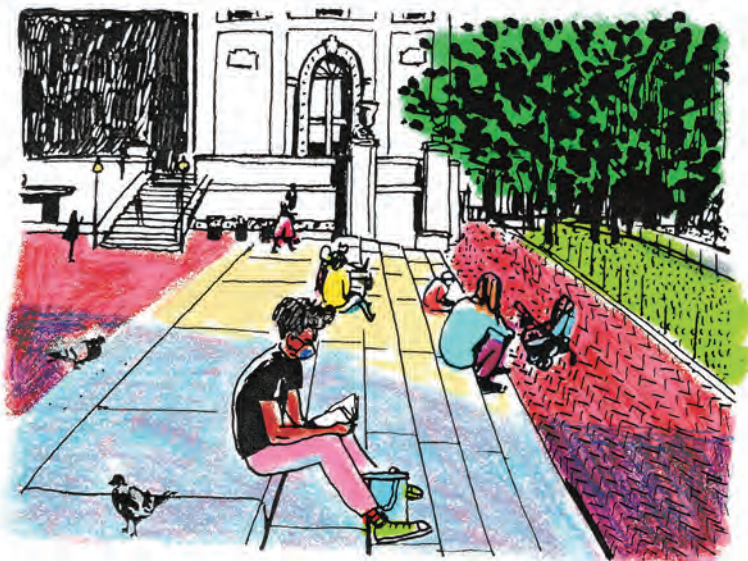
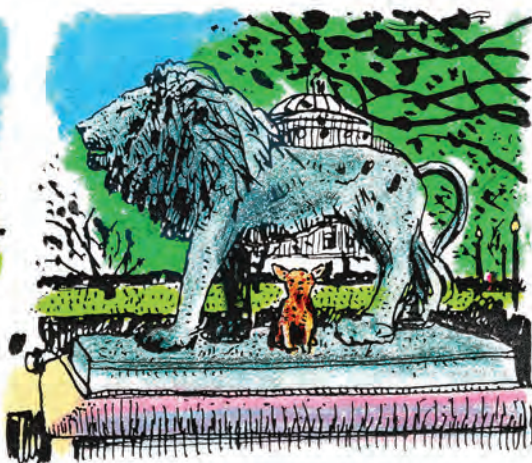
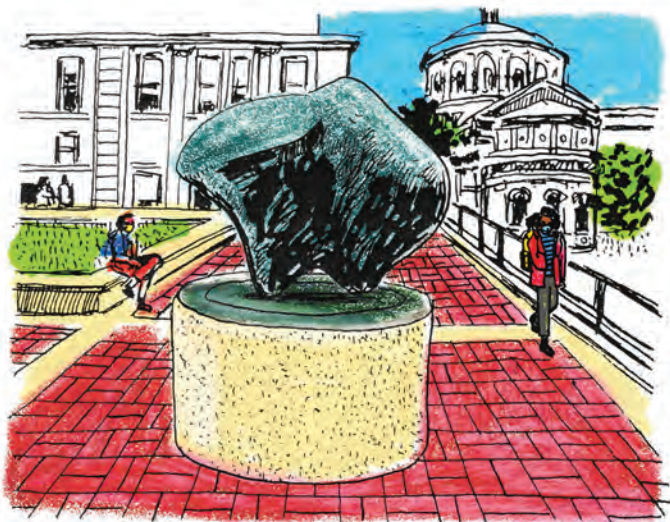


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ALLISON MICHAEL LORENSTEIN

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## COVER BY LAUREN SIMKIN BERKE

On the cover, top row from left to right:  
Henry Moore's *Three-Way Piece No. 1: Points and  
St. Paul's Chapel* viewed from Revson Plaza; outside  
the CUIMC campus on Fort Washington Avenue.  
Middle row: Butler Library viewed from Pulitzer Hall  
café; the Roy and Diana Vagelos Education Center  
at CUIMC; *Scholars' Lion*, by Greg Wyatt '71CC, '74TC  
on the Morningside campus.  
Bottom row: Low Library steps; Lenfest Center  
for the Arts in Manhattanville.

# COLUMBIA MAGAZINE

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“I want to help people do the things that I wish I could have done years ago.”



Gordon Kit '76CC  
1754 SOCIETY MEMBER

Gordon's parents, Dr. Saul and Dorothy Kit



## Turning a Lens on Students

Gordon attributes his love of film to his parents, Dr. Saul and Dorothy Kit, in whose memory he founded the Kit Noir Film Festival at Columbia. To bring students into focus, he established a charitable remainder trust that will provide fellowships to graduate students of film and media studies at the School of the Arts.

Read Gordon's full giving story at [giving.columbia.edu/gordon](https://giving.columbia.edu/gordon)

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## SHINE ON

I loved the cover of the Winter 2020–21 edition. The Butler Library snow-globe illustration was beautiful. I noticed that “*In Lumine Tuo*” was reappropriated from the seal, where it refers to God, and used to refer to the University itself. Completely appropriate in my opinion, since the University does provide the light that helps us see light.

**Reggie Henderson '84CC**  
Rochester, NY

## THE ROAD FROM TEHRAN

I am an avid reader of your magazine, and the story of former hostage Barry Rosen struck a deep chord with me (“Soul Survivor,” Winter 2020–21). As a first-generation Iranian-American, I was drawn to undergraduate studies at Columbia, where I majored in English literature and Middle East languages and cultures, or MELAC. Although I spoke Farsi from birth, Columbia is where I learned to read and write the language of my ancestors.

Rosen’s unflinching account of his experience, his love for Iranian culture and the Iranian people, and most of all his healing from trauma was a balm for my soul. Thank you.

**Jackie Harounian '91CC**  
Great Neck, NY

I met Barry Rosen on the shore of the Caspian Sea in 1968, when I was an architect working on the Bandar-e Pahlavi city hall. Reading where his life went after that was fascinating.

**Sid Robinson '67GSAPP**  
Aurora, IL

## DYING WELL

I am a 1952 graduate of Columbia’s School of Nursing and was very interested in the article “The Lost Art of Dying Well” in the Winter 2020–21 issue. Obviously, I am getting closer to that end of life’s spectrum. I have long been a member of our local chapter of End of Life Washington, which has had various other names, like Death and Dying, Compassion and Choices, and Compassion in Dying. These groups have focused

on the individual’s choice of how they would like to die.

It is now legal in a number of states for people who qualify as being of sound mind, and who are diagnosed as terminally ill by two or three physicians, to obtain medication to end their lives. Sometimes people do not want to die slowly under the effects of painkillers. Counseling is provided by these organizations, and the family is very much involved.

When I was a student nurse, CPR and open-chest cardiac massage had just come into use. One of my classmates said, “No one can die in peace anymore.” Now there are directives that can be completed ahead of time: health-care directives, a health-care durable power of attorney, and the POLST form. All of these need to be discussed with family or close friends.

**Peggy Pomeroy '52NRS**  
Mercer Island, WA

Lydia Dugdale mentions that the writing of the *ars moriendi*, a literary form

# FEEDBACK

## 3 WEB STORIES YOU SHOULD NOT MISS



### Fictional Columbia Alumni: TV Edition

31 characters you may not know went to Columbia



### Columbia in the Movies

21 films in which Columbia makes a cameo



### 28 Movie and TV Stars Who Graduated from Columbia

Celebrities who have called Morningside Heights home

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[magazine.columbia.edu](https://magazine.columbia.edu)



“that asks us to think about the way we live and die,” started after the bubonic plague of the mid-1300s. You should note that Jews were composing similar documents, called ethical wills, starting in the time of the Bible and continuing through the present day. One of the most famous examples, belonging to Judah ibn Tibbon, is from the twelfth century.

**Jackie Ben-Efraim**  
**’78GS, ’79LS**  
West Hills, CA

“The Lost Art of Dying Well” was beautiful! I, like Lydia Dugdale, “have taken care of so many patients who arrived at their life’s end completely unprepared.” I completed my bachelor’s in nursing at Columbia and then went on to Syracuse University for my master’s. In 1975, when I worked in Utica, New York, I felt, as she says, that as doctors and nurses, “we can and should help people die better and die wisely.” It was then that I discovered hospice, which was just starting here in the States (it had come from England). I worked to help Utica Hospice, then Buffalo Hospice, then Chautauqua Hospice get started and certified. Yes, it was a challenge as a young widow with two teenagers, but it had become my passion to help the dying die well — and to help their family and friends let go and say goodbye.

I was excited to read about the inspiration Dugdale gained from the *ars moriendi*. I wrote my own small book about my years

working with hospices called *Comfort in Dying: Reflections of a Hospice Nurse*.

I agree with Dugdale about how important it is to prepare for dying. That began for me when I was only thirty years old, when I bought my plot in Oak Hill Cemetery, in Herkimer, New York,



A panel by Lily Padula from “In Pursuit of Dark Matter” (Winter 2020–21).

next to my husband’s. In 1970 he died in a fiery plane crash that took most of the Marshall University football team. Since then, I’ve purchased the stone to go next to my Brian’s stone; I’ve written my obituary and parts of the memorial service, along with the hymns I would like. I’ve even put together a video of photos I have taken of beautiful scenes of America, each with verses

from scripture or songs to enhance them. And of course I’ve written my Five Wishes, describing the end-of-life decisions I want. As Dugdale says, “To die well, you have to live well.” How true.

**Katherine O’Connor Beiter**  
**’63NRS**  
Livonia, NY

How appropriate was your timing in publishing the Q&A with Lydia Dugdale, since we are at the tail end (we hope) of the most deadly pandemic of our time. As a fellow practicing physician, I too hope that this pandemic is not a wasted opportunity for us all, health-care workers and otherwise, to get back in touch with the raw reality of death. Yes, it may better prepare each of us

for the inevitable, but more importantly it could allow us to live richer, more soulful lives in the present and, for those of us in the health-care field, help avoid burnout. As one of my emergency-department colleagues recently said, “I am done intubating dying ninety-year-olds.” Death and how it is handled in the hospital and in funeral homes is a massive topic, but to humbly try to summarize: we may have more fulfilling lives (and, for some of us, medical careers) if we let the old and terminally ill pass more gracefully.

**Farzad Sarmast ’99CC**  
Fayetteville, NY

MYSTERIOUS PARTICLES

“In Pursuit of Dark Matter” (Winter 2020–21) is the best alumni-magazine article I’ve read in a long time. I actually cut it out for when my grandkids ask about dark matter.

**David Hunter ’71CC**  
Seattle, WA

The illustrated feature on dark matter was fascinating. Dark matter presumably does not participate in the processes of nuclear fusion

KEY TO ABBREVIATIONS			
CODE	SCHOOL	CODE	SCHOOL
BC	Barnard College	NRS	School of Nursing
BUS	Graduate School of Business	OPT	School of Optometry
CC	Columbia College	PH	Mailman School of Public Health
DM	College of Dental Medicine	PHRM	School of Pharmaceutical Sciences
GS	School of General Studies	SEAS	Fu Foundation School of Engineering and Applied Science
GSAPP	Graduate School of Architecture, Planning, and Preservation	SIPA	School of International and Public Affairs
GSAS	Graduate School of Arts and Sciences	SOA	School of the Arts
HON	(Honorary degree)	SPS	School of Professional Studies
JRN	Graduate School of Journalism	SW	School of Social Work
JTS	Jewish Theological Seminary	TC	Teachers College
KC	King’s College	UTS	Union Theological Seminary
LAW	School of Law	VPS	Vagelos College of Physicians and Surgeons
LS	School of Library Service		



**UNIVERSAL APPEAL**  
Penelope Goldblatt,  
daughter of Brian Goldblatt  
'10SIPA, gets an introduction  
to the allure of dark matter.

that power stars and does not give off light. I would be interested to learn how the flashes of light identified from the collision of dark-matter particles with

heavy atomic nuclei could lead to the characterization of the elements of dark matter, such as the presumptive solar axion. What findings would lead to an indication of a quark or other subatomic particle? How would string theory participate in such evaluations? A follow-up article might be of great interest in clarifying how we delve into such areas of cosmology.

**Philip Liebson '56CC**  
Wilmette, IL

### UNCOMMON JUSTICE

The story about Ruth Bader Ginsburg was a refreshing reminder of how much Columbia's support made a difference in propelling

a global icon for women ("Monumental Justice," College Walk, Winter 2020–21).

I cannot imagine a world without Ginsburg, a figure who went on to reshape American society and whose efforts rewrote the norms surrounding gender. In that, perhaps, I also cannot imagine a world without Columbia.

There is a constant need for women leaders to step forward and blaze a trail for others. I'm proud that my alma mater has played a part in fueling stories like these that have inspired my generation of women to reach further and strive harder.

Keep raising the bar. *In Lumine Tuo.*

**Suling Lin '07GSAS**  
Singapore

Thank you for your tribute to Ruth Bader Ginsburg. I cannot say as an alum how I will or will not follow in the footsteps of the late Justice Ginsburg. But it is a consolation that after the grief of these times, we will still have her work and the memory of how she created common justice in our world.

**Ruth E. Dominguez**  
'03GSAS  
Washington, DC

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# COLLEGE WALK

NOTES  
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STREET AND  
BEYOND



## Magnetic Field

A radiology professor's garden becomes a campus attraction

“I was born to be a farmer,” says Tommy Vaughan, surveying a row of bright-green shoots rising from the soil in a patch of land behind Uris Hall. The modest L-shaped plot, just steps from his office in the Schapiro Center for Engineering and Physical Science Research, has long served as an ad hoc student-run garden. But last spring, after the pandemic hit and the weeds took over, Vaughan, a professor of biomedical engineering and radiology who builds advanced MRI systems, decided to roll up his sleeves and start digging.

First he contacted Helen Bielak, operations manager of environmental stewardship, to get permission for his enterprise. Then he called Richard Bussert, director of landscaping and grounds, who provided new topsoil and tools and helped Vaughan dig and plant seeds for a small field of vegetables. Since then, Vaughan

has raised carrots, corn, beets, turnips, collards, spinach, peas, lettuce, tomatoes, onions, squash, beans, peppers, kale, broccoli, and cucumbers, all harvested in the middle of a brick-and-limestone urban campus.

Planting is in Vaughan's blood, and so is an appreciation for history. He was born and raised in Alabama, birthplace of some of the country's most important agricultural innovations. And as his campus garden grew, and his gardening colleagues and random critters (some of them human) helped themselves to its bounty, Vaughan realized that he wasn't just growing food: he was returning to his roots.

To that end, he named the plot the George Washington Carver Victory Garden, after America's most famous agricultural scientist, who for nearly fifty years lived alone in a dormitory at the Tuskegee Institute (now University) in Tuskegee, Alabama. Born

into slavery in Missouri, George Washington Carver developed sustainable-farming practices that helped rescue the South from disaster. “In the 1930s we had the Great Depression, the Dust Bowl, and the depletion of the soil due to decades of intensive cotton farming,” says Vaughan. “Cotton was the monoculture, and when a little insect called the boll weevil destroyed the cotton crop during the Depression, the South was in

‘victory gardens’ to ‘war gardens,’” says Vaughan. It caught on. At the time of Carver’s death in 1943, at the height of another war, Americans, again facing rationing, had planted millions of victory gardens.

Though Vaughan knows the joys that come with a garden, he didn’t expect this one to draw visitors. But with fewer students around, the Morningside campus has blossomed into its alter ego of a public park: families stroll through, and it’s



desperate need of crop diversification and soil conservation. Carver promoted new crops like peanuts and sweet potatoes that not only could be grown on the depleted soil but could also restore it.”

One farmer who embraced this revolution was Asa Vaughan Sr., Vaughan’s grandfather, who had a farm in Tuskegee and ran a seed store that supplied Carver with goods for his experiments. “Our family took a lot of pride in the relationship,” Vaughan says. Asa died before Vaughan was born, but when Vaughan was six his grandmother taught him how to plant vegetables in accordance with Carver’s principles of crop rotation and self-sufficiency.

Carver’s legacy also lives in the phrase “victory garden.” In March 1917, with the US at war and food being rationed, Charles Lathrop Pack formed the National War Garden Commission to encourage Americans to grow food at home for sustenance and morale. “Carver, an adviser to presidents and politicians, preferred the name

often the children who drag their parents to the garden’s edge. “We label the rows, so the kids know all the vegetable names. And whenever I’m out here weeding or watering, I assume the role of garden interpreter,” says Vaughan. “The kids are a wonderful audience.”

In his life on the other side of the pea trellis, Vaughan holds posts at Columbia Engineering, CUIMC, and the Zuckerman Mind Brain Behavior Institute. The eight to ten hours a week he spends in the campus garden doing “nice tedious, laborious work” provides respite from the lab and the classroom and brings him back to the basics.

“It’s huge therapy for me to dig in the dirt and plant things and watch them grow,” Vaughan says. “And it brings together two parts of my life. We’re honoring George Washington Carver here and connecting rural Alabama to a campus in the heart of Manhattan.”

— Paul Hond

## THE SHORT LIST

### DOWNLOAD

Classical-music enthusiasts are encouraged to tune in to **Mission Commission**, a new podcast from Columbia’s Miller Theatre. The six-episode series follows the creative journeys of three prominent contemporary composers — Courtney Bryan ’14GSAS, Augusta Read Thomas, and Marcos Balter — as they conceive exciting new works. [missioncommissionpodcast.com](http://missioncommissionpodcast.com)

### VISIT **Reconstructions: Architecture and Blackness**

**in America**, a new Museum of Modern Art exhibition co-curated by Columbia architecture professor Mabel O. Wilson ’91GSAPP, shines a light on the roles of race and inequity in architectural design. Featuring work by Emanuel Admassu ’12GSAPP, J. Yolande Daniels ’90GSAPP, Mario Gooden ’90GSAPP, and others, the show runs through May 31. [moma.org](http://moma.org)

### LEARN Kids and teens can learn

about the mysteries of the planet through **Earth Institute Live’s K-12 Education** program, a series of virtual science classes on topics ranging from the Ice Age to active volcanoes. [earth.columbia.edu/videos/channel/k12-education](http://earth.columbia.edu/videos/channel/k12-education)



### APPLAUD Shakespeare in the Park

returns this summer with **Merry Wives**, a new production from playwright Jocelyn Bioh ’08SOA. Adapted from Shakespeare’s *The Merry Wives of Windsor*, the comedy is set in South Harlem among a community of West African immigrants. Free, with limited capacity, from July 5 to August 29. [publictheater.org](http://publictheater.org)





Stephanie Wobby, Jacob Thomas Schultz, and Sam Granoff

## Veterans' Voices

SOA students start a literary journal that goes beyond war

When Sam Granoff '21SOA taught a writing workshop on campus last year, he fielded the usual questions about how to get published. But he wanted to do something more than offer a list of resources. His students — all of them Columbia-affiliated military veterans — had a lot to say, and Granoff felt their stories deserved a wider audience.

More than eighteen million veterans live in the US, according to government figures, yet only a few publications specialize in showcasing their writing and art. Most of those tend to publish stories about combat and not veterans' lives beyond war. That gap gave Granoff, now twenty-six, an idea. What if he and his classmates started their own journal — an online publication dedicated to creative work by veterans and members of military families?

Granoff recruited Jacob Thomas Schultz and Stephanie Wobby, veterans and fellow MFA writing students,

to be the managing editors, while Granoff would serve as editor in chief. The three named the journal *The Line* — a reference to a line of text and also the frontline in war. Five more graduate students pitched in as associate editors. Last fall, the team reached out to veterans' organizations for works of fiction, nonfiction, poetry, visual art, and veteran-to-veteran interviews.

Submissions ranged from historical fiction to personal essays, from postapocalyptic fantasies to family dramas. Many looked at facets of war a civilian might not expect. A short story, "Chicken Parm," imagines a military base in Iraq under siege not from bullets but from weeks' worth of chicken Parmesan meals sent to soldiers, who, quips writer Hunter Lu, "started to wonder if God hated them."

The journal received support from Columbia Artist/Teachers (CA/T), which offers local communities free writing classes taught by MFA candidates and which ran Granoff's veterans' workshop. CA/T inspired *The Line's* staff to create discussion materials to accompany each published piece that teachers can download. "We want high-school classrooms, not just literary spaces, to incorporate more veteran work," says Schultz, thirty-six, who taught English after his military service.

Earlier this year, *The Line* held a virtual launch party that drew 150 people from around the country. At the event, Vietnam War veteran Bob Hanson read "Surprising God," his poem about trauma and suicidal thoughts lingering after war: "Yes, you are home, but then there is the addiction, not of killing / but of forgetting."

The first issue of *The Line* (visit [thelineliterary.org](http://thelineliterary.org)) includes fiction by Matt Gallagher '13SOA and a non-fiction piece, "The Question, The Answer," by Lindsay Swoboda, who wrote about being pregnant between her military spouse's deployments. "We don't often think about military couples planning children and the hardships that come with that," says managing editor Wobby, thirty, who served as a line medic in Iraq and Afghanistan.

For Wobby, a female veteran of color, the journal's mission to highlight under-represented voices is deeply personal. Born in the Philippines, she came to the US as a child, enlisted in the Army at seventeen, and at nineteen was sent to Iraq. Since leaving the military, she has written about the racism and sexual harassment she experienced during her service.

"I have a veteran's license plate, but people assume I'm driving my husband's car. They can't picture women in the military," says Wobby. "I want people not to make that assumption when they see those license plates. For that to happen, we need to share our stories."

— Rebecca Kelliher  
'13BC, '21JRN

### "COIN" (excerpt), by Matt Gallagher '13SOA

The Iraqi police brought Ali the Prince to the outpost the next morning.

They'd beaten him with their rifle butts and flashlights after catching him on a rooftop hiding under blankets. A leper of blood and bruises, he was tall and thin and caked in dirt, not because of the police, but because he was a poor. He also couldn't have been more than fifteen years old, three mustache hairs poking out at the world like broken teeth.

The boy looked scared and wore rags that said TEXAS RANGERS, WORLD SERIES CHAMPIONS. The soldiers laughed, because the Texas Rangers were not World Series Champions, but second-place losers, and clothes of second-place losers got sent to places like Tarhalah. I laughed with them, but didn't really get it. Clothes were clothes for poors like Ali the Prince. It didn't matter what was on them.

# Law-School Lexicon

Most days you can't read news or political commentary without coming across a word or phrase coined by a Columbia law professor. In fields from economics to national security, these terms have worked their way into the national conversation — and even into dictionaries.

## Net neutrality

**Definition:** The principle that Internet service providers should treat all content, sites, and platforms equally.

**Year coined:** 2003

**Coined by:** Tim Wu, Julius Silver Professor of Law, Science, and Technology



**In use:** This term, short for “network neutrality” and representing a doctrine supported by President Obama ’83CC and rejected by President Trump, continues to be at the center of an important policy debate in 2021 (“Pressure builds on Biden, Democrats to revive net neutrality rules” — *Washington Post*). In March, Wu joined the Biden administration to work on technology and competition policy at the National Economic Council.

## Intersectionality

**Definition:** The complex ways in which multiple forms of discrimination (such as racism, sexism, and homophobia) overlap in the lives of Black women and other marginalized people or groups.

**Year coined:** 1989

**Coined by:** Kimberlé Crenshaw, Isidor and Seville Sulzbacher Professor of Law



**In use:** The term entered the *Oxford English Dictionary* in 2015 and *Merriam-Webster's* in 2017. Today it appears in many prominent media outlets, from the *New York Times* to the *Guardian* to *Fortune* (“Entire organizations miss out on opportunities to build more inclusive and resilient businesses when they fail to account for intersectionality”).

## Pleak

**Definition:** A combination of “plant” and “leak,” connoting the gray area in state secrecy between a strategic information plant (e.g., when the president intentionally and selectively shares a secret or instructs an aide to do so) and an unauthorized leak (e.g., when a low-level employee steals classified documents and gives them to a journalist).

**Year coined:** 2013

**Coined by:** David Pozen, Charles Keller Beekman Professor of Law and vice dean for intellectual life



**In use:** The term has appeared in the *Christian Science Monitor* (“But it’s a truth universally acknowledged that

leaks, plants, and hybrid ‘pleaks’ are common currency in national security and foreign affairs reporting”), the *Washington Post* (“First, the public discourse on intelligence policy is often driven by what David Pozen has termed ‘pleaks’ or leaks from officials seeking to further policy”), and the *New York Times* (“David Pozen, a Columbia University law professor, coined the term ‘pleak’ to describe a practice in which high-level officials talk to reporters without getting clearance but in a way that the White House tolerates”).

## Brussels effect

**Definition:** The process by which rules and regulations formed and disseminated in the European Union have penetrated economic life outside of Europe.

