

# For the *Hill* and Beyond

THE CAMPAIGN FOR ST. OLAF



**A REPORT  
ON THE  
CAMPAIGN  
FOR ST. OLAF**

**WINTER 2018**

 **ST. OLAF COLLEGE**

# THANK YOU!

*For the Hill and Beyond* — our \$200 million comprehensive campaign — is helping students deepen their academic engagement, find additional ways to learn in community, better access and afford an education on the Hill, and daily experience the lasting impact of St. Olaf's mission.

Mentored research — collaborative investigation by faculty and students — is a high-impact academic practice we seek to support and expand through this campaign. Gaining critical experience, Ole researchers go on to secure professional employment, complete competitive graduate programs, and add to the impact Oles are making worldwide.

Such outcomes are why we are making mentored research a common part of a St. Olaf education. To date we have raised \$3.6 million toward our \$18 million goal for this campaign initiative.

We have more to do, yet as Oles in this report share, progress improves when we work together — alumni, families, faculty, staff, and friends have driven us beyond 85 percent of our overall campaign goal.

Thank you for *your* commitment and generous support — *you* are changing lives at St. Olaf College.

## Proof Points

**95%**  
of 2016 graduates who are employed, in graduate school, or engaged in full-time service work

**75%**  
of St. Olaf's competitive applicants (GPA 3.59+) who are accepted to medical school, compared to 47% nationally

**Top 5%**  
St. Olaf's rank among 239 U.S. baccalaureate colleges by the number of graduates who earn doctoral degrees

## ◀ On the Cover

Jason Dickmeyer '19 and Ryan Walsers-Kuntz '18 at work inside Regents Hall (see page 4)

## THE ST. OLAF FUND

## Sustaining Innovation

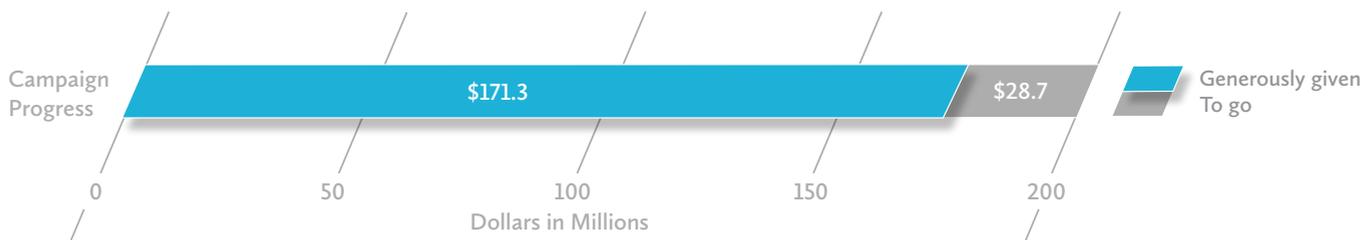
Gifts to the St. Olaf Fund undergird St. Olaf's academic programs. In biology, students and faculty use these gifts to support research, from purchasing poster paper to funding particular projects and conference travel.

Using these funds, Associate Professor of Biology Kevin Crisp and his students created 3-D printed devices to examine how microglial cells in leeches respond to bacterial infection. In doing so they gain insight into how the human central nervous system responds to infection and injury — research especially helpful to find treatments for disorders like Parkinson's.

Crisp's research team built a perfusion chamber allowing toxins to be placed on a single nerve, an implantable nerve stimulator powered by radio waves, and an amplifier to allow computer sound cards to record EMG.

"Students gain unique experience in device design, experimental methodology, and electronics working on this project," says Crisp, who also chairs St. Olaf's Health Professions Committee. His former students are pursuing

# Progress to Date as of December 31, 2017



## RECENT COMMITMENTS AND IMPACT

**Our endowment has reached \$511 million**, growth spurred by more than \$112.6 million in new gifts and commitments to endowed funds. Earnings will fund 15 percent of our operations next year, or \$7.2 million more than in 2011–12, requiring families to support less. Our endowment ranks among the top 23 percent of college and university endowments nationally.

