SUPPORTING
WASHINGTON
Campaign for WSU Wrap Up
In Washington State University’s 125th Year, we celebrate the success of the $1 billion Campaign for Washington State University: Because the World Needs Big Ideas.

On July 1, 2006, WSU joined an elite few in the country to embark on raising $1 billion for a public institution. CAHNRS was tasked with raising $236.5 million of the ambitious goal. Our then-Dean, Dr. Dan Bernardo, and our CAHNRS Campaign Council thought we could do more and should aim higher, so together we raised the stakes to an exceptional $250 million, one quarter of the total campaign.

You rallied to the challenge and together we raised $251.6 million. As the CAHNRS Campaign Council Chair, firsthand I saw the landscape of CAHNRS evolve to meet the needs of Washington State and beyond, as a result of this campaign.

This issue of ReConnect is dedicated to highlighting how every dollar represents a donor with a desire to improve WSU and our state. Our stakeholders’ impact is evident across our college in the people, places, and partnerships that fulfill our land-grant purpose.

The stories you will find here represent a mere fraction of the advancements you have helped drive to benefit the college. Every department, every Extension office, research center, and student has benefited from your steadfast generosity.

You should take great pride in being an integral part of the success and achievement in CAHNRS—we could not have done it without you. This is a great day for the CAHNRS Coug community, and, as we look to tomorrow, you have ensured an incredibly bright future.

Thank you Cougs
LAND-GRANT LOYAL:
People helping people, across our state

BY KIM KIDWELL, ACTING DEAN

IT IS A TREMENDOUS HONOR for me as acting dean to have the opportunity to thank our amazing CAHNRS alumni for their valuable contributions to WSU and to this college. Your unwavering loyalty and dedication supports us as we continue to expand our legacy of creating excellence that improves the quality of life for citizens around the globe. It also has helped us navigate our way through a very challenging time.

Although we lost our iconic leader, please know that many of the individuals who believed in Dr. Floyd’s vision are working to implement his initiatives and sustain his legacy at WSU. CAHNRS Cougs remain fully engaged in, and dedicated to, fulfilling the mission of our land-grant university.

CAHNRS is land-grant loyal: Loyal to our students who will be the next generation of change agents in their fields. Loyal to our Extension people and programs, located in each of Washington’s 39 counties. Loyal to our researchers and their diverse contributions that range from increasing crop yields, to developing biofuels, to strengthening families, to producing affordable clothing for people around the world.

That loyalty is reflected by the 9,732 CAHNRS donors who contributed to CAHNRS initiatives during the Campaign. Thank you to each and every one of you. Your contributions matter and we will use them wisely.

In the following pages, you will read about some of our donors who stepped up to the campaign’s challenge, and about some of our faculty and researchers who are implementing those gifts in the classroom, in the laboratory and in the field. You will meet some of our students whose lives are being positively impacted by this generosity and loyalty.

From support for quinoa research in partnership with Lundberg Family Farms, to the opening of the new Washington Grains Plant Growth Facility, this magazine showcases some of the major campaign accomplishments that will help support our college and university as we work toward the goals of feeding the world, powering the planet, enriching the environment, and improving the quality of life for people around the globe.

With gratitude for all that our students, staff, faculty, alumni, and friends do to make CAHNRS great.
Dam Peterson is up early on a warm, late summer day. He’s checking crop trials at four Olympic Peninsula organic farm sites. Adam is getting ready for a large group from Lundberg Family Farms, a California-based organic rice operation, to visit and learn from these trials. As one of Lundberg Family Farms’ newest employees, Adam is involved with a crop that’s making quite a stir.

Soon a dozen people arrive at Nash’s Organic Produce farm in Sequim—farmers, scientists, students, and entrepreneurs have gathered to look closely at the tall red-, yellow-, and purple-seeded plants: quinoa. The rainbow of colors is stunning against the bright blue Washington sky. The new promise of this ancient crop is almost palpable.

Cultivated in South America for thousands of years, quinoa has recently gained popularity in North America as a highly nutritious, gluten-free food. And thanks to an incredible partnership between WSU and Lundberg Family Farms, there is great promise for domestic supply chain to grow and process quinoa right here in the U.S.

