

Advancing Excellence

Update from the Development & Alumni Office at The University of Texas at Austin's Jackson School of Geosciences - No. 13, Spring 2015



Alumni and Friends of the Jackson School,

Despite the recent chill in the air, things have really been cooking at the Jackson School.

Todd Caldwell at the Bureau of Economic Geology is spearheading a project that is giving Texas water managers vital information for forecasting droughts and dangerous floods. The new Texas Soil Observation Network (TxSON) measures how much water is stored in the soil. Through NASA's new Soil Moisture Active Passive (SMAP) satellite, just launched in January, our network is providing data that NASA will use to globally forecast drought and the potential for floods, wildfires and severe weather days or weeks ahead of time.

Todd's project is a perfect example of science that is having a positive impact on society.

I am convinced that the new agreements recently signed between The University of Texas at Austin and the National Autonomous University of Mexico (UNAM) will do the same. The agreements will enhance collaboration between the Jackson School and its counterparts at UNAM in the fields of energy, environment and sustainability. The partnership comes at a critical time, as Mexico is deregulating its energy industry after decades of state control.

In this issue, you'll learn about how donors are supporting critical initiatives like these. The research presented at our annual student research symposium – one of the most important, and fun, events of the year – would not be possible without funding for things like student scholarships and field experiences. You'll see many examples in these pages of ways that donors are stepping to the plate, from faculty and staff giving to planned gifts and corporate matches.

Thank you again for investing in us. We will continue to work hard to make you proud.

Warmly,

Sharon Mosher, Dean



135 posters were presented at the 4th Annual Jackson School Student Research Symposium. Showcased research encompassed undergraduate, MS, and PhD levels, spanning multiple disciplines and research themes.

Gift Dollars Pay Off at Student Research Symposium

In many ways, donors are the heart of the Jackson School. From student scholarships and field experiences to professorships and sponsored events, friends and alumni have consistently invested in the school's vision of becoming the preeminent geosciences program in the country. Indeed, the Jackson School was first formed thanks to a leading estate gift. Nowhere is the outcome of this investment more evident than at the 4th Annual Student Research Symposium, held on campus Feb. 7.

There are few geoscience programs in the country with the depth and breadth of student research conducted at the Jackson School. The symposium is a chance for all students – from undergraduate through master's and Ph.D. levels – to showcase their work. Annually featuring between 135 and 170 posters, the event was started four years ago with the help of corporate philanthropy.

"We are so grateful to ConocoPhillips for sponsoring this event. We would not be able to do it without their help," says Emily Hernandez Goldstein, Ph.D. student and symposium planning committee chair.

Organized by the Graduate Student Executive Committee (GSEC), the day-long poster competition occurs every spring semester and allows Jackson School students to present their research to a panel of judges composed of faculty, research scientists, alumni and industry representatives. Interested members of the public are also invited to attend.

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By walking the aisles at the symposium, you can see additional ways that donor giving has positively affected life at the Jackson School.

Student Perspective

Stephanie Wafforn's voice was raspy from overuse as she described her research project yet again, as she had countless times this afternoon. But she was cheerful and animated as she explained her findings.

Staying cheerful wasn't hard, she said, because of her passion for the research. In fact, it was the opportunity to work on this particular project that brought Stephanie to study for her Ph.D. at the Jackson School. And with the support of a graduate fellowship, she has the means to fully pursue her studies.

During the symposium, Stephanie discussed conducting zircon uranium-lead and trace element analysis in the Ertsberg-Grasberg Mining District in Papua, Indonesia. The project found that the prolific mining district formed in less than a million years, a remarkably short time given the district's enormous resources.



John Long (MA '78) visits with Cody Colleps (MS student) while serving as a volunteer alumni judge for the research symposium.

"This is one of the world's largest copper mines, and it's in Papua, Indonesia," Wafforn said. "It's just an amazing place to work. I've had a tremendous amount of interest."

An hour or so later, Stephanie would earn first place, and a \$1,000 check, for the symposium's Late-Career Ph.D. Best Poster Award. Her co-advisor, Prof. Danny Stockli, was proud of her accomplishment.

"It is fantastic stuff," Stockli said of the research. "It's certainly been pushing our analytical limits."