**\$6 million** to date for a new \$8 million campus ice arena — construction will begin this winter and will be completed in spring 2019

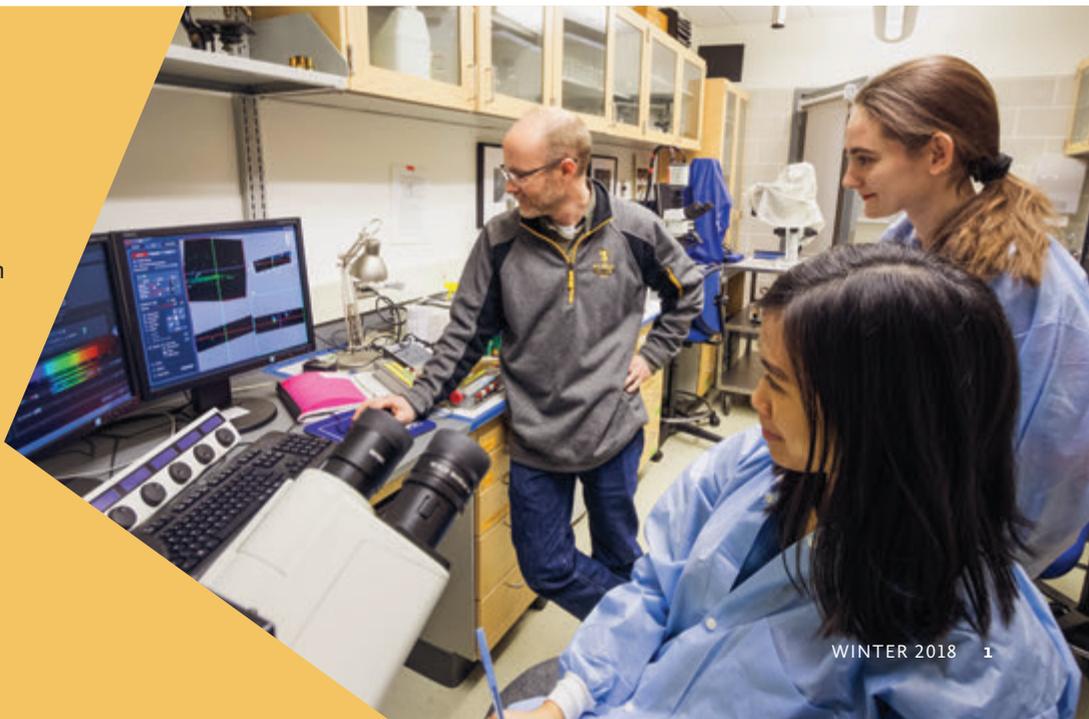
**\$1 million** combined to the Paul '55 and Lois Wold Christenson '55 and Dorothy Austin Sorenson '50 Endowed Scholarship for unrestricted financial aid and the Kael Krister Price Opportunity Fund supporting first-generation and low-to-moderate income students

**\$500,000** from Margaret A. Cargill Philanthropies to support a new state-of-the-art home for St. Olaf's Nursing Program inside Regents Hall

**\$60,000** from the Olseth Family Foundation, its third consecutive grant to help students with high-to-moderate financial need access and afford international study

graduate degrees in medical prosthetics and neuroscience, running small medical device startups, and conducting research at Mayo Clinic. Their outcomes are part of the impact that mentored research makes possible for Oles.

“Ultimately these funds help me train students to be tomorrow’s medical innovators,” says Crisp.



# FACULTY-MENTORED STUDENT RESEARCH: A High-Impact Academic Practice



*Assistant Professor of Music Louis Epstein with Samuel Parker '18, Anna Perkins '18, Siri Lundgren '19, Carolyn Nuelle '18, Eli Baumgartner '18, Emily Hynes '18, and Elizabeth Lacy '19*

**T**he Bibliothèque-Musée de l'Opéra inside the Palais Garnier was the second Parisian library Elizabeth Lacy '19 stepped into last summer. Tracking leads at three more libraries, Lacy poured through sources and transposed nearly 70 letters to help her St. Olaf team learn more about the rise of prolific composer Darius Milhaud and why so few of his works were performed at France's national opera.