Answering new questions

One hundred years ago, the Lundberg family began growing rice in California. Today, their company is a leading producer of domestically grown organic rice. Third-generation farmer and landowner Bryce Lundberg explained that the operation currently works with 50 growers who supply 18 different varieties of rice. Now they are expanding to include organic quinoa production, processing, and distribution.

Tim Shultz, vice president of research and development for Lundberg Family Farms, said, “I think we’re in the same place now with quinoa that we were 100 years ago—when the first research
station for rice was founded,” he said. “We have more questions than answers to really practical problems.”

Those questions brought Lundberg and Schultz to WSU and the work of Kevin Murphy (Ph.D. ’07). After meeting Murphy and his graduate students, Tim and his Lundberg team found what they were looking for in a partnership.

Lundberg said, “Washington State University has the most developed, active, and engaging quinoa program in the country. We were looking to find a program that can engage us—and that was WSU.”

Sustaining the future

Adam Peterson (MS ’13) has been working for Lundberg Family Farms to develop a U.S. quinoa supply chain to meet the demand that far outpaces domestic supply.

One of the biggest challenges is finding the right place to grow quinoa. That’s why the company hired Peterson as their grower services manager for quinoa. Peterson uses climate maps to identify suitable areas, then encourages growers to try it, providing support with his extensive knowledge. His relationship-building approach fit Lundberg Family Farms’ own.

Hiring a CAHNRS graduate isn’t the only commitment Lundberg Family Farms has made to the WSU quinoa project and Kevin Murphy’s work. In March of 2015, the Lundberg Family contributed funding for two graduate students, to expand the research.

Julianne Kellogg and Kristofor Ludvigson joined the quinoa project in July 2015 as a direct result of the investment of the Lundberg Family Farms, creating a sustainable platform for innovation.

Kellogg and Ludvigson’s research is the focus of today’s tour with Lundberg Farms. The group arrives at Finnriver Farm in Chimacum to learn about Kellogg’s quinoa research working with •

LUNDBERG FAMILY FARMS
SCHOLARSHIP RECIPIENTS

Julianne Kellogg
Master’s student in crop sciences
Major advisor: Kevin Murphy
“I thought of breeding as beyond my scope. But when I learned about Kevin Murphy’s work and participatory breeding, I wanted to do this research myself. This project has opened my eyes to how accessible breeding can be.”
Favorite quinoa recipe?
Tabouleh salad—heavy with parsley and mint, with quinoa instead of bulgur wheat.

Kristofor Ludvigson
Master’s student in crop sciences
Major advisor: Kevin Murphy
“I wouldn’t be in grad school right now if it weren’t for Lundberg Family Farms funding. I hope to do extension work in the future, and keep working in quinoa. It’s pretty cool to figure out how to make it work in western Washington.”
Favorite quinoa recipe?
Quinoa chili—I use lots of veggies, quinoa, lentils, tomatoes, peppers, and onions.
organic farmers in Washington, Oregon, and Idaho. She is developing varieties that are resistant to downy mildew and pre-harvest sprouting—problems that affect quinoa worldwide.

Next stop is WSU’s Twin Vista Ranch on Marrowstone Island, where Kristofof Ludvigson is examining whether geese can effectively control weeds in quinoa. In another trial, he compares transplanted quinoa starts with direct seeding.

“Both trials have pretty interesting results so far,” Ludvigson said. “The transplants have enormous seed heads and it looks like the geese did a great job.”

A vision takes root

To continue building the domestic quinoa supply chain, there are a number of pressing questions that still need to be answered. This is where Lundberg Farms stepped in, to ensure continued focused—and expanded—research activities at WSU in all aspects of quinoa.

Murphy established the WSU quinoa research program only a few short years ago, in 2010.

“We’re getting to the point where quinoa can be grown successfully on a larger scale,” he said. “Farmers won’t have to fail because we’ve done a lot of the testing already.”

The vision of a viable North American quinoa industry is taking root, thanks to WSU’s partners like Lundberg Family Farms.