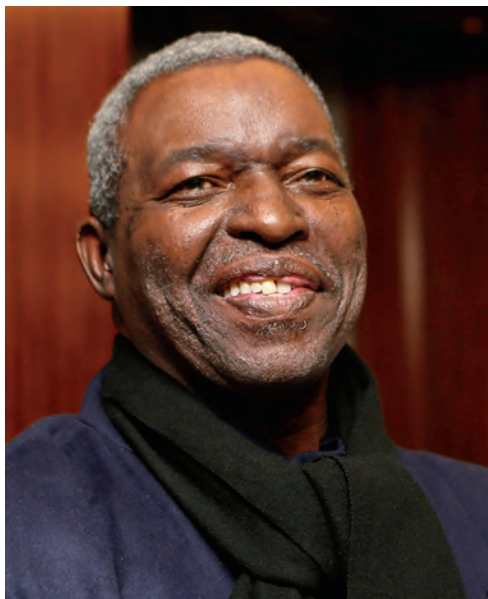
**Year coined:** 2012

**Coined by:** Anu Bradford, Henry L. Moses Professor of Law and International Organization



**In use:** Recently featured in *The Economist* (“The Brussels effect, cont: The EU wants to set the rules for the world of technology”) and on Bloomberg.com (“In what has been called the ‘Brussels Effect,’ the EU has been playing a more dominant role than commonly appreciated in setting a variety of global standards”). Bradford’s book *The Brussels Effect: How the European Union Rules the World* was published in 2020.





Left: Zach Husser. Right: Husser (middle row, center) with his Omega Psi Phi brothers, 1968.

## Honoring Brother Zach

Alumni establish an endowment in memory of a community giant

**T**his fall, the African American and African Diaspora Studies Department will announce the winner of the inaugural Zachary Cornell Husser Prize for Community Engagement and Empowerment. Department chair Farah Jasmine Griffin says the annual award, established by a committee of Columbia alumni, will go to students who embody the spirit of Zach Husser '70CC, a.k.a. Brother Zach, who passed away in October 2018.

A big, charismatic man with an irrepressible smile, Husser arrived on campus in 1966 and immediately made his presence known. The political-science major from Wilmington, Delaware, tutored high-school kids in Harlem through Columbia's

Double Discovery Center and mentored young men from the Manhattanville Houses, a public-housing complex at West 126th Street. He played football and basketball for the Lions and cofounded the Columbia chapter of Omega Psi Phi, which at the time was the only Black fraternity on campus. During the protests of 1968, Husser, with a group of students that included the future founders of the Zach Husser Prize, occupied Hamilton Hall, calling for, among other things, the formation of a Black-studies department — much like the one that, more than fifty years later, is granting an award in his name.

Husser's devotion to the African-American community, and Harlem in particular, sets the standard for the Zach Husser Prize. In 2019,

Larry Frazier '70CC, now an estate lawyer in Washington, DC, and Leon Denmark '71CC, former executive director of Newark Symphony Hall, met with Griffin on behalf of the alumni committee and presented their idea. "We thought, this is where we need to do this prize, in this department," says Frazier. "It fit perfectly with our philosophical interests." They all agreed that the award would fund projects proposed by undergraduates involved in African-American studies and social-justice work. "I was blown away by the idea and wanted to work with them to make it happen," Griffin says.

The committee — Frazier, Denmark, James Boggan '71CC, Alford Dempsey, Mark Durham '70CC, Marvin Kelly, Karla Spurlock-Evans

'71BC, and Fred White '70CC, '73LAW — set out to raise the funds. "It was important for us to make it a broad-based effort so that as many people as possible could feel a part of it," says Frazier.

Husser's ties to Columbia and Harlem were enduring, and in the last months of his life he spent a lot of time traveling from his home in Hackensack to Upper Manhattan. There were fiftieth-anniversary events for the '68 campus uprising and for the creation of Blackfrica Promotions — the Harlem cultural organization responsible for Harlem Week — with which Husser had been active since 1974. And on October 18, 2018, Husser sat at a table in Low Rotunda dressed in a tuxedo that his wife, Joan Wiltshire-Husser, had made for him, and watched his friend Heyward Dotson '70CC, '76LAW, a Rhodes scholar and college basketball star, be inducted into the Columbia University Athletics Hall of Fame. The ceremony meant everything to Husser, who had persuaded the reserved Dotson to accept the honor.

"Zach was so happy for Heyward," Wiltshire-Husser says. "You'd have thought *he* was getting the award. He could not contain himself; he was all around the room." That weekend, Husser attended a Columbia football reunion and went to the football game at the Baker Athletics Complex. The following week, he fell ill at home and died a few days later. He was seventy years old.

No one could believe it. Brother Zach was too good,

too present — a loving husband, father, and grandfather, he advocated tirelessly for education (he was a mentor to students at the Eagle Academy for Young Men, a college preparatory school in the Bronx, and a staff member at the Eagle Academy Foundation) and housing (he spent his career as an administrator with the New York City Housing Authority) and was forever firing off impassioned calls to action to his vast social network (“Dear Family,” they’d begin). He brimmed with strong opinions (“He didn’t mind sharing them with anyone who was listening — or not listening,” says Frazier), and could get a party started just by stepping into a room.

“Zach’s values were all the right values,” says Jonathan Schiller ’69CC, ’73LAW, chair emeritus of the Columbia University Board of Trustees. “The Zachary Husser Prize is really to be given to someone of great character.”

“He was our heart, our energy,” says Frances Sadler ’72BC, who worked with Husser to bring reunions for Black alumni of Columbia and Barnard, long held elsewhere, back to Morningside Heights — a project that Husser started in 2015 and enthusiastically promoted. “People would do anything for Zach, because he *saw* them. Everyone loved Zach.”

Frazier and the others were determined to memorialize that spirit.

“With this prize,” says Frazier, “Zach’s name will live in perpetuity.”

— Paul Hond

## POSTCARDS FROM THE HEIGHTS

Back in college, Brewster Moseley ’76TC began exchanging postcards with a friend. Their running gag was to send the weirdest, funniest cards they could find. Today, Moseley, a writer and photographer living in Idaho, is a deltiologist — a collector of postcards. Dominating his collection are vintage Columbia cards from the late 1800s to the mid-1940s. “While not exaggerated or humorous,” Moseley says, “these cards certainly evoke — for me at least — beautiful, nostalgic memories.” To see more from his collection, visit [magazine.columbia.edu](http://magazine.columbia.edu).







# THE EDUCATION OF SIDDHARTHA MUKHERJEE

**He wrote the book on cancer.  
Can he transform the way it's treated?**

**By David J. Craig**

Photographs by Allison Michael Orenstein



Most years, Siddhartha Mukherjee, the Columbia oncologist, cancer researcher, and author, travels with his wife, the artist and fellow Columbia professor Sarah Sze, and the couple's two young daughters to the southern coast of Mexico. There the family vacations in a beach house designed and owned by Mexican artist Gabriel Orozco, a close friend. Orozco's house, a small but dazzling open-air structure inspired by the eighteenth-century Jantar Mantar astronomical observatory in New Delhi, is perched atop a rocky cliff with a panoramic view of the Pacific Ocean. "It's an isolated place, very quiet, with no distractions," Mukherjee says. "Great for thinking."

A few years ago, while playing with his daughters on the house's patio, Mukherjee had a flash of inspiration. "We were creating stencils by drawing familiar objects and then cutting out the shapes with scissors," he says. "I made a stencil of a sea-bird and painted it, first making a black bird and then, by tracing the cutout, a white bird framed in black." Staring at these yin-and-yang images, Mukherjee, who at the time was writing his 2016 book *The Gene: An Intimate History*, began to envision a pair of cells. "I saw a healthy cell and its malevolent twin — the cancer cell. And I thought to myself, 'We're pretty good at killing the cancer cell. We've got lots of drugs to do that. But why don't we figure out a way to protect the healthy one?'"

It was a moment of epiphany for Mukherjee. A therapy that could somehow shield healthy human cells from the toxicities of cancer drugs would, he knew, revolutionize treatment for many forms of the disease. The idea was at once elementary and elegant; Mukherjee was immediately consumed by its promise.

The problem with most cancer drugs, as Mukherjee explains in his 2010 Pulitzer Prize-winning history of the disease, *The Emperor of All Maladies*, is that they are lousy at distinguishing between cancer cells and healthy cells. This is because cancer cells are genetically, metabolically, and structurally very similar to normal ones. They are, he writes, "hyperactive, survival-endowed, scrappy, fecund, inventive copies of ourselves."

Traditional chemotherapy drugs, which still form the backbone of most cancer-treatment regimens, are designed to combat cancer cells by turning one of their most frightening and unusual characteristics — their tendency to proliferate very quickly — into a vulnerability. The drugs work by weakening the mechanisms that all cells in the body use to divide and duplicate, thus ensuring that any cells that frequently make

copies of themselves eventually perish when they try to reproduce. But some healthy tissues, like those of the bone marrow, skin, guts, and hair follicles, are also constantly renewing themselves, and so cells in these parts of the body are damaged by chemotherapy too.

Mukherjee is all too familiar with the toxic side effects of chemotherapy. Having treated blood cancers for nearly two decades, he has on countless occasions endured what is for any physician a soul-crushing experience: watching a patient suffer terribly at his own hands, as the result of treatments he has administered. This is, in fact, precisely what his job as an oncologist requires. To have any chance of saving his patients' lives, Mukherjee often must push their bodies to the brink of death, pumping them full of substances that inflict nearly as much damage on healthy tissue as on the malignancies they were intended to cure. Of chemotherapy's side effects, the weakening of the bone marrow is by far the most dangerous, since healthy marrow is needed to continually generate fresh blood. In fact, the amount of chemotherapy given to a patient

is typically limited by the amount of stress the bone marrow can withstand. Unfortunately, the lower the dosage, the lower a patient's chances of being cured.

Cancer experts, frustrated by the scattershot approach and physical toll of chemotherapy, have long sought new regimens. And in the 1990s, as geneticists were mapping the human genome and decoding the specific DNA of cancers, they

started to design drugs that zero in on tumors more precisely. The most effective of these "targeted therapies" go after proteins and other molecules found only in cancer cells. However, because most cancers can be caused by many different genes, and because these genes' molecular products are often too slippery or oddly shaped for drugs to bind to, scientists have still struggled to find good targets. Often they have resorted to creating drugs that go after molecules not entirely unique to tumors. Even some of the newest cancer treatments, such as immunotherapy, which unleashes the body's natural defenses against cancer, may rely on this imperfect strategy, programming the body's immune system to attack entire categories of cells — certain types of blood, skin, breast, or lung cells, say — rather than cancer cells specifically. As a result, targeted therapies can also cause life-threatening side effects such as organ failure, forcing physicians to halt the treatments early.

Playing with his daughters on the coast of Mexico that morning, though, Mukherjee saw another way. He imagined creating a new kind of therapy, one that could protect healthy cells during treatment, thereby enabling patients to take more medicine and

**The problem with most cancer drugs is that they are lousy at distinguishing between cancer cells and healthy cells.**

increase their chances of survival. But how would the therapy work? How would it be delivered to the cells that needed protection? Mukherjee, whose research had until that time focused on how cancers form, had never developed a treatment before. Part of him wondered if the idea was overly ambitious. Some physicians were sure to balk at the prospect of preventing the side effects of one therapy by administering a second. And yet Mukherjee also believed that there was something satisfyingly simple about the idea of armoring healthy cells against chemotherapy. In fact, after reflecting on it for a while, he became convinced that the reason no one had proposed the strategy before was because in some respects it was *too* simple. For decades, scientists working on new cancer treatments had been striving to understand the complex biology of the cancer cell itself, hoping to find a weakness to exploit. Much less attention has been paid to the healthy cells around it. Perhaps he and his scientific peers had been looking at the situation with blinders on.

“The greatest challenge in oncology has long been thought to be identifying unique features in tumors to attack,” Mukherjee says. “But nobody has asked: why don’t we alter the healthy cell, in order to make the cancer cell a more unique and obvious target?”

**M**ukherjee, who is fifty, was born and raised in a middle-class area of New Delhi. The son of an automobile executive and a schoolteacher, he was a dreamy and private child, obsessed with Indian classical music and the poetry and songs of Rabindranath Tagore. In high school, he gravitated toward Shakespeare, Flaubert, and Orwell; at the same time, he fell in love with the life sciences. “I had an incredible biology teacher who talked to us about the big unanswered questions in the field,” he says. “Like why, if all of your cells contain the same DNA, do they take on different functions? And how do they come together to form a whole organism? There seemed to be so many possibilities for discovery.”

In 1989, Mukherjee moved to the US to study biology at Stanford. He says he soon broke away from the “bio gang,” enrolling in as many philosophy, ethics, and history of science courses as would fit his schedule. The notebooks of Charles Darwin had an especially powerful impact on him; Mukherjee was struck by the naturalist’s accessible prose and the relaxed, almost playful way he presented his ideas. “I remember seeing his first sketch of an evolutionary tree and how he’d scribbled ‘I think’ above it — as in ‘Maybe I’m right, maybe I’m not,’” Mukherjee says.

“I loved that. I felt totally liberated by it. Afterward, when taking science or math exams, instead of saying to myself, ‘Oh my God, I have to get this answer right,’ I began to approach problems with a sense of joy and creativity, thinking, ‘Why don’t I play with this question and see what I can do with it.’” Mukherjee was also moved by the books of Oliver Sacks and Lewis Thomas, physicians who approached their clinical work with deep curiosity and open minds. “They showed me that practicing medicine could be a process of discovery,” he says. “And I decided that’s what I wanted to do — I wanted to be a doctor who discovers things.”

After studying immunology at Oxford University on a Rhodes scholarship, Mukherjee enrolled in Harvard Medical School, where he chose to specialize in oncology. Cancer had long been a part of his world, having claimed the lives of a young cousin, an aunt, and a high-school English teacher, and Mukherjee had a hunch

that he was suited to the work. Upon entering the cancer center at Boston’s Massachusetts General Hospital for the first time in 1997, as a third-year medical student attending rounds, he realized he had made the right choice. “You walk in there, and all of a sudden the world is upside down,” he says. “People are having poisons dripped into their blood, some are dying, others are being saved, and every conversation you have carries a kind of potency that you just don’t encounter in the rest of the world. It is immensely challenging, both intellectually and emotionally.



Mukherjee in his Manhattan home.



It was a good fit for me. I enjoy talking to people about their lives and listening. I found the whole thing exhilarating.”

Yet if treating cancer patients was an awakening for Mukherjee, it also threatened to swallow him whole. His first couple of years as a practicing physician at Mass General, he says, were in many ways the most difficult of his life. Exhausted by the rigors of round-the-clock rotations, living a lonely existence in a small apartment near Harvard Square, and witnessing death almost daily, he began to brood about the ethical dilemmas inherent in his profession. He wondered: How much chemotherapy was too much to give a person? What if a patient insists on more treatments when the effort is clearly futile? What should you tell a person whose blood tests indicate that she is cancer-free but whom you suspect has undetectable traces that might kill her? To process his thoughts, Mukherjee began to write. Every night he would fill diaries with observations, insights, and confounding questions drawn from his rounds. The next day, he would set out to find answers by speaking to senior colleagues or doing research at the library. “Writing was at first a very personal endeavor for me,” he says. “It was just my way of becoming a better doctor.”

That changed one day in 2006, when a patient asked Mukherjee a pointed question. “She was a very spirited, larger-than-life character who’d been through several courses of cancer treatment, none of which had worked, and I was offering to put her on yet another experimental medication,” he recalls. “And she said to me, ‘All right, I’m willing to go along with you. But what exactly am I doing? You have to explain this to me.’” The question demanded a thoughtful response, and while providing the woman a matter-of-fact description of her prognosis, which was poor, Mukherjee sensed the inadequacy of his reply. “I could tell that she wanted more,” he says. What precisely did she want to know? Mukherjee wasn’t sure. Maybe answers to some of the same kinds of questions he’d begun grappling with: Are experimental cancer drugs typically worth trying, or do they merely prolong patients’ suffering? Do lessons gleaned from failed drug trials at least benefit future generations? How much better have cancer treatments actually gotten over the years? In other words, what did all the pain and anguish he witnessed every day add up to? Mukherjee went online in hopes of finding a book to recommend to the patient. To his surprise, he discovered there was none that provided an accessible yet intellectually satisfying history of cancer treatments. So that night, sitting in his car outside the hospital with his diary on the passenger seat, he decided that he would write the book himself.

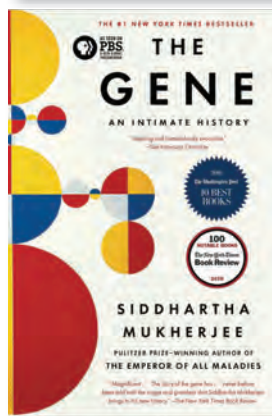
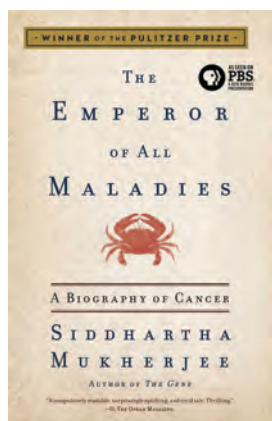
Over the next five years, Mukherjee spent nearly all his free time poring over old scientific papers and textbooks; interviewing scientists, physicians, and patients; and mining his own clinical and research experiences for clues about where the field of oncology was headed. (Mukherjee had by this time become a specialist in blood cancers and was conducting research on how bone-marrow irregularities can cause blood cells to become malignant.) He wrote most of what would become *The Emperor of All Maladies* in bed at night, next to his wife, Sarah, who read and edited his pages as he wrote them. What eventually emerged was a genre-defying masterpiece that manages to turn the entire history of oncology into a thriller, with all the major clinical setbacks and breakthroughs seen through the eyes of those who experienced them.

The book, which was published in 2010, the year after Mukherjee was recruited to Columbia, explains the biology of cancer in intricate detail and provides a generally upbeat assessment of the state of cancer medicine, emphasizing the significant progress made since the 1980s in treating certain kinds of breast, prostate, skin, testicular, thyroid, cervical, and blood cancers. It is also a riveting intellectual history, showing how theories about the disease have evolved in lockstep with scientific and technological advances. The invention of anesthesia in the nineteenth century led surgeons to insist that cancer would be cured by carving ever larger chunks out of patients’ bodies; the development of antibiotics in the mid-twentieth century inspired a generation of scientists to hunt for cancer-causing pathogens; today, in the age of genomics, scientists brim with confidence about DNA research leading to a cure. “Every era,” Mukherjee said in an interview at the time of the book’s release, “casts cancer in its own image.”

*The Emperor of All Maladies*, which, in addition to winning a Pulitzer Prize, was turned into a six-hour PBS documentary by filmmakers Ken Burns and Barak Goodman

’86JRN, has made Mukherjee an international literary star. Cancer survivors now stop him on the street and tell him that his book helped them to understand what was happening to their bodies and enabled their loved ones to grasp what they were going through physically, emotionally, and spiritually. Other oncologists pull him aside at conferences and tell him that his book, by putting their work into a historical context, gave it more meaning.

For many, the book provided answers, but for Mukherjee the questions just kept coming. Having explored the insidiousness of the cancer cell, he soon turned his attention to the healthy



Two of Mukherjee's books have been turned into PBS documentaries.

cell, with an eye toward understanding how its DNA kept it functioning in perfect harmony with its neighbors. His next major work, *The Gene: An Intimate History*, traces the evolution of the concept of the gene, from the ancient Greeks' purely abstract notion that our bodies are built from instructions contained in sperm to the nineteenth-century botanist Gregor Mendel's discovery of the statistical patterns of inheritance to modern biochemists' decoding of our DNA. The book, while elucidating some of the knottiest aspects of genomic science, is also a deeply humanistic meditation on tolerance, compassion, and humility. Its central message is that although we are on the cusp of being able to reprogram nearly all aspects of our bodies, we should resist doing so in all but the rarest of circumstances (such as to treat severe illness), since genetic variety is both the key to our species' adaptability and a reminder to accept and embrace one another's differences.

If *The Emperor of All Maladies* and *The Gene* elevated public discussion about cancer and genetic research, the experience of writing the books also invigorated Mukherjee's own laboratory work in unexpected ways. After spending years charting the trajectories of the intertwined fields, Mukherjee emerged bursting with ideas for new scientific projects, including ones that might focus almost exclusively on healthy cells. The way he saw it, the field of oncology was poised to enter a new era as some scientists were beginning to view cancer in a more holistic manner, investigating how a wide range of metabolic, hormonal, vascular, immunological, and dietary factors can influence the disease. At the same time, Mukherjee was convinced that powerful new gene-editing technologies would soon enable him and others to manipulate the human body to make it less hospitable to cancer. He thought that these efforts could complement those of the scientists who were attempting to create drugs that target cancer-causing molecules inside tumors — a project that has dominated cancer medicine since the 1990s but which hasn't produced nearly as many breakthroughs as expected.

"The era of genomics-based cancer medicine, with its dream of identifying the mutations that cause patients' tumors and providing 'personalized' treatments, got off to an exhilarating start with the development of targeted therapies like Herceptin and Gleevec," says Mukherjee, referring to two drugs that have essentially cured certain breast and blood cancers, respectively. "But since the 2010s, it has become clear that

efforts to extend this approach to other cancers, on the whole, have been fairly disappointing.

"So my attitude is, we've got to rethink this road we've been traveling down," he says. "I know, because I helped map it."

**O**n a recent Wednesday morning, in a brightly lit laboratory at Columbia University Irving Medical Center, a molecular biologist named Florence Borot gently squeezes a drop of pale pink liquid onto a glass slide.

"Now I'll look to see how many healthy cells we've got in the sample," she says, placing the slide under a microscope.

Borot is a member of Mukherjee's research team, and the liquid is precious material: it contains blood-forming stem cells that have been extracted from a cancer patient's bone marrow. "We're going to genetically engineer them to be invisible to cancer drugs," she says.

Her project is one of a half dozen in Mukherjee's lab that aims to fight cancer by manipulating healthy tissues. Most of these projects are focused on improving treatments for an unusually aggressive form of blood cancer called acute myeloid leukemia, or AML. One of the deadliest cancers, AML kills approximately two-thirds of all people who are diagnosed when they're under the age of sixty and 90 percent of those diagnosed when they're sixty and over. It occurs when immature blood cells grow out of control, eventually taking

over the bone marrow and pouring into the bloodstream. "It's an incredibly virulent and explosive form of cancer that can kill quickly, often within months or even weeks," says Mukherjee, who has seen hundreds of patients with AML.

Acute myeloid leukemia also illustrates the limitations of genomics-based cancer therapies. Despite dozens of papers on AML's genetics having been published over the past quarter century, little progress has been made in treating it. "We know its biology and genetics inside out," Mukherjee says. "Yet none of this research has suggested any effective therapies. For the most part, we're still treating AML with chemotherapies developed in the 1960s and '70s."

The pharmaceutical giant Wyeth (now part of Pfizer) did create one targeted therapy for AML in the 1990s. Called Mylotarg, the drug targets a protein that does not cause cancer but is located on the outer surfaces of blood cells of the type that AML afflicts. (These "myeloid" cells include several

***If *The Emperor of All Maladies* and *The Gene* elevated public discussion about cancer and genetic research, the experience of writing the books also invigorated Mukherjee's own laboratory work in unexpected ways.***



varieties of the white blood cells that serve as the body's first line of defense against viruses, bacteria, and other invaders.) Mylotarg, whenever it comes across a myeloid cell, will grab on to its surface protein and then inject the cell with a toxin that tears it apart. The drug is frighteningly efficient at killing myeloid cells; unfortunately, in the course of destroying cancerous myeloid cells, it also wipes out patients' remaining healthy ones. This can cause their immune systems to crash, making them susceptible to life-threatening infections before their cancer is defeated, among other side effects. As a result, the drug has an unimpressive track record; one study a few years ago found that it harmed more patients than it saved and was, in some circumstances, even more dangerous than traditional chemotherapy.

"It's not an ideal drug," says Mukherjee.

But he thinks he can make it a better one. How? By stripping patients' healthy blood cells of their telltale surface protein. (The protein in question is an antigen, a type of molecule that serves as a cell's identification card, announcing its presence to other cells in the body but fulfilling few operational functions.)

A couple of years ago, Mukherjee and several of his CUIMC collaborators — including professor of medicine Azra Raza, research scientist Abdullah Mahmood Ali, and Florence Borot — achieved a milestone. In a series of experiments reported in the *Proceedings of the National Academy of Sciences*, they managed to completely eliminate AML from sick mice by simultaneously giving the animals Mylotarg and infusions of stem cells that they had genetically altered to produce myeloid cells that are invisible to Mylotarg.

