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## TODAY

WINTER 2018







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Photo by David J. Turner





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## IN PRAISE OF WHITEBOARDS

BY BRIAN ROSENBERG

The spaces we inhabit shape and record the nature of our interactions. Anyone who doubts this should spend some time on the second floor of the DeWitt Wallace Library at Macalester.

This past summer, with the enthusiastic support of the library staff, we transformed the second floor from an expanse of shelves into an open, flexible, and innovative space for the campus community. It now includes the home for our entrepreneurship program; an "idea lab" in which students can create things using tools ranging from a sewing machine to a 3D printer; a state-of-the-art classroom; more room for students and faculty to work with the college archives; and audio-visual technology that will allow students, staff, and

faculty to communicate clearly with people all over the world. It also includes lots of tables and chairs and walls lined with many, many whiteboards.

(An aside, for those inclined to mourn or object to the decline of the book: almost all the volumes on the floor were simply moved to other parts of the building.)

(Second aside: whiteboards are pretty low-tech, but I confess that I prefer the chalky messiness of even lower-tech blackboards. Generally I find that I am in the minority on this question.)

In a sense, the redesign was a behavioral experiment: what would students do when presented with so open and flexible a space? The answer, delivered very quickly, was that they would inhabit it and make it their own. They would use it to work and relax both individually and in groups. And they would show us, through those white-boards, those things about which they



were inclined to think and write.

The four examples presented here were not staged and are utterly representative of what one would find in this space nearly every day. They were captured last semester, but similar images could be captured at this moment.

What they show us, in essence, is the nature of a liberal arts education. They show us students working on—thinking about—subjects ranging from mathematics to religious studies to language to psychology.

I find these scrawls of ink on...well, whatever it is a whiteboard is made of... strangely moving. If some anthropologist from the future were to transport back and stare at these walls, that person would see, in all its breadth and complexity, the mind of Macalester.

Higher education in general and liberal arts education in particular are these days criticized and caricatured in ways that I

find deeply frustrating. Students, we are told, are fragile and disengaged. Faculty are not teachers but indoctrinators. Administrators are thoughtless technocrats. And colleges are not doing the essential work of preparing students to move through the world with purpose and effectiveness. These misperceptions are dangerous in that they lead to public attitudes and public policy that hurt our educational system and, by extension, our civic, economic, and intellectual life.

I offer, in response, whiteboards. This is what our students are thinking and learning, the same kinds of things that smart people have tried to think about and learn more or less forever. This is what our faculty are doing: not indoctrinating, but teaching chemistry and history and linguistics. This is what a liberal arts education provides: important ideas

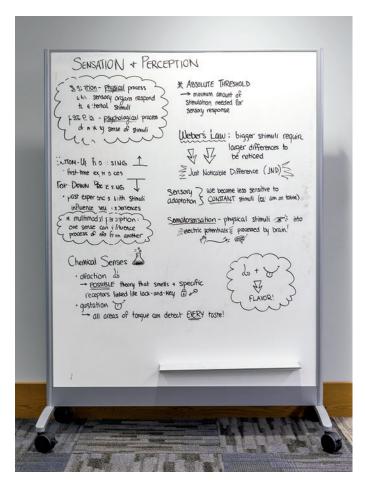
to wrestle with and a community of fellow learners.

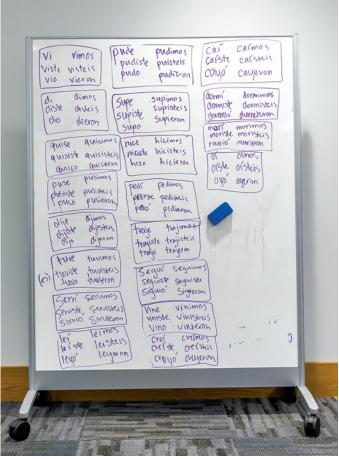
Given the chance to infuse a space with meaning, our students have chosen to make it a space that reveals creativity, collaboration, and an engagement with the liberal arts.

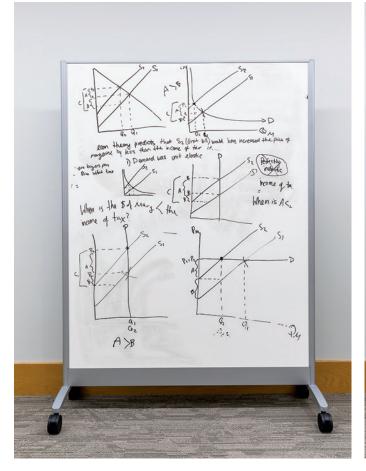
Albert Einstein is reported to have said, "I fear the day that technology will have surpassed human interaction. The world will have created a generation of idiots." Actually there is no record that he said it, though he said stuff sort of like it and if he had said it he would have been right.

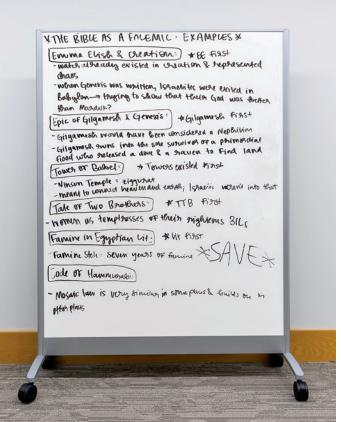
The second floor of the library proves that, at least at Macalester, we have not yet entered a world devoid of human interaction or wholly populated by idiots. Indeed, it's written all over the walls.

Brian Rosenberg is president of Macalester College.











#### Global Math Innovator

When **Cuauhtemoc Cruz Herrera '19** (Guadalajara, Mexico) was 12 years old, a visiting teacher offered him a month of free advanced math classes. Cruz Herrera decided to check it out.

Fast forward 10 years. Now an applied math and economics major, Cruz Herrera created a program to support more students back home. "I founded Integración-Matemática to help future students who want to pursue advanced mathematics avoid the hardships that I faced," says Cruz Herrera. With support from a Macalester Live it Dream it Fund global citizenship grant, he launched the initiative in 2016 as a summer math program for 37 elementary school students in Guadalajara.

Last fall Cruz Herrera was invited to discuss

Integración-Matemática at the Clinton Global Initiative University (CGI U), a prestigious conference that brings together students, university representatives, topic experts, and celebrities to discuss innovative solutions to the world's most pressing challenges.

He has big plans for his program. Other projects in both Mexico and the United States supply free math education, but "the idea of preparing talented students to become the trainers for future generations" sets Integración-Matemática apart, says Cruz Herrera. He expects the 120 students who participated in last summer's program will become teacher assistants this summer. And by 2019, they'll become teachers themselves.

—Alexandra McLaughlin '16

#### Autism Research

When **Tasneem Issa '18** (Spring Lake Park, Minn.) moved to the United States eight years ago, she learned about the high rate of autism spectrum disorder (ASD) in the local Somali community.

In Minneapolis, 1 in 32 Somali children has autism, compared to the national rate of 1 in 68. That sparked Issa's interest in autism research. Last summer, the Mac biology major delved into those issues in a University of Minnesota lab.

A gap between the Somali American and autism research communities has led to a lack of ASD awareness and reduced community input on research questions, says Issa. "As a result, needed services and resources have not been reaching the Somali community," she says. "Recognizing this gap, I wanted to join a lab where research was being conducted in parallel with community advocacy. The blend I found in Dr. Suma Jacob's lab is rare."

As a data science fellow, supported in part by a Macalester grant from the Howard Hughes Medical Institute, Issa contributed to a clinical trial and prepared behavioral eye-tracking data. Particularly interested in the genetic components that contribute to an ASD diagnosis, she shadowed another lab analyzing the role of genetics in ASD cases, and recruited families into a national study investigating that angle.

This spring, in addition to exploring for her biology capstone how oxytocin affects the autonomic nervous system of children with ASD, Issa will continue collaborating with Jacob's team. She'll build on her sum-

mer research for her Community and Global Health concentration senior project, surveying Twin Cities community members to understand their experiences and views on what causes ASD.



#### 



Shout out to my daughter who is cohosting her first radio show on WMCN 91.7 @Macalester College Radio tonight. #TinyDormRoomConcerts

Visit Mac's social media hub at macalester.edu/macsocial to see more posts—and join in by using the #heymac hashtag when you post on Twitter or Instagram.

#### Words of Wisdom

Over 12 hours in October, the Mac community welcomed two prominent speakers to campus for separate lectures: Tim O'Brien, author of *The Things They Carried*, and civil rights activist Angela Davis. O'Brien joined Macalester writer-in-residence Marlon James for a discussion of their writing processes and O'Brien's participation in Ken Burns's recent Vietnam War documentary. (Visit macalester.edu/timobrienatmac for the full con-

versation.) That evening, Davis— whose half century of scholarship and activism has focused on social justice—spoke to another packed Kagin Commons crowd, telling them, "Act always as if it were possible to change the world."





#### THEATER FAREWELL

Two November mainstage productions—Anton Chekhov's *The Cherry Orchard* and the fall dance concert—closed a chapter for Macalester's Theatre and Dance Department. Just a few weeks later, the theater building was demolished to make way for a new theater/dance/classroom building that will be open in time for spring 2019 classes. During construction, performances will take place in both conventional and unconventional spaces on and off campus.











Things are looking brighter than ever at Macalester, in part due to a major energy-saving LED light project. Facilities Services is replacing fluorescent bulbs with LED technology in 4,918 fixtures in Olin-Rice, the Campus Center, and the library.

The expected savings: \$65,551 annually—and Facilities Services expects the project to pay for itself within four years. In ad-

dition, maintenance time and costs are drastically reduced—no lightbulbs to replace—and no more burned-out bulbs are added to the trash stream. In the past three years, Facilities Services projects have reduced campus electrical consumption by more than 1 million kilowatt hours, roughly 8 percent of total use. Electricity represents 32 percent of Macalester's energy consumption, but 60 percent of the cost.