Murphy’s quinoa research is also supported by funding from the USDA Organic Research and Extension Initiative, Organic Farming Research Foundation, Seed Matters/Clif Bar Family Foundation, Western Sustainable Agriculture Research and Education, and the WSU BIOAg program.

Even if they don’t go on to research careers, undergrads benefit by traveling and networking, Fries said. And if they do catch the research bug, and go on to graduate school and further exploration?

“That’s a real plus,” Fries said.

Jennifer Callanan

UNDERGRAD RESEARCH AWARD RECIPIENT

Dairy science undergraduate Jennifer Callanan’s work with videos and cattle stalls is paying off.

Earning the Excellence in Undergraduate Research Award, she competed in an American Dairy Science Association poster competition in Orlando, Fla., showing original research on how cattle use stalls. Her work could help dairy producers better utilize their space.

“Research challenges you to take knowledge from class and apply it,” Callanan said. “It opened my eyes to all the fields I could explore.”

Murphy’s quinoa research is also supported by funding from the USDA Organic Research and Extension Initiative, Organic Farming Research Foundation, Seed Matters/Clif Bar Family Foundation, Western Sustainable Agriculture Research and Education, and the WSU BIOAg program.
Ian-Huei Yau

“The Saffell Fellowship helped open my mind and perspectives during my graduate school experience, refresh my enthusiasm for my study and nourish my personal relationships,” said Ian-Huei Yau, a WSU alumnus and past scholarship recipient.

Yau earned a master’s degree in soil science in 2011. As a grad student, he explored ways to use technology to select grape sites. Today, he’s a Peace Corps volunteer in Senegal.

Sandy Saffell

CULTIVATING THE SUCCESS OF VITICULTURE STUDENTS

Sandy Saffell has embraced a lot of passions in her life: The joy and science of wine, Girl Scouts, and education at WSU.

The WSU alumna’s life and career have taken her across Washington and around the world. Living in Germany, she founded lifetime friendships—and a lifelong love of viticulture.

“I learned to appreciate wine,” Saffell said. “Then I got involved.”

Back in Washington, working as a manager trainer for the Washington State Patrol, she took an Agriculture 101 course in her hometown of Yakima.

“My professor could not figure out why a middle-aged woman was taking a 101 class,” Saffell said. “I was acing every test. Every paper I wrote was about wine.”

In 2009, her passions combined in the Sandra Saffell Graduate Fellowship in Viticulture, which helps graduate students pay for their education. Preference goes to women who earn the Gold Star award from Girl Scouts of America.

“Girl Scouts allow girls to grow their self-confidence, their ability to lead and make decisions,” said Saffell, a lifelong Girl Scout and past scouting leader.

Saffell enjoys giving to WSU, and gets positive expressions from the university in return.

“It is a fulfilling, repetitive circle,” she said.

SAFFELL FELLOWSHIP RECIPIENTS—PAST & PRESENT

Brittany Komm

Growing up in the heart of apple country, Wenatchee, a teenage Brittany Komm (MS ’14, Horticulture) was fascinated when orchards started being replaced by odd new plants—grapevines.

Grapes remained her focus as a researcher—specifically, leaf removal to help prevent rot. The Saffell Fellowship helped.

“Sandy made a lasting impression on me,” Komm said—Saffell takes each one of her fellowship recipients out for dinner. “She gave me some crucial pieces of advice and tips that I carry with me every day.”

“If this industry is your passion, keep your head high and let nothing stop you from doing what you love,” says Komm.
“It’s a culmination of all the things you’ve done in the past. When I got there, I was ready.”

—Schafer, on being named U.S. Ambassador to Papua-New Guinea and the Solomon Islands

Fellowship helps Zach Cartwright focus on research, connections

The Margaret Nicholson Schafer Graduate Fellowship helps doctoral scholar Zach Cartwright study a yeast called *Brettanomyces bruxellensis*. Cartwright wants to understand how the yeast spreads, then control it, helping Washington’s $4 billion wine industry.

The fellowship helps him participate in food science clubs and lead product development teams.

“Without it, I would not have so many outside connections and interests beyond my research lab,” Cartwright said.

Virginia Schafer
Globetrotter & Research Supporter

Working her way from a Manila file room to a U.S. ambassador’s chair, alumna Virginia Schafer never stopped learning and growing.