Like his advisee, Prof. Stockli is also no stranger to philanthropic investment. During his time at the Jackson School, he has received the Chevron (Gulf) Centennial Endowed Professorship, which has enabled him to pursue additional academic and research interests.

A Global Field

"I'm overwhelmed by the quality of the work and the passion of the students," said Peter Hennings (Ph.D. '91), who manages ConocoPhillips' partnership with the Jackson School. "It's a testament to the transformative role the Jackson School is playing on the global geoscience stage."

Global is right. A quick review of the research presented at the symposium shows work from places like Antarctica, Alaska, Peru, the Alps and many more locations (including Mars). Dean Sharon Mosher said this type of experience is critical to a student's education. It's all part of the Jackson School's continuing journey to be the top geosciences program in the world.

"One thing that makes the Jackson School stand out is how field-intensive we are," Mosher said. "We make sure that our students have the opportunity not just to go out locally, but to go to Chile, go to Montana, go to Wyoming, go to Scotland – and really see geology. And we do that at both the undergraduate and the graduate level. It's a really important part of their education."

This emphasis on field experiences has been supported through the years by numerous donors – individuals, companies, and foundations alike. Thanks to field endowments and annual commitments, the Jackson School can help offset the financial burden that many students face when conducting fieldwork.

Victoria Fortiz understands the impact that field-related donations can have upon a student's learning. Currently in her senior year, Victoria is an alumnus of GeoFORCE, a field-based outreach program that recruits high school students into the geosciences. During the symposium, Victoria showcased research skills that she honed while at sea the previous year during the Marine Geology & Geophysics (MG&G) field course.

"I really want to pursue geological oceanography in the future," said Fortiz. "Without donors investing in programs like GeoFORCE and MG&G, I would never have discovered this career path."

Industry and Alumni Involvement

ConocoPhillips' Juli Hennings has been associated with the symposium from the beginning and judged the undergraduate posters at this year's event. She said the face-to-face communication and exchange of ideas among the students and faculty is tremendously valuable. Including judges who are alumni, professional geoscientists and prospective employers creates an important outlet for the interchange of research concepts, Hennings added.

"This event is completely student developed and managed, and thanks to the organizers' dedication and project management skills, it reflects the high standards and capabilities that the Jackson School is known for," Juli said. "We sponsor this event because we want to energize students' sense of inquiry and draw out the creative. That's what we're looking for – people with a sense of scientific inquiry and the drive to complete a project."

To explore how you can support the research being conducted at the Jackson School, please contact your Development & Alumni team (listed on page 6). To view photos and see the full list of winners from this year's Student Research Symposium, please visit www.jsg.utexas.edu/research_symposium.



Students from best represented research group headed by Dr. Sergey Fomel. From left to right: Yangkang Chen (PhD student), Junzhe Sun (PhD student), Dmitrii Merzlikin (PhD student), and Kelly Regimbal (MS student).

Planned Gift Extends Research Relationship

Alumnus and Jackson School Advisory Council member Ed Duncan (B.S. '79, M.A. '87), along with wife Karen, holds the UT geoscience community near to his heart. This connection has prompted the two to include the Jackson School in their legacy plans.

As part of their estate, Ed and Karen have pledged to establish the Duncan Family Endowment, which will support general charitable purposes at the school. It is the couple's hope that the endowment will enable students to access additional learning and research resources to not only improve their academic experience, but to also benefit society and industry as a whole.

"For us, it's about education and trusting that the money will be used effectively by the Jackson School for general purposes, like student research and the GeoFORCE outreach program. Our estate provides the university with additional ability to actually do work," says Ed.

Ed and Karen were prompted to declare their estate intentions after a recent close collaboration with a group of researchers from the Bureau of Economic Geology (BEG) and the Department of Geological Sciences (DGS). The couple's company, Great Bear Petroleum Operating LLC, sponsored research agreements with the BEG in 2012 and 2014 to deploy light detection and ranging (LiDAR) equipment on the North Slope in Alaska. The company is based in Anchorage.

"This collaboration stemmed from a presentation I gave at the Jackson School Advisory Council meeting in spring 2012. The BEG had just purchased a LiDAR system that was one of the best in the world. Ed was in the meeting and said 'Would you like to try your system in Alaska? We'll pay for it,'" says Michael Young, BEG associate director.