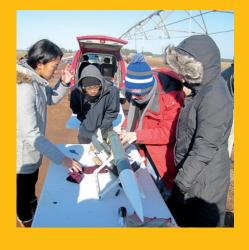
#### **Blast Off**

On a cloudless November day at a field in North Branch, Minn., a group of physics majors launched their high-powered rocket "Quantum Field Theory 1" 2,256 feet into the air, then parachutes lowered it safely to the ground.

Getting to that thrilling moment, though, required a complicated team effort that involved students spending many lunch hours, weekends, and late nights working on the rocket. During the process, they also learned from their errors, which ranged from sanding the fins incorrectly to drilling

slightly too-big holes. Fortunately, both Alyssa Bulatek '20 (Park Ridge, Ill.) and James Cannon '20 (Lisbon, Iowa) had taken a technical theater course, where they had become familiar with tools.

All that work paid off with the successful launch. "It was incredible," says chemistry and physics major Sary Wyne '19 (Yangon, Myanmar). "It was surreal to watch something we had spent so much time and effort building and engineering fly 2,000 feet into the sky. I was overwhelmed—at a loss for words." —Livvie Avrick '19







ATHLETICS

#### TROPHY COLLECTION

Head football coach Tony Jennison celebrates with his team after the Scots beat Hamline last fall to capture the Paint Bucket trophy just one week after earning the Book of Knowledge with a win over Carleton. This marked the first time that Macalester had won both the Paint Bucket and the Book of Knowledge in the same season in 20 years of playing for both trophies.



## STORYTELLER

#### Native American journalist Brian Bull '91 reports on the stories others might miss.

BY JAN SHAW-FLAMM '76 / PHOTO COURTESY OF MARGARET BULL '96

Standing out can cut two ways. Broadcast journalist Brian Bull '91 stands out as the winner of three national Edward R. Murrow awards, the Ohio Associated Press's Best Reporter Award, and dozens of other accolades. His stories have appeared on, among other venues, National Public Radio, American Public Media, and the BBC

But standing out can also be dangerous. When Bull walked along the road as a kid, people driving past in their pickups sometimes threw rocks and bottles at him. Though he lived more than 10 miles from the reservation, Bull stood out as a member of the Nez Perce Indian tribe in northern Idaho. Back then, expectations in school were generally lower for Native American students, regardless of their ability. "The attitude seemed to be, 'Skinny little Native kid, what's he going to be?" says Bull. Racism from classmates manifested as verbal threats, vandalism, and theft.

Frustrated, at 16 he told his father he planned to drop out of school. Fortunately, his father talked him out of it. As a senior, Bull shocked his high school counselors when he was accepted at Macalester, where he majored in psychology. After graduation he worked in the college's Admissions office before launching his journalism career as a freelancer with MPR, then as news director at South Dakota Public Radio.

Bull began by covering Hmong funerals in St. Paul, rituals the Hmong people carried over from their homeland in Laos and Cambodia. Soon he was doing stories on Indian tribal relations and American Indian activism in South Dakota, including profiling the late American Indian Movement cofounder Dennis Banks, as well as covering economic development and agricultural issues.

A warm, friendly quy, Bull combines dedication to accurate, compelling journalism with a highly listenable vocal style. But he knows how hard it can be to provide authentic Native voices for listeners and readers, when that world is so drastically underrepresented in the media. To address that lack, Bull has been active with the Native American Journalists Association for 16 years and has served as president and chair of Vision Maker Media (formerly Native American Public Telecommunications), which supports funding, production, and distribution of programming produced by and for Native American communities.

Bull also has twice served as a visiting faculty member at the

nationally recognized Poynter Institute for Media Studies, and has worked with NPR's Next Generation Radio, a program aimed at diversifying the ranks of journalists by helping students gain the skills and opportunities to report and produce their own stories.

As for Bull's own stories, he has covered thousands, but a few stand out. One is a half-hour documentary, produced for Wisconsin Public Radio, that explored domestic violence in Hmong society: "I connected with a courageous woman who was routinely abused by her husband, and judged and criticized by her clan, before she left to start a new life."

Another is the Working Poor series he did for WCPN in Cleveland, which earned him a second national Murrow Award. "I wanted to give voice to this struggling demographic so listeners could see past the label and understand the circumstances—and aspirations-of those barely scraping by."

After working for public radio stations in Ohio, South Dakota, and Wisconsin, in 2016 Bull joined KLCC, NPR's station in Eugene, Oregon, as a reporter and announcer. He calls Eugene "what Macalester would be if it were made into its own city. It's huge on activism, social justice, and the arts." He was happy to bring his wife, Margaret Bull '96, and their children back to the Pacific Northwest, where they are closer to his family and the Nez Perce tribe.

Last summer, Bull was presented with yet another reporting prize, the 2017 Excellence in Consumer Financial Reporting Award, for his story showcasing the difficulties facing homebuyers in the increasingly expensive Eugene housing market. It was important to show that, even in the midst of a booming real estate market, people are struggling, Bull says.

Macalester prepared him well for working in public radio, says Bull, because the professors encouraged both insightful thinking and analysis, "being a healthy, skeptical inquirer, challenging authority, and questioning everyone's motives.

"It doesn't serve to celebrate free speech when you're only in favor of those views that mirror your own, and it doesn't build bridges to shut down or ignore contrary perspectives," he says. "It's vital to see beyond the rhetoric and appreciate where a person comes from ... even if you may not agree." M

Jan Shaw-Flamm '76 is a staff writer for Macalester Today.

# COMIC With late-night comedy ratings soaring, Ariel Dumas '05 has found the perfect time to succeed in show business. TIIVIIIC

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#### BY LAURA BILLINGS COLEMAN / PHOTOS BY MINDY TUCKER

A Second City improv alum and an Emmy-nominated comedy writer for The Late Show with Stephen Colbert, Ariel Dumas '05 has a flair for crafting zingers from the Zeitgeist. But few writing prompts can get Monday brainstorming off to a better start, she says, than being called out by President Donald Trump in an early morning tweet.



6:00 AM - Oct 7, 2017

"He seems to be less supervised on the weekends, so Mondays are especially crazy because there's just so much to respond to," Dumas says about the nation's top tweeter. Trump's request for "equal time" inspired The Late Show writing team to cast Jon Stewart in a crowd-pleasing cameo appearance that night, trying—unsuccessfully—to provide fair and balanced counterpoints to Colbert's pungent criticism. "I hate it when people say, 'Wow, the jokes must write themselves these days'—because I can tell you no, they really don't," Dumas says. "I'd much rather have a normal president and fewer comedy opportunities than the situation we're in right now. But he has definitely been good for business."

In fact, since Trump took office, The Late Show has risen to the top of the late-night ratings, due in large part to the program's emphatic coverage of our current administration. For Dumas, that means work assignments that can include finding a way to make the GOP tax bill funny, punching up a script on the Alabama senate race, or leaving the studio to cover the liquidation of Gettysburg's presidential wax museum. But no matter how clever the copy, the best laid plans can always be disrupted by late-breaking news.

"One of the clichés of writing is that you have to 'kill your darlings,' but in this environment it's more likely your darlings will be killed for you," she says. "If Trump tweets at 3 p.m., it can destroy everything we did, and we have to start from scratch—which can be super exciting but also so maddening." When a punchline she helped craft does make it to the nightly taping at the Ed Sullivan Theater, says Dumas, "There's no greater feeling than having the audience laugh at the dumb thing you thought of. That's one of the best things comedy can do; the main purpose, really, is to point out truth, and say, 'Hey, is everyone seeing this?'"

THAT COMEDY CAN BE A BALM for bad times is a truth Dumas first discovered at Macalester, having arrived on campus just a week before the 9/11 attacks, an event that added an unexpected urgency to her college experience. "Crying in the arms of people you'd just met three days before led to some really great friendships, and also to the sense that you have to do what you want to do now because anything can happen," says Dumas, who briefly considered studying chemistry before majoring in theater and German studies. Adds Dumas, "I worked so hard during those four years, I don't really remember sleeping."

At graduation, she set her sights on becoming a regional theater actor, but recognized she'd need steadier employment to survive in a field rife with rejection. "I know that college students feel all this pressure to get an amazing first job in your field, or a fellowship in Thailand, or an internship teaching Snapchat to Tibetan elders, but I just want to blow up that whole notion," says Dumas.



"I think the best thing you can do is to get a job that makes the most money with the skills you have at the moment. There's no shame at all in knuckling down and living a really scrappy life so you can put in the work."

As a result, her wide-ranging CV includes stints spent scrubbing MRIs in a brain research lab, doing farm labor on her grandparents' Long Lake, Minn., apple orchard, waitressing, wearing a hard hat on a construction site, working as a University of Minnesota admissions assistant, and serving as the assistant to the CEO of a Chicago-area hospital. This diverse string of day jobs made it possible for her to audition after hours, studying and performing in regional theaters including Minneapolis's Red Eye Collaborative, a Shakespeare repertory company in Cape Cod, and a summer program at Chicago's famed Second City—an experience that inspired her to think more seriously about comedy.

Turned down for admission to an MFA acting program ("twice!"), Dumas took a leap, moving to Chicago to join Second City's conservatory improv program just as the recession became official. She auditioned many more times before finally becoming a contract player for the comedy group. Though she toyed with the idea of writing for TV, "like a lot of people from the Midwest, I honestly thought I wasn't cool enough, and that only kids on the coasts got those opportunities," she remembers. But when a Second City alum circulated a job posting for the staff of Comedy Central's critically acclaimed The Colbert Report, she decided to go for it, writing a sample packet that included an imaginary interview with Chez Panisse chef Alice Waters ("one of my personal heroes") and topical riffs on former L.A. Clippers owner Donald Sterling, then in the headlines for his racist comments about NBA players.