Following a globetrotting Foreign Service career, she supports researchers at WSU as they find ways to feed a hungry planet.

“Some people know when they’re growing up that they want to do something,” said Schafer. “I wanted to go to Europe. I didn’t know that, by the time I was 25, I would have been around the world.”

After her father, Mark, died when she was 9, Schafer was raised by grandparents on an Iowa farm. Her mother, Margaret, moved to Richland, Wash., for a better-paying job as a telephone operator at Hanford during World War II.

“If you see something that needs to be done, do it. That was the case with the women in my life,” Schafer said.

Like her mother, Virginia is a keen believer in the importance of education as a way of achieving independence, especially for women. Her donations created the M. Virginia Schafer Excellence Endowment, the Schafer Research Fund in Human Nutrition, and the Margaret Nicholson Schafer Graduate Fellowship in Food Science and Nutrition, named for her mother.

Dozens of CAHNRS graduate students have benefited from Schafer’s gifts. Their research is her legacy.

“It pleases me to be able to contribute to their discoveries,” she said.

SCHAFER SCHOLAR: Thuy Nguyen

As Thuy Nguyen explores how cranberries fight bowel disease, the Schafer Graduate Fellowship helps her meet scientists from around the world who share her passion for health.

“I want to use my skills to help the world, as Ms. Schafer and other award recipients have,” Nguyen said. “Ms. Schafer’s dedication to humanitarian work has motivated me to view my research with a broader purpose.”

PEOPLE
DOUBLING DOWN: Stephanie George
A double degree is a lot of work. Stephanie George, an undergraduate from Moxee, Wash., knows that, but she wants double the knowledge.

For her, the Dorothy & Ken Casavant Scholarship has had a huge impact.

“My class load is very demanding,” George said. “I take my education very seriously and dedicate a lot of time to it. This scholarship enables me to have peace of mind and the ability to focus on schoolwork, which will translate to a successful career.”

WINDOWS OF OPPORTUNITY: Darlington Sabasi
Darlington Sabasi, a doctoral student in economic sciences, seized his chance to share discoveries in agricultural production.

Thanks to the Michael McCullough Scholarship, he presented ideas on credit constraints in the U.S. and fertilizer use in Africa, at the 2015 Agricultural and Applied Economics Association conference, gaining invaluable feedback.

“Early in my career, this is invaluable experience,” Sabasi said. “Simply put, scholarships are life changers. They open many windows of opportunities that would have otherwise been impossible.”

WORLDWIDE SCHOLAR: Jordan Sperl
“I didn’t have anybody to follow. I had to make my own trail,” says Jordan Sperl, a School of Economic Sciences student and current recipient of the Giorgio and Luisa Felloni Undergraduate Scholarship.

Trailblaze is what the Prosser native did. During her four years at WSU, she interned with the U.S. Embassy in Berlin and spent her last semester abroad in Scotland.

“It’s a lot easier to do interesting things if you’re able to make ends meet,” said Sperl, who is looking ahead to a global career, weighing too many options. “I want to go everywhere!”

BLOSSOMING PARTNERSHIP: Family’s gift, Dahlia Society help battle costly virus
Hanu Pappu knows a lot of people are counting on him. He’s honored by it.

As the President Sam Smith Distinguished Professor in Plant Virology, Pappu leads global efforts to eliminate the viruses that destroy dahlias.

Infected plants, noticeable for their unsightly leaves, are “a real headache for growers,” says Ron Miner, an America Dahlia Society trustee. “You can’t show or propagate them.”

Pappu follows in the footsteps of Smith, who helmed a virus research program at Pennsylvania State University before serving as WSU president from 1985 to 2000.

“The industry loved Sam when he was at Penn State,” Pappu said. That relationship led to a $250,000 endowment from the society, for research at WSU.

Last year, the connection blossomed again. Avid dahlia grower James Chuey made a $350,000 gift from the Scheetz Chuey Charitable Foundation in honor of his late brother, Carl Chuey, a dahlia grower and biology professor at Youngstown State University.

“My brother clearly recognized that the knowledge at WSU made it the only practical place to solve the virus problem,” James Chuey said.

