikas lab studies the pyrenoid, a mysterious cellular structure found in algae, which plays a key role in the global carbon cycle. Shown is the pyrenoid of the model alga *Chlamydomonas*. The pyrenoid consists of three sub-structures: a matrix, containing the CO2-fixing enzyme Rubisco (green); traversing membrane tubules (magenta); and a surrounding starch sheath (grey).

Extending that line of research, Jonikas and his team uncovered the biochemical architecture of a cellular structure crucial to photosynthesis. Discovered in the early 19th century and dubbed pyrenoid, the structure is nestled in the chloroplasts of algae like *Chlamydomonas* and harbors the key carbon-fixing enzyme Rubisco, which powers photosynthesis. Jonikas and his team unveiled the identity and location of dozens of novel proteins within the pyrenoid that make up its core structure, unraveling pyrenoids' layered organization and mode of assembly.

Moreover, contrary to previous thinking, Jonikas and coworkers found pyrenoids are not solid structures but liquid-like assemblies reminiscent of oil droplets coalescing in water. Though unbounded by membranes, pyrenoids, which enhance Rubisco's photosynthetic efficiency, are shared between daughter cells when cells divide. Jonikas' finding that pyrenoids belong to a class of cellular entities called "phase-separated organelles," formed by self-adhesion of component molecules, adds to a growing body of work that has become an intense focus of research in recent years.

"Pyrenoids are found in nearly all eukaryotic algae that inhabit the oceans, and we think they play a key role in the global carbon cycle," explains Jonikas. Because pyrenoids represent an evolutionary innovation that helps funnel carbon dioxide to Rubisco, they could boost the carbon-fixing capacity of some plants. "Our dream is to someday engineer pyrenoids into some of our major crop plants, including rice and wheat, with the goal of improving yield while minimizing nutrient, water, and land use," he says.

"Being an immigrant has also made me more accepting of differences among people and more welcoming of different perspectives to scientific problem solving."

Jonikas attributes his early success to his parents' farsighted decision to move to the United States. "Being in the U.S. was a huge opportunity for me as a scientist, especially given my nontraditional career path; I'm not sure I would have been able to switch from engineering to biology so easily had I not moved here. Being an immigrant has also made me more accepting of differences among people and more welcoming of different perspectives to scientific problem solving," Jonikas says.

Juries in Biomedical Science

Vilcek Prize

Titia de Lange
Leon Hess Professor of Cell Biology and Genetics
The Rockefeller University

Yuh-Nung Jan
Professor of Molecular Physiology
University of California, San Francisco

Dan R. Littman
Helen L. and Martin S. Kimmel Professor of Molecular Immunology
New York University School of Medicine

Joan Massagué
Director
Sloan Kettering Institute

Ruslan Medzhitov
Sterling Professor of Immunobiology
Yale School of Medicine

Alexander Rudensky
Chair, Immunology Program
Sloan Kettering Institute

Vilcek Prizes for Creative Promise

Heran Darwin
Professor of Microbiology
New York University School of Medicine

Laurie Dempsey
Senior Editor
Nature Immunology
Nature Publishing Group

Yibin Kang
Warner-Lambert/ Parke-Davis Professor of Molecular Biology
Princeton University

Harmit S. Malik
Principal Investigator
Fred Hutchinson Cancer Research Center

Luciano Marraffini
Professor of Bacteriology
The Rockefeller University

Leslie Vosshall
Robin Chemers Neustein Professor of Neurogenetics and Behavior
The Rockefeller University

Jedd Wolchok
Lloyd J. Old/Virginia and Daniel K. Ludwig Chair in Clinical Investigation
Memorial Sloan Kettering Cancer Center

Previous Prizewinners in Biomedical Science

Vilcek Prize

2019 Angelika Amon, PhD

2018 Alexander Rudensky, PhD

2017 Lily and Yuh-Nung Jan, PhD

2016 Dan R. Littman, MD, PhD

2015 Peter Walter, PhD

2014 Thomas Jessell, PhD

2013 Richard Flavell, PhD, FRS

2013 Ruslan Medzhitov, PhD

2012 Carlos Bustamante, PhD

2011 Titia de Lange, PhD

2010 Alexander Varshavsky, PhD

2009 Huda Y. Zoghbi, MD

2008 Inder Verma, PhD

2007 Rudolf Jaenisch, MD

2006 Joan Massagué, PhD

Vilcek Prizes for Creative Promise

2019 Amit Choudhary, PhD
Jeanne T. Paz, PhD
Mikhail G. Shapiro, PhD

2018 Polina Anikeeva, PhD
Sergiu P. Paşca, MD
Feng Zhang, PhD

2017 Michaela Gack, PhD
Michael Halassa, MD, PhD
Ahmet Yildiz, PhD

2016 Fernando Camargo, PhD
Roberta Capp, MD
Houra Merrikh, PhD

2015 Sun Hur, PhD
Rob Knight, PhD
Franziska Michor, PhD

2014 Antonio Giraldez, PhD
Stavros Lomvardas, PhD
Pardis Sabeti, PhD, MD

2013 Hashim Al-Hashimi, PhD
Michael Rape, PhD
Joanna Wysocka, PhD

2012 Alice Ting, PhD

2011 Yibin Kang, PhD

2010 Harmit Malik, PhD

2009 Howard Chang, MD, PhD

EDWIDGE DANTICAT
HAITI

Even before leaving Haiti at 12, Edwidge Danticat belonged to the diaspora.

It's not uncommon for kids waiting on the island for their parents to send for them to be called "dyaspora," said Danticat, "because it's like you're already not there. It's so clear that you're just waiting for your number to be called so then you can go join your parents."