Lacy's work was part of Musical Geography, an ongoing project initiated by Assistant Professor of Music Louis Epstein. It maps how aesthetic movements, patronage, and politics influenced Parisian musical Modernism in the 1920s and 1930s. For more than three years Epstein and his students have created over 50 multi-layered digital maps that integrate more than 5,000 images, performances, recordings, and texts, the first of their kind for musicologists.

"In class, print maps weren't proving useful. Making digital maps helps us ask questions and get answers that hadn't been considered before," says Epstein. "It turns out, for example, there's a gaping historiographical lacuna when it comes to documenting musical life among poor and immigrant communities in Paris."

For Lacy, a French and philosophy major who sings in the Chapel Choir, it helped her discern the kind of work she wants to do, whether as a professor or in law.

## HIGH-IMPACT OUTCOMES

Ole researchers:

- Develop analytic, problem solving, and communication skills
- Enter ongoing academic debates as researchers and scholars
- Use advanced digital technologies and lab instrumentation
- Apply coursework to real-world practice, reinforcing their vocational development
- Earn distinction and publication, demonstrating their excellence to top graduate schools and employers

seniors report they complete mentored research during their time on the Hill, compared to 47 percent of our Carnegie class peers. Yet these opportunities are primarily supported by grants (35 percent) and tuition (42 percent); endowed funds and current gifts support only 23 percent.

“This means that as external funding sources ebb and wane, so too does the number of students we can support,” says Marci Sortor, provost and dean of the college. “The potential these opportunities provide to students, though, is exponential.”

“It helped shape the way I think about research as a whole,” says Philip Claussen '16, now a teaching assistant supported by the French Ministry of National Education. “Our understanding of our world and past is fragmentary. Researchers get to piece together what, how, and why things happened.”

“Knowing how to work together while taking initiative is hugely important,” says Sortor. “Research today is about working with teams, coordinating tasks, confirming results with your colleagues, and building consensus. No one is an expert on their own. We make better improvements working together.”

**“No one is an expert on their own. We make better improvements working together.”**

— MARCI SORTOR, *Provost and Dean of St. Olaf College*

“I love the idea of cultivating other minds and mine,” says Lacy. “It’s the investigative leap — it can be extremely rewarding. Pulling things together to make a conclusion, presenting your research to others, and seeing how they react — I love that.”

Faculty-mentored research, like this project, engages more than 200 Oles each year in discovering their potential as researchers, investigators, and scholars. Through *For the Hill and Beyond*, St. Olaf is working to establish a unified program that will coordinate all mentored research. New endowed funds will permanently support more than 110 research opportunities annually.

Since 2011 St. Olaf has increased the opportunities it provides by 75 percent — now 54 percent of graduating

## RECENT PROJECTS

- *Revealing Connections between the Art and Science of Movement.* Measuring the brainwaves of people creating, learning, performing, and teaching dance, Oles are helping enhance educational and creative practices.
- *Photogrammetry at the Jeffers Petroglyphs.* Through Reflectance Transformation Imaging, Oles are producing non-intrusive scans of a half-mile of 7,000 year-old Dakota religious carvings — a site older than Stonehenge — to safely preserve and increase access.
- *Data-Based Mathematical Modeling of Oncolytic Tumor Therapy.* Using mathematical modeling, Oles are predicting outcomes of viral therapy to treat cancer.
- *Voter Turnout in Low-Income Communities.* Analyzing 2016 voting data, Oles are determining how state and county electoral institutions impact voter participation.

# EXPANDING OPPORTUNITIES through Summer Research

St. Olaf's Collaborative Undergraduate Research and Inquiry (CURI) program engages more than 125 Oles each summer who pursue dedicated research and receive stipends, housing, supplies, and conference and travel support.