"Since the drug only attacked leukemic myeloid cells, the mice were able to tolerate it for longer than they otherwise would have been able to," says Borot, who used the gene-editing technology CRISPR to make the alterations to the stem cells. "This gave the medicine more time to do its job."

The experiments, which followed years of laboratory preparations, sent ripples of excitement through the biotechnology and pharmaceutical communities, and Mukherjee helped launch a startup, Vor Biopharma, with the goal of one day bringing his team's therapy to hospitals and clinics. The Boston-based company is planning to soon initiate a clinical trial that will give Mylotarg in tandem with Vor's therapy to AML patients who have failed to respond to traditional chemotherapy. (Chemotherapy remains the standard treatment for the disease because Mylotarg has performed so poorly.)

Mukherjee, who serves as a scientific adviser to Vor Biopharma, believes that his team's therapeutic strategy could be adopted to improve the potential of other leukemia drugs, many of which work similarly to Mylotarg in that they go after surface proteins found on both cancerous blood cells and some healthy cells.

Still, it is an open question whether Mukherjee's new therapy will prove safe and effective. Experimental cancer treatments frequently succeed in mice only to fail in human trials. And this therapy, because it would permanently alter the DNA of a person's blood-forming stem cells and hence their blood, comes with deep uncertainties. Scientists have barely begun to understand how the approximately twenty thousand genes in each of our cells interact with one another, and edits made in one part of the human genome have often been found to trigger unintended consequences. So it is difficult to predict exactly what will happen when millions of the Columbia team's genetically edited blood cells are infused into a patient's body. Will the cells fail to work properly, perhaps because the surface protein per-

forms important functions that scientists aren't yet aware of? Or will the cells work well initially but cause unanticipated health problems years down the road?

There is reason to believe that the surface protein being removed from blood cells is not physiologically essential. To minimize the risk of complications, though, the researchers are now finessing their gene-editing technique. Rather

than removing the protein entirely, they plan to alter its shape so that Mylotarg cannot attach to it.

"If the protein has a biological function that we're not aware of, then hopefully it will still be able to perform it," says Borot, who is leading the gene-editing effort.

For Mukherjee, the human trials cannot come soon enough. In the twenty years he has cared for people with AML, he estimates, he has lost about one patient per week. Other oncologists now telephone him regularly, asking when the trials will begin.

"It's true that there are many things that could go wrong," he says. "The whole project is operating on a knife's edge. But it's also possible we'll save many people's lives."

It is midmorning on a Tuesday, and Mukherjee is leaning back in a swivel chair in his book-lined office on Columbia's medical campus. He has just pulled an all-nighter to finish writing a grant application. He has dark circles beneath his eyes and his floral-print shirt is rumpled, but he is warm and engaging, and he grins while indulging a question that he has obviously heard many times before.

**"We've got to rethink this road we've been traveling down. I know, because I helped map it."**

“People often ask me whether I’m a writer, a scientist, or a doctor first,” he says. “And I always say that I can’t distinguish between these roles. What I do as a historian and journalist and my work as a scientist and physician are all integrated for me. History is alive with ideas that we can use to inform treatments today, if we pay close enough attention.”

A case in point: Mukherjee says that the writings of the Victorian English surgeon Stephen Paget are a constant source of inspiration to him in the laboratory. In 1889, Paget, after observing that some organs are likelier than others to host cancerous tumors, hypothesized that surrounding tissues play powerful and mysterious roles in nurturing the disease. His theory, which holds that cancer cells are “seeds” dependent on finding fertile “soils” to grow in, was ignored for more than a century but has in recent years been embraced by scientists.

“Paget is somebody I’m in conversation with regularly,” says Mukherjee, noting that the physician’s writings were on his mind when he came up with his novel idea for treating AML. “I try to view cancer through his eyes. He had a powerful and fresh vision.”

Inspired by Paget, Mukherjee and his team are currently investigating the ways cancer cells evade the body’s immune system. They recently discovered part of the answer, finding that cancer cells hide among certain kinds of healthy blood cells, possibly by mimicking their intracellular chemical signals. “The next step will be devising ways to clear those healthy cells away from tumors, so that the immune system is able to recognize the cancer and attack it,” Mukherjee says.

In addition, he is examining how our eating habits may influence cancer and its treatment; this work follows up on a groundbreaking study that he and Cornell cell biologist Lewis C. Cantley published in 2018, which showed that a high-fat, low-carbohydrate diet improves the effectiveness of a cancer drug called Aliqopa in mice. Other researchers at Columbia’s and Cornell’s teaching hospitals are now overseeing clinical trials to determine if the diet has the same benefit for people with lymphomas and endometrial cancers.

“The effects of diet on cancer have long been neglected by oncologists because it was seen as kind of a loosey-goosey area

— a lower science and the domain of unregulated ‘nutraceutical’ companies,” Mukherjee says. “So the research is still in its early stages. It’s not like I can tell you, ‘Eating blueberries will prevent cancer,’ or anything like that. But we’re beginning to conduct fine-tuned metabolic studies to see how the environment in which a cancer grows, and in which a drug combats it, might be shaped by what you eat.”

Mukherjee still sees patients at CUIMC one day a week and writes every morning, often exploring the ethical challenges that physician-scientists confront in their work. It is a rich subject, ripe with cautionary tales from oncology’s past. Indeed, *The Emperor of All Maladies* is brimming with stories of physicians who, in their quest to save cancer patients, cause them pain and anguish. The mid-twentieth-century surgeons who, in a misguided attempt to prevent breast cancer from

spreading, carved out large sections of women’s chests and shoulders. The pediatric oncologists who in the 1980s pumped as many as eight chemotherapy drugs at once into children’s spines in failed attempts to treat their brain tumors. And the physicians who, in that same decade, launched an ill-advised bid to shrink solid tumors in adults by giving them enormous quantities of chemotherapy drugs that had only ever worked on blood cancers. These treat-

ments disfigured, sickened, and in some cases killed cancer patients who might otherwise have enjoyed a measure of peace in their final days. Shoddy research sometimes played a role, as did, Mukherjee suspects, scientists’ professional ambitions. But more often than not, he believes, it was physicians’ desperation to save lives that led them to underestimate the risks they were taking. Mukherjee meditates on these and other dark chapters from his field’s history in hopes of avoiding the same mistakes.

And yet the difference between a triumphant and a disastrous human trial is often only apparent in hindsight. Major advances in cancer care, Mukherjee says, almost always involve “inspired leaps of faith” on the part of clinicians and patients, since no amount of laboratory research can ever predict exactly what will happen when an experimental therapy is introduced to the human body. He points out that one of



Mukherjee in his CUIMC lab with Florence Borot and Abdullah Mahmood Ali.



the first forays into immunotherapy nearly ended in calamity when, in 2010, the immune cells of a five-year-old leukemia patient named Emily Whitehead were genetically altered to make them attack her cancer. Whitehead's immune cells got confused and attacked the rest of her body, too, almost killing her; doctors managed to stabilize her only because one of them had a young daughter with a rare autoimmune disorder and therefore happened to know of a drug that would quell her immune response. In the end, Whitehead beat her cancer, and the episode, which could easily have provoked a regulatory crackdown on immunotherapy, energized the field and provided a template for managing the new therapies' side effects.

"There is still an element of art in medicine," Mukherjee says. "If you push too hard, you're risking your patients' lives. But if you don't push hard enough, you're not doing all that you can to save them. Knowing where to draw that line is very difficult."

There was a time, Mukherjee remembers, when he loved just one thing. From the age of seven into his teens, his life revolved around singing ragas, the classical music of India. He was a prodigy, receiving lessons daily from some of New Delhi's most prestigious vocal instructors and being groomed for a career as a concert performer. He recalls how the music brought him peace, how his voice merged with the mellifluous sound of the sitar and then soared effortlessly above it — "like a bird."

Mukherjee continued to sing seriously for many years, then, during his junior year at Stanford, he decided rather abruptly to give it up. Part of him doubted that he had the raw talent necessary to go professional. But there was something else, some intangible quality that he thought his singing lacked, a certain gravitas and emotional depth that he could hear in the performances of his favorite singers, like Amir Khan and Shahid Parvez.

"I just didn't have the grief you need," Mukherjee says. "I'd lived a relatively charmed life up until that point. I hadn't

really experienced much loss. I hadn't treated cancer patients. So I was just singing in an athletic way, like it was a sport. There was nothing behind it."

Now decades later, Mukherjee has begun to sing again. He has put together a group of New York City-based musicians that, prior to the COVID-19 pandemic, performed at small clubs and museums, mixing traditional Indian music, jazz, and blues. "I've been experimenting with creating a more colloquial, conversational singing style that draws on twentieth-century Western musical traditions," he says. "One of the things I always admired about Indian classical singing is

that authenticity of voice is supremely important, even more so than technical skill. You have to sound like yourself. So I've been searching for a deeper way to be myself now in my music."

Mukherjee is currently working on three books: a history of cell biology, which he sees as a prequel to *The Emperor of All Maladies* and *The Gene* ("It's about how the conception of the human body as a conglomeration of individualized units that cooperate and sometimes compete with each other changed medicine"); a collection of new and previously published essays about how damaged biological systems can restore themselves; and an updated edition of *The Emperor of All Maladies*, which will contain new sections on immunotherapy and the rising costs of cancer medicines. In the past year, he's also managed to write a series of *New Yorker* articles about COVID-19, exploring

everything from the mysteries of how the virus behaves within patients to the need for America's "market-driven, efficiency-obsessed" medical system to invest more resources in preparing for unexpected crises.

When asked how he finds the time to write, his answer is pretty straightforward.

"I believe that work-life balance is overrated," he says. "And I have none — zero."

It's a way of life he shares with his wife, Sarah Sze, a prominent artist known for her large, intricate, and arresting sculptural installations (see *Columbia Magazine's* profile of Sze



Mukherjee, a classically trained singer, says his experiences in the arts have helped him find his "voice" as a scientist.

in the Winter 2016–17 issue). Sze and Mukherjee both keep irregular hours and travel constantly, she to exhibit her artwork and he to attend conferences. They carve out time each week to focus exclusively on their daughters, who are fifteen and eleven (museum trips and movie nights are always popular). But both parents work many evenings and weekends, Sze at her studio a few blocks from the family's loft in Chelsea and Mukherjee at his CUIMC lab.

"We invite the girls to come along and even get involved sometimes, to be a part of it and enjoy it with us," says Mukherjee. "We try to show them that it's cool to be really passionate about your work — that it's something we can all be proud of as a family."

Despite all that he's accomplished, Mukherjee says that he is troubled by the compromises he must make in balancing his roles as author, physician, and research scientist. In academia, after all, scientists are celebrated for establishing themselves as experts on niche subjects, producing tons of papers, and overseeing large research staffs; Mukherjee, who doesn't claim to be an authority on any particular aspect of cancer biology, publishes more sporadically than do most scientists of his stature and runs a small lab consisting of just a handful of researchers. What energy he does have for laboratory work he pours into a modest number of high-risk, high-reward projects that aim to turn the latest breakthroughs in cancer biology into new therapies. These endeavors often involve collaborations with larger laboratories whose leaders team up with Mukherjee to help him bring to life ideas that they have hashed out together during coffee-fueled late-night phone calls. It's a strategy that Mukherjee says neutralizes his main liability as a scientist (a disinterest in immersing himself in hyper-specialized basic research) while amplifying his strengths (a freewheeling curiosity and broad knowledge of research trends). But like any polymath, Mukherjee can't help but wonder sometimes whether he would feel more fulfilled if he weren't running in so many different directions. "This multifaceted, kaleidoscopic life that I lead requires difficult tradeoffs," he says. "At a certain point, you just have to accept that you're never going to be the scientist you want to be. Or the doctor. Or the writer."

Of course, academic scientists have not always been expected to manage sprawling research operations or to spend their careers drilling deeper and deeper into narrow subfields. Before the late twentieth century, when rapid technological advances led to an explosion of knowledge and the birth of complex new questions that required larger and costlier research enterprises,

scientists were likelier to work alone or as part of small groups on less arcane subjects. Science has progressed, but perhaps something has been lost. Researchers in the past had more time to reflect on the theoretical and philosophical underpinnings of their work, to mine neighboring fields for inspiration, and to pursue more idiosyncratic visions.

In fact, the history of cancer research, as told by Mukherjee in *The Emperor of All Maladies*, is filled with dreamers, mavericks, and iconoclasts who, by virtue of having one foot outside the field of oncology, are able to look at cancer in new ways. There is the pathologist Sidney Farber, who, after years spent dissecting, measuring, and weighing cadavers in the basement of a Boston hospital, intuitively that the first attempts to develop chemotherapies ought to target leukemias, for the simple reason that leukemia cells circulate in the bloodstream and can be precisely counted before and after administering drugs. There is the biologist Howard Skipper, whose purely mathematical take on cancer inspires him to propose the novel idea that multi-drug cocktails could prevent cancer cells from evolving

resistance. And there is the obstetrician and oncologist Min Chiu Li, whose obsession with analyzing patients' hormone levels convinces him that many people who are declared free of cancer actually need more treatment, leading him to pioneer "maintenance" chemotherapy regimens. These scientists, whose ideas were all controversial in their day, permanently altered the course of cancer medicine

and saved millions of lives. Mukherjee the author chronicles their professional setbacks and humiliations along with their triumphs with unusual sensitivity. It's a respect he also pays to the many laboratory scientists whose painstaking investigations into cancer's basic biology laid the groundwork for clinical breakthroughs.

"One of the things you learn from studying the history of science is that there are so many different ways of investigating the natural world," Mukherjee says. "Scientists, like artists, have their own styles of working, their own voices, too." And he has come to realize that by immersing himself in philosophy, music, poetry, and fine arts, he has expanded his worldview in ways that may make him a more versatile cancer researcher. "Somewhere along the way, I thought, OK, well, maybe I'm not going to be a conventional scientist. But I can still leverage my ability to synthesize knowledge and to draw inspiration from lots of different domains to come up with new ideas for medicines. And that will be my contribution. That will be my way of helping to emancipate human beings from all of this suffering and disease. That will be my authentic voice." 🐉

**Major advances in cancer care, Mukherjee says, almost always involve "inspired leaps of faith."**



# THE NEW TELEVISIONARIES

These six alumnae directors, writers, and producers have found enviable success in the streaming era

BY JULIA JOY ILLUSTRATIONS BY BIJOU KARMAN

## NICOLE KASSELL

▶ *"I'm drawn to stories that leave people thinking and growing."*

Nicole Kassell '94CC realized she was going to be a filmmaker during the first week of her freshman year at Columbia, when a classmate came into her dorm room and showed her a short film he had made.

"It was a total lightning-strike moment," says Kassell, now an accomplished director and producer who has worked on numerous television series, including *Watchmen*, *The Leftovers*, *The Killing*, and *The Americans*. "I knew I wanted to do that."

After studying art history at Columbia and film production at NYU, Kassell launched her career with *The Woodsman*, a daring indie feature starring Kevin Bacon as a convicted child molester trying to reenter society. The 2004 film generated buzz at the Sundance Film Festival, and Kassell began receiving invitations to direct episodes of crime and drama series like *Cold Case* and *The Closer*. At the time, there were fewer women filmmakers in the industry. "When I started, I was often the only female director on a series for that season. That's rarely the case now," she says. "Producers and writers are

putting a lot more effort into making sure people of different genders and ethnicities are behind the camera."

Kassell, who won a 2020 Emmy for outstanding limited series as an executive producer of *Watchmen*, says she is "drawn to stories that leave people thinking and growing." She refuses to be boxed in by any one style or genre but admits she gravitates toward weighty subjects. "I don't want to work on things that are pure eye candy or escapism," she says.

as Black Wall Street. "It's a history that so many of us haven't been taught," says Kassell, who acknowledges that *Watchmen* was a direct response to the 2016 election and the Black Lives Matter movement.

Kassell is currently working on a feature film called *Silver Seas*, about a team of journalists (including Robin McDowell '93JRN) who won a 2016 Pulitzer Prize for documenting slave labor in the Southeast Asian fishing industry. She is also slated to direct a *Wizard of Oz* reboot and



*Watchmen*, which premiered on HBO in fall 2019, is a loose adaptation of the 1986–87 comic-book series of the same name. Set in an alternate reality, the limited series stars Regina King as a police detective pursuing a white-supremacist group in Oklahoma. (Naturally, there are supernatural powers involved.) The pilot, which Kassell directed along with two other episodes, depicts the Tulsa race massacre of 1921, when a white mob killed as many as three hundred people and destroyed the thriving neighborhood of Greenwood, also known

RECENT CLAIM TO FAME  
*WATCHMEN* (AVAILABLE ON HBO MAX)



*Watchmen*

is serving as lead director and executive producer of *The Baby*, an upcoming series for HBO. "It's a comedy-horror show about a woman struggling over the question of whether or not to have a child, and about what the presence of a baby can do to friendships and families," she explains. "I'm not just the mistress of misery — I like pushing my boundaries as an artist."

HBO MAX

# SMRITI MUNDHRA

▶ “There’s success to be had by elevating new voices.”

*Indian Matchmaking* is a different kind of dating show. While the 2020 Netflix reality series covers its fair share of awkward dates and heartaches, there are no villas in paradise or singles in skimpy swimwear. Instead, the series follows Indian and Indian-American professionals who seek the help of matchmaker Sima Taparia and grapple with reconciling centuries-old Indian customs with today’s world.

For Smriti Mundhra ’09SOA, the creator and executive producer, this topic is deeply personal. An Indian-American documentary filmmaker from Los Angeles, Mundhra first conceived the series more than a decade ago, when, she says, at the urging of her “mother and aunts,” she hired Taparia



*Indian Matchmaking*

as her own matchmaker. Mundhra didn’t find her perfect match through Taparia (she ultimately met her husband, screenwriter Christian Magalhaes ’10SOA, at Columbia), but she did find rich material for a reality TV show. In 2009, she began pitching the idea to producers but was told the topic lacked mainstream appeal.

Mundhra tabled the project and went on to feature Taparia in *A Suitable Girl*, a 2017 documentary about three young women in India dealing with the pressures of engagement and marriage. The film, which

Mundhra wrote and directed with Sarita Khurana ’11SOA, won the Albert Maysles New Documentary Director Award at the Tribeca Film Festival and placed Mundhra in a better position to pitch her series again. This time, she turned to Netflix, where she found an Indian-American executive who loved the idea.

*Indian Matchmaking* proved popular but divisive. Many viewers took to social media to complain about the show’s thinly veiled display of caste culture (the participants are mostly wealthy, and some request fair-skinned partners). But for Mundhra, the criticism was welcome. “South Asians — a population of almost two billion people — are starved for true and diverse representation,” she says. “I think the fact that it sparked conversation and got people thinking about colorism and sexism and casteism was ultimately a benefit.”

As a documentarian, Mundhra strives to tell relatable stories from the viewpoints of people typically left out of mainstream entertainment. In 2019, she and former Columbia classmate Sami Khan ’09SOA released *St. Louis Superman*, an Oscar-nominated short documentary about Bruce Franks Jr., a Black rapper and activist who won election to the Missouri House of Representatives in 2016. This year, she has been working on a docuseries about Bollywood, a feature documentary about the Indian caste system, and a short



RECENT CLAIM TO FAME  
*INDIAN MATCHMAKING* (AVAILABLE ON NETFLIX)

film about the Los Angeles housing crisis, among other projects.

Mundhra credits the documentary genre and its rise in popularity for providing her with an entrée into directing. “No one was giving me money to direct a scripted feature film,” she says. “As a woman of color, I was always told my stories were too niche. I could never crack that bubble even though I was an accomplished producer. Independent documentaries can be made with far fewer resources.”

She acknowledges that Hollywood has grown more inclusive in recent years but says it has a long way to go. “I think studios are following the money and realizing there’s success to be had by elevating new voices,” says Mundhra. “However, increased equality is ultimately going to come down to the will of women and people of color to amplify others who have been marginalized and an industry recognition that it’s bad business to leave us out of the conversation.”



## AMY TALKINGTON

▶ “The industry feels hungrier for work from women.”



RECENT CLAIM TO FAME  
*LITTLE FIRES EVERYWHERE* (AVAILABLE ON HULU)

Amy Talkington '93BC, '99SOA discovered her passion for film at Barnard, where, as an art-history major, she was exposed to the work of Fellini, Antonioni, and other arthouse auteurs. “I realized film was where I could bring together my love of painting, music, and writing,” she says.

During and after college, Talkington, who is originally from Dallas, worked as a music journalist before enrolling at Columbia for an MFA in film production. Her 1998 thesis short, *Second Skin*, won festival awards and became her ticket to Hollywood. Talkington then went on to write and direct the 2006 indie feature *The Night of the White Pants*.

But her directing career hit a wall, and Talkington turned her efforts toward writing. She penned numerous screenplays for Hollywood studios and published a young-adult novel, *Liv, Forever*, in 2014, but most

of her film scripts never made it to the screen. “I grew frustrated at the glacial pace of development and the constant rewriting,” she says. As the writer of *Valley Girl*, a 2020 jukebox musical inspired by the 1983 movie of the same name, Talkington says she was fortunate to be included in the production phase, because “with studio films, writers are lucky if they’re even invited to visit the set.”

But television is a different beast. “The writer has more control and power,” explains Talkington, whose TV career took off when she joined the team of *Little Fires Everywhere* as a writer and co-executive producer. “It’s more like

theater in that sense, where the writer is involved in every step of the process.”

*Little Fires Everywhere*, which premiered on Hulu in 2020, is adapted from a 2017 novel by Celeste Ng and stars Reese Witherspoon and Kerry Washington, both of whom helped spearhead the project as executive producers. Created by Liz Tigelaar, the Emmy-nominated series about two headstrong mothers who clash over their ferocious love for their children appealed to Talkington on many levels. “I love stories about underdogs and outcasts, and about the complicatedness of being a woman — the boxes we’re put in, the gendered roles and expectations,” she says.



*Little Fires Everywhere*

After taking what she considers an “unconventional” path to television, Talkington feels she’s finally gotten to the place where she’s always wanted to end up. She has several new TV projects in the works, including *DIX*, a coming-of-age series based on her experiences as an “absurdly young music journalist in the late ’80s and early ’90s.”

Talkington is confident that her projects have a better chance of seeing the light of day now. “Hollywood has shifted drastically in the last few years,” she says. “By no means are we near parity, but the industry feels hungrier for work from women.” Plus, streaming platforms have opened doors. “The types of films that I used to write — mid-budget, women-centered dramedies — barely get made by movie studios anymore,” says Talkington. “I’m grateful that new opportunities have emerged in TV to fill those gaps. What I love about streaming is the possibility to tell smaller, weirder, edgier, more unexpected, and more specific stories.”

## CHERIEN DABIS

▶ “I want to make sure industry leaders are being held accountable.”

Growing up Arab-American in a small town in Ohio, Cherien Dabis '04SOA says she was always “keenly aware that there was virtually no authentic representation of Arabs on TV.” Media portrayals seemed limited to archetypes like victimized woman or violent barbarian. “I became obsessed with wanting to tell our stories,” she says. “It was shocking to see that people thought of us as the enemy.”

Like many Arabs living in the US, Dabis, who comes from a Palestinian-Jordanian family, has experienced the ugliness of racism and xenophobia. “During the Gulf War, we got death threats in our mailbox,” she says. “My dad, a doctor, lost a lot of his patients,



Ramy

and the Secret Service came to my high school to investigate a rumor that my sister had apparently threatened to kill the president.”

As a filmmaker, Dabis is on a mission to shift perceptions and undermine dangerous stereotypes. She has written

and directed two feature films, *Amreeka* and *May in the Summer*, both of which portray Arabs in everyday, relatable scenarios. (Dabis herself starred in the latter movie.)

She has also built an impressive career in TV and recently served as a director and co-executive producer on *Ramy*, a comedy about a young Egyptian-Muslim man grappling with religious piety and sexual freedom in contemporary New Jersey.

The show, which premiered on Hulu in 2019, has been lauded by critics and audiences for its nuanced portrayal of Arabs. Dabis recognizes the Emmy-nominated series as an important milestone for her community but cautions that “giving us a seat at the table doesn’t mean one show. It means a number of shows as well as characters on shows that aren’t just about Arabs.” A major obstacle, Dabis explains, is Hollywood’s vague understanding of the potential of the Arab market. “Middle Eastern people are not counted in the US census,” she says. “We either check ‘other’ or ‘white.’ There are no proper numbers on how many of us there are, which makes it harder to present an argument that we should be taken seriously as viewers.”