Danticat's father had emigrated to the United States when Danticat was 2, and her mother followed a couple of years later. She stayed behind with her uncle, Joseph, who was a minister, and his wife, Denise.

"How families are made and unmade by immigration," as she describes it, is a central concern in Danticat's work: *Breath, Eyes, Memory*, which takes place in Haiti and New York, spans three generations of Haitian and Haitian-American women reckoning with trauma; *Krik? Krak!*, a short story collection, opens with a Haitian man lost at sea, trying to make it to the United States; and the memoir *Brother, I'm Dying* traces her family's migration, centering on the lives and final days of her father, André Miracin, and his brother Joseph, who were separated for more than 30 years. Danticat also reckons with the complexities of mother-daughter relationships and family

bonds, drawing from Haiti's complex history to explore how the private and political interact.

Danticat had an "urban island childhood" in Port-au-Prince, where she lived in a house full of children. Her aunt and uncle were the de facto caregivers of the children in the family whose parents had left for the United States, the Dominican Republic, or Canada, or sent them to the city from the countryside for a better education.

"If you're a kid and you're around a lot of kids, there are a lot of good times," Danticat said. During the summer, they would go to the countryside to get away from the city. They would fly kites, bathe in the river, or in the rain. "You were freer than you are in the city," Danticat said, recalling "the earthy smell of rain and the mountains."

She kept in touch with her parents through letters and weekly phone calls. In their letters, Danticat's parents updated her on the immigration process and told her and her brother, named André after their father, what to do with the money they sent. "I remember missing them but sort of accepting it as a fact of life," said Danticat.

Danticat was enrolled in school at age 3, and she learned to read soon after. "At that time, you didn't sit around coloring," she said. During her decade of schooling in Haiti, she read excerpts of Voltaire and poets like Jean de La Fontaine in an elementary school, which taught French literature rather than works written by Haitian writers.

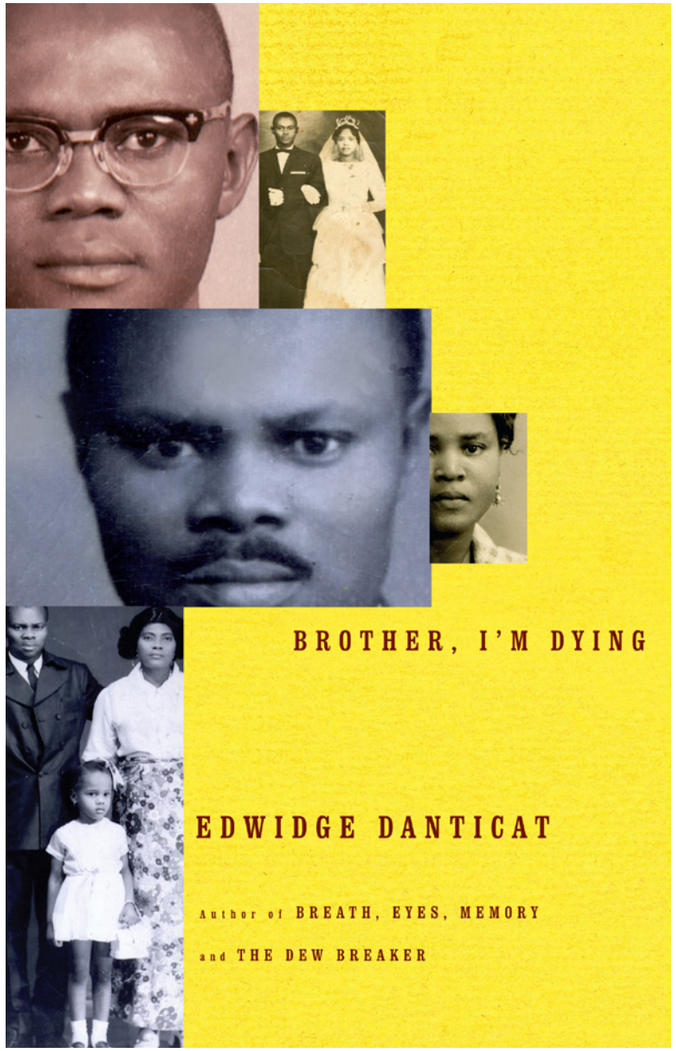
"Everybody in my family was a really lively storyteller, and I loved listening to stories but I was shy," Danticat said. When she was given her first book, one of Ludwig Bemelmans' *Madeleine* books, she recalls realizing the written word was "another way of telling stories."

Danticat and her brother moved to the United States in 1981, when Danticat was 12. After waiting so long, "I was afraid," she said, "because I had gotten used to the life that I had."

In New York, Danticat was overwhelmed by her new environment. She lived in a two-bedroom apartment in the East Flatbush neighborhood of Brooklyn with her parents—her mother worked at a handbag factory and her father as a cab driver. They had had two more children while Danticat and her brother André were in Haiti, and the four newly acquainted siblings shared a room. The younger siblings were confused by the appearance of the two older ones, and André would sometimes come up with elaborate origin stories to explain their prolonged absence, saying, inspired by his own boyhood reading, that the older siblings had been in space or were Russian spies.

Danticat had to adjust to calling her parents Mama and Papa, because the familial titles were "strange to my ear as a result of all the time we'd spent apart." "There were moments when I couldn't understand this new relationship that I was supposed to have with my parents," she said.