On the strength of that writing sample, Dumas soon found herself on a Skype interview with Colbert himself. ("The whole thing was life-changing," she remembers. "I stress-ate a whole pizza.") Soon after, she got the job, an apartment in Brooklyn, and two cats to keep her company while doing her writing homework every night, tuning in to watch former Fox News personality Bill O'Reilly. "It's not an original idea, but I will say that pets really help with stress," she says.

ALTHOUGH WRITING IN THE VOICE of a bear-phobic blowhard on The Colbert Report was a fun creative challenge, Dumas was thrilled to follow the late-night comedian's move to CBS in 2015, where Colbert has unveiled a stage persona much closer to his real one. "The Stephen I get to see every day is so marvelous, there's no voice I'd rather write for," she says. "And no matter how good the joke is, he finds a way to improve it. It's kind of mind-boggling."

Part of an Emmy-nominated staff of 21 writers, Dumas is one of just three women, a ratio that raises the perennial question: Why are there so few women in comedy? At first Dumas sidesteps the question: "There's a tweet I love from the comedian Aparna Nancherla, where she says being a woman in comedy is 'One percent jokes, and 99 percent answering that question."

But as the talk turns to headlines about Harvey Weinstein, Louis C.K., and the growing discussion about gender and race in politics and pop culture, Dumas grows serious: "Questions about why there are so few women and why is it mostly white people are best put to those making the hiring decisions. But I will say, I almost didn't apply for this job, because I thought I wasn't good enough. It's a real thing that women and people of color experi-

ence, where you think you have to be perfect to throw your hat in the ring, or you worry about failing and ruining it for everyone else," Dumas says. "I want to tell those people, you're already good enough, so keep going until you get hired. This industry desperately needs talented people who can look at everything that's happening right now in the world and say, 'Okay, is there a way we can laugh at this?'"

Laura Billings Coleman is a regular contributor to Macalester Today.

Ariel Dumas on How To Succeed in Show Business

SAY THANK YOU: A true Minnesotan who worries she might have talked too much about herself during an interview, Dumas says the polite thank-you note she wrote after attending a comedy-career panel discussion with executive producer Tom Purcell helped open the door to her current job. "Without an agent, it's really hard to hear about opportunities like this, but because I'd sent that email, I somehow wound up on the right mailing list," she says. "My hot take: always write the thank-you note!"

TEST YOUR MATERIAL: Although Twitter may not be the optimal vehicle for floating major foreign policy shifts, Dumas has found that it's a great place to try out new material. "Writing in 140 characters forces you to write a really tight joke, and it's also a place to put stuff that would never make it on the air," says Dumas. She also recommends reading your writing out loud to patient friends. "You'll know right away if it's funny or not. There's a reason we have so many writers on the show...there's no one way to write a good joke, and we're not all funny all the time."



TAKE ADVANTAGE OF THE TWIN CITIES: With a thriving theater scene, Minneapolis and St. Paul are the ideal setting for starting a performing career, says Dumas. "If you move to L.A. or New York, you'll be competing with real celebrities, but in a great regional theater location like ours you can get some sweet roles."

TRY SOMETHING NEW: "If you're a white male sitting down to write a pilot about two white male roommates—don't!" Dumas says. "Find something more interesting to write about. I think people are hungry for more interesting stories, and from people we haven't heard from before, so find a way to collaborate with someone who's different from you. If you surround yourself with diverse talent, you're going to make better stuff."



### JEOPARDY! SENSATION

BY LIAM MCMAHON '20

Austin Rogers '00 did not enter the Jeopardy! studio expecting to become an overnight sensation—let alone leave Los Angeles with \$411,000 in prize money, the fifth-longest winning streak in the show's history, and interviews booked with Good Morning America and The New York Times. (He also returned to the Jeopardy! stage in November for the Tournament of Champions and finished third, netting an additional \$50,000 in prize money.)

But the Manhattan bartender's propensity to bet big during the Daily Double and incomparable miming during introductions won him fans in the studio audience, the production team, and across the country. Now he's hoping to parlay his 15 minutes of fame into lucrative business opportunities.

According to Rogers, all three competitors know roughly 85 percent of the same material, so it's stage presence and buzzer speed that make contestants stand out. "I've been on stage, I've been under the lights—I viewed that as a distinct advantage over my competitors," says Rogers, a history major who played Ultimate Frisbee and worked nearly full time at Starbucks while a student at Mac. "I've done auctions, I've done stand-up comedy, I host trivia nights at bars. I'm the center of attention at parties. I didn't feel like I was on stage—I felt like I was in my living room, just shouting the answers at the TV." —Excerpted from The Mac Weekly (Oct. 20, 2017)

## Change Agents

This rich range of alumni roles demonstrates why Macalester is a top-ranked school for students who plan to transform the world.

BY MARLA HOLT

Nearly every media outlet is in the college rankings game, handing out superlatives like candy on Halloween. Ubiquitous though they are, these rankings are often important to high school students as they attempt to narrow down a vast list of college choices. Without much trouble, they can easily discover how Macalester ranks with regard to everything from its academics to its food service.

One particularly important ranking from Macalester's perspective is the college's number-two slot on Business Insider's list of the 25 Best Colleges for Students Who Want to Change the World. In giving Mac such a high rating, the magazine said, "Macalester is built upon a commitment to civic leadership and engagement. Students have several opportunities to get involved on campus, primarily in community service, social action and advocacy, and political engagement."

Indeed, Macalester has long been known for helping stu-

dents dig into the world's challenges by testing classroom theories through immersive, experiential learning opportunities. Mac students participate in large numbers in community service and civic leadership, internship, and study away programs. Each year the college offers 60 courses with a community-based learning component in 17 different academic departments.

"We want students to make a positive difference as they work for the common good," says Karin Trail-Johnson, Civic Engagement Center director and Institute for Global Citizenship associate dean. More than 90 percent of Macalester students participate in some sort of civic engagement before they graduate, she says. "We ask them to consider this question: 'What society do you want to live in?'" To do that, says Trail-Johnson, students must have the moral and civic imagination to consider a better world, and then develop the skills they need to help make that change.

"An important part of education is exposing students to the heartbreak of the world, the oppression, the historical faults," she says. "But we do them a disservice if we leave it at that. Our students practice being in the world, learning how to work toward changing imperfect and broken systems and becoming a force for good."

To demonstrate that Mac historically has educated its alumni to be change agents, we have collected here the stories of several inspiring alumni who are acting as forces for good in the world.



#### The Lawyer CAIN OULAHAN '00

Founder, Oulahan Immigration Law, Milwaukee, Wisconsin

One of the hardest jobs Cain Oulahan '00 you can." tackles as an immigration attorney is turning away clients who have run out of options for staying legally in the United States. Saying no to those cases is about not raising false hopes. "It's the fair thing to do," he says.

"Take whatever

tools you have and

use them to make

things better in

whatever way

But Oulahan also shares in the joy of cases that end well for his clients. "It means so much for these families to stay together and to have more opportunities here than in the country they've come from," he says.

Oulahan first discovered the ups and downs of immigration law as a bilingual legal assistant working for a small immigration law firm in Milwaukee. He's fluent in Spanish, a language he studied at Macalester while earning a degree in Latin American studies. His language skills improved during a study abroad program in Nicaragua and while working for a Head Start program in Oakland, Calif., after graduation. "The legal assistant work made an impact on me," he says. "I've always been interested in using language as a way of working with and learning about other cultures." The work was so meaningful, it inspired him to attend law school at Marquette University.

Last May, Oulahan started a solo practice, focusing on deportation defense, naturalization, and other immigration matters. His largest client group is from Mexico, but he serves immigrants from around the world.

"Speaking Spanish continues to be one of my biggest assets in working with clients," Oulahan says. "It makes them more comfortable and gives them confidence in my abilities." Oulahan also is on the board of several immigration law associations, works with the Marquette Volunteer Legal Clinic, and frequently presents on immigration issues at nonprofits, churches, and schools.

#### The Policy Advocate

**SARAH CRAVEN '85** 

Director, United Nations Population Fund (UNFPA), Washington, D.C.

Sarah Craven '85 advocates for women worldwide on issues of reproductive and sexual health. When she sees photographs of healthy babies born to mothers around the world at UNFPA-

supported clinics, some in the midst of war zones or natural disasters, she is reminded that her work matters. "The photos tell the story of the importance of what we do, which is saving women's and children's lives," Craven says.

Craven promotes the UNFPA's mission of universal maternal health to policymakers in Congress and the U.S. State Department. She also works with NGOs, the media, and funding sources to bring attention to reproductive health and rights issues, including providing access to family planning, preventing gender-based violence, and ending female genital mutilation and child marriages. Among these initiatives is UNFPA's goal of achieving zero maternal deaths in childbirth by the year 2030. This goal is one of the U.N.'s 17 Sustainable Development Goals, which cover global issues ranging from poverty to climate change.

"The core of what we do is based in a woman's right to determine if, when, and how many children she wants to have," Craven says. "When women have full access to healthcare, they can complete their education and participate fully in their local and national economies."

Besides advocating for the health and rights of women, UNFPA directs more concrete humanitarian efforts, such as providing sanitary napkins to schoolgirls in developing countries and clean childbirth delivery kits (a sheet of plastic, a razor blade, a piece of string, a bar of soap) to women who lack access to hospitals or other resources for the safe birth of their babies.