Associate Professor of Chemistry Dipannita Kalyani has engaged 50 Oles through CURI and other programs in discovering more cost-effective and sustainable catalysts to make molecular architectures used in pharmaceuticals and agrochemicals. These students gain valuable experience with far-ranging impact — half are co-authors on 10 publications; nearly all have presented at national conferences. Many go on to earn post-graduate degrees and competitive employment in chemistry and health.

“Oles are ahead of the curve because of these experiences,” says Kalyani. “Summer gives them the time needed to be thoroughly immersed in research and learn if they truly enjoy being open to risk and discovery.”

Kalyani sections larger projects into smaller ones, enabling Oles to work together while

directing key segments. Experienced students lead and train new researchers, who guide the next. It's a successful approach that earned Kalyani a prestigious National Science Foundation CAREER award — one of the grants she's successively secured for mentored research.

Mckenna Hanson '18 led an investigation of nickel-catalyzed cross-coupling reactions between azoles and aryl nitriles. Her team's findings were published in the American Chemical Society journal *Organic Letters*. Following her work in Kalyani's group she secured a competitive internship with pharmaceutical leader Merck, and will soon hear back from her recent applications to Ph.D. programs in chemistry.

“I have no doubt I got that internship because of my experience,” says Hanson. “As I led the project, I could speak easily about our data,

process, obstacles, and results, compared to undergrads at other schools who typically work under a research assistant.”

“We are given lots of responsibilities,” says Ryan Walser-Kuntz '18. “Professor Kalyani mentors us from step one. We gain confidence as we do more, and by the end, we design and pursue our own experiments.”

“These students are very capable — this is graduate-level work. The challenge truly is having enough positions,” says Kalyani. “We wouldn't be able to do this without our funding partners.”

**“These students are very capable — this is graduate-level work. The challenge truly is having enough positions.”**

— DIPANNITA KALYANI, Associate Professor of Chemistry

Student researchers

Erin Plasek '19,  
Jason Dickmeyer '19,  
Sonam Palmo '19,  
Ryan Walser-  
Kuntz '18, and Mckenna  
Hanson '18, with  
Associate Professor of  
Chemistry Dipannita  
Kalyani in their  
Regents Hall lab



## DONOR PROFILE

### Larry '67 and Pam Satek

LARRY SATEK '67 LOVES DOING RESEARCH. It was a passion he didn't discover until he participated in a St. Olaf summer lab as an undergraduate student.

"Half a dozen of us worked on the sixth floor of Holland Hall. There, Professor of Chemistry Don Tarr was very patient in helping me understand that in research the only right answer is the one that you develop. You figure out the rules that solve the puzzle, which is really exciting."

It's an insight that Satek believes is important to discover early in life and one that is hard to gain in any other way. It's also why he established the John and Molly Grace Hartfield and Anja Satek Memorial Endowment to support summer research experiences for chemistry majors who want to pursue research and/or a teaching career.

"I made up my mind at that time, that if I ever had the opportunity, I wanted to give someone else the same chance," he says.

Following graduation, Larry earned his Ph.D. and then taught, helping students gain the skills needed for research. He then launched a 20-year career as a catalyst chemist in the petrochemical industry, compiling 50 patents and numerous publications. Collaboration was hugely important, from material science through



***"I made up my mind at that time, that if I ever had the opportunity, I wanted to give someone else the same chance."***

— LARRY SATEK '67

 Larry '67 and Pam Satek at their winery

marketing, to make a project work. At one point Satek coordinated 20 to 25 research programs at various universities.

"Whenever faculty heard I was an Ole, they would quickly share that St. Olaf had a strong reputation for preparing students for research."

Now Larry and his family run Satek Winery in Fremont, Indiana, a "retirement" project that produces 20,000 gallons of wine annually. "There is a huge amount of hard science and art involved in winemaking. It was fun to put it together."

## for Oles in Directed Research

During the academic year, directed research courses enable small student groups to collaborate with faculty and earn credit. Many engage with “big data” — massive digital data sets increasingly available for researchers.

