

MIT Comparative Media Studies/Writing
Thesis Presentations by the Graduate Program in Science Writing
Class of 2017

Friday, May 19, 2017
MIT Student Center (W20) Room 407

Giorgia Guglielmi

Media of Mass Destruction: How Fake News is Killing Italy's Olive Trees

A nasty bacterium is devastating millions of centuries-old olive trees in Salento, Italy's most southeastern region. But olive groves have to face a more threatening enemy: inaccurate information and fake news. After a vilifying media campaign, an Italian court halted the measures to contain the spread of the disease and accused the scientists who first detected the bacterium as having caused the problem in the first place. If left unchecked, the epidemic may spread to the rest of Italy and eventually to the entire Mediterranean basin, with catastrophic economic consequences.

Kate Telma

Senses Lost: The Impossible Dilemma of Usher Syndrome, and its Possible Solutions

People with Usher Syndrome are born with a moderate hearing loss or deaf, and usually begin losing their vision as teenagers. Increasingly, genetic testing lets people know which of the twelve genes identified is responsible for the loss of their senses. But even pointing to the exact letter in the gene isn't enough to predict how soon someone will lose their sight. Why learn Braille when you may always see well enough to read print? Why learn sign language when you may soon be blind? How does a person make decisions about an inevitable future when their genetic data doesn't yet have answers?

Robin Kazmier

The Parataxonomist Revolution: How Rural Costa Ricans Discovered 10,000 New Species

How do we discover new species? What would it take to find and name them all? In northwestern Costa Rica, a team of rural people called parataxonomists has been inventorying butterfly and moth species for 30 years. Hiring local people, rather than students or academics, as permanent field researchers upset traditional research structures, but has paid off for science and for local communities. But even as the parataxonomy model is praised abroad – and is being adopted in other countries – its future in Costa Rica is tenuous.

Bennett McIntosh

SuperAgers: Do Octogenarians with Exceptional Memory Hold the Key to Healthy Aging?

That older relative who stays preternaturally sharp long into their 80's or 90's may hold within their skull the secret to understanding how we lose, and keep, our memories. There are many different ways of aging successfully, but a growing group of scientists at Northwestern university and elsewhere are zeroing in on why some people keep the recall you'd expect of a middle-ager well into their 9th and 10th decades. The scientists do everything they can to get to know these the owners of these brains – their abilities, their genes, and the stories of their lives – then, when they die, dissect the brains themselves. Will the craniums of these successful "SuperAgers" give science some leverage in the battle against dementia, or even against aging itself?

Raleigh McElvery

Trial and Error: Medical Marijuana, the Absence of Evidence, and the Allure of Anecdote

For the past four years, Christy Shake has given her son marijuana extract six times a day to ease his childhood epilepsy. Hers is a compelling story that highlights the potential benefits of medical cannabis, and in the wake of antiquated and inflexible federal legislation anecdotal reports like Christy's are essentially all we have. More than half the U.S. has voted to legalize marijuana treatment, as thousands contend it's a viable treatment for a growing list of medical conditions. Nevertheless, as more and more patients gain access to cannabis, neither they nor their physicians understand exactly what they're receiving from local dispensaries. Patients, caregivers, scientists, pharmaceutical companies, and dispensary owners are calling for changes to government policies restricting research. It's high time to separate politics from science.

Brandon Levy

The Angelman Approach: Hacking DNA to Treat a Rare Disease

One of every hundred children is born with a disease caused by a single abnormal gene. In the case of Angelman Syndrome, the genetic defect leaves them mentally disabled, largely or completely unable to speak, and prone to seizures and sleep difficulties. Many Angelman researchers are trying to figure out precisely how those symptoms develop, but why study all the individual effects when you could go right to the root of the problem? Recent advances in medicine and technology are increasingly allowing clinicians to treat genetic illnesses by directly manipulating patients' DNA, and a number of scientists are now investigating ways to leverage those discoveries for people with Angelman Syndrome. Their work could lead to the first potent therapies for the disease, and – maybe – even a cure.

Greta Friar

Ghost Forests of the Mid-Atlantic: How Sea-Level Rise is Killing Our Coastlines

Up and down the eastern seaboard of the United States, ocean levels are rising at rates higher than just about anywhere in the world. Coastal forests are dying off as a result—an early warning, if people will pay attention, of the disruptive changes in store for both natural ecosystems and human habitation.

Maria Temming

Melvin Calvin: Nobel-Winning Chemist and SETI Scientist Wannabe

Melvin Calvin spent more than a decade answering one longstanding question in biochemistry: how did plants use carbon dioxide to manufacture carbohydrates in photosynthesis? This research earned Calvin a Nobel Prize—an honor that catapulted him to international fame, secured him spots on presidential advisory committees, and got him plenty of textbook mentions. But even though Calvin's claim to fame was his work on photosynthesis, his longest-running passion project was investigating the origins of life in the universe. Astrobiology efforts peppered his career, from inspecting meteorites and moon rocks to attending the first Search for Extraterrestrial Intelligence (SETI) conference in 1961.

Schedule on Reverse

The public is welcome to attend any or all of the presentations

MIT Comparative Media Studies/Writing
Thesis Presentations by the Graduate Program in Science Writing
Class of 2017

Friday, May 19, 2017
MIT Student Center (W20) Room 407

Welcome, Coffee & Pastries: 9:00 AM

Morning Session: 10:00 AM

Presentations by

Giorgia Guglielmi
Kate Telma
Robin Kazmier
Bennett McIntosh

Lunch Break: 12:00 PM

Afternoon Session: 1:00 PM

Presentations by

Raleigh McElvery
Brandon Levy
Greta Friar
Maria Temming



The public is welcome to attend any or all of the presentations