"I remain optimistic because I've never seen women's rights discussed in such a personal yet universal way. Women are speaking up and demanding that their dignity and rights are respected."



Even in the face of the Trump administration's decision to eliminate U.S. funding for UNFPA, Craven remains optimistic: "In my 20 years of doing this work, I've never seen women's rights discussed in such a personal yet universal way. Women are speaking up and demanding that their dignity and rights are respected whether they live in Manhattan or Madagascar."

#### The Scholar

#### KARLOS HILL'02

Associate Professor of African and African American Studies, University of Oklahoma

Karlos Hill '02 believes that historical scholarship-taken beyond the academy-can transform communities. As an expert on the black experience of lynching (his book, Beyond the Rope: The Impact of Lynching on Black Culture and Memory, was published in 2016) and America's history of racial violence, Hill is particularly interested in how his work can help communities grapple with the legacy of historical events that happened in their midst. "I want my scholarship to be part of the effort to transform our understanding of and relationship to institutional racism and violence," Hill says. "My goal is to create socially useful knowledge that applies to real-

world problems and issues."

"Changing the world has to be rooted in transforming institutions in relationship to communities that are either marginalized or dispossessed."

Hill serves on the Tulsa Race Riot Centennial Commission (that city's 1921 riot was one of the deadliest in American history), which has been asked to raise awareness and promote racial reconciliation by examining the riot's legacy. He founded the Tulsa Race Riot Summer Institute-to be taught in the Greenwood District, the site of the riot—to provide K-12 teachers with the tools and resources they need to teach about the riot in culturally appropriate and sensitive ways.

> "We're addressing Tulsa's legacy of racial discrimination," says Hill. He's also an historical advisor

to the Tulsa Public Schools' community advisory council, which is considering changing the names of city schools that honor Confederate leaders. In addition, he co-hosts a podcast, Tapestry: Conversations about Race and Culture, which discusses issues surrounding justice, equality, and peace. Hill engag-

es his students in the study of history by illuminating the contemporary

relevance of historical people, events, and processes: "I use my lens as an African-Americanist to promote understanding of complicated histories and the way in which those histories connect to issues today."



#### The Researcher

#### LISA PETERSON'81

Professor, Division of Environmental Health Sciences, University of Minnesota

Program Co-leader, Carcinogenesis and Chemoprevention, Masonic Cancer Center

Lisa Peterson '81 teaches graduate-level courses in toxicology and operates a research lab at the University of Minnesota. With a focus on investigating how environmental chemicals harm people, she's currently working on two projects: the first looking at links between children's exposure to chemicals and their health, and the second exploring the carcinogenic properties of chemicals other than nicotine in tobacco. Her second project is an especially sticky one, given that there are some 7,000 chemicals contained in tobacco smoke, 70 of which have been shown to be carcinogens. "If we propose lowering some of the constituents, such as NNN (a known esophageal carcinogen), but leave other chemical levels high, are we really impacting the carcinogenic risk of tobacco?" Peterson asks.

Although her research is in its beginning stages, Peterson hopes that her lab's findings will someday inform FDA decisions on changing cigarette formulations to reduce harm to smokers. "Obviously, it would be best if no one smoked at all," Peterson says, "but



nal cases for the Lawyers' Committee, both as a staff attorney in Mississippi and later as chief counsel in Cairo, Illinois. In 1968, she won the first jury verdict in Mississippi since Reconstruction for more than \$1 million on behalf of the estate of a black man murdered by the Ku Klux Klan. Mills's book, Lawyer, Activist, Judge: Fighting for Civil and Voting Rights in Mississippi and Illinois (ABA Publishing, 2015), details her civil rights work. Mills has always been a trailblazer. She attended Macales-

That is how Mills ended up trying hundreds of civil and crimi-

ter-graduating in three years-even though her parents thought

girls shouldn't attend college. In 1965, she became the first woman attorney hired at White & Case in New York City. She was a trial lawyer for more than 40 years, appearing in court, at least in the early days of her career, when women were generally not considered fit to do so. As a pioneering civil rights lawyer, she battled the systemic racism that disenfranchised blacks. "I just did what I thought was right and I used the legal system to do it," she says.

"Whatever crosses your path that you can change for the better, you should. And don't just wait for it to cross your path. Keep your eyes open and look for it."

"I'm one of many people working to make the world safer by providing scientific evidence that supports public policy decisions about human health."

people do get addicted, so it's good if we can make the product as safe as possible."

Peterson first discovered her love for scientific research at Macalester. She spent one summer in a University of Minnesota pharmacology lab growing cancer cells and treating them with a chemotherapeutic drug and another at Macalester working on an organic synthesis of a pine beetle pheromone to be used to reduce the bug's destruction of trees.

#### The Judge

**MARTHA MILLS'63** 

Judge, Circuit Court of Cook County, Chicago, Illinois (retired)

When Martha Mills '63 volunteered for the Lawyers' Committee for Civil Rights Under Law in Mississippi in March 1967, she only intended to stay for a month, helping with smaller tasks so staff attorneys would be free to handle major civil rights cases. "I soon realized that they badly needed more good lawyers," Mills says. "The injustices and inequalities were stunning, and I had no desire to live in a country where any group of people was not the equal of any other."





In 1971, Mills moved to Chicago to continue working as a trial attorney and in 1989 became only the second woman from Illinois to be admitted to the American College of Trial Lawyers. She was appointed judge for the Circuit Court of Cook County from 1995-96 and again from 2008-12, when she retired. Mills started a pilot restorative justice program, one of the first such programs in a family law court, and she continues to advocate for its power to resolve conflicts.

Of her years in the South, Mills says: "I was part of an unprecedented and extraordinary effort. [The Civil Rights era] arose out of an urgent need for agreement between our values and our realities."

#### The Microbiologist

#### **GAUTAM DANTAS '00**

Associate Professor of Pathology and Immunology, Molecular Microbiology, and Biomedical Engineering, Washington University, St. Louis

Gautam Dantas '00 oversees a research lab at Washington University that examines how bacteria—both good and bad—work together in communities. His team uses that knowledge to develop living organisms that can improve human health and to find new ways to fight antibiotic-resistant infections. "We study the group of bacteria that live in and on the human body, attempting to un-

"If you live according to the philosophy that people matter, the work you do will flow from that."

derstand how those bacteria interact, how they evolve drug resistance, and how we might genetically modify particular versions of those bacteria to either maintain health or combat disease," Dantas says.

Most of the antibiotics used today to treat infectious disease were discovered between 1940 and 1960, Dantas notes. "We've slowed down in discovering new

antibiotics, but bacteria haven't slowed down in evolving resistance to those antibiotics," Dantas says. His research team is motivated by sobering statistics: between 700,000 and 1 million people die each year from drug-resistant infections. Projected out to 2050, that number could reach as high as 10 million, Dantas says. "That's an incredible human cost and an enormous economic cost with regard to treatment."

His lab has had some recent breakthroughs, including discovering a new treatment for MRSA, a particularly nasty staph infection that can enter the bloodstream and turn deadly. Through an improved understanding of drug resistance, says Dantas, his team came up with a combination of three older drugs that can kill MRSA and prevent it from evolving new resistance. Last year, Dantas cofounded Viosera Therapeutics to bring the triple antibiotic treatment for MRSA quickly to market, as well as to eventually sell other novel microbial products.

#### The Teacher

#### **ELIZA RASHEED '06**

Theater teacher, Linwood Monroe Arts Plus Upper Campus, St. Paul Public Schools Independent theater artist-performer

Eliza Rasheed '06 has always loved theater, but as a multiracial woman, she hasn't always seen herself reflected on stage. "I got into performing to figure out the story I wanted to tell," she says. "I felt there was a need for complex narratives to be told."

At Macalester, Rasheed's mentor and theater professor, Harry Waters Jr., introduced her to wider-ranging voices, including plays by Asian American women. "Reading those monologues made a profound impression on me," she says. "I began to realize that I could be a playwright and use theater as a way to transform communities."

When Rasheed was hired eight years ago at Linwood Monroe—an arts-focused public grade school with a diverse student body—she came with a powerful vision for the school's theater program: To transform it into one culturally relevant for the fourth through eighth graders she teaches in the classroom and directs in the after-school theater program. "I want my students' voices to be validated," Rasheed says, "and for them to use their voices to talk about social issues they care about."

Rasheed's older students write and perform plays about issues such as racism, gun control, global warming, and mental health both at Linwood Monroe and throughout the Twin Cities. Her younger students learn ways to contribute positively to their environments and to effectively interact with all types of people, using theater as the backdrop for these lessons.

"Theater helps us find hope among these big issues," Rasheed says. "It's about creating safe spaces for conversations to happen and for holding multiple truths. I want my students to learn that theater isn't always about seeing eye-to-eye, but about opening themselves up to differing perspectives and new experiences."

Marla Holt is a freelance writer based in Owatonna, Minn.



## MAC SWEET-HEARTS

Six decades' worth of couples share how they fell in love at 1600 Grand—and what they've learned since.

BY REBECCA DEJARLAIS ORTIZ '06



Eric Rodriguez '97 + Kaari Berg Rodriguez '97

#### How did you meet?

**Kaari:** My freshman year I had signed up to volunteer in an adult basic education class in South Minneapolis. I'd heard another student was working there, too, but starting later. My mom didn't think I should travel on my own since it was three buses away, but I went anyway. On the bus ride back, a guy with a hat pulled almost over his eyes was staring at me, making me wonder if I should have followed my mother's advice.

Eric: I still have that hat and use it every winter.