“What you can do in research has changed rapidly,” says Chair and Associate Professor of Economics Paul Wojick. Supported by the Frank Gery Endowed Fund, Wojick and his students explored how market liquidity informs the length of recessionary cycles, including the Great Recession.

“Using Federal Reserve data, we found that funds flowed primarily from the stock then bond markets into the treasury market, but almost directly into its short end,” says Wojick. “This began almost six months before the crisis, suggesting that institutional investors sought safety long before it actually hit.”

**“Being able to do anything with data really makes a student stand out as an applicant. It’s becoming ever more important.”**

— PAUL WOJICK, Chair and Associate Professor of Economics

Economics and mathematics major Matthew Damhof ’18 contributed to the team’s statistical data analysis. “I learned how to use data to see concepts that are otherwise difficult to observe. With an entire class focused on one project we get more guidance how to do so.”

Statistics and mathematical science students also engage with big data through St. Olaf’s Center for Interdisciplinary Research. Each cohort collaborates with experts in problem-based investigations and consults the St. Olaf community on statistics-related issues.

“We are exploring how emergency room doctors across Florida influence practice as they change hospitals,” says Assistant Professor of Economics Ashley Hodgson.

“Essentially we are measuring how ideas spread, and how doctors’ behaviors affect both cost and quality of care.”

“I haven’t done a project of this intensity or sophistication, and not with health data,” says researcher Charlotte Roiger ’18. “We do

a lot of theoretical work in class, and applied analysis like this has helped me decide I want to work on clinical trials. I wouldn’t have thought so before.”

“Being able to do anything with data really makes a student stand out as an applicant,” says Wojick. “It’s becoming ever more important.”

◀ Chair and Associate Professor of Economics Paul Wojick with (clockwise) Jorgen Salvesson ’18, Molly Doda ’18, Matthew Damhof ’18, and Sarah Pellicci ’18





## HONORING EXCELLENCE

From left, John Pierson '65, Jeff Laurel '65, Paul Egeland '65, and Bob Barsness '66 in the newly renovated Holland Hall, where the Economics Department is housed. (Not pictured, Mark Olson '65)

### Donor Profile

### Frank Gery Endowed Fund for Economics

IN HONOR OF THEIR 50TH CLASS REUNION, John Pierson '65, Paul Egeland '65, Jeff Laurel '65, Mark Olson '65, and Bob Barsness '66 came together to establish the Frank Gery Endowed Fund for Economics. They have continued building the fund working with fellow Oles and economics majors; its value has now risen to \$1.2 million.

The fund honors the late Professor Emeritus of Economics Frank Gery, who taught at St. Olaf from 1962 to 1997, and whom they credit for strengthening the economics major at the college. Gery is known to have made great strides in enhancing the curriculum with required courses in calculus, economic theory, and statistics. He also added opportunities for economics students to link their academic learning with experiential education through research.

"Being new to the college, Gery did an extraordinary job of making contacts in the business world," says

Pierson. "Our senior year was the first time St. Olaf offered a January Interim. Gery used that Interim to secure positions for us as researchers at various businesses."

Gery helped place Pierson at Northwestern Bank of Northfield, where he researched changes of assets and liabilities to help the bank position itself within area markets.

"I was able to show that work during an interview for the bank's holding company in Minneapolis," says Pierson. "That led to a 35-year career with Norwest Banks." Barsness, Laurel, Egeland, and Olson similarly pursued careers in banking, reinsurance, and data information services.

"Each of us benefitted greatly from our courses and our economics education. Banding together to honor him and help the Economics Department is really something we believe in."

# OPPORTUNITIES NOW, IMPACT FOR LIFE

## St. Olaf McNair Scholars

**T**he TRIO McNair Scholars Program is a graduate school preparatory program funded by the U.S. Department of Education and sponsored by St. Olaf College. The federally mandated goal of McNair is to increase the number of low-income, first-generation, and underrepresented students who participate in undergraduate research, graduate with a B.A., and immediately enter and complete graduate school, obtaining the highest degrees in their fields.