This year, Dabis has been occupied with several new projects. She is set to direct *The Fighting Shirley Chisholm*, a



RECENT CLAIM TO FAME  
*RAMY* (AVAILABLE ON HULU)

feature film about the trailblazing Black congresswoman’s campaign for president in 1972, as well as episodes of the upcoming Hulu comedy series *Only Murders in the Building*.

Dabis, who has taught several directing courses at Columbia since graduating in 2004, says she is grateful that streaming platforms have created more opportunities for women filmmakers and for new voices. But her optimism is deeply cautious. “I want to make sure industry leaders are being held accountable for actually hiring women and people of color to create shows and tell our own stories, not sticking us in roles where we don’t have power and then patting themselves on the back,” she says. Lately, Dabis has seized upon the demand for diverse content by pitching her own series, *Acceptable Women*, which is inspired by her family. “It’s been in the pipeline for a while,” she says. “Now is the time.”



## GINA FATTORE

▶ “There are suddenly more opportunities.”

Writer and producer Gina Fattore '90CC has been in the TV business since 1995, the year a former boss offered her what would prove to be a life-changing opportunity. “She called me and said, ‘My son is going to make a show with Mike Judge, the guy who created *Beavis and Butt-Head*, and I think you should move to LA and work for him,’” recalls Fattore, who at the time was a newspaper editor in Chicago. “So I packed my bags, moved to LA, and became the assistant to Greg Daniels.”

Daniels’s show was the animated sitcom *King of the Hill*, and Fattore would go on to work on numerous other hit series, including teen classics (*Dawson’s Creek*, *Gilmore Girls*), arty comedies (*Californication*, *Better Things*), and respected dramas (*Parenthood*, *Masters of Sex*). Most recently, she co-developed, cowrote, and executive-produced *Dare Me*, a crime drama about high-school cheerleaders that aired on the USA Network in late 2019 and early 2020 and became a top series on Netflix this year.

Fattore says that becoming a showrunner (“the boss,” as she puts it) for *Dare Me* was a crucial career milestone. “My generation of female TV writers hit the glass



RECENT CLAIM TO FAME  
**DARE ME** (AVAILABLE ON NETFLIX)

ceiling ... We’d privately joke about how women and people of color rarely made that leap to showrunner.” But after twenty-six years in the business, Fattore can at last see progress. “I don’t know if it was the #MeToo movement or what, but there are suddenly more opportunities,” she says.

For Fattore, who likes to joke that working on the teen soap opera *Dawson’s Creek* from 1999 to 2003 was her version of film school (she studied English at Columbia), *Dare Me* was a natural fit. “I love coming-of-age stories, because they’re about identity and discovering who you are,” she says. “I think everyone is still in touch with some version of their teenage selves.” During the pandemic, as more people have taken to binge-watching series and revisiting old favorites, Fattore says that fans of *Dawson’s Creek* and *Gilmore Girls* have reached out. “It’s a wonderful expe-

rience having people tell me what those shows meant to them when they were teenagers,” she says.

Since *Dare Me* finished production, Fattore has been busy with several projects, including her first novel, *The Spinster Diaries*, which was published last year. The “unromantic comedy,” which follows a TV writer navigating work, a lackluster love life, and the diagnosis of a benign brain tumor, is based on her real life.

As an industry veteran who remembers when twenty-two-episode seasons were the norm, Fattore sees positives and negatives to today’s streaming model. “Seasons are shorter now and often driven by one writer,” she says. “So there’s less opportunity for people to come in and learn while doing,” as she did. She feels that many newcomers, lacking experience and production skills, are thrown into the deep end. But, Fattore adds, “we have so many amazing new shows and amazing new voices. Who would trade that away?”



*Dare Me*

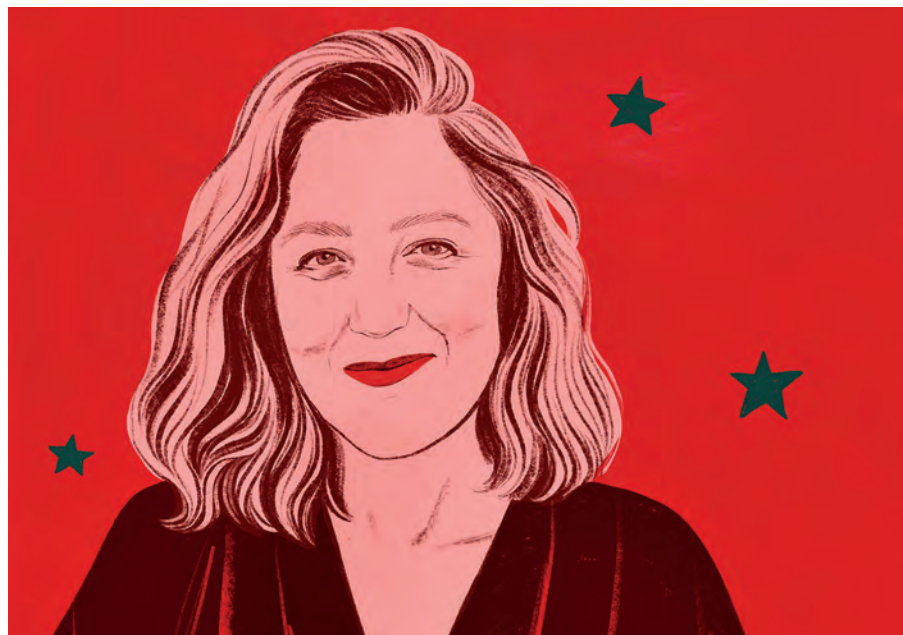
## ANNA WINGER

▶ “Streaming is more democratic.”

Before the streaming era, *Unorthodox* would likely have been released as an arthouse film. With dialogue mostly in Yiddish, the story of a young woman who leaves a claustrophobic marriage in the Satmar Hasidic Jewish community in Brooklyn to find freedom in Berlin might have attracted some award nominations and a few eyeballs. But the four-part limited series followed a different path when it premiered on Netflix in the spring of 2020. Not only did the show win the praise of critics and an Emmy for direction; it was also a global hit.

“People all over the world responded very strongly,” says showrunner Anna Winger ’93CC, who co-created, cowrote, and executive-produced *Unorthodox* through her production company, Studio Airlift. “If we had made it as a feature film or for network TV, it would have reached a much smaller audience. Streaming is more democratic because it provides access beyond arthouse theaters in major cities.”

Winger, who grew up in Massachusetts but has lived in Berlin for almost two decades, graduated from Columbia with a degree in film studies. She traveled the world as a photographer before settling in Germany, where she took up writing. After publishing her first novel, *This Must Be the Place*, in 2008, Winger



shifted to screenwriting. “I realized I was well suited to TV because of the serial-storytelling aspect, which is like writing a novel, and showrunning, which is similar to photography,” she says. With her husband, television producer Jörg Winger, she co-created *Deutschland 83*, *86*, and *89*, a 2015–20 series about an East German spy.



*Unorthodox*

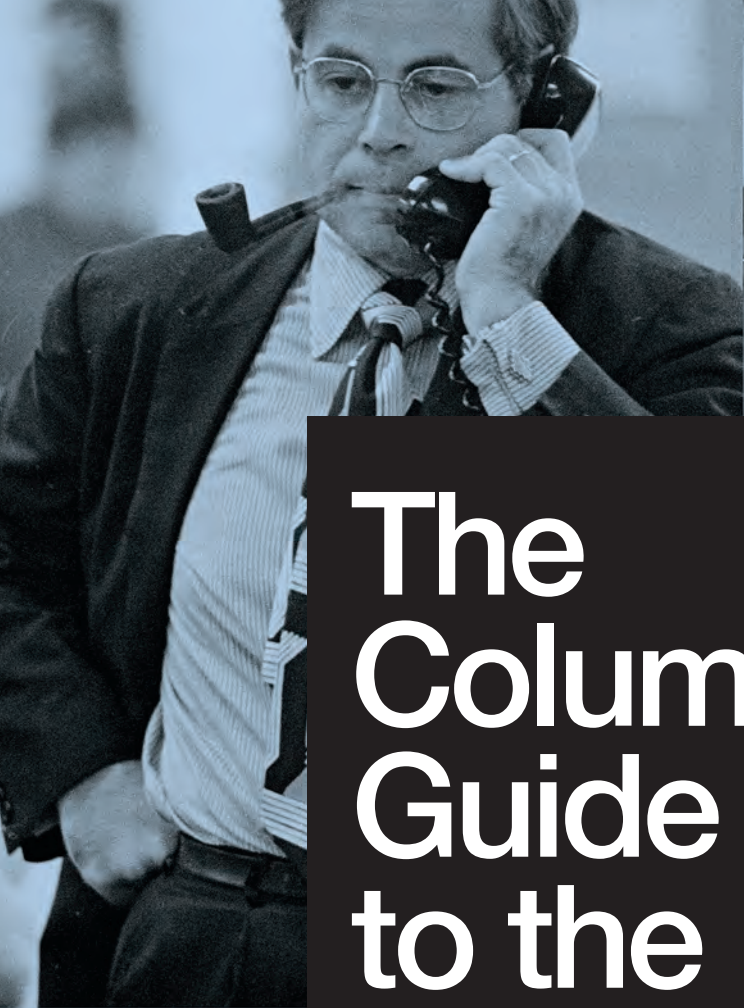
*Unorthodox* was inspired by a 2012 memoir by Winger’s friend and fellow Berliner Deborah Feldman. The city of Berlin, with its complex history and modern multicultural sensibility, plays a leading role in the drama. “It’s an interesting experience coming here as a Jew, looking back not just at what happened during World War II but also at the deeper origins of Jewish culture here,” says Winger. “The city feels familiar in an unexpected way.”

RECENT CLAIM TO FAME  
**UNORTHODOX** (AVAILABLE ON NETFLIX)

Winger’s upcoming projects, which are also shot in the languages of their settings, span the globe. She is currently writing a series set in 1940 during the refugee crisis in Marseille, when American journalist Varian Fry helped thousands of Europeans, including many famous artists and intellectuals, escape the Nazis. Her production company is also working on a project set in South Africa and the UK during the struggle against apartheid. “Frankly, the COVID period has allowed a lot of time to write,” she says.

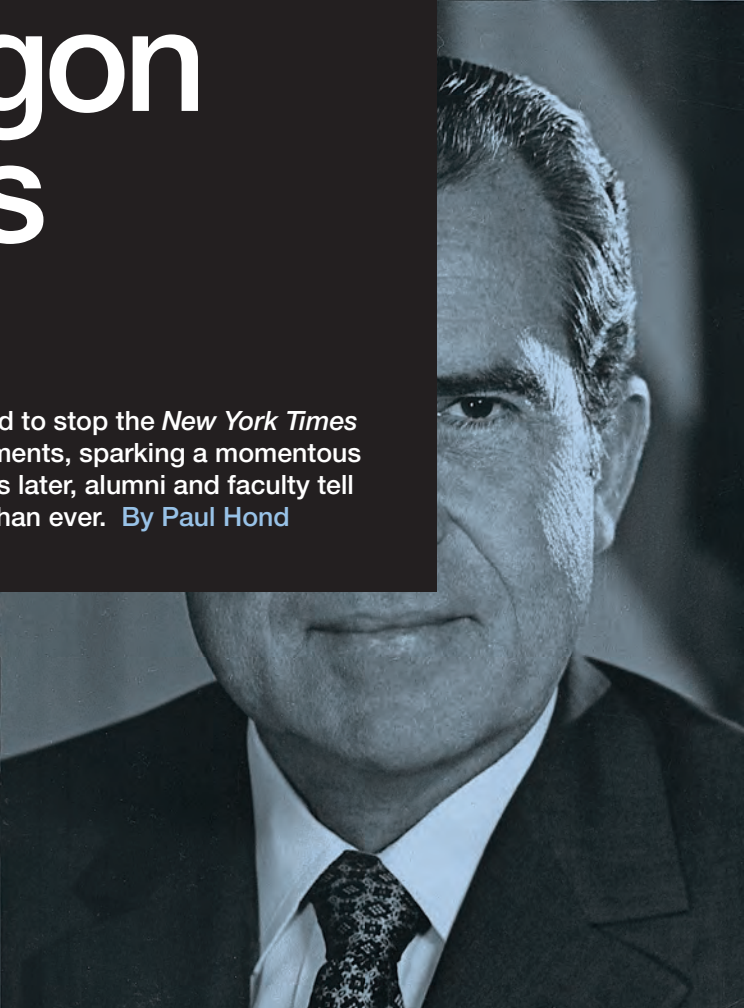
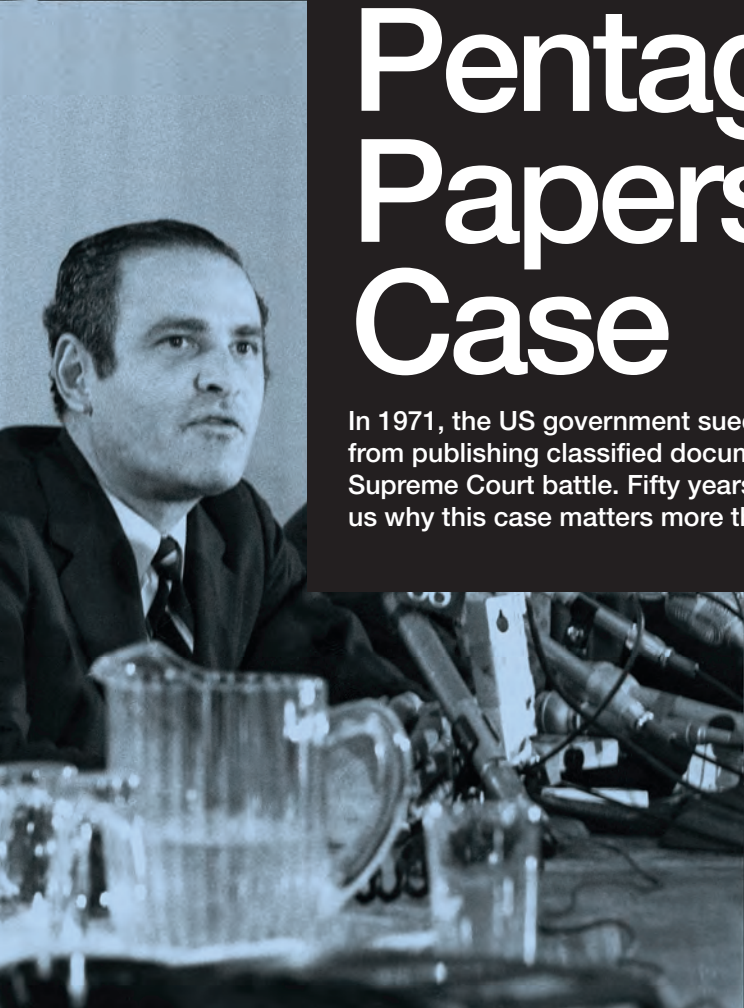
While Winger shares the concerns of many filmmakers about the future of movies and cinemas in the post-pandemic streaming era, she sees a wealth of opportunity in TV. “The shape and form of television has been defined for so long by networks, commercial breaks, and formatted time slots,” she says. “Streaming makes everything more fluid and flexible. What is a movie? What is a series? What is a limited series? The new model opens up more possibilities for how we tell stories. Creatively, it’s inspiring.” 🍷





# The Columbia Guide to the Pentagon Papers Case

In 1971, the US government sued to stop the *New York Times* from publishing classified documents, sparking a momentous Supreme Court battle. Fifty years later, alumni and faculty tell us why this case matters more than ever. [By Paul Hond](#)



# Max Frankel '52CC, '53GSAS remembers the first time he laid eyes on the Pentagon Papers.

It was March 1971, and Frankel was Washington bureau chief of the *New York Times*. A reporter, Neil Sheehan, had brought him some pages of a classified government report that an anonymous source had offered him. The material was about the war in Vietnam, and the pages, Frankel saw, were stamped TOP SECRET — SENSITIVE.

“I could recognize that the documents were legitimate, and much like the ones I’d seen while covering diplomacy and military affairs,” says Frankel, a Pulitzer Prize-winning journalist who joined the *Times* out of college, rose to the position of executive editor, and retired from the paper in 2000.

Now ninety-one, Frankel recalls his excitement as he read over the papers. “When you see messages between General Westmoreland and [Secretary of Defense] McNamara, and it’s top secret — then you know it’s going to be very dramatic reading for anyone interested in how government works,” he says.

The pages covered the 1964 Gulf of Tonkin incident and raised questions about the official claim that North Vietnamese boats fired at American ships, a supposedly unprovoked attack that gave President Lyndon B. Johnson justification to seek broad war powers.

“I saw this information as being of interest to the public: a history done by the government itself, answering the crucial question of how we got sucked into this war. I said, ‘If that’s the quality we’re going to get out of this document, well, that’s gonna be a hell of a story.’”

Seated at his desk that day, Frankel could not have imagined that this “scoop of a lifetime,” as it would be hailed, would absorb the *Times* in a high-stakes legal and moral drama packed with intrigue, journalistic heroism, presidential paranoia, and prosecutorial peril. On Tuesday, June 15, 1971, two days after the *Times* began releasing excerpts of the Pentagon Papers, the Justice Department under President Richard Nixon filed an injunction to stop publication. Never before had the federal government tried to impose prior restraint — preemptive restrictions on what could be said or written — against a newspaper. To many, it was an unthinkable challenge to the First Amendment’s promise that “Congress shall make no law ... abridging the freedom of speech, or of the press.”

With the *Times* asserting its right to inform the public about the evolution of an increasingly bloody war — and with Nixon claiming threats to national security — the case shot to the Supreme Court and became an instant touchstone of First Amendment jurisprudence.

“I think the Pentagon Papers case is one of the two or three most important and interesting First Amendment cases of the modern era,” says University President Lee C. Bollinger, a preeminent First Amendment scholar. “Every democratic society has to figure out how to deal with this problem: governments need secrecy in order to operate, but they also tend to be overly secretive. How do you strike that balance between secrecy and the public’s right to know?”

In its varied rulings and opinions, the case offered a kaleidoscopic answer, and the issues it spotlighted still burn bright. Who should decide what gets published? What is the nature of classification? Are people who leak information to the press traitors or patriots? Should they receive protections or punishment? Is press censorship ever appropriate?

“The great thing about the First Amendment is that it’s always a reflection of how we understand the most basic elements of our political system and our social system,” Bollinger says. “Our attitudes about the role of citizens, the role of the press, the role of public servants, and the role of the courts, and the Supreme Court in particular — the Pentagon Papers is one of those grand moments when all of these vital questions come into sharp relief.”



That a prominent case at the intersection of journalism, foreign affairs, and constitutional law should feature a cast of Columbians is hardly surprising, but in the beginning, none of those key players could have predicted just where the story was headed.

Certainly this was true of Morton Halperin '58CC, who in June of 1967 was a twenty-nine-year-old aide to defense secretary Robert McNamara. A political science major at Columbia, Halperin was a brilliant young academic who taught at Harvard with Henry Kissinger and entered government in 1966 to work in the Johnson Pentagon. Now, a year later, with the war intensifying, McNamara asked Halperin to manage a critical project: an “encyclopedia” study of US involvement in Vietnam since 1945. For McNamara, the Vietnam War, which he had helped design, seemed unwinnable, and he wanted to trace the anatomy of the quagmire for future researchers.

He also wanted the project kept secret.

“We were trying to keep it secret not from the Russians or the Chinese but from Lyndon Johnson,” says Halperin, eighty-two, who has served as a foreign-policy analyst under three presidents. “That’s because LBJ believed there were civilians in the Pentagon who were trying to undercut his policy and get us out of Vietnam, which was true. We thought, ‘If he finds out we’re doing this, he’ll just shut it down.’ So we told everyone we talked to that they couldn’t tell anyone about the study, that it was under McNamara’s direction and being very closely held.”

Halperin brought in Defense Department official Leslie Gelb to run the project full-time and continued to supervise and help recruit authors. Due to the secret status of the report, these authors needed security clearance, so Halperin turned to the RAND Corporation, a defense-policy think tank with government contracts. Among his RAND hires was Daniel Ellsberg, a Harvard-trained defense analyst who had once been hawkish on the war.



Max Frankel in 1971.

The project crept along for eighteen months. Finally, in January 1969, five days before Nixon took office, the *Report of the Office of the Secretary of Defense Vietnam Task Force* — soon to be known as the Pentagon Papers — was complete. Written by thirty-six policy experts, historians, and military officers, the report consisted of seven thousand pages of narrative, analysis, and supporting documents, divided into forty-seven volumes. It revealed the inner workings of Vietnam policy over four administrations and contained explosive evidence that the government had

deceived the public about the war at every juncture.

Halperin and Gelb made fifteen copies of the study, and Halperin saw to it that every page was marked “top secret.”

They deposited one copy each in the Johnson and Kennedy libraries, gave several to former officials and one to Kissinger (who was Nixon’s national security adviser), put five in a safe at the Pentagon, and kept a copy for themselves, which they stored at RAND. The president of RAND, Henry Rowen,

insisted on sharing it with Ellsberg, who had top clearance. Halperin yielded, but he worried what might happen if Ellsberg saw the whole thing. “Dan was a great believer that providing information to people could change their hearts,” says Halperin. “I knew he would leak the papers.”

Sure enough, Ellsberg, with help from colleague Anthony Russo, made his own copy of the classified report, offered it to sympathetic senators, and, finding no takers, picked up a phone in February 1971 and called Neil Sheehan, a Vietnam War correspondent for the *New York Times*.

The papers were spirited from Cambridge (where Ellsberg lived) to Washington, DC, to New York, where the *Times* editors set up a covert operation out of the Midtown Hilton to vet and organize the red-hot material. A team of reporters and editors combed through the papers to make sure that any military secrets that would endanger troops or reveal the identities of CIA agents would not be published. Then they prepared summary articles. It took three months.

Anxiety was running high at the *Times*. The editors had to persuade the publisher, Arthur Ochs “Punch” Sulzberger Sr. '51CC, '92HON, that the newspaper had a journalistic obligation to publish — and would lose its integrity if it didn’t. The company’s outside counsel, Louis Loeb 1922LAW, '70HON, senior partner at Lord Day & Lord, had advised the *Times* that publishing secrets in wartime not only could send Sulzberger to jail but would be an act of betrayal. “Punch Sulzberger was a former Marine,” says Frankel, “and considered himself a very loyal and patriotic fellow with an obligation to his government. So he took that advice very seriously.”

To reduce their legal risk, Sulzberger suggested that they publish only the reporters’ summaries. Frankel, who adhered to the credo espoused by legendary *Times* correspondent James Reston '63HON — “publish and be damned” — argued, along with others, that the supporting documents were essential.

Sulzberger had become publisher eight years before,

succeeding his brother-in-law, whose sudden death had thrust the humble, unpretentious Punch into a position of vast influence. As a *Times* article later noted, “Many *Times* executives and close relatives felt Arthur was too young and not up to the challenge.” But his skepticism had watched him grow into a principled publisher who expanded the paper and left the editing to his editors. Now, facing potential criminal prosecution and with the fate of his family’s paper in his hands, he had to make the biggest decision of his career.

In June 1971, in the hours before he was to take a trip to London, Sulzberger summoned the editors to the boardroom. “Punch was sitting at one end of the table,” Frankel recalls. “He said, ‘I’ve reached a decision: you can print the documents but not the narrative.’ It was his jocular way of saying: publish and be damned.”

On Sunday, June 13, the front page of the *Times* featured an article on the wedding of Nixon’s daughter. Beside it was an item with the purposely understated headline “Vietnam Archive: Pentagon Study Traces 3 Decades of Growing U. S. Involvement.”

The next day, after the *Times* had published its second installment of the Pentagon Papers series, Attorney General John Mitchell telegraphed the *Times* a demand to halt further publication and turn over the documents, claiming the leaks would cause “irreparable injury to the defense interests of the United States.” He also invoked the Espionage Act

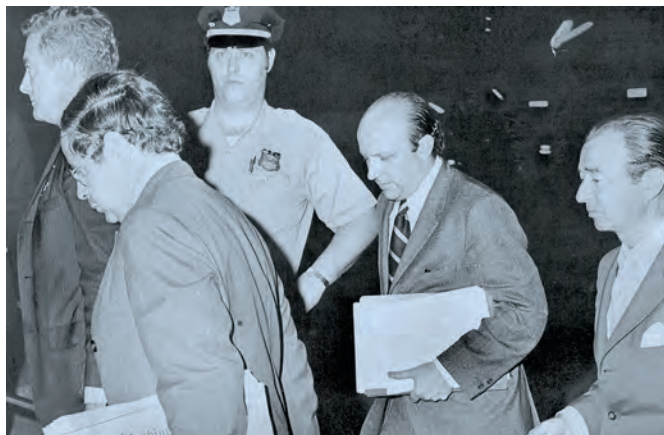
of 1917, a law passed during World War I to punish spies.