LiDAR uses a laser beam to map surface topography with great precision and to obtain information about the water depths of lakes. Researchers at BEG and DGS are integrating this mapping data with hydrologic and geochemistry field information to present a more coherent picture of the local region.



Ed Duncan (BS '79, MA '87) and wife Karen at Mt. Constitution, Orcas Island, WA. Ed and Karen have pledged to start a new endowment supporting the Jackson School as part of their estate plans.

So far, the LiDAR data have proven valuable toward regional drilling and development planning in Alaska. Great Bear continues to use the data to support its operations on the slope.

"Exploration and development activity in our area requires detailed knowledge of land surface conditions. Mike's presentation fascinated me. It had incredible precision, and the LiDAR delivered tundra lake bathymetry," says Ed.

Not only did this partnership benefit Great Bear's business, but the data is helping the BEG to develop new proposals, train students, and share information with the larger public and scientific community.

"Ed really likes the idea of making science accessible. He sees the public release of data as being vital to the way that his company operates and the way that science should be conducted," says Michael.

"It's kind of Great Bear's mantra - we share science and engineering openly. It's how we approach problem solving," says Ed.

Just as with his estate plans, Ed and Karen believe in providing unrestricted support for basic research. Even if a specific project does not clearly yield immediate benefits, eventually this type of research will influence industry and society as a whole.

"Basic research requires freedom of inquiry, and that is very important to protect. Great things will happen along the way, along the path, when taking on big research themes," says Duncan.

Young, as well as DGS researcher Toti Larson, couldn't stress enough that their work in Alaska would not have been possible if it were not for Ed.

"Ed and Great Bear have invested in us; they have put their faith in us. The fact that Ed and Karen are continuing to personally invest in the Jackson School through their estate is truly humbling. It says a lot about our work and the Jackson School," says Young.

If you would like to explore estate gift options, please contact your Development & Alumni team (listed on page 6).



Jackson School team in the field site south of Deadhorse, Alaska. From left to right: Todd Caldwell (BEG research scientist), Toti Larson (DGS research scientist), Michael Young (BEG associate director) and Chuck Abolt (MS student).



Toti Larson, Todd Caldwell and Chuck Abolt collecting field data in the Arctic tundra near Deadhorse, AK.



Jackson School friends and alumni during Flying Longhorns trip to Scotland with Prof. Ian Dalziel

Jackson School Family on Campus and Around the Globe



The Jackson School celebrates student scholars and the donors who support them at the 2014 Scholars Luncheon. Photo above on left: Walt Boyle (BS '54, MA '55) and wife Vada shown with Maren Mathisen (MS student), recipient of Vada A. and Walter V. Boyle Graduate Fellowship in Petroleum. Photo above on right: John Clinch (BS '81), Erik Hanson and David T. Martineau (MS '97). Photo below on left: David Ledesma (BS student) and father Fabian connect with donor and Advisory Council member Don Sheffield (BS '58). Photo below on right: Undergraduate student scholarship recipients Sara Sepulveda (sophomore), Jackson Phillips (freshman), Oliver Newberry (sophomore), and Phillip Ryan (senior).





(Above) Jackson School alumni and friends connect during fall conference receptions. (Left) Alumnus Ryan Coppersmith (MS '08) reunites with Prof. Mark Cloos during GSA reception in Vancouver. (Right) E. Jay Santillan (PhD '14), Isaac Smith (PhD '13), Holly Crabtree and Aaron Jones (MS '11) at AGU reception in San Francisco.

(Below) The Jackson School family of students, alumni, faculty, research scientists and friends show Longhorn pride at the annual Tailgate Party in the Holland Family Student Center. (Top left) Todd Burack (BS student, second from left) poses with fellow students. (Top right) Nick Pollard (BS '84) and wife Nanci. (Bottom left) The Jackson family. (Bottom right) Nicole Hart (MS student) and Emily Hernandez Goldstein (PhD student).



Giving beyond the classroom

The Jackson School family has a strong tradition of paying it forward to future generations. This tradition is carried on, not only by alumni, but by faculty, researchers and staff.