**Kaari:** We both got off at 94 and Snelling, and he followed me. Instead of waiting at the closest bus stop, I walked toward Selby, where there was more light and a bus shelter and, hopefully, other people. The guy followed me into the bus shelter—and then asked shyly, "Is this the bus to Macalester?"

**Eric**: I was lost. I knew if I didn't follow her there was no hope—there were no cell phones back then.

Kaari: After that, we took the bus together each week to volunteer.

We ate dinner at Kagin as soon as it opened, before catching the bus. I thought he was quiet, but I discovered that he was still getting used to the fast pace of English (after just four years in the U.S.) and soon his outgoing nature would shine through.

#### First date?

**Kaari**: After a few months of weekly bus trips, he asked me out, and we went to a movie. By the end of the year, we were dating. We said goodbye for the summer and exchanged a few letters in between summer jobs. When we came back the next fall, I was surprised how happy I was to see him again.

#### Years together?

Last August we celebrated 20 years of marriage.

#### Advice?

Have fun!



#### Rinal Ray '04 + Getiria "Gitch" Onsongo '04

#### How did you meet?

Rinal: In our first year, Julia Podevin '04 and I were heading to a party in a Dupre dorm room. Julia knew the guys next door, Andrew Musoke '04 and Gitch, and wanted to say hello. That's how we met. Then I began seeing Gitch all around campus. We started dating the next fall.

Gitch: I think the party next door was a pretext for visiting us.

#### First date?

**Rinal**: Gitch got an older student to drive us to the Mall of America. He took me to the Napa Valley Grill. It was pretty fancy.

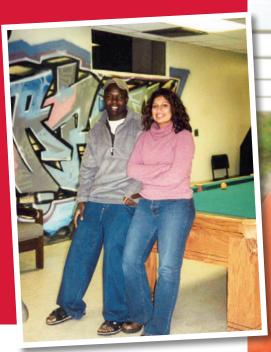
**Gitch**: In my first two years at Macalester, if I ventured off campus, it was to the Mall of America. Back then we didn't have Yelp to research restaurants, so my universe of fancy restaurants consisted of what I saw at the mall. Napa Valley Grill was the fanciest restaurant I knew, so I got the one person I knew who owned a car, **Kajero Ssebbaale '02**, to drive us there.

#### Years together?

Rinal: We dated through most of college. We split up after Mac—we each had some growing up to do. While neither one of us would admit it then, we kept tabs on each other. I joke that Gitch was lucky that he missed my law school years and bar prep. We reconnected at our five-year Reunion (thanks, Sophia Barrett Musoke '04 and Heidi Schmidt '04!). We've known each other for 16 years and have been together for 11.

#### Advice?

It's not all hearts and roses. Love is the hardest thing worth doing. For us, it has meant showing up for each other amidst tragedy, the loss of loved ones, a child born prematurely, and life's regular difficulties. Our relationship is also the best teamwork we've experienced: self-advocacy and self-awareness for the benefit of the whole, strong communication (mostly), celebrating successes, enjoying the quiet moments (especially these days with a toddler), and lots of laughing. And don't try to change the other person.





#### Lew Beccone '68 + Jean Butcher Beccone '68





How did you meet? In a biology lab

#### First date?

A Macalester football game

#### Years together?

We dated for two years at Mac, then married after graduation. We will be married 50 years in September.

#### Advice?

Look carefully for a fun, compatible partner, and make sure you like the person you fall in love with. You want a lover and a friend. It doesn't hurt at all to have a large supply of patience and flexibility—and never, ever lose your sense of humor.



#### Jane Kennedy '74 + Bruce Krawisz '74

#### How did you meet?

**Bruce**: We became lab partners in organic chemistry sophomore year because our last names were adjacent in the alphabet.

**Jane:** As the semester progressed, I remember chemistry professor Emil Slowinski coming into the lab one day and looking at us with that funny grin of his and saying, "What kind of chemistry is going on here?"

#### First date?

**Bruce:** Getting ice cream at Bridgeman's, then south of Macalester on Snelling.

Jane: Neither of us had any money, so we didn't go off campus often. We spent a lot of time studying together. We took several classes together, including a Shakespeare class. Thanks to that great experience, we've traveled every summer to attend Shakespeare performances at the American Players Theater in Spring Green, Wis.

#### Years together?

We were married in the Macalester chapel in 1973—44 years ago—when we were 21. We have been together through medical

school, residencies, fellowships, career practices, and two children—now ages 35 and 32, one of whom is also a Macalester graduate.

#### Advice?

Bruce: Speak truthfully.

**Jane**: Be loyal, help one another, treasure a shared history.





#### Janice Roberg '81 + Mark Witzling '81

#### How did you meet?

On the first day of freshman orientation in 1977 in the upstairs of the Hungry Mind bookstore, where Mac textbooks were sold. We were both looking at the required books to see which classes we might take.

#### First date?

Since we had just arrived at Mac, we were making friends, eating meals together in Kagin, exploring Grand Avenue, and driving around the Twin Cities. We went to movie nights in the large Olin lecture hall. There was also a lot of trekking between Turck and Dayton Halls.

One of our most notable Mac experiences happened off campus. For January interim session our sophomore year, we proposed writing an ethnography on the lives of Caribbean sailors, and the anthropology department approved and sponsored our plan—not bad for two econ majors! We spent two weeks sailing together on a Windjammer in the Bahamas and wrote most of the paper on the flight back.

#### Years together?

We were married by Macalester chaplain Russell Wiggins in the Alumni House in February 1983, so we're celebrating our 35th wedding anniversary in 2018. We have two children, Kelsey and David Witzling '11. We've lived in St. Paul, Boston, Houston, South Bend, and St. Louis, which has been our home since 1995.

#### Advice?

Communicate, share, be respectful, and find fun things to do together.

#### Patrick Malloy '10 + Diego Ruiz '12

#### How did you meet?

In Carnegie, on Diego's first day of class—Patrick was the teaching assistant for Diego's first-year course. After the semester was over, two of our friends (Nelli Thomas '10 and Sam DelSerra '12) played matchmaker.

#### First date?

Coffee at Cahoots on Selby Avenue. Diego will never fully forgive Patrick for failing to tell him he had a conspicuous Turkish coffee mustache.

#### Years together?

Close to nine. We live in San Francisco now and are getting married in April, and we're excited to celebrate with an extremely large Macalester contingent. Sam and Nelli, who played matchmaker, will be our "best women."

#### Advice?

We're grateful to share so much of our lives together (including our Macalester experience), but we've always kept our own friendships and hobbies, too. That's a key part of successfully staying together. M



Mac's annual innovation contest challenges students to devise solutions to real-

world problems.

BY REBECCA DEJARLAIS ORTIZ '06 / PHOTOS BY DAVID J. TURNER

It's 9 p.m. Friday, and John Garner '20 (St. Paul) and five other students are huddled in an Olin-Rice classroom, launching into what's shaping up to be a late night. By morning, they'll have built a solution to a real-world problem—but morning is far away.

With an electro-swing soundtrack in the background, Team Sciuridae's students pitch ideas for weather apps, laundry machines, and volunteer-matching databases. They also discuss their plans for sleep-or, if they hit snags with their eventual prototype, a lack thereof. That's not daunting right now, though. "We've all pulled all-nighters before," Garner says. "We're in college."

This is Macathon, the college's popular overnight innovation and creativity contest that challenges students to put their educations into action and invent an original service or product—in less than 24 hours. The competition is modeled after traditional technology hackathons, but the spirit extends far beyond computer programming. Successful teams need a mix of technical, business, design, communication, and creativity skills.

Like most groups, Garner's team reflects that academic balance, representing statistics, religious studies, neuroscience, and computer science. Even early on, Team Sciuridae is seeing firsthand why event organizers advise against building teams solely with coders. Says Garner, "We're all evaluating these ideas from different perspectives."

Those multifaceted conversations produce solutions that inspire the alumni judges, who return to campus from around the country to mentor students throughout the weekend. "Mac students are not afraid of tackling challenging problems," says venture investor Seth Levine '94, whose conversations with entrepreneur Per von Zelowitz '94 sparked the inaugural Macathon.

The competition has snowballed since then, growing from eight teams in 2013 to more than 100 students on 20 teams this year.

Each year, the ideas these teams manage to produce by Saturday afternoon is impressive. But what does the path look like from start to finish? What roadblocks stall teams; which breakthroughs drive them forward? And when does anyone sleep? To find out, we recently watched Macathon unfold.



## OF MACATHON





**Friday, 7 p.m.** Macathon may be a competition with a \$1,000 top prize, but Mac's entrepreneur-in-residence **Kate Ryan Reiling '00** emphasizes its collaborative focus: "We encourage you to ask for help, from the judges and other teams." Thirteen alumni judges start circulating in Olin-Rice to meet with each team in its designated home base, stopping in the hallways for casual consultations between meetings. They're scheduled to be in the building until 10 p.m., but many are still there after midnight.

**8 p.m.** In the basement, Team Brudajocojula is seated around five laptops and water bottles. A whiteboard is jammed with ideas: climate farming, portable greenhouses, online clothes shopping,

Team Brudajocojula

translating in doctors' offices. Because no advance preparation is allowed, this brainstorming scene is unfolding around the building as teams debate the directions their projects will take.

Two floors up, Team Bigori Beauty Brush has homed in on its plan—and is already on the move. Driven by Bangalore, India, junior **Preeta Raghunathan's** unsuccessful searches for clothing that could securely and discreet-

ly support the insulin pump she carries, the team has decided to design an easily attachable pocket for pumps. So instead of burrowing into their Olin-Rice base for the night, they scramble to get started on a prototype, using the library's Idea Lab sewing machine before the building closes at 10. **Risa Shirai '19** (Tokyo, Japan) takes the lead at the sewing machine, surprising even herself: "Of all the skills I have, this wasn't the one I thought would come in handy for Macathon."