A recent influx of Haitian immigrants to Miami and New York, as well as the classification of Haitians as a high-risk group for AIDS by the Centers for Disease Control in Atlanta, meant that "it wasn't considered very popular to be Haitian at that time," Danticat explained. "We were teased, we were called names like



Danticat's intimate memoir of exile, loss, and love traces a powerful story of her father and his brother whose chosen paths affect the course of their family's lives from Haiti to the U.S. over generations.

> “...people have been talking more and more about family separations and how children are affected by them, whether in the gentle way that it happened to me or the more brutal ways we’ve been seeing in the news lately.”

“Frenchy” or “dirty Haitian,” she said, and “sometimes we were hit.”

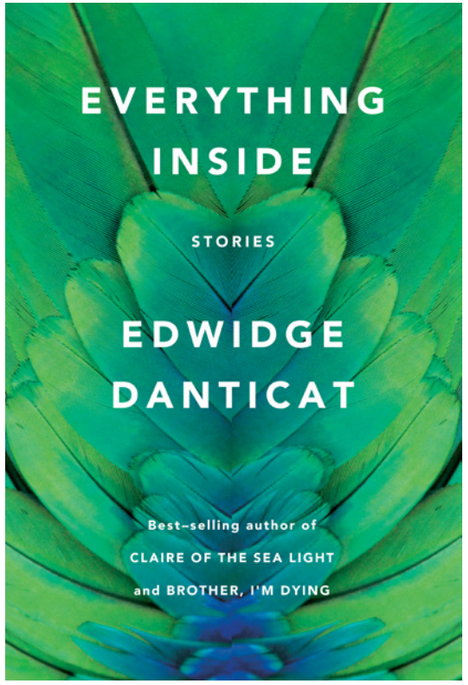
She dealt with the challenges of adjusting to a new family and school dynamic by dedicating herself to her studies and reading “ferociously.”

“That’s the only thing I felt I knew how to do: how to be a good student,” she said. “I just threw myself into a life of the mind to distract myself from other things.”

Her father took her to the main branch of the Brooklyn Public Library and showed her where the Haitian writers were. She read in French until she learned English and started reading Maya Angelou, Amy Tan, and James Baldwin.

She started writing as a high school student in Brooklyn. “I wrote something there that eventually I worked into the beginning of *Breath, Eyes, Memory*,” she said, “and I started writing some shorter pieces that eventually ended up in *Krik? Krak!*”

Danticat attended Barnard College, where she majored in French literature and kept writing stories, sometimes when she should have been studying. She lived at home, so she ended up doing a lot of her homework on the subway. Her first book, *Breath, Eyes, Memory,* was her thesis project when she was studying for an MFA in creative writing at Brown University and was published in 1994, the year after she graduated. It was named an Oprah’s Book Club selection several years later. Next came her short story collection, *Krik? Krak!*, for which she was a finalist for the National Book Award in Fiction in 1995.



In her 2019 collection of stories set in Miami, Port-Au-Prince, and beyond, Danticat illustrates the many ways people navigate the deaths of both loved ones and themselves.

From the onset of her career, Danticat was praised for her sparse, emotionally evocative prose and for highlighting the stories of the Haitian diaspora and the effects of a dictatorial dynasty on the island. *Brother, I’m Dying*, the powerful memoir about her uncle and father, won her the 2007 National Book Critics Circle Award in autobiography, and was also a finalist for the National Book Award in Nonfiction. Two years later, she was named a MacArthur Fellow.

Danticat now lives in Miami with her husband and two daughters, in an area with a large Haitian immigrant community, where she said she sees how current immigration policies have affected those in her community. She empathizes with and sees parallels between her work and experiences and the detention and family separation policies imposed by the government.

“I’m glad people have been talking more and more about family separations and how children are affected by them, whether in the gentle way that it happened to me or the more brutal ways we’ve been seeing in the news lately,” she said. Growing up in a home with children who, like her, were waiting for their parents to send for them, she knows that extended separations can leave their mark. “It affects you for the rest of your life,” she added.

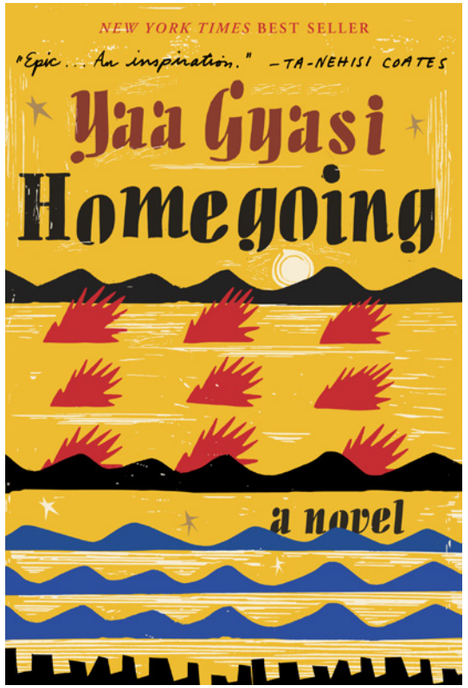
YAA GYASI GHANA

In the summer of 2009, driven in part by a latent nostalgia for the country where she was born, Yaa Gyasi traveled to Ghana. She had just completed her sophomore year at Stanford University and won a fellowship from the school to research a novel. One day, toward the end of her trip, she visited the Cape Coast Castle, one of a number of so-called “slave castles” where captured Africans were held in dungeons before being shipped off to a life of enslavement in the Americas. There, Gyasi learned a detail that stuck with her: The British soldiers who worked in the castle sometimes married local women—even while they kidnapped others like them.