Sulzberger, in London, refused to censor his newspaper. (Later he would say he was “scared to death.”) On June 15 the federal government sued to stop the *Times* from publishing.

“The next thing we knew,” says Frankel, “we were headed to court.”

**“How do you strike that balance between secrecy and the public’s right to know?”**

— Lee C. Bollinger



Frankel (left) enters court with lawyers Floyd Abrams and Alexander Bickel.

**F**loyd Abrams, a renowned attorney who has argued thirteen cases before the Supreme Court, and who is currently a lecturer in law at Columbia, was a thirty-four-year-old lawyer in 1971. He recalls being at a lunch with First Amendment scholar

Alexander Bickel, his professor at Yale, the day after the *Times* broke the story. “People were asking us what we thought of the publication of the papers,” says Abrams. “And Bickel and I, with the enormous freedom of lawyers commenting on cases they are not involved in, said, ‘Oh, the *Times* is safe. We don’t have prior restraints on



case,” says Abrams. “My life changed from that moment.”

For many people, an official stamp of secrecy carries the weight of indisputable authority. Most lawyers and judges treated it that way in 1971, but Frankel was one of the few Americans who really grasped how Washington trafficked in secrets. When lawyers from Abrams’s firm who were working on the case questioned what the *Times* had done, Frankel was furious. “They were under the impression that secrets were secrets, and that any judge would see it that way.”

In response, Frankel produced a remarkable memo that would become another celebrated document of the case: a thirty-seven-point missive meant to educate the legal team. “The government’s unprecedented challenge to the *Times* ... cannot be understood, or decided, without an appreciation of the manner in which a small and specialized corps of reporters and a few hundred American officials regularly make use of so-called classified, secret, and top secret information and documentation,” he wrote. “To hide mistakes of judgment, to protect reputations of individuals, to cover up the loss and waste of funds, almost everything in government is kept secret for a time and, in the foreign policy field, classified as ‘secret’ and ‘sensitive’ beyond any rule or law or reason.” The memo was so eye-opening that Bickel and Abrams drafted it as an affidavit, signed by Frankel, to attach to their court filings.

On Tuesday, June 15, counsel for the *Times* and the government met in the Foley Square courtroom of Judge

what news can be published in America.”

But after the government filed suit, attorney Loeb, who had represented the paper for two decades, declined to defend the paper’s actions in court. “So the *Times* called Bickel, and then they called me to work with him on the



Murray Gurfein '26CC, whom Nixon had just appointed to the US District Court for the Southern District of New York. It was Gurfein's very first case on the bench. Gurfein, who had been a military intelligence officer during World War II, issued a four-day restraining order on the *Times* — painful to the paper and to press freedoms — and told the government's lawyers to examine the papers and show him specific items that, if published, would harm national security. "They could not point to a single document that met even the loosest criteria of importance to national security," Frankel says.

Gurfein denied the government's bid for a preliminary injunction — in effect, a prior restraint — and his opinion became a First Amendment classic. "The security of the Nation is not at the ramparts alone," he wrote. "Security also lies in the value of our free institutions. A cantankerous press, an obstinate press, an ubiquitous press, must be suffered by those in authority in order to preserve the even greater values of freedom of expression and the right of the people to know."

The US appealed this decision, and when a panel of judges kicked the case back to Gurfein for another hearing, the *Times* appealed to the Supreme Court. On June 26, opening arguments began in *New York Times Co. v. United States*.

Bollinger, who had just graduated from Columbia Law School, was glued to the coverage. "This case was front and center for me," he says. "My father ran a small-town newspaper, I grew up in a newspaper environment, I

worked at a newspaper. So the Pentagon Papers had a deep personal significance."

On June 30, the court, in a 6–3 decision, ruled that the government had failed to meet the "heavy burden" of showing justification for prior restraint. It allowed the *Times* (as well as the *Washington Post*, which had joined the case) to continue to publish the Pentagon Papers.

In the end, says Frankel, the defense got certain justices "to accept the formula that in effect became the law: that

court came up with a formula — a burden of proving direct, immediate, and irreparable damage — that has withstood challenge. No other attempt at prior restraint has gotten very far since then."

The Nixon administration chose not to prosecute the *Times*, but it did charge Ellsberg (and Anthony Russo) under the Espionage Act. Facing up to 115 years in prison, Ellsberg was tried in federal court in Los Angeles. But the trial was so riddled with revelations of government

technology, Jaffer says, has transformed the landscape — Ellsberg had to photocopy seven thousand pages, while today's leakers can download hundreds of thousands of documents to a flash drive — but the issues of national security, press freedom, and the treatment of whistleblowers are as urgent as ever.

In a new book of essays titled *National Security, Leaks & Freedom of the Press: The Pentagon Papers Fifty Years On*, Bollinger and University of Chicago law professor Geoffrey R. Stone assemble a roster of top legal scholars, journalists, and national-security experts to assess the case through a contemporary lens. Avril Haines, former deputy director of Columbia World Projects and now US director of national intelligence, discusses the "fight for balance" between the forces of secrecy and transparency; Jaffer examines the need to protect national-security whistleblowers, who have exposed secrets such as the Abu Ghraib abuses and bystander casualties of drone strikes; and others address overclassification, the Espionage Act, the post-9/11 security state, and disparities in legal protections for the press and leakers.

"While we celebrate the strong protections the courts have extended to the press, the position of journalists' sources has deteriorated," says Jaffer. "People who are tempted to disclose government secrets to expose abuses must now think about the possibility of a long prison term, even if their disclosures are entirely defensible: technology makes it easier

Ellsberg had to photocopy seven thousand pages, while today's leakers can download hundreds of thousands of documents to a flash drive.

the government would have the right to restrain us if they could show that something we would publish would 'surely result in direct, immediate, and irreparable damage' to the country. Those words from Justice Potter Stewart's opinion were the heart of the case."

But even concurring judges felt that the material would be harmful and noted that while the government couldn't stop publication, it might bring criminal charges against the *Times* after the fact.

"We were disappointed that we didn't get a clear judgment from the whole court," Frankel says. "But looking back it was a big victory: the

misconduct — including the illegal 1969 and 1970 wiretapping of Mort Halperin's phone, which picked up Ellsberg's voice — that the judge dismissed the case.

"The Pentagon Papers case is a pillar of the American free-speech tradition and of the freedom of the press in particular, and its significance has only grown over time," says Jameel Jaffer, executive director of Columbia's Knight First Amendment Institute, founded in 2016 to defend free speech and the press in the digital age. Digital

to track them down, and the government has used the Espionage Act much more aggressively.”

Jaffer notes that before 9/11, with the exception of Ellsberg, Russo, and Samuel Morison, who gave classified satellite photographs to *Jane's Defence Weekly* in the 1980s and was later pardoned by President Clinton, no one was prosecuted under the Espionage Act for giving information to the press. “But since 9/11, there have been many cases,” he says. “Now it’s not uncommon for journalists’ sources to be prosecuted under this 1917 law that was supposed to be about spies. Morally it’s difficult to explain why journalists who publish classified secrets are given prizes [the *Times* won the 1972 Pulitzer Prize for public service for its Pentagon Papers coverage], while the people who disclose those secrets are threatened with prison.”

Columbia law professor David Pozen, an expert on leaks, shares this concern. “I view the laws against leaking in the US as quite draconian,” he says. “Any ‘give’ in the system favoring the leaker comes not from the laws but from non-enforcement of the laws.”

“The Espionage Act needs to be amended; it’s an anomaly in our legal system,” says Bollinger. “I’m hopeful that under the Biden administration, and at this moment of the fiftieth anniversary of the Pentagon Papers, we can get some congressional action in changing the law.”

The Knight Institute, which uses litigation, research, and public education to protect online discourse, has called on the administration to drop the case against WikiLeaks

founder Julian Assange, which Jaffer regards as a “major threat to press freedom.” In 2019, Assange was indicted on seventeen counts under the Espionage Act for the 2010 publication of thousands of documents supplied by Army soldier Chelsea Manning, some of which revealed US



service,” noting that multiple courts later found the program to be unlawful.

Differing opinions on Snowden appear in Bollinger and Stone’s book, but few would argue with Bollinger’s assertion that computers and the Internet have “undermined the conventional model of

**“The Pentagon Papers case is a pillar of the American free-speech tradition.”**

— Jameel Jaffer



Arthur Ochs Sulzberger (center), with *Times* managing editor A. M. Rosenthal (left) and general counsel James Goodale, after the Supreme Court victory.

war atrocities and lies about the wars in Iraq and Afghanistan. Jaffer also calls the Espionage Act charges against Edward Snowden “a travesty” and says that the former CIA contractor, who copied 1.5 million NSA files, including data on a secret warrantless surveillance program, and gave them to journalists at the *Guardian*, performed “an immense public

the traditional media” and widened the field of potential leakers. “At the time of the Pentagon Papers, you had the *New York Times* and the *Washington Post*, absolutely responsible institutions that you could count on to go through the documents, weigh the national-security interest against the public’s right to know, and reach a decision,”

he says. “Now you have entities like WikiLeaks, whose basic philosophy is that everything should be public and that governments have no right to operate in secrecy. That increases the risk of damaging disclosures enormously.”

Abrams concurs. “That the *Times* published far less than seven thousand pages of that heavily classified study and made an effort to avoid publication of certain materials was commendable on every level,” he says.

For Abrams, one enduring lesson of the Pentagon Papers case is that we should reserve some healthy skepticism when the government claims that publication will do grave harm. “In any single case, of course, they may be accurate,” he says. “But fifty years ago, the claim by a significant number of people in power, and not just in the Nixon administration, was that allowing the publication of the Pentagon Papers would do enormous damage to the nation. And that didn’t happen.”

In his course Ideas of the First Amendment, which he co-taught this spring at Columbia with civil-liberties scholar Vincent Blasi, the syllabus covers James Madison’s *Virginia Report of 1799–1800*, challenging the Alien and Sedition Acts; John Stuart Mill’s *On Liberty*; and First Amendment opinions in American legal history, including selections from a case that Abrams knows well — and one that he’d defend to the end.

“Through the years, the Pentagon Papers decision has served as an ongoing protector of liberty of the press,” he says. “That view of mine hasn’t changed at all.” 🐼



# How to Prepare for a 'Megadisaster'

## Submerged cities. Food shortages. Attacks on the electrical grid. Bioterrorism. It's time to get ready for tomorrow's catastrophes.

**Jeffrey Schlegelmilch, the director of Columbia's National Center for Disaster Preparedness, discusses the cataclysmic events that may threaten our future and how planning and research can help save us.**



### What does your work entail?

The center's mission is to conduct research that helps the US prevent, prepare for, and respond to natural and human-driven disasters. Our faculty and staff investigate nearly all aspects of the country's capacity for dealing with disasters, from the readiness of governmental and nongovernmental organizations to the effectiveness of on-the-ground emergency-response strategies to public awareness of disaster risk.

### Lately you've been concerned about the threat of "megadisasters." What is a megadisaster, exactly?

This is a topic I discuss in my recent book, *Rethinking Readiness*. Mega-

disasters are those that have society-altering potential. These are the ones that can overwhelm the very systems designed to respond to disasters. History has given us plenty of examples. Think of the Black Death in the Middle Ages, which wiped out as much as a third or more of Western Europe's population and reshaped its economic and political systems, or the Irish Potato Famine, which caused the largest mass exodus in the nation's history. Megadisasters don't have a temporary impact on society: they permanently alter the course of history.

### How will disasters of the twenty-first century be different from those of the past?

We are already seeing large-scale disasters occur more and more frequently. This is because human activity is exacerbating both the underlying threats and our vulnerability to them. We are pumping pollutants into the atmosphere

at unprecedented rates, leading to more extreme weather events. At the same time, we are building in flood zones, in forested regions susceptible to wildfires, and in other hazard-prone areas. This dynamic is not unique to climate change. Other disasters, like pandemics, have components where societal development is increasing both the threat and our vulnerability. New diseases are emerging because we're encroaching into wildlife areas and coming into closer contact with animals that harbor exotic pathogens, and the diseases are spreading faster through human populations because of our global connectedness.

### What types of potential megadisasters do we face?

In my book, I discuss five broad categories of risk: climate change; biological perils, including bioterrorism and emerging diseases; failures of critical infrastructure; cyberthreats; and nuclear conflict.



### Is COVID-19 a megadisaster?

As COVID-19 was starting to circle the globe, I was reviewing the proofs for my book. It was eerie reading the section on pandemics. Experts I interviewed in 2019 warned that the international community had failed to create surveillance networks to detect and contain new diseases. They said that we lacked the medical supplies necessary to handle a pandemic. COVID-19 will certainly leave scars on our society for generations, but we still have time to mitigate some of the long-term impacts it could have on our society. The scale of the pandemic is larger than it should have been, but how the episode is written in the history books will be determined in part by the choices we make today.

### Many people would say that climate change is the gravest threat we face this century, casting its shadow over all others. Would you agree?

Climate change certainly poses extraordinary dangers, in part because of how

its effects can cascade. For example, it seems increasingly likely that prolonged droughts will eventually cause widespread food and water shortages in many parts of the world, which in turn could lead to massive human migration, regional instability, and armed conflicts. Meanwhile, warming temperatures are expanding the habitats of mosquitoes and other disease-carrying insects, which is making more people sick. But I think that asking which type of disaster is the most dangerous is the wrong question, since they're intertwined. I also believe that they share the same root cause, which is that human societies do not adequately invest in the future. That's evident in our failure to cut greenhouse-gas emissions to safe levels but also in our chronic underfunding of public-health initiatives and critical infrastructure projects. The good news is that by adopting more sustainable health and development policies, we can reduce our vulnerability to many of these disasters.

### You argue in your book that America's physical infrastructure is in worse condition than most people realize.

The American Society of Civil Engineers gave the country a C- on its most recent Infrastructure Report Card, finding that 46,000 of our bridges and more than 2,300 of our dams are structurally deficient. And 20 percent of dams in populated areas don't have emergency plans in place in the event of a major problem. But the US electrical grid is perhaps our most worrisome vulnerability: it is aging, overloaded, and quite susceptible to breakdown. It's not inconceivable that a rogue nation or terrorist organization could seek to exploit this weakness. We are also seeing that our physical infrastructure is increasingly vulnerable to extreme weather events, such as when a pair of severe winter storms deprived millions of people of electricity in Texas this past winter. Another example was when Hurricane Maria hit Puerto Rico in 2017, causing a nearly yearlong power





Jeffrey Schlegelmilch

outage. But even relatively short outages can lead to fatalities when health-care centers, pharmacies, food-distribution networks, and social-service organizations lose electricity.

### **How did the world's wealthiest nation find itself in this predicament, with such rickety infrastructure?**

Maintenance isn't very sexy. People love to build new things, cut ribbons, and debut the future. Maintaining existing infrastructure is expensive, time-consuming, and generally less compelling to the public and politicians.

### **The National Center for Disaster Preparedness is known for taking a broad perspective on its field of study.**

Yes, whereas many other academic centers in the field of disaster science focus on more narrowly defined aspects of crisis management, like how health systems or social-service organizations can best contribute to relief efforts, our center has always taken a holistic approach. And part of that approach is exploring how disasters might be prevented in the first place. Our affiliation with Columbia's Earth Institute is important in this regard. Our center's researchers, many of

whom are experts in crisis management, routinely collaborate with environmental scientists, economists, urban planners, sociologists, psychologists, and others to answer questions like: What types of public policies reduce our vulnerability to large-scale disasters? What factors influence people's attitudes about disaster risk and prevention? And how can experts most effectively communicate with people about these issues?

Our researchers also study the nuts and bolts of disaster response. For example, we've made important contributions to understanding how health-care organizations can ensure that their employees are able to continue working safely during pandemics and other emergencies. But I think that our center is unique in that we're always looking at the big picture and trying to raise cultural awareness about how human decisions can either mitigate or exacerbate the risks we face.

### **Your center is also known for highlighting the long-term human toll of disasters.**

Especially on children. This is a legacy of our founding director, Irwin Redlener, a pediatrician and child-welfare expert who stepped down from his leadership

post last summer and still oversees our Pandemic Resource and Response Initiative. Irwin has helped oversee a number of groundbreaking studies that have followed children whose families were displaced by Hurricane Katrina in 2004, the Deepwater Horizon oil spill in 2010, and Superstorm Sandy in 2012. He and his colleagues have found that children whose lives are disrupted by disasters are much likelier to suffer anxiety and depression, to display behavioral problems, and to struggle in school for years afterward. It's a devastating example of a much larger problem, which is that many people who are affected by disasters endure lasting physical-health and mental-health consequences. When a disaster strikes, donations pour in, and we may all feel like we've made a difference. But after the TV-news crews and the emergency workers leave, the survivors cannot just move on. Some get stuck in a perpetual cycle of loss.

To address this challenge, our center is developing more forward-looking strategies that government agencies and non-profit organizations can use to improve the resilience of vulnerable populations like children, the elderly, the poor, and people with chronic medical conditions and special needs. As individuals, we can all maximize the impact of our generosity by supporting organizations that help strengthen at-risk populations, like the nonprofit Children's Health Fund, which Irwin, his wife, Karen, and the musician Paul Simon created in 1987 to provide free health care to low-income youths and their families.

### **Has the practice of disaster response evolved much over the years?**

The modern era of disaster relief and preparedness in the US really began in the early 2000s, after 9/11 and Hurricane Katrina. Those events showed us just how complex disaster situations can be and how we need to engage entire communities in relief efforts and in preparing for such scenarios. A lot of progress has been made since then. For example, we've learned that the strength of social bonds among neighbors is one

of the strongest predictors of how well communities recover from disasters, because in the aftermath of catastrophes ordinary people are often relying on each other for help. There are now pilot programs in the US that promote this kind of collective resilience by hosting block parties where people can learn about disaster preparedness while socializing.

We've also learned how to coordinate relief efforts more effectively. One interesting area of research involves the incorporation of artificial intelligence into emergency managers' decision-making tools. Disaster scenes are chaotic environments, and emergency managers often must make life-or-death decisions — like whether to evacuate or deploy first responders to particular areas — on the basis of incomplete, uncertain, and rapidly changing information. I am currently involved in efforts to adapt business-intelligence systems and planning tools developed by the US military for use in complex humanitarian emergencies. The idea is to create software that would automatically sift through huge amounts of information drawn from the scene and highlight the data points that emergency managers need to make crucial decisions.

### **Has the US committed any major missteps in its disaster planning over the past few years?**

Preparedness for biothreats is one area where I think we've failed to protect ourselves, despite considerable efforts to do so. This includes acts of bioterrorism as well as naturally occurring diseases. The anthrax attacks after 9/11 led to some of the largest investments in public-health preparedness in our nation's history, with hundreds of billions spent on biodefense and health-security capabilities at the federal, state, and local levels. Unfortunately, the funding spike that followed 9/11 wasn't sustained, and now our biodefense programs, like most of our public-health initiatives, face chronic budgetary shortfalls. Meanwhile, advances in gene editing and synthetic biology are opening up new possibilities for nefarious actors to weaponize pathogens.

## **“Megadisasters are those that have society-altering potential. These are the ones that can overwhelm the very systems designed to respond to disasters.”**

### **You devote an entire chapter in your book to nuclear war. Why?**

Because it's important. There is this belief that the need to prepare for nuclear conflict went away with the collapse of the Soviet Union. But the threat just changed form. In fact, new rivalries among China, Russia, and the US and the emergence of additional nuclear powers, including rogue nations like North Korea, have increased the potential for smaller-scale nuclear conflict and nuclear terrorism. The use of nuclear weapons may be more likely than ever before, but it is also much more survivable than in the height of the Cold War. It's something we can and should prepare for.

### **What should people do to prepare themselves for megadisasters?**

I always say that no matter what kind of disaster you might face, you're going to have to do one of two things: remain at home for a long time or leave immediately. So you should have two sets of supplies ready, with one already stuffed into a bag and ready to go. You should also have a plan for where you'll meet family members or loved ones in the event that communication networks aren't working. And you should ensure ahead of time that any essential documents, like property deeds or insurance papers, are digitized and uploaded to the cloud. For a more comprehensive list of precautionary steps and items to have on hand, people can visit the “preparedness wizard” we have on our center's website.

The most important thing we can do, though, is to demand that our elected

officials invest in disaster prevention and preparedness. Studies have shown that voters tend to reward politicians for bringing in lots of relief money *after* disasters, but not for investing in preventive measures up front. This is unfortunate.

### **What steps would you like to see President Biden take to improve the country's resilience?**

There is an urgent need to simplify disaster-management operations at the national level. Right now, as many as ninety different programs across twenty federal agencies can be involved. These programs are an uneven patchwork, leaving significant gaps in some areas and creating redundancies in others. The Biden-Harris administration should conduct a comprehensive review of these operations and better organize them so that people in need of emergency assistance can receive it faster. Another immediate priority should be mitigating the outsize impact that the COVID-19 pandemic is continuing to have on children. The recent stimulus package does include emergency relief for the daycare sector and a few other measures that address the needs of children. But most are temporary measures, not systematic changes. We need to do more. Perhaps most importantly, the federal government needs to increase funding for mental-health services for young people. We see that pediatric mental-health emergencies have spiked due to the pandemic but that only a small fraction of children are receiving the help they need.

— Kevin Krajick '76GS, '77JRN  
and David J. Craig



# EXPLORATIONS

FRONTIERS OF  
RESEARCH AND  
DISCOVERY



## When grief won't end

C. S. Lewis wrote that after his wife died, it felt like there was an “invisible blanket” between him and the world. “I not only live each endless day in grief, but live each day thinking about living each day in grief,” he wrote. “Her absence is like the sky, spread over everything.”

For most bereaved people, including Lewis, who chronicled his suffering in his 1961 book *A Grief Observed*, this type of all-consuming, debilitating pain eventually fades. But for those with “prolonged grief disorder,” an enigmatic condition that afflicts 7 to 10 percent of bereaved adults, time does not heal. Instead their anguish may persist, raw and unresolved, for years or even decades.

Katherine Shear, a psychiatrist at the School of Social Work and the founder of Columbia's Center for Complicated Grief, is a pioneer in describing, diagnosing, and treating prolonged grief disorder (which is also known as complicated grief). Shear was instrumental in getting prolonged grief disorder included in psychiatry's diagnostic bible, the *DSM-5*, this year but she notes

that many clinicians are still unaware of the condition. “Even if you go to a really good psychologist, there's less than a 50–50 chance that prolonged grief disorder will be properly recognized,” she says.

Although people with a history of depression and anxiety are thought to be at a greater risk for prolonged grief disorder, anyone can be afflicted. People who lose a loved one suddenly — such as in an unexpected medical emergency, a car crash, a violent crime, or in the line of duty — are particularly vulnerable. Shear expects that the COVID-19 pandemic will cause an increase in cases of complicated grief. “So many people are being lost quickly and unexpectedly, without the opportunity for final visits or goodbyes,” she says. “Additionally, bereaved people may be dealing with anxieties related to job security, child-rearing, the loss of routine activities, and worries about their own health and that of their surviving family members. This kind of background stress adds to the challenge of adapting to a loss.”

The key to coping with a loved one's death,

DADUSHIN

Shear says, is to fully accept the reality of the situation. But people with prolonged grief disorder struggle to do this. Instead, they may get caught up in imagining alternative scenarios in which their loved one's death is averted — “*If only he'd visited a doctor one month earlier*” — and thus delay their own healing. “To engage in this kind of counterfactual thinking is common after any important loss,” Shear says. “But while most people will eventually say, ‘OK, well, although I wish this hadn't happened, it *did* happen, and now I have to figure out a way to live with the fact,’ those with prolonged grief disorder will get stuck there. They can't move forward in a positive way.”

Other common symptoms of prolonged grief disorder include a tendency to blame oneself or others for a loved one's death; excessive avoidance of places or situations that remind one of the deceased; survivor's guilt; and social withdrawal.

In the 1990s, Shear developed a sixteen-session treatment program that is now called “Prolonged Grief Disorder Therapy,” or PGDT. The program's efficacy has been demonstrated in multiple clinical trials, and PGDT is now the most widely used treatment for the condition. Combining elements of cognitive behavioral therapy, interpersonal psychotherapy, and motivational interviewing, it consists of a series of activities in which patients reflect on their grief; visit places that remind them of their loss; explore possibil-

ities for their own future; strengthen their relationships with other family members and friends; and have an imaginary conversation with the deceased in which they acknowledge their need to move forward. “It's intense,” Shear says. “But we've found that with this therapy, people who have struggled for years come out on the other side and are able to reengage in life in a meaningful way after just four months.”