Throughout the years, those working or teaching at the Jackson School have financially supported its programs and endowments, helping ensure the school's stellar academic standards continue when they have moved on.

These are just a few of the many examples of faculty, researchers and staff giving back to the Jackson School and helping make it a world-class academic and research institution.

Dennis Trombatore, head librarian for the Walter Geology Library, has supported scholarship funds, the Undergraduate Honors Research program, GeoFORCE, and, of course, the library. For him, it's the right choice.

"I believe this school does good work and deserves my support," says Trombatore. "I have to make choices like everyone else, but the Jackson School has been one of my choices for a long time, and I hope to be able to continue that."

Professor and John A. Wilson fellow in vertebrate paleontology Chris Bell has donated to Jackson School efforts for each of the last 12 years. As he stands in front of an undergraduate Introductory Geology class on Life through Time, **Dr. Bell waves his arm toward the students and says, "It's all about them." The students are the reason that he gives to the Jackson School.**

James Austin, senior research scientist and associate director at the Institute for Geophysics, has started an endowment to support the school's rapid response missions. He has also contributed to the Arthur E. Maxwell Graduate Fellowship in Geophysics, which now supports an annual marine geology and geophysics field course. Austin also supports GeoFORCE students and has initiated challenge matches for other efforts.

"Life has been fortunate to me, giving me the option of supporting the field I love. As traditional resources for field-based marine geophysics become more challenged, private donors must step forward to make up the difference. Such private support is a huge part of the ongoing excellence typified by the Jackson School, and I am proud to be a part of that," says Austin.

Professor emeritus Dan Barker started an endowment to ensure that the Jackson School's International Rock Collection will be curated and available for teaching and research for generations.

"Over the years, faculty members such as Bill Muehlberger, Earle McBride, Bob Folk, Leon Long, Steve Clabaugh, Doug Smith, myself and others have contributed specimens. Many are from areas that are no longer accessible, making the specimens irreplaceable. I wanted to be sure they were curated and available for future generations," says Prof. Barker.

Professor emeritus Earle McBride matched Barker's gift to help ensure the collection benefits students and researchers long after everyone currently at the Jackson School is gone.

"This collection represents more than 200 man-years of acquisitions and is the only one like it in the world. I want to ensure that, like any library or archive, these samples can be accessed for research and teaching for the next 200-plus years," says Prof. McBride.



Earle McBride, professor emeritus, and Dennis Trombatore, head librarian for the Walter Geology Library, support the Jackson School through personal philanthropy.

"If you work for an organization, you should help support it in its fundraising efforts, to the extent you are able. In the end, it is not about the dollar amount – it is a signal to others that you believe in its mission and goals. I will never have my name on a wall, but I have the pride of knowing I am a contributing part of this community"

— Dennis Trombatore, head librarian, Walter Geology Library.

If you are interested in contributing to an initiative supported by one of your faculty, researcher or staff mentors, please contact the Development & Alumni Office (listed to the right).

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Gerson Garcia Memorial Scholarship

A special memorial fund has been established to honor a GeoFORCE student taken before his time. Gerson Garcia faced numerous hurdles in his lifetime. His mother had passed away, and he was being raised by an older brother. Despite these challenges, Gerson was determined to become a geoscientist, a goal that he discovered through participating in the GeoFORCE program. So when Gerson was involved in a fatal car accident, a group of donors decided to honor his memory by establishing the Gerson Garcia Endowed GeoFORCE Scholarship Fund. This endowment will continue Gerson's legacy by enabling other under-served students to take part in his dream. To contribute to this initiative, please visit www.jsg.utexas.edu or contact your Development & Alumni team (listed above).

Young Alumni Multiply their Gift with Corporate Matching Funds

Recent alumni Tim Shin (B.S. '11, M.S. '14) and Stephanie Moore (Ph.D. '14) credit Professor Bill Carlson with much of their success – on a professional as well as personal level. This connection led the couple to recently make a significant donation to the William D. Carlson Undergraduate Research Program Fund by taking advantage of corporate matching gift programs.

Tim and Stephanie first met at one of the many informal gatherings that Prof. Carlson offered for students in his research group. Stephanie was in the second year of her Ph.D. studies and was connected to Tim through an undergraduate student that she mentored at the time. Flash forward six years – Stephanie and Tim are now happily married and working as oil and gas professionals in the Houston area.