“I started imagining the idea of the Gold Coast women walking above these dungeons and I was wondering what they knew of what was going on below,” said Gyasi. That was the “formative image” that inspired her 2016 debut novel, *Homegoing*, which follows two half-sisters, born in different villages, who lived these two disparate experiences in the castle. The book explores how this twist in fate affected their families for generations. It was, Gyasi said, “the only time in my life that I had felt anything resembling a stroke of inspiration.”

Intergenerational trauma, along with dual identities and religion, are central themes in Gyasi’s work, inspired in part by being acutely aware of the reverberating effects of her parents’ migration on her life. That decision “has had obviously such a vast impact on my life and yet wasn’t something that I chose for myself,” she said.

Gyasi moved to Columbus, Ohio, from Mampong, Ghana, in the early 1990s, when she was 2 and her father was pursuing a PhD at Ohio State. Her family, including her parents and two brothers,



Gyasi depicts the contrasting lives of two Ghanaian half-sisters and their descendants in her debut novel that illustrates slavery's lasting impact in Ghana and the U.S. over the course of 300 years.

moved around the Midwest and the South every couple of years until they landed in Huntsville, Alabama, when Gyasi was 9 years old.

"We are close in this way that's hard to articulate," Gyasi said of her relationship with her family. She didn't grow up with any extended family, so her family is bound by an understanding of the "loneliness associated with moving around," she explained.

Gyasi's family moved from Ohio to Illinois to Tennessee, which Gyasi said was a huge culture shock. "It felt like a different planet almost," she said. In the Midwest, her family had remained rooted in their culture and connected with other West Africans in their community through church and community activities, but in Jackson, Tennessee, where the immigrant population was less robust, this proved much harder. Growing up, said Gyasi, "There was this distance on both sides. I felt very much in between, in this liminal space that existed between Ghana and America."

Tennessee prepared Gyasi for life in Huntsville, which was "the first time that we had lived in a place that felt visibly segregated," she said, describing the predominantly white part of town where her family lived. It was, she said, "difficult in the obvious ways."

Gyasi coped with her family's nomadic life by retreating to her comfort zone: literature. She scoped out the local library everywhere she went and read voraciously.

Through books, "I could try to understand people in a way that made them more legible to me than they were in real life," she said. She received early encouragement. As a kid,

"I don't think I ever really felt a moment's doubt about what I wanted to do."

Gyasi was obsessed with *Reading Rainbow,* and once entered a writing competition that LeVar Burton, the host, broadcasted on television. Gyasi submitted a "semi-autobiographical" story called "Just Me and My Dog," about a little girl who wants her parents to get her a dog. Her story did not win, but Gyasi did get honorable mention and receive a certificate signed by Burton.

"That was pretty big for me," she said. "That was maybe one of the first times that I felt like my writing was important." Her love for literature continued to be nourished in high school, when in her senior year she was assigned to read *Song of Solomon* by Toni Morrison—the first time she had been assigned a book written by a black woman.

"To have a book by somebody who looks like me, but also to have it be so incredibly brilliant and deeply intelligent and taken so seriously by the teacher and by the other students, made me feel like perhaps there was space for me," Gyasi said.

From Alabama, Gyasi moved to California for college at Stanford, where she majored in English with a creative writing emphasis. After her life-changing trip to Ghana in 2009, which planted the idea for *Homegoing*, Gyasi returned to campus and started writing the book.

After a brief, miserable stint at an advertising technology startup after graduation, Gyasi applied to MFA programs and enrolled at the University of Iowa's Writers' Workshop in 2012. She scrapped a lot of what she wrote in college but continued working on *Homegoing* there, finishing the book shortly after graduation.

Published in 2016, *Homegoing* won the National Book Critics Circle's John Leonard First Book Prize and was named one of Oprah's favorite books and a *New York Times* Notable Book that year. "For *Homegoing* to have been able to see the light of day and to have that light be so incredibly bright is something I couldn't have imagined when I was writing it," Gyasi said.

Recently, Gyasi spent a year in Berlin, where she worked on her second novel, *Transcendent Kingdom*, due out in September 2020. "It follows Gifty, a young PhD candidate who studies the neurocircuitry of addiction and depression," said Gyasi. The novel opens at a time when the protagonist's mother has moved in with her and come under her care. (The protagonist's job was inspired by that of Gyasi's best friend from Huntsville.) The book deals with science, religion, and mental health.

Writing books is a dream Gyasi has held and nourished nearly all her life. "I don't think I ever really felt a moment's doubt about what I wanted to do," she said.

VALERIA LUISELLI MEXICO

Valeria Luiselli's first book was an attempt at reclaiming her mother tongue. When she returned at age 19 to Mexico City, where she was born, a lifetime away from home had calcified her Spanish.

"I had a very weird … not *dead* Spanish, but my Spanish was just a Spanish that was spoken by my parents at home," she said earlier this year, explaining that her vocabulary had not been refreshed with new slang like that of her peers raised in Mexico. Luiselli had grown up abroad, including in South Korea and South Africa, and studied mainly in English at international schools. She wrote in Spanish to reclaim the language.

Luiselli's debut, titled *Papeles falsos* in Spanish and *Sidewalks* in English, was an essay collection that spanned Venice, Mexico City, and New York, a sort of literary travelogue. Her second was a novel, *Los ingrávidos* or *Faces in the Crowd*, and it also straddled international lines, taking place in Mexico City and New York.

If *Papeles falsos* was her way of inserting herself into the Mexican story, with her most recent books Luiselli attempted to write migrant children into the American narrative. *Lost Children Archive*, her first novel written in English, reimagines the American road-trip novel by combining it with the tale of a marriage in decline. Underlying their trip is the narrator's increasing concern for the unaccompanied minor migration crisis, and their stories begin to consume her and the children.