In an effort to make PGDT more widely accessible, Shear and her colleagues at the Center for Complicated Grief have organized trainings on how to administer the therapy for thousands of practitioners around the world. They have also developed a mobile app that enables patients to receive an abbreviated version of PGDT online.

As the US death toll from COVID-19 continues to grow, it is sobering to consider the huge numbers of grieving husbands, wives, fathers, mothers, sons, daughters, grandsons, and granddaughters who have been left behind. One team of sociologists estimates that each person who dies from COVID-19 leaves an average of nine bereaved family members, which means that millions of Americans have lost a close family member to the disease. “There's a great sense of urgency now to make sure that health and mental-health providers are able to recognize and treat prolonged grief disorder,” says Shear. “We have to be ready to help these people.”

To learn more, visit [complicatedgrief.columbia.edu](http://complicatedgrief.columbia.edu).

## These dinosaurs were homebodies, and now scientists know why

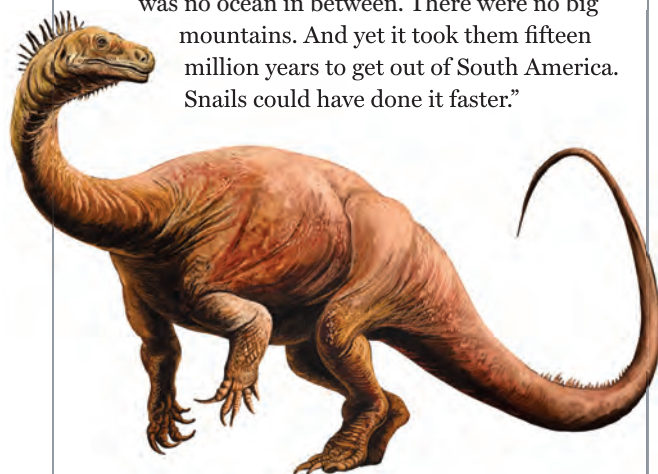
Some of the earliest dinosaurs, including the gigantic, long-necked plant-eaters known as sauropodomorphs, were curiously lacking in wanderlust. After emerging 230 million years ago, the sauropodomorphs, a group that would eventually include the iconic brontosaurus and brachiosaurus, inhabited an area that is now Brazil and Argentina for millions of years before venturing off in search of new stomping grounds.

Why did these dinosaurs wait so long to roam?

A team of geologists led by Dennis Kent '74GSAS of Columbia's Lamont-Doherty Earth Observatory and Lars Clemmensen of the University of Copenhagen believe they have discovered the answer. By using magnetic-dating techniques to analyze sediments from fossil sites across North America, the scientists recently established that the timing of the dinosaurs' departure from South America corresponds almost perfectly with a well-documented drop in global temperatures that followed millions of years of scorching conditions on earth. The correlation in timing leads Kent and Clemmensen to argue, in a new paper in the *Proceedings of the National Academy of Sciences*, that it was only after temperatures normalized, some 214 million years ago, that the equatorial region to the north would have become passable.

The new research solves a mystery that was all the more puzzling, Kent says, because at that time the world's landmasses were fused together in a single supercontinent, called Pangaea, which should have been relatively easy to traverse.

“In principle, the dinosaurs could have walked from almost one pole to the other,” he says. “There was no ocean in between. There were no big mountains. And yet it took them fifteen million years to get out of South America. Snails could have done it faster.”





# 6 Columbia podcasts to keep you in the know

Faculty and staff break down virology, the climate crisis, and more



## Columbia Energy Exchange

From the School of International and Public Affairs, this podcast

takes a deep dive into modern energy consumption and its geopolitical and environmental implications. Hosts Jason Bordoff and Bill Loveless of Columbia's Center on Global Energy Policy conduct weekly interviews with government, business, and academic leaders on timely topics such as shifting energy markets and the path to decarbonization.

[energypolicy.columbia.edu/podcast/columbia-energy-exchange](http://energypolicy.columbia.edu/podcast/columbia-energy-exchange)



## Pod of the Planet

This monthly podcast from Columbia's Earth Institute looks at important sustainability

and climate issues through interviews with University experts. Hosted by staffer Kyu Lee, recent episodes have discussed melting ice sheets and climate activism.

[blogs.ei.columbia.edu/features/podplanet](http://blogs.ei.columbia.edu/features/podplanet)



## Lab in the Time of Coronavirus

In this podcast from the Zuckerman Institute, staffers

Kathleen Durkin and Devin Powell talk to Columbia neuroscientists about how they have adapted to lab life in a socially distanced era while also contributing to COVID-19 response efforts.

[zuckermaninstitute.podbean.com](http://zuckermaninstitute.podbean.com)



## This Week in Virology

Since 2008, when West Nile was the virus du jour, Columbia microbi-

ology professors Vincent Racaniello and Dickson Despommier '64PH (the latter now emeritus) and colleagues have offered weekly in-depth explorations of topics as diverse as herpes, the anti-vax movement, Ebola, and Zika. Over the past year, the hosts have put out two or three episodes a week as they have turned their attention to COVID-19 and the efforts to combat the pandemic.

[microbe.tv/twiv](http://microbe.tv/twiv)



## Columbia Bizcast

In this podcast from Columbia Business School, host Fahad Ahmed '17BUS discusses

the latest industry happenings with faculty experts and alumni entrepreneurs and leaders. Recent episodes have tackled workplace diversity efforts and the impact of COVID-19 on retail and other industries.

[leading.gsb.columbia.edu/bizcast](http://leading.gsb.columbia.edu/bizcast)



## Intersectionality Matters!

Columbia Law School professor Kimberlé Crenshaw is well

known for coining the term "intersectionality" to describe the ways in which race, class, gender, and other identity categories overlap to benefit or disadvantage a person in society. Crenshaw's podcast examines hefty topics such as police violence and the racial politics of the pandemic response.

[podcasts.apple.com/us/podcast/intersectionality-matters/id1441348908](http://podcasts.apple.com/us/podcast/intersectionality-matters/id1441348908)

# Psychiatrists to study how college students' lives are shaped by COVID-19

The pandemic has turned everybody's lives upside down, and college students have made profound sacrifices. How will this experience affect them over the long term? Will it hinder their educational development? Or will it make them more resourceful, digitally savvy, and resilient?

A team of researchers at Columbia University Irving Medical Center and the New York State Psychiatric Institute has launched a study to find out. The group, which includes CUIMC psychiatrist Lawrence Amsel '78CC, '98PH and CUIMC psychiatric epidemiologists Michaeline Bresnahan '99PH,



Christina Hoven '88PH, and Larkin McReynolds '05PH, aims to survey thousands of US college students about how the pandemic has affected their lives — everything from their social habits to mental health to substance use — and how they are dealing with its challenges. By tracking the students for years to come, the researchers hope to identify coping strategies that some have used to keep themselves on the path to success. The study's ultimate aim, the researchers say, is to help colleges and universities improve the mental-health programs they offer under ordinary circumstances as well as in times of crisis.



Darryl "DMC" McDaniels

## "Get the shot!" urges rap star

**In an effort** to increase COVID-19 vaccine coverage in communities of color, Darryl "DMC" McDaniels of the legendary rap group Run-DMC is appearing in a new series of educational music videos launched by Hip Hop Public Health, a community-outreach organization founded by Columbia neurologist Olajide Williams '04PH.

The five animated rap videos, which can be viewed on the organization's website and which are being promoted in New York City public schools, address how vaccines work, the evidence that they are safe, what to expect after getting vaccinated, and vaccine myths.

"Communities of color carry the heaviest burden from the pandemic, and in order to stop the virus in its tracks, we need to increase vaccine literacy, change behavior, and get vaccinated," says McDaniels, who is a member of the Hip Hop Public Health advisory board. "By harnessing the power of hip-hop, we hope to connect with communities of color in a way they can relate to. I am honored to lend my voice to this vital campaign — get the shot, y'all!"

To learn more, visit [hhph.org/communityimmunity](http://hhph.org/communityimmunity).

# Bacteria employed as "living hard drives"

**I**n the search for the perfect data-storage solution, scientists have been exploring creative ways to make use of nature's original information-recording technology: DNA.

By translating the binary code of computers into the four-letter chemical code of genomics, they have discovered that entire libraries of digital information — everything from books to movies to Facebook posts — can be uploaded onto minuscule drops of synthetic DNA and later retrieved. Many experts predict that this approach could one day offer a cost-effective, environmentally friendly alternative to traditional silicon-based storage technology, which has led to the proliferation of enormous electricity-guzzling data centers around the world.



An artist's rendering of an *E. coli* cell.

One problem that researchers working in this area have confronted, however, is that synthetic DNA tends to deteriorate over time. But now a team of Columbia scientists believe they have found a solution to this dilemma: encoding digital information straight into the genomes of living *E. coli* bacteria cells, which, they say, preserves the data in a surprisingly stable, robust manner.

"That a living cell could provide a more stable environment for storing data may seem counterintuitive, but a cell actually possesses sophisticated mechanisms for maintaining the integrity of its DNA and quickly correcting any genetic errors that may occur as a result of radiation, toxins, or other exposures," says Harris H. Wang, an assistant professor of systems biology at Columbia University Irving Medical Center, who led the research. "Our approach exploits a cell's natural quality-assurance measures."

And by spreading individual bits of data over vast stretches of the *E. coli* genome, Wang's team has demonstrated that the information gets safely passed down through successive generations of cells, even if mutations occur during cellular reproduction. "We've conducted experiments to show that the data is well preserved across hundreds of generations," he says. "For all intents and purposes, this appears to be a reliable means of saving data permanently."

Wang and his colleagues, who used the popular genetic-editing technology CRISPR-Cas to encode data into non-pathogenic strains of *E. coli*, are now working to improve the speed at which they can upload and retrieve data from the bacteria, since the process is currently far too slow for commercial use. But eventually, Wang says, it may be possible to replace towering stacks of computer hard drives with a population of *E. coli* cells that could fit in a test tube.

"The most important advantage in storing digital information in DNA is that it's a medium that's never going to go obsolete," he says. "The double helix is always going to be the ideal storage technology, and our capacity to manipulate and read DNA is only going to improve."





## Self-aware robots? Engineers edge toward elusive goal

**T**he next big breakthrough in robotics, experts say, will come when androids, imbued with social intelligence, can collaborate, improvise, and respond creatively to nearly any set of instructions. But for this to happen, engineers will need to develop artificial-intelligence systems with a modicum of self-awareness. Only then will a robot be able to recognize that another machine, or a human, may have a perspective on the world that is different from its own.

Now a team of Columbia engineers led by mechanical engineer Hod Lipson, computer scientist Carl Vondrick, and doctoral candidate in computer science Boyuan Chen have taken a significant step toward this goal. They say they have designed a robot that displays a “glimmer of empathy.”

The Columbia team’s new machine doesn’t look like much, and its talents are purely cerebral. Little more than a video camera attached to a powerful computer, it is designed to observe its surroundings and offer predictions (in the form of rudimentary drawings) about what it expects to see a few seconds in the future. To make those predictions, it uses an artificial-intelligence technique called deep learning, which mimics how the human brain continually integrates new information through observation and repetition. The Columbia engineers did not preprogram the robot with any information about the world or its surroundings, preferring to let it form its own impressions over time.

The team then conducted a series of experiments that involved the robot observing, from an elevated perch in the

engineering school’s Creative Machines Lab, a small Segway-like robot zipping around on the floor beneath it. The observing robot quickly figured out what its fellow was up to, accurately surmising that it was chasing green dots that periodically appeared on the floor. It correctly predicted the paths the other machine would take around various obstacles to reach the dots. But things got really interesting when the green dots began to appear in places where the robot on the floor could not see them, such as directly behind barriers. After witnessing this several times, the observing robot, whose bird’s-eye view of the lab enabled it to see every dot, predicted that the mobile robot would fail to pursue them.

“That’s the crucial moment,” says Chen. “It’s when the observing robot essentially says to itself, ‘OK, although I can see that dot right now, the machine down there cannot see it.’”

The Columbia researchers, whose findings appear in the journal *Nature Scientific Reports*, are not claiming that their robot is actually self-aware. But they do hypothesize that the computational processes by which it spots patterns of movement in its field of vision could represent the algorithmic underpinnings of self-awareness, since its deep-learning architecture is able to generate insights that can help it recognize another entity. “The ability of a machine to predict actions and plans of other agents without preprogramming may shed light on the origins of social intelligence,” the authors write.

By developing their technology further and by expanding its interpretive abilities to include other types of sensory stimuli, the Columbia engineers hope to eventually create systems that will enable robots to cooperate. “You could have assembly-line robots that sense when other robots are struggling to complete a task and go over to help them. Or you could have self-aware cars that are able to communicate with each other and avoid accidents,” says Chen. “The possibilities are endless.”

# Black holes could be tapped for energy, say physicists

One remarkable prediction of Albert Einstein's theory of general relativity — the theory that explains the relationship between space, time, and gravity — is that rotating black holes have enormous amounts of energy available to be tapped.

Over the years, eminent scientists such as Roger Penrose and the late Stephen Hawking have proposed mathematically sophisticated, if somewhat fanciful, ideas for how humans could conceivably unleash this power one day.



An artist's rendering of a massive black hole.

Now, in a study published in the journal *Physical Review D*, Columbia physicist Luca Comisso and his colleague Felipe Asenjo of the Universidad Adolfo Ibáñez in Chile have offered their own take on black-hole energy extraction, theorizing that naturally occurring disturbances in magnetic fields that surround black holes may periodically generate clouds of high-energy plasma particles that could be harvested by spaceships.

"Thousands or millions of years from now, human-

ity might be able to survive around a black hole without drawing energy from stars," says Comisso. "It is essentially a technological problem. If we look at the physics, there is nothing that prevents it."

Of course, getting anywhere near a black hole is a pretty significant technological problem in itself, since the closest one to Earth is more than a thousand light years away, in the star system QV Telescopii. But even if our descendants never manage to travel that far, Comisso and Asenjo's latest work could still prove scientifically valuable,

since it also suggests that magnetic changes — specifically, the disconnection and reconnection of magnetic-field lines on the perimeters of black holes — may explain mysterious bursts of radiation that astronomers have previously observed in deep space.

"Our increased knowledge of how magnetic reconnection occurs in the vicinity of black holes might be crucial for guiding our interpretation of current and future telescope observations," Asenjo says.

— Carla Cantor '82SIPA

## STUDY HALL RESEARCH BRIEFS

### Alzheimer's gene identified

Neurologists led by Richard Mayeux '91PH, the chair of the neurology department at Columbia University Irving Medical Center, have identified a gene that appears to drive the first appearance of the amyloid brain plaques involved in Alzheimer's disease. The scientists say the finding could lead to new treatments and diagnostics.

**Time to bulk-buy Kleenex** Due to global warming, pollen season in North America now lasts three weeks longer than it did in 1990, contributing to higher rates of allergies, as well as asthma and other respiratory problems, according to a new study coauthored by Columbia environmental-health scientist Lewis Ziska.

**Diversity dividends** An in-depth analysis of policing practices in Chicago has found that Black and Hispanic officers are less likely than white officers to use force against minority residents suspected of minor infractions like traffic violations or drug possession. The study, coauthored by Columbia economics doctoral student Roman Rivera, is the largest ever to assess the impact of diversity in policing, drawing on data from nearly three million patrol assignments over three years.

**New treatment for obesity?** A team of Columbia medical researchers led by Stavroula Kousteni has found that the hormone lipocalin-2 produces a feeling of fullness after eating and could potentially be given as a supplement to treat obesity.

**Muslim ban's youngest victims** After the Trump administration's imposition of a travel ban from seven Muslim-majority nations in 2017, pregnant women from those countries living in the US saw their chances of giving birth prematurely jump 7 percent, according to a study by Goleen Samari of the Mailman School of Public Health. Samari speculates that the spike in preterm births was the result of emotional stress caused by the ban.

**COVID-19 precautions pay off** Large companies that implemented strict health protocols for employees and customers in the first eight weeks of the pandemic have since performed 15 to 20 percent better than firms that were more lax, according to a new study by Columbia economics professor Harrison Hong, Columbia professor of real estate and finance Neng Wang, and Shanghai University of Finance and Economics professor Jinqiang Yang.

**Safe space** Social-distancing measures put in place to control the spread of COVID-19 have had an unexpected benefit for many transgender and nonbinary people, who have felt a newfound freedom to express their gender identities beyond the watchful eyes of commuters, coworkers, and other acquaintances, finds a new report by Columbia psychologists Julie Woulfe and Melina Wald.





# NETWORK

## YOUR ALUMNI CONNECTION



Fri Forjindam

## A Princely Assignment

In the quiet Minneapolis suburb of Chanhassen, there is one building unlike any other. Flanked by ordinary life — a school, a gym, a storage facility — Paisley Park, the estate of the legendary recording artist Prince, is a behemoth of white aluminum, bathed in purple strobe lights. Near the entrance, a giant statue of his iconic “love symbol” welcomes visitors.

When Prince was alive, invitations to Paisley Park were rare. More than just a home, it

was his creative headquarters, complete with recording studios and a twelve-thousand-foot soundstage. But Prince always intended to one day open Paisley Park to the public, and after his death in 2016, Fri Forjindam ’05SOA was tasked with leading the team that made that happen.

“Prince was really the master of his domain, so it was both an honor and an enormous responsibility to take this on,” says Forjindam. “For the last few years, I’ve woken up every morning asking myself: Are we doing this right? Would Prince be OK with this?”

As an “experience designer,” Forjindam has helped conceptualize the exhibits and curate an overall feeling for the museum, in addition to coordinating all the logistics of transforming a private home into a major tourist attraction. “I think of experience design as the process of turning a narrative or a brand into a tangible destination,” she says.

Forjindam is particularly proud of two exhibits: the Foundation Room, which houses artifacts from Prince’s early life and uses a variety of media to explore his deep ties to Minneapolis, and the Soundstage, where immersive video and a display of the musician’s instruments simulate the feeling of being onstage with the artist. “Prince had the audacity and



Artifacts from Prince’s *Emancipation* album tour.

the foresight to build this massive soundstage in 1987, when he was just twenty-nine years old,” Forjindam said. “It became a cornerstone of Paisley Park, and we wanted visitors to feel like he was still in the room, performing for them.”

Forjindam says that she fell into her niche industry by accident. Born and raised in Cameroon, she had intended to become a doctor but loved theater and applied to Columbia’s School of the Arts “on a whim.” She calls the acting program “an oasis” that gave her the space to “explore and find my

parks and a project for the HBO show *Westworld* — put them on the map, and the firm went from three employees to 160 in just a few years. But after such enormous growth, Forjindam’s work changed drastically last year, when the pandemic struck and live entertainment ground to a halt.

“The word ‘experience’ really took on new meaning,” Forjindam says. Mycotoo was in the middle of unveiling several new exhibits at Paisley Park, and for several months everything went virtual. “We had planned to bring the



Prince’s microphone and instruments on display in the Soundstage exhibit.

voice as an artist.” After graduating, she moved to Los Angeles and, while going out on auditions, took a job as an executive assistant at an entertainment-design company and worked her way up.

“I’ve always thought of myself as a storyteller, and suddenly I could see a way to do that outside of the traditional theater,” she says. “Now I’m able to build whole worlds.”

In 2011, Forjindam and two colleagues launched their own company, Mycotoo (short for My Company Too). A few breakthrough projects — two theme

building to life with a full schedule of music and events. Instead, we’ve pivoted to livestreamed concerts on our Facebook feed and other online programming.”

“Ultimately I think COVID put a spotlight on the importance of authenticity,” she says. “A museum has to be more than just a building that you visit. With Paisley Park we wanted to honor all the pillars that made Prince who he was — music, fashion, activism, community-building, and business — and I think we were able to do that, even in a challenging time.”

— Rebecca Shapiro

## ASK AN ALUM: LOVE AT FIRST SWIPE

**Clare O’Connor ’10JRN** is the head of editorial content at Bumble, a dating and social-networking app.



### What do you do at Bumble?

I oversee anything that could be described as storytelling — articles on our content hub (“The Buzz”), digital guides, open letters, and other external media. Our most popular type of content is “success stories,” which spotlight relationships that began on Bumble. Many of our users have wonderful stories to report, whether they’ve found a husband, wife, partner, or friend on the app, or even had a “Bumble baby.” We also create content about topics such as consent in digital intimacy and how to know if you’re being “catfished.”

### How is Bumble different from other dating apps?

When there’s a heterosexual match, women have to send the first message. Our founder, Whitney Wolfe Herd, envisioned Bumble as the digital version of a Sadie Hawkins dance when she started the company in 2014.

### Does Bumble help people make connections outside of dating?

Yes. A year or two after Bumble’s launch, we noticed that some people were using the app to look for non-romantic relationships. Some wanted gym or yoga buddies. Others had business ideas and were looking for help with startups. So we launched two new modes: Bumble BFF for platonic-friend-finding and Bumble Bizz for careers and networking. Folks might get on Bumble BFF because they’re suddenly empty nesters and want to





find new friends. Someone might use Bumble Bizz to look for a new board member for their company.

## Who is your target audience?

Originally it was primarily women in their twenties. But now we serve anyone

of any gender or orientation from eighteen through their eighties. With the breakdown of stigmas around finding a partner online, we've seen a major uptick in users. We recently saw a tweet from a young woman saying that her seventy-nine-year-old *bubbe* had found love on Bumble. A former homecoming king and queen from New Jersey re-met as middle-aged divorced people on the app.

## How have people used Bumble during the pandemic?

When the shutdowns started, we saw a nearly 70 percent increase in video calls. A year later, we have reason to believe that many users will continue to date virtually even after the pandemic ends,

at least at the beginning of relationships. Video chats and voice calls are safe, easy ways to get to know your date before deciding whether to meet IRL.

In fall 2020, we launched a comprehensive guide, "Dating 101 in 2021," to help our community navigate dating during COVID. It includes resources and expert advice from epidemiologists, sexologists, therapists, and others on how to protect your mental health while dating virtually, how to navigate sex and intimacy through a screen, and other helpful tips on finding love in an unprecedented time. The past year has allowed for greater self-reflection and plenty of time to consider what exactly one wants in a relationship. — *Julia Joy*

# New Company Cleans Up

Over the past year, the pandemic has inspired a widespread awareness of disease transmission accompanied by a frenzied surge in cleaning-product sales. Kinno's, a biotech startup founded by Jason Kang '16SEAS, Katherine Jin '16CC, and Kevin Tyan '16CC, is ready to meet that demand. "It's an exciting time to be in infection prevention," says Kang, the CEO.

Based in Brooklyn, Kinno's produces Highlight, an additive that colors bleach bright blue so that users can see that every inch of a surface has been adequately sanitized. The dye disappears several minutes after application. "The real-time colorized feedback gives people assurance that they've done an effective job," explains Kang. Designed to be combined with bleach spray or wipes, Highlight is primarily used in hospitals to help prevent the spread of

deadly diseases like MRSA and *C. difficile* infections.

Kang, Jin, and Tyan met during their freshman year of college and started Kinno's after participating in Columbia Engineering's 2014 Design Challenge. Tasked with developing a low-cost, technology-based solution for the Ebola crisis, the team conceived Highlight as a way to help first responders thoroughly disinfect their hazmat suits. Shortly after the challenge, the FDNY purchased a supply of the product to integrate into their own hazmat-response protocols. Kinno's then received a government grant to deploy Highlight in West Africa.

Since 2017, Kinno's has shifted gears to focus on the US health-care industry and, in the past year, assist with pandemic efforts. At the start of the COVID-19 outbreak,

the company donated supplies of Highlight to several hospitals and also manufactured hand sanitizer. Last fall, Kinno's became a finalist in the Transit Innovation Partnership's COVID-19 Response Challenge and partnered with the Port Authority of New York and New Jersey to pilot Highlight in one of the authority's public restrooms.

Although it's now understood that COVID-19 spreads primarily through aerosol respiratory droplets rather than contaminated surfaces, the demand for superior disinfection techniques in health care, transportation, and other industries continues

to be high. "We've seen a tremendous increase in people reaching out to learn more about our product," says Kang, who notes that Kinno's staff count jumped

from five to eighteen over the past year.

Right now, Kang, Jin, and Tyan are focused on getting Highlight into as many hospitals as possible. The research and development team led by Jin, the CTO, is creating versions of Highlight that work with chemicals such as ammonium and alcohol. "Once we have that capability, we'll be able to enter new markets like household cleaning products and food processing, where non-bleach disinfectants tend to be used more often," says Kang.