**8:25 p.m.** In room 189, Team Datababes is combatting climate change by designing an app that rewards consumers for making sustainable purchases. They're thinking about how to fund the app, musing whether ad content will generate the necessary revenue. "The judges always ask about investors," one teammate notes.

8:40 p.m. The Hacktivists—Jennifer Arnold '19 (Waukegan, Ill.), Fouad El Hamdouni '19 (Casablanca, Morocco), Min Hee Cho '19 (Vernon Hills, Ill.), and Lilian Vo '18 (Seattle)—are building a subscription box program to reuse toys. For the next few hours, they'll review coding tutorials, build a toy-box prototype, and conduct

market research. Like Team Sciuridae and many others, though, they're first devoting time to another crucial topic: sleep.

The best teams take breaks for rest, Reiling told the students, but what that means varies among—and even within—the groups. Arnold often finds fresh inspiration when she's coding at 1 or 2 a.m. but needs short naps to power through; El Hamdouni warns his teammates that he rarely stays up past midnight. "Even with coffee, the energy is going to wane," he cautions his friends.

9:55 p.m. "I've only had one cup of coffee so far," Livvie Avrick '19 (Wilmette, Ill.) says. Even though semifinals won't be held until 1:15 p.m. on Saturday, Team Datababes is eager to start working on its final presentation. That's a recurring theme around Olin-Rice right now: Everyone wants to start building the pitch—and articulating their solution—before fatigue sets in.

10 p.m. For some teams, the initial momentum is slowing down. The Hacktivists, for instance, have stalled with their secondhand toy subscription concept. "We're feeling pretty stuck," says Vo. "We're still wrapping our head around the big picture—but we're stuck on the details."

Over in room 356, Team Jollof Rice is similarly flummoxed. The students know they want to improve health care quality, but they're wading through wide-ranging conversations about internet access, health insurance, and the cloud. "I don't know if this is a technology problem we need to be solving right now," one teammate says, trying to steer the group back on track.

10:05 p.m. Break, then work: that's the consensus that Brudajocojula reaches after a productive meeting with the judges on their plan to build a national database linking trained translators to hospitals. "We've been narrowing this down since 6 p.m.—that's four hours of throwing out ideas," Joselyn Angeles Figueroa '21 (Winter Haven, Fla.) says. "Now that we have more direction, it's time to take a break and relish that we're going somewhere."

With that, the teammates put on their jackets and go outside, breathing in the cold air, light snow falling around them. "Things are looking up for us," says **David Frye '21** (Federal Way, Wash.).

10:35 p.m. In Team Sciuridae's room, the six students have determined their focus (a volunteer-matching database) and split up into pairs: two are at the whiteboard, outlining how their user interface will function, two are seated at laptops writing the presentation, and two are napping, sprawled across giant beanbags.





11:32 p.m. Fresh off a meeting with judges, the Hacktivists have moved forward—and the mood is noticeably lighter. "We were overanalyzing," Arnold says. "We were building it up in our heads. The judges put a lot of things in perspective. We were able to bounce ideas off them, and it felt collaborative. Our concept is more refined now. At 9, I wanted to nap—now I'm super hyped."

Just before midnight, Jollof Rice reaches its own break-

through. The four students wanted to focus on health-care records systems in low-income countries, but after an hour of talking in circles, they decide to target middle-income regions in developing countries with existing infrastructures. Judges pointed out, though, that this solution wasn't breaking any new ground. "So we went in a new direction: incorporating community health program workers," says Nana Adom Mills-Robertson '18 (Accra, Ghana). "Instead of these workers just collecting data for the census, we want to collaborate with them to create a portable

medical records system on a card. Then, instead of relying on paper records housed at one hospital, patients will have easy access to their complete medical histories, and the doctor doesn't have to start from scratch during a diagnosis.

"This was a goosebumps moment for us. Now we need to figure out what questions we need to solve for the tech product, then we'll work on the coding and presentation. We're starting from

scratch with the coding. It's going to be a long night."

12:05 a.m. After a brief lull, the

murmur around Olin-Rice picks up again: pizza has arrived in Smail Gallery, drawing students out for a break. Nearby, Brudajocojula teammates are talking with three judges about the next steps for their hospital translator database. "What are the next 10 languages you'd add in to maximize coverage?" asks Martha Danly '76. Frye considers her question: "We need to prove that

demand in our presentation."





1:15 a.m. Teams are starting to divvy up the workload to make time for bursts of sleep. In Sciuridae's room, Garner is working on his team's website. Upbeat music-including a karaoke breakprovides a boost.

1:43 a.m. Earlier in the night, the Datababes had planned to crash on Olin-Rice couches, but they've decided to head home instead to get a few hours of quality sleep in their own beds.

7:37 a.m. The Datababes are back to work. "We feel ready

to go!" reports Avrick. "It was really hard to wake up, though."

9:02 a.m. Cardboard scraps and tagboard-toybox prototype remnantsare strewn across the Hacktivists' workspace. Arnold is slouched over a laptop, squeezing in a nap. The other teammates are crowded around three laptops, halfeaten bagels strewn around.

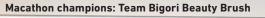
This early-morning

crunch is focused on gearing up for the practice pitch session, a new Macathon component this year. You'd never know these sessions were optional-nearly every team signed up to get crucial input from judges before the afternoon's semi-finals.

9:07 a.m. Team Sciuridae's practice session is done, and they're grappling with new questions raised by the feedback. Two judges stop by to see how things are going. Fritos are spilled across the floor, two students are sleeping on beanbags, and the room is lit by the projector's blue glow.

Elsewhere, Brudajocojula is presenting to Danly, and Angeles Figueroa takes the lead on the pitch for their hospital translator plat-









form. "In health care, any language barrier can be life-threatening," she tells Danly. "We created Flare, a database in which hospitals can see if unmet translation needs can be filled in real time by staff at hospitals around the country. This is a more cost-effective way for hospitals to provide translation services—and make sure patients get the care they need."

Danly helps them refine their presentation, starting with developing a crisp problem statement that clarifies mission, problem, and solution. "Be bold: Come out and say 'We are Flare, and we want to solve this problem," says Danly, a strategy consultant for Bay Area tech startups. "You won't be perfect. You will be nervous. Just accept that."

1:15 p.m. The semi-finals are underway, marking the end of another frantic push to test prototypes, rehearse presentations, and clean up Olin-Rice workspaces. The Datababes finish writing their PowerPoint script just minutes before the semifinals. "We were rushed, but it's exciting to have presented," Avrick says. "Now we're wondering what the next step is."

**4:30 p.m.** All 20 teams gather in the John B. Davis Lecture Hall, while at the podium, Reiling holds a box containing the names of the six finalists. She announces the first team to advance: A Bug's Life, six first-year students who created a gaming app to incentivize young consumers to support independent businesses. The team hurries to the stage, launching into their nine-minute presentation once more. The students field questions from the judges,

FIRST PLACE (\$1,000): Bigori Beauty Brush, for designing an easily attachable pocket to hold insulin pumps securely and discreetly in a wide range of garments

TEAM MEMBERS: Benjamin Sydel '18 (New York), Giang Duong '19 (Hanoi, Vietnam), Risa Shirai '19 (Tokyo, Japan), Nikita Naik Mood '19 (Bangalore, India), Preeta Raghunathan '19 (Bangalore, India), and Malvika Shankar '19 (Bangalore, India)

SECOND PLACE (\$750): My Fantastic Roommates, for creating a platform through which donors support refugees by funding debit cards to make the migration journey safer TEAM MEMBERS: Joseph Trier '18 (Madison, Wis.), Tejas Singh '18 (Kolkata, India), Nathan DaSilva '19 (Portland, Ore.), Timothy Lipman '19 (Chicago), and Daijiro Yokota '20 (Tokyo, Japan)

THIRD PLACE (\$500): Jollof Rice, for building a card-based portable medical records system to improve access to a patient's health history during a diagnosis

TEAM MEMBERS: Ayoub Belemlih '18 (Fes, Morocco), Mack Hartley '18 (Northfield, Minn.), Nana Adom Mills-Robertson '18 (Accra, Ghana), and Thao Hoang '18 (Hanoi, Vietnam)

and then it's on to the remaining finalists, who outline projects focused on college access, diabetes, refugee migration, and the opioid crisis.

Just before 6, the last team called is Jollof Rice, the group whose breakthrough about portable medical records didn't come until midnight. Mills-Robertson and teammate **Ayoub Belemlih '18** (Fes, Morocco) describe their solution. "This will advance the quality of health care back home," Belemlih says. "We want to be the bridge among the providers, community health program workers, and patients."

**7 p.m.** After an hour of deliberation, the judges have decided. Jollof Rice takes third place (\$500), with second place (\$750) going to My Fantastic Roommates.