The book was inspired, in part, by conversations with her daughter, Maia, with whom she's had to have tough political discussions about current events, in particular the anti-immigrant sentiment fomented by the president.

"I wonder, always, about the way that younger generations will retell the story of these dark times," she said about what inspired the book. "So at the heart of the book is a question about how we tell stories, intergenerationally, and how they form the foundational myths by which a society lives."

Lost Children Archive was also inspired by the time she spent as a court interpreter, helping children who had immigrated from South and Central America complete the questionnaire to seek asylum in the United States. At first, when Luiselli tried to write the novel, she felt her political rage seeping into the fiction. She stepped away and wrote *Tell Me How It Ends: An Essay in 40 Questions*, a meditation on her experience and on the unaccompanied minor crisis modeled after the set of questions she asked child migrants. The book was a finalist for the 2017 National Book Critics Circle Award in Criticism and won the 2018 American Book Award.

"If we feel rage at seeing injustice and don't do anything about it, that rage just sits inside us, rots, weighs always heavier in our hearts."

Afterward, she said, "I was able to come back to the novel and keep it porous, and keep it ambivalent—not ambivalent politically, but not preachy."

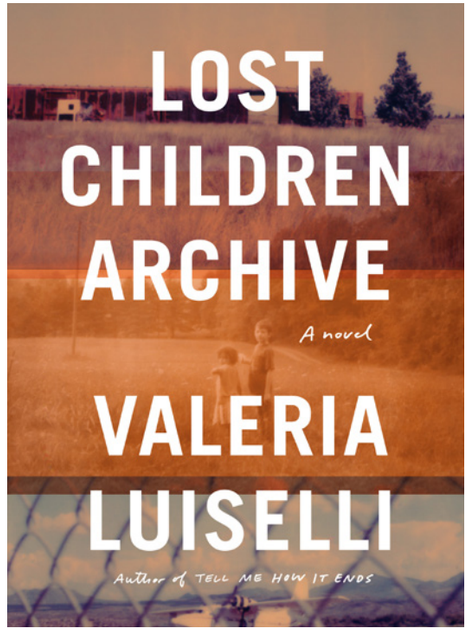
Luiselli has written five books total, and all reflect a deep intellectual curiosity, drawing from an eclectic range of interests and influences, such as philosophy, global literature, architecture, and journalism.

"I document," she explained. "I always begin my work documenting my everyday," such as "listening to the conversations of the children who happen to be around me, or being attentive to the sounds of radio and when I write in public spaces."

As a result, reality often meets fiction in her pages—in *Lost Children Archive*, through the exploration of the child refugee crisis. *The Story of My Teeth*, about a man who auctions off teeth he claims have prestigious former owners, was written in collaboration with Jumex factory workers. A group of them met and discussed chapters of the ongoing project, and Luiselli received and considered their feedback and stories as she wrote.

Parallel to her writing career, Luiselli devotes much of her time to activism. She and her niece teach creative writing to detained youth at a migrant center in Upstate New York, helping them process their experiences through storytelling.

"If we feel rage at seeing injustice and don't do anything about it, that rage just sits inside us, rots, weighs always heavier in our hearts," she said. "I don't see how I could live my life not doing anything about the things that matter to me."



In Luiselli's first English-written novel, a family embarks on a road trip that leads to the brink of a personal crisis in tandem with the immigration crisis at the southwestern border of the U.S.

Political activism runs in Luiselli's family. Her mother joined the Zapatista movement when Luiselli was a girl, and her grandmother worked with indigenous communities in Puebla, Mexico. Luiselli was raised by her father, whose work as a diplomat took them to the United States, Costa Rica, South Korea, and South Africa, starting when Luiselli was 2 years old. She arrived in South Africa in 1994, shortly after Nelson Mandela was elected president. "There was this intense magic," she said of the time. "There was a feeling that the country was being born." Luiselli met Mandela once, and she said he encouraged her to "read a lot." She listened, and said that it was in South Africa that she "came of age politically, intellectually, as a reader."

"That transition into discovering your inner world and the layers of it, and the insecurities and the darknesses," she recalled, "all that happened in South Africa."

Luiselli left South Africa for India when she was 16 to attend boarding school. The experience, she said, "was transformative to a degree that I don't think I will be able to write about that until I am much older." After India, she returned to Mexico and enrolled at the National Autonomous University of Mexico—an intentional move to reconnect with her native country and, in her words, "become Mexican."

Luiselli majored in philosophy and started writing more seriously in college. She subsequently earned a PhD from Columbia University, at which time she had her daughter, Maia, with her then-partner and fellow Mexican novelist Alvaro Enrigue, and also published her first books.

This year, Luiselli won a MacArthur grant, an honor she called "an enormous surprise," along with her Vilcek Prize for Creative Promise. She is a Writer-in-Residence at Bard College and is exploring future projects, some of which may not be literary. She is fascinated by sound, and is still thinking about how the work she does with refugees and detained migrants will translate to her work. "I don't know if what is going to come out of this is going to be in English, in Spanish, fiction, nonfiction," or another form altogether, she said. For now, she is collecting materials, picking up fragments of the world.

JENNY XIE CHINA

The apartment complex where Jenny Xie spent her early years in the United States, located in the immigrant-rich city of Piscataway in central New Jersey, was “an ethnic enclave in many ways,” she said. Xie’s family was living in graduate student housing for Rutgers University, where her dad was pursuing a PhD in math, and there were many other Chinese graduate students living there with their families. It was common to hear Mandarin spoken in the halls, and Xie grew up with unrelated aunties and uncles whose homes she visited often. The children were taken care of by the grandmothers, and Xie has memories of rollerblading down the halls of the mathematics department where her father was studying.