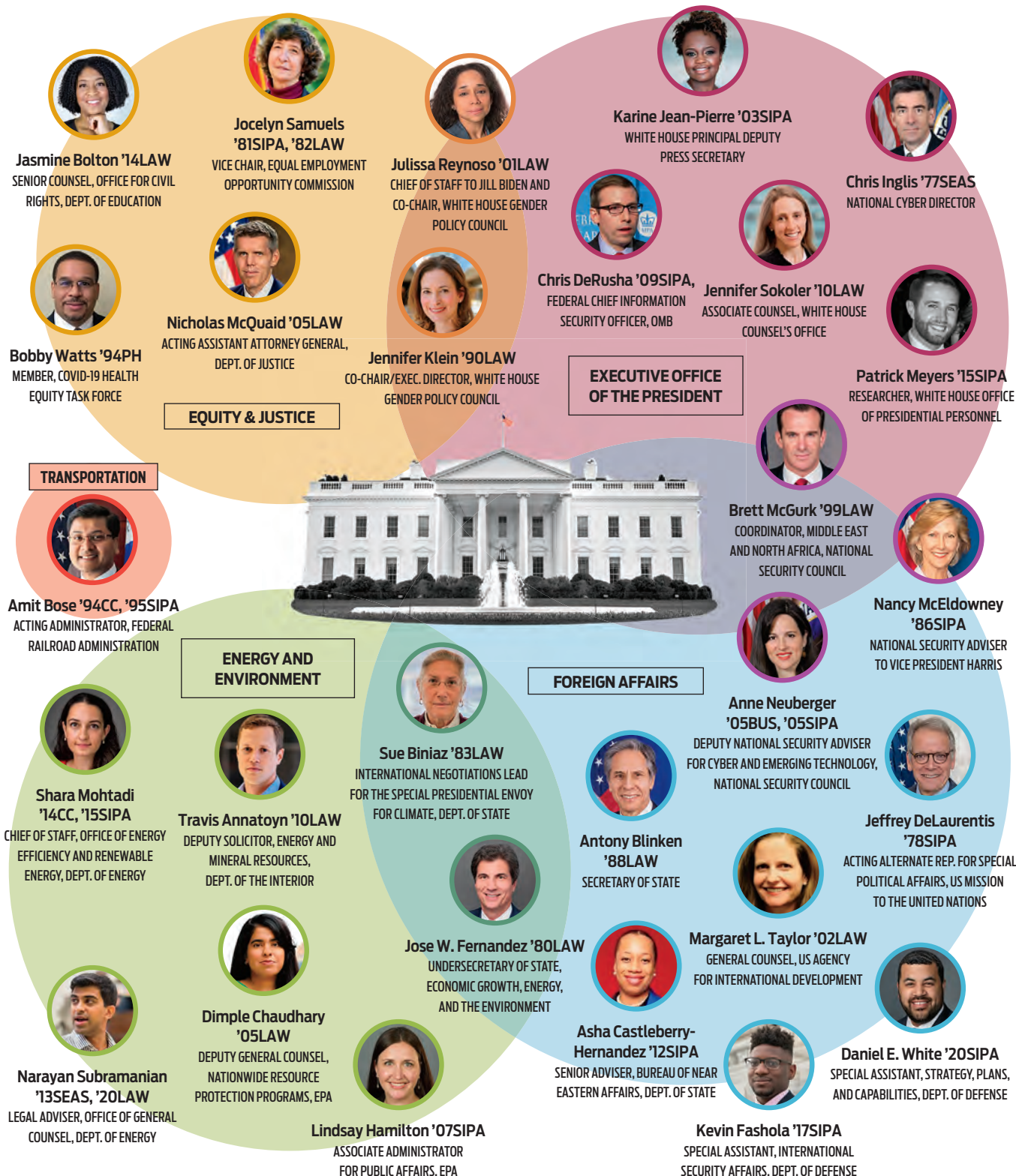
Whether Highlight is targeted to health-care workers or everyday clean freaks, Kinno's founders see huge potential for their product in a post-pandemic world. "Bleach was never a sexy topic until now," says Kang. "People are suddenly very excited about disinfecting things."

— *Julia Joy*



# Alumni Go to Washington

Columbia graduates are key players in the Biden administration



Have we missed any appointees? Let us know at [feedback@columbia.edu](mailto:feedback@columbia.edu).



# The Art of Caring

**C**oncierge medicine, in which patients pay retainer fees for near-unlimited access to their doctors, may sound like a luxury item for the affluent, but KinFolk Family Health, a clinic in Montclair, New Jersey, puts a new spin on the service. Run by nurse practitioner Rakiyah Jones '19NRS, the facility offers monthly memberships as a way of providing quality care to the uninsured and underserved.

"I'm focused on serving communities that a lot of people forget about — people of color, my veteran community, my trans-identified community, and geriatrics," says Jones, who is Black, a member of the US Army Reserve, and a transgender man. "These are all groups that tend to have difficulty navigating health-care systems."

Jones, a family nurse practitioner and assistant professor at Columbia's School of Nursing, opened KinFolk in 2019. He says it was his way of giving back to the residents of northern New Jersey, where he grew up. Nicknamed "Dr. Kai," Jones offers uninsured patients affordable memberships (\$49.99 to \$129.99 a month) that include unlimited telehealth appointments, discounted prescriptions and lab tests, and, with upper-tier plans, unlimited office visits. "I'm not making money off KinFolk," says Jones. "KinFolk was created out of love and service and just wanting my community to be able to access health care."

Raised in a low-income, single-parent household, Jones was just fourteen when he was selected for a high-school program that allowed students who excelled in science to take classes at the local medical school. The first person in his family to go to college, he studied biology at Montclair State and nursing at Rutgers before enlisting in the Army as a nurse in 2010. "I didn't know anything about the military, and I

didn't know anyone in the military," says Jones, who explains that he enlisted because he wanted to gain a broader range of nursing experience. "When I told people that I was joining the military, they were like, 'You? No way you're going to make it.' Ten years later, I am still in the military." Today, in addition to his other jobs, he serves in the Army Reserve teaching primary-care and combat medicine to soldiers.



**"KinFolk was created out of love and service and just wanting my community to be able to access health care."**

Jones enrolled in the PhD program at Columbia's School of Nursing in 2015, financing his education through the Post-9/11 GI Bill and a University scholarship. Though he had just completed a dual master's program in nutrition and health-care administration elsewhere, Columbia initially felt "out of my league," he says. "To me, it had always been an ivory tower, untouchable for inner-city kids," says Jones. "But once I got started I realized there was a purpose to me being here."

He found a mentor in nursing professor Marlene McHugh '08NRS, who helped train him in palliative and end-

of-life care. While earning his doctorate, he simultaneously completed a certificate in adult gerontology and acute care at the University of Pennsylvania. "Geriatrics holds a special place in my heart," says Jones. "If you're under forty you probably get on my nerves, but, you know, the fifty-plus, we're best friends."

While Jones's drive to help people of color, the LGBTQ community, and veterans is a product of his own identity, his empathy for the elderly comes from "my love for my grandmother and wanting her to age gracefully and comfortably and safely as she transitions from this life," he says. "Having grown up in North Carolina during Jim Crow, she has no trust in providers who do not look like her," he adds. "They'll ask her questions, and she just looks at them or says everything is fine when it isn't. That isn't just the narrative of my grandmother; that is the narrative of a lot of older Black adults."

Jones explains that he named his clinic KinFolk so it would be understood as a home for the Black community and other marginalized groups. "In the South, people always say, 'That's your kin over there.' They aren't necessarily blood-related, but maybe they live down the road and helped the family at some point, so they've become family," he

says. The old-fashioned term also harks back to the bygone days when neighborhood doctors made house calls and spent time truly getting to know their patients. "KinFolk is rebuilding that lost art," says Jones, who gives patients the option of in-home appointments.

Jones offers a holistic approach to health care and makes a point of meeting people on their level. "One of the things I discuss with patients in my private practice is how they're navigating being Black in America. That has a significant impact on mental health, which can lead to physical problems," he explains. "We also talk about using

old-school treatments that are more familiar to some people. Instead of buying cough medicine, for example, put some apple-cider vinegar and honey in a bottle and, voila, you have your own natural remedy.”

Jones wants all his patients to feel comfortable in his office, which means “sitting down, pulling up a chair, and making them feel at home,” he says. “So many times, I’ve walked into the exam room and before I can even say ‘What can I do for you?’ the patient’s tears start. They’ve never met me before and I’m already passing the tissue box. The health-care system has been so unfriendly to some people that when they walk into a space that is friendly, it’s just so overwhelming.” He says he is open about his trans status when it’s relevant, a fact that is certainly appreciated by trans and gender-nonconforming patients, who often face a whirlwind of obstacles, from dealing with providers who are not versed in hormone treatment to being flat-out denied basic care.

At the start of the pandemic, Jones served as one of the lead clinicians in the fever and cough clinic at the ColumbiaDoctors Nurse Practitioner Group, and he says he was particularly affected by seeing low-income communities of color devastated by the virus. “It’s hard not to take that home every day, especially when you do not have answers,” says Jones. But he never stopped working. Not only did Jones keep KinFolk open; the clinic also provided COVID-19 testing and care for local first responders and senior-home residents and provided house calls for those who had contracted the virus. Many of them returned to KinFolk as regular patients.

“Many primary-care providers lost patients, but at KinFolk we gained a lot,” he says. Currently the clinic serves approximately 1,500 people. And though the pandemic has been devastating, Jones has found a faint silver lining. “It’s kept us engaged with the community,” he says. “I’ve been able to give back and be of service.”

— Julia Joy

## NEWSMAKERS



● The all-digital 2021 Sundance Film Festival showcased work by three Columbia alumni. **Joshua Cohen '14SOA** co-produced *Land*, a feature about a woman rescued in the wilderness by a local hunter, and *These Days*, a series about online dating during the pandemic. *Snowy*, a documentary short about a pet turtle codirected by **Alex Wolf Lewis '12CC** made its premiere at the festival. And *Luzzu*, a feature film about a Maltese fisherman produced by School of the Arts professor **Ramin Bahrani '96CC**, competed in the World Cinema Dramatic Competition. Additionally, *Doublespeak*, a short film written and directed by current School of the Arts student **Hazel McKibbin** and co-produced by students **Stephanie Fine '18CC** and **Meera Vaidya**, was shown.

● **Nobuhisa Ishizuka '82CC, '86LAW** was named president of USRowing, the organization that oversees all American rowing teams and coordinates the United States’ participation in the Olympics. Ishizuka, who was a lightweight rower as an undergraduate, is the executive director of the Center for Japanese Legal Studies at Columbia Law School.

● **Tom Kitt '96CC** won the Grammy Award for best musical-theater album for the cast album of the rock musical *Jagged Little Pill*, which features his arrangements and orchestrations. This is Kitt’s first Grammy; he has won two Tony Awards and also shared the 2010 Pulitzer Prize for Drama. In 2020 Kitt composed the new school song “Oh, Columbia,” which was performed again at Columbia’s 2021 virtual graduation.

● Artwork by **Amanda Phingbodhipakkiya '10CC** was featured on the cover of the March 29/April 5 issue of *Time* magazine. The image was a part of Phingbodhipakkiya’s public-art campaign “I Still Believe in Our City,” which she created in response to a rise in anti-Asian discrimination and hate crimes in New York.



● **Samantha John '09SEAS** appeared on the reality competition show *Shark Tank* and secured a \$550,000 investment from Mark Cuban for Hopscotch, an app that she developed with **Jocelyn Leavitt '07BUS** that teaches kids how to code by letting them design their own games.





Johnson, Pritzker, and Wright

### JEH JOHNSON, ADAM PRITZKER, AND SHEENA WRIGHT ELECTED TO BOARD OF TRUSTEES

Columbia University recently announced the election of attorney Jeh Johnson '82LAW, entrepreneur Adam Pritzker '07CC, and community leader Sheena Wright '90CC, '94LAW to its Board of Trustees.

Johnson, who served as US secretary of homeland security from 2013 to 2017 and as general counsel to the Defense Department before that, is a partner at the firm Paul, Weiss, Rifkind, Wharton, and Garrison, where he advises corporate clients on the legal aspects of national security, cybersecurity, data privacy, and government relations. He has been affiliated with Paul, Weiss since 1984, becoming the firm's first African-American partner in 1994. Formerly a member of Columbia Law School's Board of Visitors, he received the school's Medal for Excellence in 2012.

Pritzker is the founder and CEO of Assembled Universe, an investment group that helps to develop consumer, software, and financial-services companies. He is also the cofounder and chairman of Future Now, a nonprofit dedicated to improving Americans' lives "by winning state legislative majorities and working with them to achieve goals for the common good." As an undergraduate majoring in social anthropology at Columbia College, Pritzker studied economics and sustainable development with Jeffrey D. Sachs. He is currently a member of the President's Council for Columbia World Projects.

Wright is the president and CEO of United Way of New York City (UWNYC). During her nine-year tenure there, Wright, who is the first woman to lead the organization, has overseen a number of large-scale relief efforts, including for COVID-19; spearheaded the ReadNYC initiative to promote reading among children in underserved communities; and launched UWNYC's Campaign for Equity to address "the underlying structural and systemic failures" that lead to racial disparities in health, education, and financial stability. She received Columbia College's John Jay Award in 2016 and delivered the keynote address at the College's Class Day ceremony the following year.

"This Board's newest members have already established themselves as alumni who care deeply about the University and the broader Columbia community," Trustee co-chairs Lisa Carnoy '89CC and Jonathan Lavine '88CC wrote in a statement. "We're grateful that they have chosen to bring their extensive experience in the public and private sectors to their work as members of our Board."

Says President Lee C. Bollinger: "Jeh, Adam, and Sheena have achieved great professional success while demonstrating a profound commitment to some of the most important issues facing society, including economic and racial inequality, education, and sustainability. We're proud to welcome them to Columbia's Board of Trustees."

## WAFAA EL-SADR LEADS COLUMBIA WORLD PROJECTS

**W**afaa El-Sadr '91PH, a Columbia public-health expert who is widely credited with having transformed HIV/AIDS prevention and treatment programs in resource-challenged communities, has been named director of Columbia World Projects, an initiative that mobilizes researchers to collaborate with governments, nonprofit organizations, and businesses to address pressing global issues.

A professor of epidemiology and medicine as well as a University Professor, which is the highest rank Columbia bestows upon its faculty, El-Sadr is the founding director of ICAP, a global health center based at the Mailman School of Public Health. ICAP's 2,400 staff members partner with health authorities

and other collaborators in low- and middle-income countries to incorporate the latest public-health research into HIV/AIDS programs. They have been instrumental in turning the tide against the disease in many parts of Africa, Latin America, and Asia over the past two decades. ICAP staffers have also frequently pivoted to help underserved communities fight other diseases, including Ebola and, more recently, COVID-19.

President Lee C. Bollinger, in announcing El-Sadr's appointment, said that her experience in "bridging academic and real-world divides in the service of solving human problems" positions her well to direct Columbia World Projects. The initiative, which was previously led by journalism dean emeritus Nicholas Lemann,



El-Sadr visits an ICAP-supported health facility in western Kenya.

has provided legal, financial, fundraising, and logistical support to faculty members pursuing ambitious projects in areas like sustainable energy, election security, sanitation, and maternal health.

"Wafaa is a gifted epidemiologist and public-health

leader whose expertise and values align exactly with the University's vision for Columbia World Projects," said Bollinger, who notes that El-Sadr will continue to direct ICAP. "We could not be more pleased that she has agreed to take on this new role."

## COLUMBIA ANNOUNCES \$1.4 BILLION FUNDRAISING DRIVE FOR STUDENT AID

**T**his spring, the University launched a major effort to raise donations for student financial assistance. The Columbia Student Support Initiative,

which involves all sixteen schools, aims to raise \$1.4 billion over the next four years for undergraduate scholarships, graduate fellowships, and other forms of financial assistance that are critical for student success.

University officials say that the new fundraising initiative, which comes in the final year of the \$5 billion University-wide Columbia Commitment campaign, serves to establish student financial assistance as a top priority in the campaign's homestretch and in the years ahead.

"Columbia's commitment to the support of its students is already deeply instilled in our collective being," wrote President Lee C. Bollinger in an April 8 letter announcing the new initiative.

"It begins with our long-standing policies of need-blind undergraduate admissions and full-need financial aid. This commitment to ensure access to a Columbia education unconstrained by family wealth carries on through every school and program at the University." He continues: "A Columbia education is transformative for our students, and financial need should not be a barrier to accessing it. We have for many years made financial aid a priority and have dedicated our resources accordingly, but there is more to do. This campaign, and the resulting support for our students, will begin a new era for Columbia."

To learn more about the initiative, visit [giving.columbia.edu](https://giving.columbia.edu).





## COLUMBIA ANNOUNCES NEW FOSSIL-FUEL INVESTMENT POLICY

**T**he University, as part of its ongoing commitment to fighting climate change, recently announced that it will continue to refrain from directly investing in publicly traded oil or gas companies.

The adjustment to the University's investment policy, which formalizes an environmentally friendly asset-management approach that had been in place for some time, also includes a pledge to avoid making any new invest-

ments in private funds that primarily invest in oil or gas companies. The policy update was informed by recommendations issued last year by the Advisory Committee on Socially Responsible Investing (ACSRI), a group of faculty, students, and alumni.

In line with the ACSRI's recommendations, the University said that it may in the future consider investing in oil or gas companies that develop credible plans for achieving net-zero emissions by 2050.

"There is an undeniable obligation binding upon Columbia and other universities to confront the climate crisis across every dimension of our institutions," says President Lee C. Bollinger. "The effort to achieve net-zero emissions must be sustained over time, employing all the tools available to us and engaging all who are at Columbia today and those who will follow us in the years ahead. This announcement reaffirms that commitment and reflects the urgent need for action."



## SHIH-FU CHANG NAMED INTERIM DEAN OF COLUMBIA ENGINEERING

**S**hih-Fu Chang, a professor of electrical engineering and computer science who currently serves as senior executive vice dean of Columbia Engineering, will become interim dean of the school on July 1, taking over for Mary C. Boyce, who was recently named University Provost.

Chang, who has taught at Columbia Engineering since 1993, has worked closely alongside Boyce, overseeing the creation of a number of interdisciplinary research and education initiatives and advancing diversity, equity, and inclusion programs. An expert on artificial intelligence, computer vision, and multimedia content analysis, Chang also directs the Columbia Center of Artificial Intelligence Technology, which was launched at the engineering school in collaboration with Amazon last fall.

President Lee C. Bollinger, in announcing Chang's appointment, said that he will form a search committee to hire Boyce's permanent successor.

## NEW PROGRAM WILL RESEARCH BRAIN LONGEVITY

**T**his spring, with a donation from Israeli business leader and philanthropist Sami Sagol, the University created a new research program focused on promoting healthy brain aging. The Sagol Brain Longevity Program is based at Columbia's Zuckerman Mind Brain Behavior Institute, an interdisciplinary hub where scientists study the fundamental principles of brain function in health and disease.



Sami Sagol, center, with Zuckerman Institute director Rui Costa (left) and codirector Eric Kandel

The gift also establishes a new endowed chair, the Sagol Professorship of Brain Science, whose first recipient is Nobel laureate neuroscientist Eric Kandel, a University Professor and codirector of the Zuckerman Institute.

"I am committed to helping scientists deepen our understanding of the brain to better treat and prevent illnesses and prolong healthy brain aging," says Sagol. "I am delighted to do so at the Zuckerman Institute, given the caliber of its faculty. I can think of no better inaugural chair than Eric Kandel, one of the world's foremost neuroscientists, whose pioneering discoveries have influenced my passion for the field and laid the foundations for our current understanding of memory."



## PHYSICIST CHIEN-SHIUNG WU HONORED WITH US POSTAGE STAMP

**C**hien-Shiung Wu '82HON, the first tenured female physics professor at Columbia and one of the most influential nuclear physicists of her generation, was recently honored by the US Postal Service with a commemorative stamp. Wu, who conducted research at Columbia from 1944 until her retirement in 1980, is best known for

proving that elementary particles in the process of radioactive decay violate the “law of conservation parity,” which holds that a particle transforming from one type into another should change in symmetrical ways. Her discovery, which led to a Nobel Prize for the theorists who had first dreamed up this possibility — Columbia’s Tsung-Dao Lee '90HON and Princeton’s Chen Ning Yang — revolutionized the field of atomic science. “Only a handful of physicists have made contributions that have radically changed our perspective on reality, and she is one of them,” says Columbia physicist Brian Greene.

Wu, who died in 1997, and whose snub by the Nobel Committee has been attributed by many to sexism, is the first Chinese-American physicist to appear on a US stamp. The stamp, which features a portrait of Wu by the Hong Kong-born, Brooklyn-based illustrator Kam Mak, was issued on February 11, the International Day of Women and Girls in Science.

## MELANIE BERNITZ NAMED SENIOR VP FOR COLUMBIA HEALTH



**M**elanie Bernitz '12PH, a primary-care physician and associate professor of medicine who since 2016 has led Columbia Health, was recently promoted to the newly created position of senior vice president for Columbia Health, in recognition of her leadership and her unit’s role in guiding faculty, staff, and students through the COVID-19 pandemic.

Columbia Health is composed of more than 150 medical providers, including therapists, psychiatrists, and specialists, dedicated to supporting the University community.



Bruce Western

## COLUMBIA RECEIVES \$5M TO DEVELOP RACIAL-JUSTICE CURRICULUM

**A** team of Columbia scholars has been awarded a three-year, \$5 million grant from the Andrew W. Mellon Foundation to develop a college-level curriculum focused on racial inequalities

in the US criminal-justice system. The multidisciplinary curriculum, which will include full syllabi and teaching materials for both in-class and online instruction, will be available for use across the nation in universities and colleges, prisons, and community settings, according to the project’s leaders. They say that it will be suitable for advanced undergraduates or a one-year master’s degree spanning the humanities, arts, social sciences, policy, and law.

The effort, called the Racial Justice and Abolition Democracy Curriculum Project, is being led by Bernard E. Harcourt, a Columbia legal scholar and political scientist who is the founding director of the University’s Initiative for a Just Society, which brings critical theory to bear on current social issues; and Bruce Western, a Columbia sociologist who heads the University’s Justice

Lab and its Square One Project, both of which promote research on issues pertaining to race, poverty, and social justice in the US.

Harcourt and Western say that a diverse team of Columbia scholars will collaborate with community-based organizations across the US in designing, developing, and testing the new curriculum.

“Institutions of higher education have a responsibility to redress the gross racial injustices that today permeate our society — injustices that they themselves have contributed to over past decades and centuries,” reads a statement on the project’s website. “Far too often, these institutions talk about racial injustice and even teach about it, but do not concretely work with community partners to actually redress the patterns and practices of racial discrimination.”



# BOOKS

## Animal, Vegetable, Junk

By Mark Bittman (Houghton Mifflin Harcourt)

Like ultra-processed food, Mark Bittman's *Animal, Vegetable, Junk* should come with a warning label. It might say: "Do not consume without antidepressants on hand." That's because Bittman, the author of dozens of books on food and cooking but best known for his "The Minimalist" columns for the *New York Times*, doesn't mince words when it comes

to the horrific, unsustainable state of the US food system.

Bittman, who since 2016 has served as a lecturer and special adviser for food policy at the Mailman School of Public Health, defines junk as "engineered edible substances, barely recognizable as products of the earth." It has "hijacked our diets and created a public health crisis that diminishes the lives of perhaps half of all humans," he writes. But junk isn't only a problem of diet. "The

industrialized agriculture that has spawned junk ... has done more damage to the earth than strip mining, urbanization, even fossil fuel extraction."

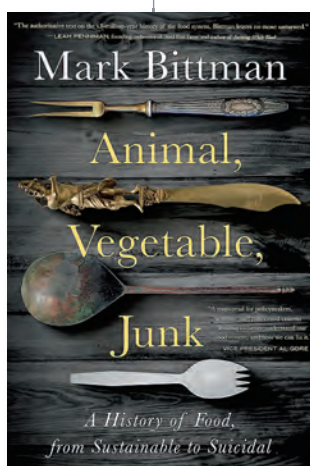
For those who have never studied sustainability, Bittman creates a kind of Industrial Food 101 survey course that spells out how technological advances in agriculture have led us to what's called "extractive" farming. This evolution began as far back as the fourteenth century, when Europeans learned how to turn cane into sugar — a process that required tremendous swaths of cleared land, shocking amounts of human labor, and tons of water. The innovation worked so well that sugar became a coveted commodity around the world.

But the shift began in earnest in the late 1800s, when ever-increasing supplies of both grain and animals in the US prompted the expansion of railroads, giving farmers a way to transport these foods across the US and sell them to global markets. By the end of the

nineteenth century, Midwest-based multinationals like Cargill, Pillsbury, and General Mills were thriving, and food had become a lucrative business.