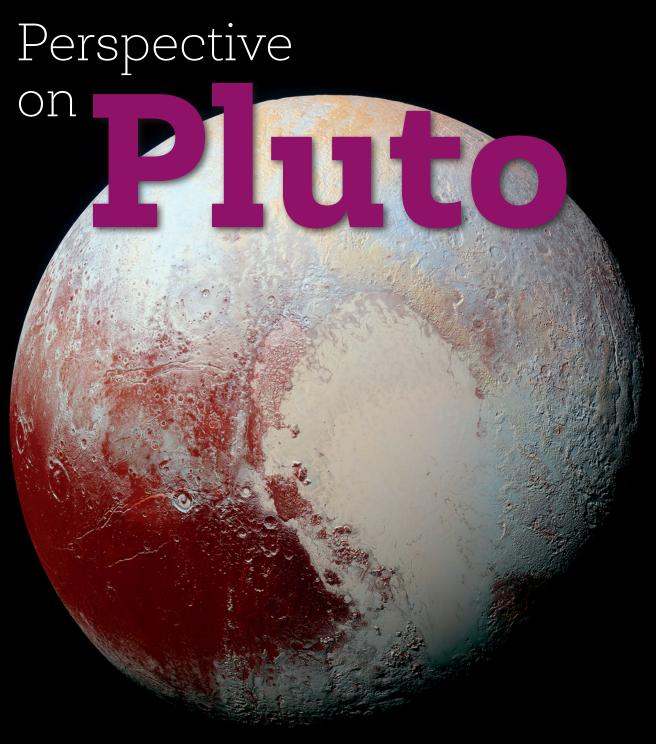
And the winning team? That's Bigori Beauty Brush, the group that scrambled to the library nearly 24 hours ago to use the sewing machine. Early Friday evening, market research confirmed that their idea to design an attachable



pocket for insulin pumps had serious potential. "It was like a light-bulb," **Nikita Naik Mood '19** (Bangalore, India) says. "There was such a gap [in product solutions]. It was astounding."

At Macathon and year-round, Reiling aims to draw out more of these revelations. "We want to equip you to find those moments and figure out what to do next," she told the 20 teams gathered in the lecture hall. "This is about hope, about bending the arc of the future, the framework to build a world you want to live in."

Rebecca DeJarlais Ortiz '06 is the editor of Macalester Today.



Ever since his days as a physics major, Richard Binzel '80 has been captivated by Pluto. Today he's one of the world's leading experts on asteroids and Pluto. Binzel was part of the committee in 2006 that determined whether Pluto should still be considered a planet-though his opinion was in the minority. "I was Pluto's defense attorney," he says. "I didn't win the case, so today we call Pluto a dwarf planet."

In 1989, Binzel was part of a team that began working on sending a spacecraft to Pluto. Finally launched in 2006, the New Horizons mission returned data to Earth more than nine years later. The data revealed discoveries that baffled and amazed Binzel. "Pluto knocked our socks off,"

Last October, Binzel spoke to a Mac audience about how the New Horizons mission changed our understanding of the edges of the solar system. His remarks are excerpted here.

-Rebecca DeJarlais Ortiz '06

At an American Geophysical Union meeting in 1989, I was part of a group of 12 scientists who presented papers on Pluto. Each of us essentially said, "This is what we know, and we've reached the limits of our understanding." At dinner afterward,

the group's ringleader said, "We need a mission to Pluto. Voyager is about to get to Neptune—we can get to the outer solar system. Why not now?" We were basically graduate students-the audacity of youth.

The Pluto mission cost \$850 million—for the average taxpayer, the equivalent of a cup of Starbucks coffee. NASA funded us to bring five concepts forward, and said, "Convince us, and we'll give you the money." Five times, they said, "This is great. But you're canceled."

That changed when we realized that Pluto is part of a new region of the solar system called the Kuiper Belt, an asteroid zone even more populated than the one between Mars and Jupiter. It's full of these icy worlds, frozen time capsules from the beginning of the solar system. This drove home the point that there was a region of the solar system that we did not understand. NASA finally gave its approval, and we were underway with this mission called New Horizons.

Remember your Motorola flip phone? That's when technology developed to fit enough computing and interpretive power into a handheld device. That breakthrough for phones was a breakthrough for our spacecraft, too. It allowed us to build instruments low-power and lightweight enough to fly across the solar system.

> Our Pluto spacecraft was the size of a grand piano. You need a lot of velocity to get to Pluto in a reason-

able amount of time. Your spacecraft doesn't live

forever. Nor do the scientists-and we were selfish. We wanted to still be alive when the spacecraft got there. If that took 100 years, that's no good for us. But by keeping the spacecraft's mass small, we maximized its velocity. We equipped the spacecraft with a complex set of instruments that weighed only about 10 kilograms.

We assembled this spacecraft, and then we tortured it to see if it could survive a violent launch. Nearly 20 years later, we got it off the launch pad. My overwhelming reaction was, "My gosh, it worked!"

Sending a signal to the spacecraft and

getting a response took nine hours to traverse the round-trip distance. We had to get there fast, and we couldn't orbit Pluto because that would have required carrying fuel exceeding the capacity of the largest rocket available. Because this was a fly-by mission, it had to be programmed, rehearsed, and practiced. That's what you do for the 3,463 days it takes to get to Pluto, and then you say "What did we forget?" Any tiny mistake could have jeopardized the whole mission.

For the last million miles, all we could do was wait. And everything worked perfectly—we did it. We could hardly believe how spectacularly our little spacecraft worked. M

#### **NEW HORIZONS DISCOVERIES**

- · Pluto has glaciers flowing on liquid nitrogen: In an ice sheet that's tens of meters thick, the pressure at the bottom increases enough to intersect the liquid phase of nitrogen. That means Pluto
- has glaciers that are floating on layers of liquid nitrogen.

Richard Binzel

- Pluto has a volcano: Pluto has mountains as high as the Rockies, probably made of water-ice because frozen methane or nitrogen don't have enough strength. One looks like a volcano, and we're baffled by that.
- Pluto has tropical regions: Earth tilts about 23 degrees, but Pluto tilts roughly 120 degrees. One pole faces the sun and the other pole has a century-long winter, then it switches. This creates complex seasons. Because its Arctic Circle reaches its mid-latitudes, Pluto has regions that are both tropical
- and arctic. It's a complicated distribution that we're working to decode.
- Pluto has a blue sky: Like Earth, Pluto has nitrogen gas in its atmosphere. On Earth, scattering nitrogen molecules makes the sky blue. That happens on Pluto, too.

#### 1941

Lorraine von Wald Anderson, 98. of Hector, Minn., died Oct. 4. 2017. She was a teacher and a pioneer in educating students with learning disabilities. Mrs. Anderson is survived by four daughters, nine grandchildren, and six great-grandchildren.

#### 1942

Virginia Baker Ridlington, 97, of Aitkin, Minn., died Aug. 6, 2017. She won numerous awards for her artwork and was a founder and first president of Friends of the Arts in Aitkin. Mrs. Ridlington is survived by a son and seven grandchildren.

#### 1949

James P. Anagnost, 93, of Spring Lake Park, Minn., died Nov. 5, 2017. He was a World War II veteran and fought in the Battle of the Bulge. He later trained at the Centers for Disease Control and retired from the State Health Department. Mr. Anagnost is survived by a son, two granddaughters, and a great-grandson.

Ruth Bentz Gunberg, 90, of Champlin, Minn., died Sept. 26, 2017. She was a teacher and counselor in the Edina, Minn., School District and concluded her teaching career in the Anoka-Hennepin School District's teen parent program. Mrs. Gunberg had two daughters, two sons, five grandchildren, and a great-grandchild.

Phyllis Seiler Hix, 89, of Wayne, Neb., died Nov. 6, 2017. She began her career as a music teacher in 1965 and later became a school librarian, retiring in 1993. Mrs. Hix is survived by a daughter, three sons, 10 grandchildren, and 14 greatgrandchildren.

#### 1950

Carolyn "Kitty" Osborn Ingle, 88, of Wheaton, Ill., died Aug. 6, 2017. She is survived by her husband, Jared Durdon, a son, and a granddaughter.

Joan Harrison Knoblauch, 89, of San Pablo, Calif., died Sept. 7, 2017. She taught elementary school for many years. Mrs. Knoblauch is survived by her husband, Richard Knoblauch '56, four daughters, three sons, and 13 grandchildren.

Mary Dirks Miller, 90, died Oct. 8. 2017. She is survived by a daughter, five sons, 17 grandchildren, eight great-grandchildren, and four brothers.

Stanley E. Young, 89, of Fairfax, Va., died Sept. 1, 2017, He served in the U.S. Army during the occupation of Japan and began a 32-year career with the Central Intelligence Agency in 1951. Mr. Young received the Intelligence Medal of Merit and retired in 1983 as chief of the Plans Staff in the CIA's Office of Personnel. He also served as treasurer of Northwest Federal Credit Union for 10 years. Mr. Young had three daughters, a son, two grandchildren, and a sister, Anne Young Libby '58.

Richard W. Lamb. 88. died Oct. 12, 2017, in Seattle. He served as an MP in the U.S. Army during the Korean War. He later worked for Weyerhaeuser as a forester, with the Boy Scouts as an area executive, and for Allied Photocopy, Mr. Lamb is survived by his wife, Lois Bowman Lamb '52, a daughter, a son, two grandchildren, and two brothers.

Lois Rich Oberg, 88, of San Dimas, Calif., died Oct. 5, 2017.

Jean Robson Paisley, 88, died Sept. 19, 2017, in Sioux Falls, S.D. She retired as a kindergarten teacher in 1993. Mrs. Paisley is survived by two daughters, a son, two sisters, 11 grandchildren, and eight great-grandchildren.

Harold B. Gerlich, 91, died Nov. 2, 2017. He served in the U.S. Army and worked for Remington Rand, Midway Mounds Hospital, Thiokol Chemical

Company, and Studebaker Company. He retired in 1988 after 16 years as a tax auditor for the State of Minnesota. Mr. Gerlich is survived by his wife. Clara. two daughters, two sons, 11 grandchildren, 22 great-grandchildren, and one great-greatgrandchild.

Valerie Muir White, 87, of North St. Paul, Minn., died Oct. 29, 2017. She retired as a firstgrade teacher in the St. Paul Public Schools in 1986 and was a Macalester Golden Scot. Mrs. White is survived by daughters Jennifer White Gobel '81 and Carlynn White Trout '82, two sons, and seven grandchildren (including Cora Trout '16 and Jacob Trout '19).