“It was a kind of makeshift community of Chinese immigrants,” she said. “People really clung to one another, because not everyone had a good command of English and you shared resources.” Xie went to public school, but her parents rounded out her schooling at home. They purchased math, grammar, or history workbooks for her to complete during weekends or summers. “They didn’t feel the schools were rigorous enough,” said Xie.

She was a good student, but says she did not excel at any particular subject until she discovered a love of reading in early middle school. Because her parents both focused on quantitative subjects—her mother was a doctor in China—Xie said literature “felt like my own space.” Her parents fostered her love of reading by letting her sit in the books aisle while they did their shopping or, when she was older, dropping her off at the bookstore.

"Growing up, I didn't have any real-life models of writers around me. I gravitated toward writing and literature, because they felt like private spaces, out of others' view, where I could play around, fail, and take risks."

As an only child, she said, "I grew to love being in my own head, entertaining myself and being able to engage in imaginative travel through books and have the company of other characters in my mind through novels and stories."

"Growing up, I didn't have any real-life models of writers around me. I gravitated toward writing and literature, because they felt like private spaces, out of others' view, where I could play around, fail, and take risks," she explained. "I didn't have to be assessed in any way. It just felt more comfortable, and more foreign, too."

Because Xie spoke Mandarin exclusively before starting school, she was in ESL classes the first few years of her life. Though her English is perfect, "You have this fear instilled in you or this shame instilled in you that you will use English incorrectly or betray yourself as not being a native speaker somewhere," Xie said. "Something that felt really liberating about poetry was precisely the ways in which it encouraged a kind of linguistic wildness and a departing from rules."

She appreciated that you could write in fragments, or that "in poetry, unconventional usage and torquing language was welcome and vivifying, imbuing language with deeper and fresher shades of meaning," she explained. She loved the focus on language and words—how she could rewrite the same seven lines over and over. "I remember keeping a notebook of words that I just loved purely for the sound of it."

Xie started writing poetry in high school, and kept writing when she went to Princeton University for college, where she said she was exposed to world-class writers who fostered her love of poetry.

"I remember walking through the halls of the Creative Writing Department and seeing Yusef Komunyakaa, Tracy K. Smith, and James Richardson—writers whose names I'd only seen on my library books. It was staggering to get to study with them," she said.

Though she grew up on a college campus, Princeton was an adjustment for her, both socially and academically. Xie had to learn to navigate new cultural and class contexts and social codes, while also adjusting to smaller class sizes and seminar-style discussions.

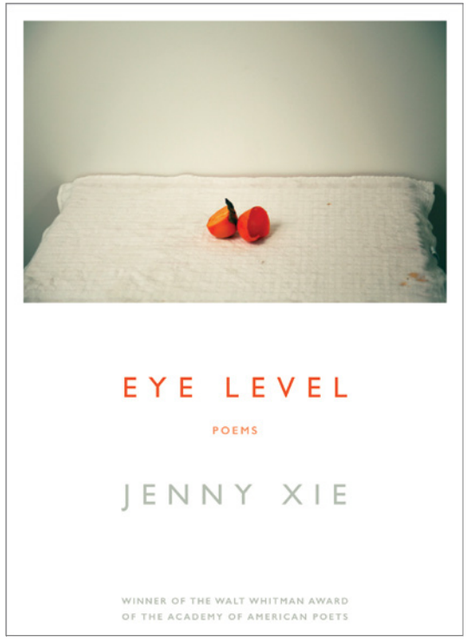
"In public school you might have a big classroom, you might participate every now and then by giving an answer," she said. "It didn't necessarily prepare me for seminar-style classroom settings, when you were asked to speak extemporaneously about your ideas, to have an argument, to defend yourself." She found her people in creative writing classes and enjoyed the intellectually rigorous environment.

After college, Xie decided to live abroad, spending time teaching in Hong Kong and working at an advertising firm in Phnom Penh, Cambodia. Then she gained her MFA from New York University.

Her experience abroad informed her first book, *Nowhere to Arrive*, which dealt with travel and solitude and won her the 2016 Drinking Gourd Chapbook Poetry Prize. Her second, *Eye Level*, won the Walt Whitman Award of the Academy of American Poets in 2017.

Recently, Xie returned to the region where she was born in China for the first time in 30 years. She reconnected with family members, heard stories of her brief early life there. She was struck by "how vivid their memories were of so many different episodes from my childhood," she said, adding: "In some ways it was the only shared vocabulary we had."

She knows she needs to write about a subject, she said, when she keeps turning the same questions over and over in her head. Her previous work has drawn from her immigrant upbringing, young adulthood, and identity development. Right now, Xie's head is swimming with questions from her trip to China—about "the strangeness of being the stranger back in the place where you were born" and "how to engage with people in your life who have these pasts that feel so inaccessible to you," she explained.



Xie's *Eye Level* takes place across multiple cities and explores selfhood and identity, immigration, rootlessness, and conceptions of home.

As a young writer, Xie felt that she had lived too little to be a serious writer, that her 17 years of experience could not amount to good poetry. But if she were to advise a young writer now, she said, she'd tell them no one else could write from *their* particular perspectives, and "Life will find you."