“It’s an exciting moment,” Miner said. “As we create practices that people can use in their own gardens, support for this project will grow substantially. That’s just what Carl Chuey would have loved to see.”
DISCOVERING NEW TASTES:

**Maureen McFerson Hadden, Food Science**

Working for the world’s largest mozzarella cheese producer, CAHNRS alumna Maureen McFerson Hadden gets to see—and taste—the products that she works on, every day, all over the world.

As the Asia-Pacific region technical manager for Leprino Foods, Inc., Hadden, based in Singapore, works with customers from Japan to Australia on development of new food products.

“We have this misconception in the U.S. that Asia doesn’t consume dairy products,” Hadden said. “Nothing is further from the truth. The number of Starbucks lattes in Shanghai rivals that of Seattle. China is actually the largest importer of milk in the world. There is a lot more pizza topping innovation in Asia. It’s always exciting to try new flavors or ingredients. However, I have yet to try the peanut butter and cheese-stuffed crust in Taiwan or the sea cucumber pizza in China.”

Her undergraduate degree in food science and technology from WSU helped lay the technical foundation for her career, while internships, involvement in the Institute of Food Technologists and CAHNRS Ambassadors formed a supportive network to guide her. The Outstanding Student Award and Scholarship from Puget Sound Institute of Food Technologists and a CAHNRS Undergraduate Research Fellowship energized her research.

“I have a quote by Thomas Edison on my desk: ‘Opportunity is missed by most people because it is dressed in overalls and looks like work.’ It’s always helped drive me forward and resist falling into the trap of taking short cuts. I know that lesson is being learned every day at WSU.”

THINKING GLOBALLY:

**Dianne Jefferies, AMDT**

Global thinking is a must for today’s students, says Dianne Jefferies, a WSU clothing and textiles alumna and current Advisory Board president for the Department of Apparel, Marketing, Design and Textiles.

When a summer job at Nordstrom sparked her interest in apparel, Jefferies, a native of Edmonds, Wash., earned her clothing and textiles degree at WSU. Starting at a family-owned department store, Jefferies worked her way up in the industry. Today, she is vice president of sourcing and production for Speedo North America, overseeing a design and supply chain that spans the globe.

“I would never have thought, when I was a student, that I would have the career I’ve had,” Jefferies said. “I’ve traveled to more than 55 countries, and have enduring business relationships and friendships with people all over the world.

“Students need to understand that the world is not Pullman or Washington. Everything is on a global platform. That’s the world we live in now,” she said.

Jefferies finds personal satisfaction in chairing AMDT’s engaged Advisory Board, which promotes internships, seminars, work-study programs, and global experience.

“It’s important to get young people interested and prepared for the industry,” she said. “Giving back is important for me. I’m a WSU graduate; anyone who’s a Cougar will always be one.”
CONSIDER A COFFEE FARM IN RWANDA and an elementary school classroom in Pullman. Or a stormwater research lab in Puyallup and a clothing factory in China. At first they seem like very different, far-flung places—but there’s a common thread.

At each place, WSU students, faculty, and staff are connecting people with knowledge that improves lives and communities.

CAHNRS is at the hub of the land-grant mission, putting science-based knowledge into the hands of families, farmers, businesses, and citizenry. This 125-year living legacy touches every corner of Washington and extends far beyond. It connects people worldwide with basic and applied research, crop breeding and weather monitoring services, personal enrichment classes and materials, digital decision tools, and WSU Master Gardeners and 4-H clubs, to name a few.

The just-completed Campaign for Washington State University was a $1 billion success because we affect so many people and places. With Extension faculty and staff in every county of Washington, nine research farms, four Research and Extension Centers, and over a half-dozen core labs and greenhouse facilities, few other institutions in the Northwest have the positioning of CAHNRS.

That impact hasn’t happened through our efforts alone—our partners are essential: Consider, for instance, Schweitzer Engineering Laboratories and Digilent—both are Coug-founded companies that promote robotics education and support 4-H teams, enabling them to purchase essential equipment and compete in world championships. The chain of connections leads from the university, through Extension, to corporate offices, schools, and the family kitchen table.