St. Olaf stands out because it is one of just 10 liberal arts colleges among 158 McNair schools nationwide. St. Olaf competes well for funding, driven by the diversity of its students and the opportunities it provides scholars. Yet federal funding hasn't kept pace with demand. At St. Olaf, 30–40 students apply yearly for 10 open positions. Nationally, funding is 13 percent less per scholar than it was 16 years ago, and the number of schools supported has been cut by 25 percent since 2012. Currently federal funds support 63 percent of scholars' summer research stipends at St. Olaf.

By expanding support, St. Olaf can safeguard the impact McNair provides participants across disciplines. Sixty-two percent have enrolled in or completed master's degree

programs and 14 percent are pursuing Ph.D.s, outpacing federal program goals of 40 and 10 percent respectively.

For social work and family studies majors, McNair provides qualitative research and policy experience, mainstays of their field, along with earning master's degrees. As these Oles often go on to serve disadvantaged communities, providing them with the best start now can add to their impact.

"These scholars are very self-motivated — some work three-to-four jobs — and get great research done," says Assistant Professor of Social Work and Family Studies Lisa Moore. "I want these scholars to catch the eye of that principal investigator in graduate school — as research assistants their tuition will be paid and their

networks made tighter with advocates. These opportunities are hard to find without experience."

Tiara Davis '18 wants to help youth access leadership opportunities early in public education, a calling



◀ *Tiara Davis '18 with Assistant Professor of Social Work and Family Studies Lisa Moore*

***“I really believe in this type of learning. Every student should have an opportunity to do it.”***

— LISA MOORE, Assistant Professor of Social Work and Family Studies

strengthened by her practicum as a social work probation officer in Faribault, Minnesota. With Moore, she began shaping a new line of research to investigate how activism impacts leaders and their families across generations — from the Civil Rights Movement to Black Lives Matter. It’s a way to see her vocation through new light.

“Many personal issues teens grapple with arise from social ones like poverty, racism, sexism, and family dynamics,” says Davis. “The youth I work with suffer for a lack of opportunities. Giving them chances to lead early can help.”

At the age of eight, pre-med chemistry major Sonam Palmo '19 and her family left Tibet in search of better schooling in India. Initially living in a refugee camp in Nepal before three years in India, her family moved to the U.S. Now at St. Olaf as a McNair Scholar, she researched with Associate Professor of Chemistry Dipannita Kalyani, and then shadowed providers at a Tibetan hospital in one of the largest Tibetan refugee settlement camps in northern India.

“I know I want to be a doctor because I’m very passionate about medicine and helping other people,” says Palmo. “I wouldn’t be here if I didn’t get help from other



***“I’m very passionate about medicine and helping other people. I wouldn’t be here if I didn’t get help from other people — I want to pass it on.”***

— SONAM PALMO '19

 Sonam Palmo '19

people — I want to pass it on.”

“What I love about undergraduate research is that you give students ideas and direction. But a lot of it is them telling you what they’re discovering, what they’re thinking, and posing questions,” says Moore. “I really believe in this type of learning. Every student should have an opportunity to do it.”

 *Alumna Serina Robinson '15 and Associate Professor of Chemistry Greg Muth testing lipid production in algae for use in biofuels*



Serina Robinson '15 completed several mentored research projects while at St. Olaf. Following her Fulbright Fellowship year, she is now a National Science Foundation Graduate Research Fellow pursuing a Ph.D. in Bioinformatics/Microbial Genomics at the University of Minnesota.

## ADD YOUR IMPACT

Alumni, parents, faculty, staff, and friends are making a tremendous difference at St. Olaf. *For the Hill and Beyond* — St. Olaf's \$200 million comprehensive campaign — is enhancing the affordability and impact of a St. Olaf education. Explore how gifts are helping students now and in decades to come in this report from the Hill. To learn more and make your lasting impact, visit [stolaf.edu/campaign](http://stolaf.edu/campaign).