Juries in Literature

Vilcek Prize

Harold Augenbraum
Interim Editor
Yale Review

Ken Chen
Former Executive Director
Asian American Writers' Workshop

Deborah Landau
Professor and Director,
Creative Writing Program
New York University

Nadxieli Nieto
Former Program Director
Literary Awards PEN America

Ethan Nosowsky
Editorial Director
Graywolf Press

Francine Prose
Distinguished
Writer-in-Residence
Bard College

Vilcek Prizes for Creative Promise

Jennifer Acker
Founder and Editor-in-Chief
The Common

Raluca Albu
Online Literature Editor
BOMB Magazine
& Senior Nonfiction Editor
Guernica

Brigid Hughes
Editor
A Public Space

Dinaw Mengestu
Professor and Director,
Written Arts Program
Bard College

Rob Spillman
Editor and Cofounder
Tin House

Previous Prizewinners in the Arts and Humanities

Vilcek Prize

2019 Culinary Arts
Marcus Samuelsson

2018 Architecture
Teddy Cruz

2017 Fine Arts
Nari Ward

2016 Theatre
Blanka Zizka

2015 Fashion
Andrew Bolton

2014 Design
Neri Oxman, PhD

2013 Contemporary Music
Yo-Yo Ma

2012 Dance
Mikhail Baryshnikov

2011 Literature
Charles Simic

2010 Culinary Arts
José Andrés

2009 Filmmaking
Mike Nichols

2008 Classical Music
Osvaldo Golijov

2007 Architecture
Denise Scott Brown

2006 Fine Arts
Christo and Jeanne-Claude

Vilcek Prizes for Creative Promise

2019 Culinary Arts
Tejal Rao
Fabián von Hauske Valtierra
Nite Yun

2018 Architecture
Mona Ghandi
James Leng
Jing Liu

2017 Fine Arts
Iman Issa
Meleko Mokgosi
Carlos Motta

2016 Theatre
Sarah Benson
Desdemona Chiang
Yi Zhao

2015 Fashion
Siki Im
Natallia Pilipenka
Tuyen Tran

2014 Design
Yasaman Hashemian
Mansour Ourasanah
Quilian Riano

2013 Contemporary Music
James Abrahart
Samuel Bazawule
Tigran

2012 Dance
Michel Kouakou

2011 Literature
Dinaw Mengestu

2010 Culinary Arts
Varin Keokitvon

2009 Filmmaking
Ham Tran

Vilcek Prize
for Excellence
in Administration
of Justice

ROBERT A. KATZMANN
UNITED STATES

Chief Judge Robert A. Katzmann of the United States Court of Appeals for the Second Circuit is an esteemed and brilliant jurist, a prolific and accomplished scholar, a devoted mentor and teacher, a person courteous to all those he encounters, and in the field of immigration law, a national treasure. His accomplishments are far too numerous to list, with his having authored approximately 200 published judicial decisions, received countless awards and recognitions, earned multiple degrees from three Ivy League institutions, published numerous books and academic articles, taught at leading universities across the country, and served with distinction in government and on a variety of nonprofit boards. He is a rare specimen in contemporary civic life: an honest and rigorous public servant with both ambition for the rule of law and extreme humility regarding his own accomplishments.

Judge Katzmann's connection to the lives of immigrants started at home. He was raised by his father, John, who was a refugee from Nazi Germany, and mother, Sylvia, who is the daughter of Russian immigrants. In the words of U.S. Supreme Court Justice Sonia Sotomayor, his parents instilled in him and his siblings the "centrality of treating people with dignity and kindness."

He was appointed to the federal bench by President Clinton in 1999. As a judge on the U.S. Court of Appeals, he soon gained sharper focus on the contemporary plight of immigrants. He saw again and again immigrants who were facing deportation, not because they did not have a legal right to remain in the United States but because without adequate counsel, they had been unable to exercise that right. In his now-seminal Marden Lecture in 2007, he identified the immigrant representation crisis that was gripping our nation and issued a call to arms to the legal community: He called upon the New York City Bar to increase the delivery of quality legal services, at no cost to the immigrants, to those at risk of deportation.

Although he did not know what to expect, Judge Katzmann's talk was met with enormous interest and enthusiasm. He formed a Study Group on Immigrant Representation—calling together leading voices from the public, private, and nonprofit sectors of the legal community. He charged them with the daunting task of ensuring that immigrants facing removal have access to quality legal representation. He refused to accept the inevitability of the intractable obstacles that had created the immigrant representation crisis.

His belief in the power of civic institutions to tackle society's biggest challenges and the trust he placed in those around him inspired all involved to reach higher and achieve more than they ever thought possible.

Judge Katzmann likes to quote his mentor, Senator Daniel Patrick Moynihan, as saying "everyone is entitled to their own opinion, but not their own facts." He knew that the starting point of any real change was laying bare the facts. His Study Group thus began its work by undertaking the New York Immigrant Representation Study (NYIRS). In the first year of that study, the group issued a report documenting that individuals who were represented and not detained prevailed in deportation proceedings 74% of the time, but individuals who were detained and unrepresented succeeded only a meager 3% of the time. The numbers were startling, and they cried out for response. Thereafter, Judge Katzmann charged his Study Group with developing the most ambitious but still realistic responses available to address the crisis. The outgrowth of that charge were two innovations that have reshaped the national landscape of immigrant representation: the Immigrant Justice Corps and the New York Immigrant Family Unity Project (NYIFUP).