“Bill always went out of his way to create opportunities for people to get to know each other in a relaxed, informal setting. He knew that these events were important for students, but I’m not sure any of us realized it would result in marriage for Tim and me!” explains Stephanie.

Tim went on to participate in the Undergraduate Honors Research Program. Co-founded by Dr. Carlson, this program enables undergraduate students to carry out individual research projects under the tutelage of leading faculty members and research scientists. Tim attributes much of his ensuing success to that formative experience.

“Even though my grades at the time weren’t the best, Bill and [co-director] Chris Bell took a chance on me by letting me take part in the honors research program. They challenged me to graduate with honors by making all A’s during the rest of my undergraduate studies. They motivated me to do my best. I eventually met their goal and went on to graduate school, and now an industry career,” says Tim.

When Tim and Stephanie learned that Prof. Carlson was retiring, they asked themselves how they could honor his achievements while also giving back to the Jackson School. Then they learned that a fellow alumnus, Carlotta Chernoff (B.S. '92, M.A. '95), had seeded an endowment in Dr. Carlson’s honor to support undergraduate research.

“Tim and I both knew Carlotta through Bill, and we were sure that any initiative she started would be worth supporting,” says Stephanie.

“I wouldn’t be where I am today without Bill and the honors research program. Stephanie and I want to do our part to make sure that this program continues for future generations of students”

— Tim Shin (B.S. '11, M.S. '14)



Stephanie Moore and Tim Shin at Spring 2014 Commencement. The couple used corporate matching funds to quadruple their gift to an endowment in honor of Prof. Bill Carlson.

As early career professionals, Tim and Stephanie looked into options for making their gift count. They soon realized that they could combine their contribution with ExxonMobil’s 3:1 employee matching gift program to quadruple their impact.

“I have always intended to donate to the Jackson School once I graduated, but I never would have thought that we could impact as much as we did right out of grad school,” says Tim.

Thanks to their generous gift, Tim and Stephanie will now be the youngest members ever inducted into the Jackson School’s Hill Society, a premiere donor recognition club.

“We are delighted that Tim and Stephanie have made this tremendous contribution. It shows that they believe in the value of the work we do at the Jackson School. I feel honored and couldn’t be happier to welcome them into our Hill Society,” says Sharon Mosher, dean.

To learn more about the William D. Carlson Undergraduate Research Program Fund or other ways to take advantage of corporate matching gift programs, please contact your Development & Alumni team (listed on page 6).



An endowment in honor of founding director **Doug Ratcliff** was kick-started by a **\$500,000** matching grant from an anonymous donor. **ConocoPhillips** has contributed **\$50,000** toward this effort.

Help Us Collect **\$500,000** in Matching Grants!

We need to raise dollar-for-dollar matching funds by August 31, 2015.

Show your support today! Click “Make a Gift” at www.jsg.utexas.edu or contact the Jackson School Development Office at (512) 471-6048.

Upcoming Alumni Events

Latin America Forum on Energy and the Environment

April 15-16
<https://www.jsg.utexas.edu/laforum>
Mexico City, Mexico

R/V Scott Petty Boat Christening Celebration

Wednesday, April 22, 5-7 pm
Abel's on the Lake
Austin, TX

Spring MS Thesis Day sponsored by BHP Billiton

Saturday, April 25
Jackson Geological Sciences Building
23rd and San Jacinto
Austin, TX

BEG Industry Day 2015

Tuesday, April 28
Houston Research Center
Houston, TX

Eagle Ford Revisited - Field Trip

Wednesday, May 6 at 4 pm
Dinner to follow
San Antonio, TX

GLOW (Geosciences Leadership Organization for Women) Evening of Science & Leadership

Thursday, May 7
Texas Union Santa Rita Suite
Austin, TX

AAPG Alumni Reception

Monday, June 1, 6-8 pm
Pizza Republica
Denver, CO

Friends and Alumni (FANs) Networking Social

Thursday, June 18, 6-8 pm
Tango Malbec
Houston, TX

GeoFORCE 10 Year Anniversary Celebration

Friday, August 14
Austin, TX

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