Our new Plant Growth Facility in Pullman wouldn’t have happened without funding from the Washington Grain Commission and in-kind support from the U.S. Department of Agriculture. At the Sunrise Research Orchard near Wenatchee, the Washington Tree Fruit Research Commission and growers have joined forces to provide researchers with a state-of-the-art living laboratory.

Internationally, it’s the same story: CAHNRS undergraduates apply their studies in places like Rwanda, Ireland, Guatemala, and China, thanks to endowments and partnerships.

The Campaign helped us do great things in many different places. Please join us as we celebrate just a few of the ways that people are living healthier lives, educating their communities, and creating economic opportunity, locally and globally, because of this support.
The grounds at the Washington Corrections Center for Women (WCCW) in Gig Harbor have been transformed.

Nearly every available plot of empty space has been filled with gardens, raised beds, and greenhouses. More than 50 inmates are raising vegetables for the center’s kitchen and growing flowers for sale. Supported by a small group of WSU Extension Master Gardeners, inmates are also growing skills to rebuild their lives as they learn about horticulture, nutrition, and sustainability.

“These women take it very seriously,” said Kerri Wilson, Master Gardener program coordinator for WSU Pierce County extension. “They get freedom to choose what to plant.”

“It’s more than just gardens,” said Ed Tharp, a Tacoma Community College instructor and horticulture teacher at WCCW. “Master Gardener volunteers act as mentors for the women, and show them new opportunities. They give them a sense of normalcy.”

Transformations like these are happening across Washington. In Benton and Franklin counties, prison yards are being transformed into flower and vegetable gardens with help from Master Gardener volunteers like Jan Pittman, left, and Ann Maughan.

**LOCAL**

It’s a rainy afternoon in Pullman, and seven middle school students are learning about math and science—with real excitement.

The “Green Chairs,” a FIRST Lego League team from Jefferson Elementary School, are having fun building and programming robots together as they get ready for a season of cooperation and competition.

In the 4-H Robotics Program, Extension volunteers join teachers, parents, and corporate partners to inspire children to explore STEM: Science, technology, engineering and math. Leagues in the FIRST program—“For Inspiration and Recognition of Science and Technology”—encourage children ages 2 to 18 to use tech, programming, and business savvy as they explore issues like recycling, ecology and education.

“We had to learn to work together,” said seventh grader AJ LaRiviere.

“Now, we’re learning how to conquer challenges,” added eighth grader Will Cole.

Schweitzer Engineering Laboratories and Digilent have stepped up with donations.

“We know we need to get kids excited about STEM,” said Janet Schmidt, Whitman County Extension Youth Educator. “Robotics are a great way to jump in.”

“This brings STEM to smaller schools and rural counties,” said Jennifer White, SEL’s education outreach manager. “This feeds the next generation of engineers.”

“I believe in it,” said Digilent founder Clint Cole. “When children solve bona fide problems, they develop a sense of confidence that stays with them for the rest of their lives.”

“They’re all talking about becoming scientists or engineers, every single one,” said Green Chairs coach Michael Church. “It’s definitely had an impact.”

**Robots give rural 4-H’ers tech skills**

Aaron and Riley, teens on the Palouse Area Robotics Team Sciborgs, assemble a garbage-hauling robot. WSU Extension 4-H teamed up with Digilent and Schweitzer Engineering Laboratories to help youth learn STEM skills through competition and cooperation.

Aj, left, and Kai, have fun learning programming skills through First Lego League.

Prison yards are being transformed into flower and vegetable gardens with help from Master Gardener volunteers like Jan Pittman, left, and Ann Maughan.
When Ken Christianson graduated from WSU with an agronomy degree in 1974, he figured he’d go straight to the fields of his family’s Mount Vernon seed company. Life had other plans.

As a salesman, instead, Christianson soon found himself trotting the globe, visiting farmers on three continents. The experience changed his life. “It’s amazing to see agriculture abroad,” he said. “Farmers are farmers everywhere—they deal with the same problems of land and weather, but they have different capacities, infrastructure, and technologies. Getting your feet on the ground is how you get a grasp on that.”