The Immigrant Justice Corps, as conceived by Judge Katzmann, is the nation's first fellowship program focused on recruiting, training, and populating the immigration field with the highest-quality college and law school graduates. The Corps has been a stunning success. It has grown into a national program delivering service in 33 cities across 11 states. As of November 2019, in its five years of existence the Immigrant Justice Corps has served more than 60,000 immigrants, winning an unprecedented 93% of the cases it has handled. As importantly, there are now over 200 fellows who have gone through the Corps, with 92% of them remaining in the immigration field beyond the fellowship—thus repopulating the field of immigration law with highly trained, highly ethical, and highly motivated lawyers. The NYIFUP project, which grew directly out of the work of Judge Katzmann's Study Group, is the nation's first public defender system for immigrants facing deportation. Through NYIFUP, since 2014 every detained and unrepresented indigent immigrant in New York City receives a free lawyer. The program was expanded statewide in 2017. The results have been equally remarkable. The program has served thousands and improved people's chances of remaining lawfully in the United States by a staggering 1,100%.

And who are these immigrants who have been helped? They are families who will no longer be separated. They are individuals who contribute to our economy, men and women who provide critically important services in all sectors, mostly at low wages. They are people whose dreams of America sustain the dream of this country.

In recent years, the innovations under Judge Katzmann's leadership have rippled across the country. We now see major advances and efforts to replicate his work under way in over 18 jurisdictions, including places like California and Wisconsin, but also in Texas, Georgia, and many others. In just a little over a decade since the Marden Lecture, the nation has experienced a sea change in both the quality and the quantity of legal services that are available to poor immigrants across the country. At the epicenter of that transformation is Judge Katzmann. His unique combination of tenacity and insight, visionary leadership and gentle mentorship of new leaders, and sheer generosity of his time, underscores his steadfast belief that we can and must continually strive for the betterment of our nation and the just administration of our laws.

Chief Judge Robert Katzmann swears in new citizens on Ellis Island, September 16, 2016.

Biomedical Science Presenter

Dan R. Littman

Dr. Dan R. Littman received his PhD and MD from Washington University in 1980 and was a postdoctoral fellow in Richard Axel's laboratory at Columbia University. He was Professor of Microbiology and Immunology at the University of California, San Francisco, before joining New York University School of Medicine, where he is the Kimmel Professor of Molecular Immunology at the Skirball Institute of Biomolecular Medicine and an Investigator of the Howard Hughes Medical Institute.

Dr. Littman is a member of the U.S. National Academy of Sciences, the National Academy of Medicine, and the American Academy of Arts and Sciences. He is the former president of the American Association of Immunologists and recipient of several scientific awards, including the Ross Prize in Molecular Medicine and the Vilcek Prize in Biomedical Science.

His laboratory applies molecular and genetic tools to study how T lymphocytes develop and participate in inflammation and how commensal microbiota influence tissue homeostasis and immune pathogenesis.

Literature Presenter

Dinaw Mengestu

Dinaw Mengestu is the author of three novels, all of which were named *New York Times* Notable Books: *All Our Names* (Knopf, 2014), *How To Read the Air (*Riverhead*, 2010), and The Beautiful Things That Heaven Bears* (Riverhead, 2007). A native of Ethiopia who came with his family to the United States at the age of two, Mengestu is also a freelance journalist who has reported about life in Darfur, northern Uganda, and eastern Congo. His articles and fiction have appeared in the *New York Times, New Yorker, Harper's, Granta, Jane,* and *Rolling Stone.* He is a 2012 MacArthur Fellow and recipient of a Lannan Literary Fellowship for Fiction, National Book Foundation 5 Under 35 Award, Vilcek Prize for Creative Promise in Literature, among other honors. He was also included in *The New Yorker*'s "20 under 40" list in 2010.

He is currently professor of Written Arts and director of the Written Arts Program at Bard College.

Administration of Justice Presenter

David Miliband

David Miliband is the President and CEO of the International Rescue Committee. He oversees the agency's relief and development operations in over 30 countries, its refugee resettlement and assistance programs throughout the United States and the IRC's advocacy efforts in Washington and other capitals on behalf of the world's most vulnerable people.

From 2007 to 2010, he served as the youngest Foreign Secretary in three decades, driving advancements in human rights and representing the United Kingdom throughout the world. His accomplishments have earned him a reputation, in former President Bill Clinton's words, as "one of the ablest, most creative public servants of our time." In 2016, David was named one of the World's Greatest Leaders by Fortune Magazine and in 2018 he was inducted into the American Academy of Arts and Sciences.

David is also the author of the book, *Rescue: Refugees and the Political Crisis of Our Time*. As the son of refugees, David brings a personal commitment to the IRC's work and to the premise of the book: that we can rescue the dignity and hopes of refugees and displaced people. And if we help them, in the process we will rescue our own values.

Credits

Design
AHOY Studios

Printing
Masterpiece Printers

Font
Suisse Intl' by Swiss Typefaces

Text
Prashant Nair
Biomedical Science

Concepción de León
Literature

Peter Markowitz
Administration of Justice

Photography
p. 7 Forbes Slovakia/Ondřej Pýcha (left)
The Vilcek Foundation (right)
p. 8 Ian Johns
p. 11 The Xiaowei Zhuang Laboratory
p. 12 The Xiaowei Zhuang Laboratory
p. 14 Peter Hurley
p. 16 Xiphias Ge Zhu
p. 18 John Glover
p. 21 Ken Chan and Viviana Gradinaru
Group at Caltech
p. 22 Peter Hurley
p. 24 Ursula Goodenough and Robyn Roth
p. 28 Malena Vasquez
p. 31 Alfred A. Knopf
p. 33 Alfred A. Knopf
p. 34 Peter Hurley
p. 36 Penguin Random House
p. 38 Peter Hurley
p. 41 Alfred A. Knopf
p. 42 Peter Hurley
p. 45 Graywolf Press
p. 48 Peter Hurley
p. 51 Raymond Wong