Big Agriculture has had a devastating impact on our health and waistlines. Bittman details how the quest for efficiency drove family farms to merge, plant fewer crops, and offer fewer foods for our tables. Most pernicious, says Bittman, was the way the US government, steered by corporate greed, propped up falling prices by encouraging ever-increasing consumption of foods of ever-declining nutritive value. "The solution would come through selling Americans on chronic overeating of foods that would make them sick," says Bittman. In 1916 a glut of milk inspired James L. Kraft to patent American processed cheese — a "low-grade, cheese-like paste" — and around the same time, an excess of beef birthed the American hamburger. A surplus of corn gave us the truly ubiquitous high-fructose corn syrup, a sweetener that boosts calorie density while offering no nutritional payoff.

Bittman also catalogs the ways food has been used to subjugate workers — from



BURCU AYSAZ

enslaved people in sugarcane fields to today's migrant berry pickers — to win wars, and even to oppress women. He describes how industrial food production contributes to greenhouse-gas emissions that are warming our planet.

For Bittman, food is political. The Green Revolution of 1940–60, in which the US government supersized production in a nominally altruistic effort to “feed the world,” was merely “a front for selling American agricultural machinery, chemicals, and seeds,” he argues. Because the food industry concealed the truth about how addictive sugar is, Bittman believes that in the future, sugar will be thought of as “the tobacco of the twenty-first century.”

Bittman is enthusiastic about agroecology, a set of practices that integrates ecological principles into farming, but he concedes that a global focus on “growing in harmony with nature” is an ambitious goal. “Whether it's enough remains to be seen, but agroecology is hands-down our best bet for

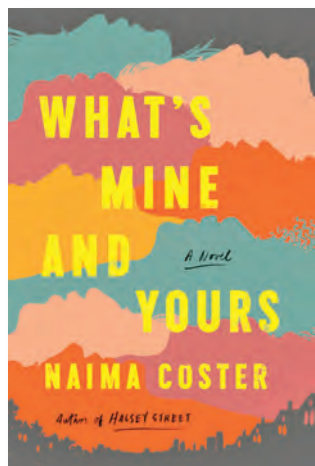
changing agriculture's role from a driver of the greatest problems afflicting humankind to a solution.” And while organic practices are expanding, Bittman asserts that real change requires a more definitive act of political and cultural will. “The mistakes of the past cannot be changed, but they can be remedied,” he says. “This requires a shift in power.”

*Animal, Vegetable, Junk* arrives with perfect timing at a moment in the American consciousness when the importance of public health, social justice, and climate change have been heightened for so many. Bittman does a yeoman's job of explaining how we got here and why we should be worried. Perhaps for that reason Bittman's cri de coeur will actually be heard beyond the confines of the usual choir of the progressive food movement. Yes, revolutionizing our food system is a tall order, Bittman acknowledges, but “the alternative is catastrophic.”

— Lesley Jane Seymour '19SPS

## What's Mine and Yours

By Naima Coster '15SOA (Grand Central Publishing)



Two strong-willed mothers are on opposite sides of a bitter community battle over integrating a North Carolina high school in this searing novel — the second from Naima Coster '15SOA — about race, privilege, and the messy family relationships that shape our sense of self.

It is 2002, and the county has passed an initiative to bring students from the largely Black east side of town into a school on the largely white west

side. Jade lives on the east side and is determined to see her reserved, anxious sixteen-year-old son, Gee, succeed as a transfer student. Lacey May, a mother of three girls who lives on the west side, resents the new students. After enduring financial hardship and a volatile first marriage, she doesn't want anyone encroaching on the opportunities she believes her daughters are owed. “I made sacrifices to get here. It cost me. It cost my children. And I'm not just going to give it up so you can get handed what you think you deserve,” she states defiantly at a town-hall meeting to “welcome” the new students and their parents.

Much to the dismay of Noelle, her oldest daughter, Lacey May leads a group of white parents determined to protest the integration. Meanwhile, Gee and Noelle become fast friends after she convinces him to act in a play she is directing at school. “Gee and Noelle saw their classmates horsing around on stage, and they knew they were different,” Coster writes. “Too old for childish games. They were better off watching, shoulder to shoulder, from the empty



seats.” As their relationship grows, it sets off a series of events that will bond their families in surprising, and sometimes heartbreaking, ways.

Told from the perspective of myriad characters over nearly twenty years, this multigenerational novel explores the meaning of family — the ones we are born into, the ones we create — and the legacies that children must overcome to make their own way in the world. Coster's 2018 debut novel, *Halsey Street*, was a finalist for the Kirkus Prize. In *What's Mine and Yours*, Coster has created an urgent, unforgettable story that feels all too relevant.

— Kate Lawler

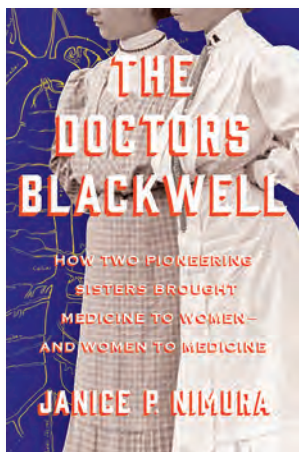


# The Doctors Blackwell

By Janice P. Nimura '01GSAS (Norton)

History is filled with pioneering figures who, on closer inspection, are found to be seriously flawed.

In *The Doctors Blackwell: How Two Pioneering Sisters Brought Medicine to Women — and Women to Medicine*, a new biography by Janice P. Nimura '01GSAS, Elizabeth Blackwell — the first woman to receive a medical degree in the United States — and her younger sister Emily, also a physician, have their feminist legacies slightly tarnished. But trading hagiography for historical fact is always a worthwhile enterprise, and Nimura's impressively researched book, which makes liberal use of the subjects' letters and journals, renders these nineteenth-century groundbreakers as complex, contradictory human beings.



Nimura, who has a master's in East Asian studies from Columbia, is known for her skill at archival treasure-hunting. Like *The Doctors Blackwell*, her first book, *Daughters of the Samurai*, was a joint biography of women who were extraordinary for their time — in that case, young Japanese girls who were sent to the United States in the late 1800s to learn Western culture and bring that knowledge back to their home country.



Elizabeth and Emily Blackwell

The Blackwell sisters were extraordinary for different but no less compelling reasons. Born in 1821 and raised in a family of nine children by abolitionist parents, Elizabeth Blackwell was determined to attend medical school. This was a strange choice for a woman who wrote, “The very thought of dwelling on the physical structure of the body and its various ailments filled me with disgust.” Nimura points out that becoming a physician was mainly a means to an end for Elizabeth — a way to make a name for herself and demonstrate that women could be the intellectual equals of men. She never seemed particularly interested in curing disease or easing people's suffering.

One part of the Blackwell story that's well established is that Elizabeth was rejected from twenty-nine medical schools before she was accepted, in 1847, to Geneva Medical College in upstate New York (Columbia did not admit its first female medical students until seventy years later). Nimura fleshes out this oft-cited description of Blackwell's struggle to get into med school with a story about how the acceptance nearly didn't happen. Faculty at Geneva opted to let their students decide whether to admit her, assuming

that the young men would reject the idea of a woman classmate. Instead, students found the possibility amusing and voted unanimously to let Elizabeth enroll.

Emily Blackwell, five years younger than Elizabeth, followed her sister's career path after navigating the same medical-school admissions roadblocks. She became only the third woman in the United States to earn a medical degree.

One challenge the sisters didn't anticipate: that after overcoming so many obstacles to obtain their degrees, they'd face just as many to practicing medicine. The public wasn't ready to trust its health to female physicians. But one sector of the population couldn't afford to be choosy. Poor people were just grateful to receive care. Thus Elizabeth and Emily opened the New York Infirmary for Indigent Women and Children on May 12, 1857.

Nimura makes it clear that Elizabeth — in spite of her social reticence and dim view of most other people — makes shrewd choices in the women and men she recruits to help raise funds for the infirmary. Her fame brings her in contact with many prominent figures of the time, and the narrative is peppered with recognizable names like Florence Nightingale,

Lady Byron, George Eliot, and Henry Ward Beecher (Harriet Beecher Stowe's brother). In Washington, DC, as a tourist during the Civil War, Elizabeth even meets President Abraham Lincoln 1861HON, but is unimpressed. Despite her abolitionist sympathies, she didn't approve of either side in the conflict.

When it comes to Elizabeth's legacy as a Victorian feminist, Nimura doesn't gloss over her subject's contradictory views. Elizabeth didn't support the contemporary women's rights movements and believed that most women were not well-educated enough to have a political voice. She was anti-contraception and anti-vaccine. She was also horrified by the idea of abortion, deeming it a "gross perversion and destruction of motherhood." (For readers wanting more of Blackwell's voice and opinions, the Columbia Rare Book and Manuscript Library contains a series of her letters to her close friend Barbara Bodichon, including one in which she criticizes Florence Nightingale's book on nursing as ill-tempered, dogmatic, and exaggerated!)

Nimura ends her book with numbers: when the sisters died, within months of each other in 1910, there were more than nine thousand women doctors in the United States, making up about 6 percent of all physicians. Today slightly over a third of all doctors — and over half of medical students — are female. Elizabeth and Emily Blackwell, reluctant feminists, are the matriarchs of them all.

— *Beth Weinhouse '80JRN*

# Empire of Ruins

By Miles Orvell '64CC (Oxford University Press)

In his fascinating new book *Empire of Ruins: American Culture, Photography, and the Spectacle of Destruction*, Miles Orvell '64CC explores how photography has shaped the meaning of ruins in American culture. Orvell, a professor of English and American studies at Temple University, argues that images of destroyed buildings and landscapes balance horror and beauty, transforming disaster and decay into a spectacle that compels our moral attention.



A 2013 photograph by John Ganis shows the remains of beach houses in Mantoloking, New Jersey, after Hurricane Sandy wreaked havoc on the mid-Atlantic coast.



Richard Misrach's 1989 image shows rusted machines and shrapnel at the former site of Utah's Wendover Air Force Base, which was used during World War II to train pilots to deliver the atomic bomb.



# We Run the Tides

By Vendela Vida '96SOA (Ecco)



Told that her parents are rushing dinner because they're "going to hear Angela Davis speak at the public library," Eulabee, the thirteen-year-old narrator of Vendela Vida's evocative coming-of-age novel *We Run the Tides*, sighs dramatically and complains:

"Sometimes I feel like I missed out on all the interesting . . ." I am about to say *periods* but decide on *epochs* instead. My parents look at me quizzically. I probably didn't pronounce it right. I move on. "The Velvet Revolution in Czechoslovakia, and even here I missed Angela Davis, the Black Panthers, Patty Hearst."

Her lament is classic teen and classic Gen X, and Eulabee checks both boxes. It's 1984, and this bookish, mildly rebellious eighth grader and three of her classmates at the Spragg School for Girls — Julia, Faith, and the cunning and beautiful Maria Fabiola, Eulabee's BFF since kindergarten — own the streets of their San Francisco neighborhood of Sea Cliff. "We know these wide streets," Eulabee says, "and how they slope, how they curve toward the shore, and we

know their houses." Eulabee and Maria Fabiola's most daring exploit, honed over years, is to quickly scale the cliff that separates two beaches by precisely timing the ebb and flow of the tides.

Inevitably this youthful invincibility gives way to the usual adolescent encroachments of sexuality, jealousy, deceit, and betrayal, as well as grimmer intrusions. In the aftermath of a tragedy that occurs during a birthday sleepover, Eulabee's life begins to unravel. Maria Fabiola hatches a vicious lie about an encounter with a stranger and enlists Julia and Faith as confederates, announcing gleefully, "This is going to be such a big deal." At school, Eulabee is questioned by two police officers and tells the truth — that nothing happened. The



school drops the matter. Within hours, Maria Fabiola has succeeded in turning Eulabee into a schoolwide pariah.

Eulabee has been marooned in this friendless purgatory for a few months when Maria Fabiola vanishes, sending the city into a frenzy (Eulabee is astonished to discover, via the nightly news, that her longtime friend is an heiress

and thus a target for kidnappers). Further complications ensue, including two more missing girls and another shocking tragedy. Ultimately, Eulabee is expelled not only from teenage society but from Spragg itself.

This summary risks giving a misimpression of the novel as bleak; in fact, it is funny and full of quirky, indelible details. Vida '96SOA, whose four previous novels include *The Lovers* and *The Diver's Clothes Lie Empty*, creates a finely etched portrait of both a generation and a city that seem lost in a gray zone between two more consequential eras. As Eulabee notes, the girls were born too late to experience San Francisco's radical heyday or its legendary Summer of Love. And the Bay Area's high-tech revolution, which would ultimately bring the kazillionaire class to Sea Cliff, had hardly begun. In such an indeterminate era, it's no wonder Maria Fabiola concludes that "the only way out was to be extraordinary."

Like Odysseus, whose story the novel invokes, the adult Eulabee wanders far from home but eventually returns to a much-changed San Francisco in her forties, husband and infant son in tow. In a coda-like final chapter set in 2019, Eulabee, now a professional translator, re-encounters Maria Fabiola while attending a conference on Capri, near the very spot where Odysseus lashes himself to his ship's mast to avoid the pull of the Sirens' deadly song. Maria Fabiola has been incommunicado for thirty-plus years, but her power to bewitch every male in the vicinity, as well as her skill at spinning whoppers, remain stunningly intact. As Eulabee is leaving the island, the Sirens sing out to her, too — in the form of a cell phone ringing ever more loudly within her bag — but they can't suck her in. A far more powerful call is beckoning her home.

— Lorraine Glennon

## READING LIST

### New and noteworthy releases

**MINE!** *By Michael Heller and James Salzman* Who owns the space behind an airplane seat, the passenger reclining in it or the person using the tray table behind it? Why is it OK for beachgoers to save a spot on the sand by spreading out their gear early in the morning, even if they don't come back for hours? Columbia Law School professor Michael Heller tackles these questions in a thought-provoking, entertaining book that explores property rights and the changing rules that govern ownership in our everyday lives. Together with James Salzman, a law professor at UCLA, Heller delves into how things become "mine" via engaging stories about organ donation, fashion knockoffs, drones, surrogacy, and more.

**EARLY MORNING RISER** *By Katherine Heiny '92SOA* When second-grade teacher Jane locks herself out of her new house one night, she falls hard for Duncan, the charming locksmith who comes to her rescue. So begins Katherine Heiny's bright, funny new novel about love and life set in small-town Michigan. Jane is soon contending with Duncan's flock of former girlfriends, his needy ex-wife Aggie, and his well-meaning coworker Jimmy. With a cast of eccentric, likable characters

and spot-on dialogue, Heiny creates a narrative that is alternately hilarious and heartbreaking, but always filled with hope.

**DIRTY GOLD** *By Jay Weaver, Nicholas Nehamas '14JRN, Jim Wyss '09JRN, and Kyra Gurney '16JRN*

This gripping book tells the true story of a South American gold-smuggling ring that made three Miami metals traders rich — until the traders were arrested by FBI agents in 2019. The investigation that followed uncovered the corrupt, dangerous international business of selling "dirty gold" mined in the rainforests of Peru. Coauthored by four *Miami Herald* journalists, the book is based on a series that was a finalist for the 2019 Pulitzer Prize for explanatory reporting.

**THE SECRET HISTORY OF HOME ECONOMICS**

*By Danielle Dreilinger '99CC* "Everything you know about home economics is wrong," proclaims the author in this absorbing history of a field perceived as lightweight, retro, and sexist. Danielle Dreilinger, a former reporter for the New Orleans *Times-Picayune*, aims to restore the reputation of the once-revolutionary discipline by delving into its past. Her book shines a light on the unheralded nineteenth- and twentieth-century feminist pioneers who used home economics to build science careers, advocate for school gardens and affordable daycare, and



create the consumer-protection movement.

**JUSTICE, JUSTICE THOU SHALT PURSUE**

*By Ruth Bader Ginsburg '59LAW, '94HON and Amanda L. Tyler* In the fall of 2019, Justice Ruth Bader Ginsburg took part in a candid public conversation with Amanda L. Tyler — a professor of law at UC Berkeley and former clerk of Ginsburg's — about her time as a student at Columbia Law School, her marriage and family, her work pursuing gender equality, her favorite opinions that she wrote as a Supreme Court justice, and her struggles with cancer. The conversation was so successful that Tyler and Ginsburg decided to collaborate on a book, which includes a transcript of that talk, as well as argument transcripts, interviews, and speeches carefully chosen by Ginsburg to reflect the

legacy she hoped to leave. Ginsburg and Tyler delivered the manuscript for this personal and important collection just three months before the justice's death in September 2020.

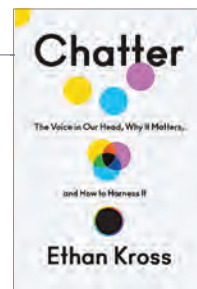
**REGARDLESS OF FRONTIERS**

*Edited by Lee C. Bollinger and Agnès Callamard* How can we fight the global attacks on free expression in today's rapidly changing, Internet-connected world? To answer this pressing question, President Lee C. Bollinger and Agnès Callamard, the director of Columbia's Global Freedom of Expression initiative, bring together nineteen essays from a variety of leading thinkers who confront cross-border challenges to free speech, from the rise of authoritarianism to restrictions across social-media platforms to threats to journalists' sources.



# Finding the Optimist Within

In his new book, *Chatter*, psychologist Ethan Kross '07GSAS suggests strategies to root out the negative self-talk that sinks our moods, tanks our health, and saps our resilience



**Columbia Magazine:** You direct the Emotion and Self-Control Lab at the University of Michigan. Tell us about your work at the lab.

**Ethan Kross:** We study the science of introspection and the ways in which self-control, self-reflection, and self-talk can shape our lives for better or worse. In the most basic sense, introspection simply means actively paying attention to your thoughts and feelings. But the ways in which we use the mind to reflect, remember, interpret, and interrogate certain life events and experiences can be a blessing or a curse.

**CM:** But most of us tend to think of self-reflection as a good thing.

**EK:** It can be. Deliberate self-reflection can help us solve problems, make better decisions, and gain wisdom. But there's a lot of research that shows that when we are under stress, introspection can do more harm than good. Our inner voice can indulge in a lot of judgment. We think about that screwup at work or that fight with a loved one and end up flooded by how bad we feel. Then we think about it again and again. This type of repetitive negative thought, which I call mental chatter, concentrates our attention on our emotional distress and can send us

into a downward spiral. It encourages us to catastrophize the inevitable daily challenges we face, it undermines our confidence, and it's an incredible saboteur. It leads students to perform worse on tests, causes athletes to choke, turns romantic relationships into battlegrounds, and if you don't get it under control can create constant stress and seriously undermine your health.

**CM:** How can you possibly measure the voice in someone's head?

**EK:** My colleagues and I use tools from psychology, medicine, philosophy, biology, and computer science. Technologies such as EEG and fMRI help us measure the brain's response and behavior. We use the experience sampling method, which is a structured way to get people to monitor their thoughts and feelings as they unfold throughout the day. In the lab, we employ think-aloud paradigms, asking people to tell us their thoughts in real time. We analyze journals and increasingly look at what people are writing about on social media.

**CM:** So what are some strategies for controlling that inner voice?

**EK:** Many of the techniques I outline in my book involve stepping back from the echo chamber of your own mind so you can get a more objective perspective. One way to do that is to use distanced self-talk and silently refer to yourself in the third person. For example, I can often snap myself out of chatter by saying "Come on, Ethan." It's also helpful to put myself in the role of a good friend giving advice.

Another way to gain perspective is to visualize moving away from any upsetting scene in your imagination, like a camera zooming out. This technique

will literally widen your focus. You can also do a little time-traveling — think about how you will feel about this problem a month, a year, or even longer from now. Journaling works for some, since it allows people to create a more nuanced narrative about an experience.

You can also calm chatter by inviting a feeling of awe and wonder. Some people feel awe when they stare up at the stars at night or take in a spectacular view. Others might find it in a piece of art or the sight of a sleeping child. Find what instills a sense of awe in you. Feeling awe allows us to transcend our current concerns, giving us the mental space to recharge and reset.

**CM:** One of the most famous experiments in self-control was Walter Mischel's marshmallow test. Wasn't Mischel your adviser at Columbia?

**EK:** Yes, that was one of the reasons I chose to get my PhD at Columbia. He was like royalty in psychology for his studies on delayed gratification and self-control. In the early 1960s he began bringing kids into his lab and presenting them with a choice: they could have one marshmallow immediately, or if they waited a little longer they could have two. Long-term studies showed that the children who exercised self-control and waited for the bigger reward performed better on their SATs as teens and were healthier and more resilient in adulthood. That test laid the foundation for future research, because it encouraged scientists to study the tools people can use to exercise and boost self-control, which of course also encompasses how we can manage our thoughts and feelings. It helped us understand that if we can find a way to manage chatter, we have the potential to improve our lives. — *Sally Lee*

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## BACKSTORY

# Radio Made the Video Stars

How two guys from WKCR launched MTV

From the moment they met at Columbia's radio station, Alan Goodman '74CC and Fred Seibert were, says Goodman, "attached at the hip." WKCR was their workplace, their clubhouse, their study hall, the underground temple where they shared their love for Charles Mingus and Duke Ellington '73HON, for R&B, and for the medium of radio. They hosted shows, organized on-campus jazz concerts, and explored avant-garde music in downtown lofts. When Seibert started his own record label in 1972, putting out jazz albums, he hired Goodman to write the liner notes.

Goodman went on to film school, then joined the advertising department at CBS Records. Seibert, who left Columbia a few credits shy of graduating (his devotion to the station took a toll on his studies, he admits), kept up his label, recording greats like Hank Jones and Cecil Taylor '03HON. But he was losing money, and in 1980 he took a job with Warner-Amex Satellite Entertainment, doing promos for their new cable network, the Movie Channel. Months later, when his boss, Bob Pittman, announced that the company was starting something called the Music Channel, Seibert wanted in. "I said, 'I know more about music than anyone in the building!'" he recalls. Pittman, convinced, expanded Seibert's duties.

Meanwhile, Seibert needed short animated promos for the Movie Channel. Knowing that Goodman had taken — and dropped — an animation class in film school, he hired him as a consultant. Goodman, who had grown tired of his ad job, was thrilled. No sooner had he set up in the corner of Seibert's Midtown office than Pittman came in and told them of a convention the following week at the Hilton. With cable television on the rise, companies would regularly pitch their networks to cable providers, and Pittman wanted a short video to billboard the new music channel, now renamed Music Television or "MTV."

"Fred explained that we needed to show that MTV was 'music on television that works like radio,'" Goodman says. "I got it immediately: rotations of songs in the form of videos."

For the Hilton gig, Goodman suggested they riff on the fact that MTV would be the first TV channel in stereo: they could bounce the announcer's voice between the left and right channels. As the hotel's built-in sound system was inadequate,

they called WKCR alumnus Andy Setos

'71SEAS, chief engineer at Warner-Amex, who rigged up a big-screen projection system and stacks of speakers. The team showed three videos and got a standing ovation. Pittman put Seibert and Goodman, still in their twenties, in charge of creative direction.

"We had a real sense that MTV was *ours*," says Goodman, "and we were going to run it the way we wanted."

With the launch scheduled for August 1, 1981, the duo needed a logo. They enlisted a small design studio in the Village, and after hundreds of sketches and much feuding with the executives — and with time running out — they seized on the last



sketch they saw: a large block-letter M, with "TV" spray-painted on. Marketing asked for corporate colors, but Seibert had another idea: since music was always changing, the colors and patterns of the letters should change too. Why not use *all* the sketches?

MTV also needed ten-second network IDs. Seibert wanted footage from television's greatest moment — the moon landing. He and Goodman secured film and hired animators and composers. The finished product showed a rocket lifting off and Buzz Aldrin standing next to the flag, on which the logo flashed to distorted guitar chords.

On the night of July 31, 1981, the whole team went to a bar in Fort Lee, New Jersey, to watch the launch of MTV, which was not yet available in New York. At a minute past midnight, the rocket went up, the flag was planted, and the future arrived. "It was a shocking moment," Goodman says. "We knew instantly that we had created something for the ages."

In 1983, Seibert and Goodman formed their own company, Fred/Alan. Keeping MTV as a client, they added Nickelodeon (and created Nick at Nite) and launched VH-1 and Comedy Central. Today they run separate ventures — Seibert in production, Goodman in blockchain technology — and remain close friends.

Goodman still remembers that day in August 1970, his first week on campus, when he rang the bell at WKCR, hoping to work at the station. "Fred was the one who opened the door," Goodman says. "He's been opening doors for me ever since."

— Paul Hond



Alan Goodman and Fred Seibert in 1983.



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