Dennis C. Frederickson, 86, of Windom, Minn., died Nov. 16, 2017. He served in the Minnesota National Guard during the Korean War and worked as an agricultural credit consultant for USAID, a real estate agent with Henry Realty, and an auctioneer. He retired as a manager with SMAC/Ethanol 2000 (POET) in 1996. Over the years, Mr. Fredrickson worked in Uganda, Ethiopia, Egypt, Pakistan, Botswana, and the Dominican Republic. He is survived by three sons, seven grandchildren, five greatgrandchildren, and a sister.

Jo Ann Gergen Graham, 85, of Deephaven, Minn., died Nov. 6, 2017. During her career in special education, Mrs. Graham taught children with dyslexia and instructed other teachers on strategies to help students with the disorder. She is survived by her husband, Roger Graham '54, a daughter, and a son.

Lawrence R. Mitchell, 87, of Chanhassen, Minn., died May 7. 2017.

Barbara Bonn Johnson, 85, died Aug. 30, 2017. She taught kindergarten and English as a second language and worked

with inner-city students in Providence, R.I., for nearly 20 years. Mrs. Johnson also helped found the Rhode Island Association for Children with Learning Disabilities and was active in the League of Women Voters. She is survived by two daughters (including Susan Johnson Israel '83), two sons, and five grandchildren.

#### 1956

Marlene Portinga Fisher, 82, died Sept. 10, 2017. She taught Spanish at Francis Parker School in San Diego for more than 40 years. Mrs. Fisher is survived by her husband, Gerald, a daughter, a son, two grandchildren, four greatgrandchildren, and a sister.

#### 1958

William R. Graham, 84, of Jordan, Minn., died Aug. 16, 2017. He is survived by two daughters, a son, six grandchildren, eight great-grandchildren, a sister, and a brother.

#### 1960

Larry M. Rue, 85, of Inver Grove Heights, Minn., died Sept. 20, 2017. He served in the Korean War and retired after a 33-year career with Ecolab. Mr. Rue is survived by his wife, Mary, two daughters, two sons, nine grandchildren, nine greatgrandchildren, two sisters, and three brothers.

Lowell A. Thornber, 81, of Roseville, Minn., died Sept. 13, 2017. He served in the U.S. Marine Corps in Korea, attaining the rank of sergeant. After retiring from Unisys, Mr. Thornber worked at Byerly's Delicatessen for 15 years. He is survived by two sisters.

#### 1964

David C. Egberg, 74, of Bonita Springs, Fla., died Sept. 28, 2017. He served in the U.S. Air Force, worked for General Mills, and was vice president of research and development at Novartis Medical Nutrition. Mr. Egberg is survived by his wife,

Jacqueline, two daughters, a son, four grandchildren, a sister, and three brothers.

Richard H. Headen, 74, of Wayzata, Minn., died Nov. 6, 2017. After 30 years as a Presbyterian minister in Iowa and Nebraska, Mr. Headen retired as an associate executive presbyter in Minneapolis in 1999. He was active in such social justice issues as international understanding, women's equality, and LGBTQ rights. Mr. Headen is survived by his wife, Evelvn Harm Headen '65. two daughters (including Katherine Headen Waddell '94), and two granddaughters.

#### 1968

William N. McGrath, 68, of Kansas City, Kan., died April 20, 2014. He volunteered with the Peace Corps for three years in Burkina Faso and retired as a certified financial planner. Mr. McGrath is survived by his wife, Patricia, two daughters, two sons, nine grandchildren, and two brothers.

Roberta Hodges Seelhoff, 80, of Minneapolis and Willard, Wis., died July 27, 2017. She was active in movements to promote education reform, equal rights, civil rights, and support for south Minneapolis residents in need. Ms. Seelhoff is survived by four children, 10 grandchildren, 14 great-grandchildren, three great-grandchildren, and a sister.

#### 1969

Jean McAfee Nethercut, 87, of Arden Hills, Minn., died May 22, 2014. She taught first and second grade for 15 years.

Mrs. Nethercut is survived by a daughter, three sons (including Dick Nethercut '76), six granddaughters (including Laura Nethercut Sleck '06 and Hannah Nethercut '13), two great-grandchildren, and a twin sister.

#### 1974

**Brian D. Bangs**, 64, died Jan. 13, 2014, in St. Louis Park,

#### **//** OTHER LOSSES



Mahnaz Kousha, longtime chair of Macalester's sociology department, died recently. She joined the sociology department in 1991, was awarded tenure in 1997, and was promoted to professor in 2004. She published many peerreviewed journal articles, the books Voices from Iran: The Changing Lives of Iranian Women and Tales of Love and Despair: Men in Love in Revolutionary Iran, and a translation of My Bird by Fariba Vafi.

Minn. He was co-founder of Green Mill Restaurants and developed several other restaurants in the Twin Cities area. He also launched Pat Kerns Wine Merchants, which specialized in imports from Italy. Mr. Bangs is survived by his wife, Patricia, three children, five grandchildren, four sisters, and a brother.

Linda M. Firethunder, 64, died Sept. 18, 2017. She taught for many years at schools on her Indian reservation. Ms. Firethunder is survived by a daughter and a grandson.

#### 1976

Carolyn Durham McCurdy, 83, of St. Paul died Oct. 12, 2017. She was a special education teacher in the St. Paul Public Schools and volunteered at the Como Zoo and the Minnesota Zoo. Mrs. McCurdy is survived by her husband, Macalester anthropology professor emeritus David McCurdy, two daughters (including Victoria McCurdy '82),

two sons (including **Alexander McCurdy '87**), and seven grand-children.

#### 1977

Beverly Martin Waynewood, 70, of Woodbury, Minn., died Aug. 20, 2015. She worked for the St. Paul Public Schools as a music educator and administrator for more than 30 years. Mrs. Waynewood is survived by a daughter, a son, three grandchildren, her father, and three sisters.

#### 1978

Carla Brandon-Conway, 61, died June 30, 2017, in San Francisco. She worked as a psychologist and was active in the Jewish community in Fresno, Calif. Mrs. Brandon-Conway is survived by her husband, Charles, a daughter, her mother, and three brothers.

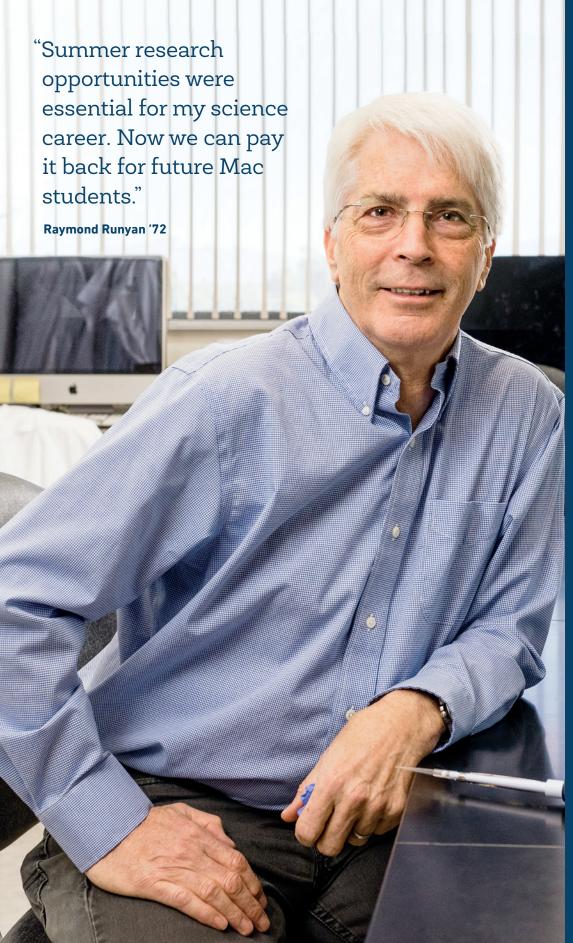
**Craig Rode**, 62, of Woodinville, Wash., died Oct. 13, 2017. During a long and successful

career in information systems and technology, Mr. Rode did CAM line work at SDRC, software engineering at Franklin Covey, product development at Symantec, and manufacturing business strategy consulting with Microsoft. He always challenged himself and colleagues to think beyond the obvious. He also loved music and was an avid motorcyclist. Mr. Rode is survived by his wife, Cathy, a son, and a daughter.

#### 2000

Wendell Pizzaro Patton, 38, of Bakersfield, Calif., died last spring. He was a burn and hand surgeon who practiced at Montefiore Hospital in The Bronx, N.Y., and in Bakersfield and Los Angeles. He also published on plastic surgery for burned hands. Dr. Patton is survived by his mother, seven siblings, and his grandmother.

## LEAVE IT TO MAC



Raymond Runyan '72,
professor of cellular and
molecular medicine at the
University of Arizona Cancer
Center, claims that he "majored
in soccer" at Macalester, but
given his credentials that's
probably not quite accurate.

Ray credits Macalester with providing the study skills, writing skills, and flexible mindset that's been important to his career. Summer research opportunities supported by Macalester in New York and Wales were formative experiences.

Twelve years ago, he opened his own lab to summer interns from Macalester. "Mac students are consistently really good," he said. "You explain something to them once, and they go off without hesitation."

When planning his will, Ray thought of Macalester. "My brother and I both went to Macalester. My wife didn't, but wishes she had," he said. "We discovered that there wasn't enough permanent support for summer research at Mac. In my own career, those experiences have been so useful. Our gift will create an endowed fund to support future generations of Macalester students."

For more information on making a planned gift, contact **Theresa Gienapp** at **651-696-6087** or visit **macalester.edu/leaveittomac**.





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