Years later, when Ken and his wife Sue ('76, Food Science and Technology) were looking for a new way to give back, Ken’s international inspiration resurfaced. In 2012, they created the Ken and Sue Christianson endowment for International Experiences, partnering with the CAHNRS Center for Transformational Learning and Leadership to help students apply their research globally.

“The number one reason students don’t go abroad is because they can’t afford it,” said Colleen Taughter, associate director of student engagement. “Our partnership with the Christiansons inspired us to dream big and be leaders in international education.”

The endowment first helped CAHNRS students link with university students in Rwanda to help that country’s new specialty coffee industry thrive. Students are now putting life sciences research to work in Ireland, exploring agroecology in Ecuador, animal sciences in Guatemala, and soon, apparel and design in China.

“This gives our young people a chance to build relationships across borders, and gives the host country the same opportunity,” Christianson said. “That’s huge for the world.”

WSU School of Economic Sciences student Riley Seeger learns how to sort coffee cherries from some local experts in Southern Rwanda near Huye.
At The Bread Lab, professional bakers and chefs analyze and test their whole grain products under the technical guidance of the Lab director and wheat breeder Dr. Stephen Jones and resident baker Jonathan Bethony.

The Lab is integral to the WSU NWREC Mount Vernon plant breeding program, which studies the diversity of locally grown grains to determine which perform well for farmers, and which are most suitable for craft baking, malting, brewing, distilling, or other culinary creations.

Sponsors include: King Arthur Flour, the Port of Skagit, Chipotle Mexican Grill, Acme Valley Foods, Patagonia Provisions, Wood Stone Corporation, Camas Country Mill, Whole Foods Market, the Bread Bakers Guild of America, and many other individuals, businesses, and organizations.

As the most technologically advanced wine science center in the world, it features research laboratories and classrooms, a research and teaching winery, a two-acre vineyard, and greenhouses to train technical personnel to support Washington’s large and expanding wine industry. The center opened June 4, 2015, thanks to a remarkable blend of private support and public partnership.

The HD Department has faculty and students in Vancouver and in Pullman. The Vancouver faculty focuses research on health, equity, access, and empowerment. They teach human development and family relations across the life-span, as well as the interaction of individuals and families within the community environment.

The orchard provides a 150-acre state-of-the-art living lab with 1,500 trees per acre. Experiments on pest management, genetics and breeding, collaborations with other institutions, and work on automated systems all help the Washington tree fruit industry to grow.

The new $15 million facility increases the greenhouse space in Pullman by almost 50 percent and adds seed storage space and lab space for researchers. The Washington Grain Commission donated a third of the funding, CAHNRS matched those funds, and USDA donated a third in materials and equipment.

The eggert family has pledged over $5 million to expand WSU’s organic farm on the Pullman campus from four to nearly 30 acres. The farm grows 80 different varieties of vegetables, herbs, fruit, grains, and flowers and provides hands-on experience for future farmers.
PARTNERS IN RESEARCH:
Teaming up for innovation

BY JIM MOYER, ASSOCIATE DEAN AND DIRECTOR OF THE OFFICE OF RESEARCH

TWENTY-FIRST CENTURY RESEARCH requires strong relationships and innovative collaborations. As funding becomes more competitive and resources dwindle, bringing together the right mix of people is more critical than ever before. Not only must the right expertise be brought to bear on research questions, but also the right mix of industry, agricultural commission, and foundation partners must be at the table. Our college depends on a diverse array of public and private partnerships to drive our research and education enterprise forward.

Our long-standing relationships with Washington’s agricultural commodity commissions continue to support research for wine, tree fruit, grains, and potatoes, with endowments for world-class faculty as well as the expansion of research facilities. Research for these multi-billion commodities produces high yielding varieties with desirable end-use qualities. Industry partners from across the entire food production value chain support pioneering research for things you use every day.

But it’s not only research that benefits from these relationships. Collaborations like the CAHNRS National Board of Advisors, with 100 industry representatives and stakeholders, have given rise to prominent programs like the Center for Transformational Learning and Leadership. And, the newly formed CAHNRS Food and Agriculture Advisory Council represents the entire value chain of Washington agriculture and will provide insights for research and extension administration.

Our partnerships ensure that we are asking questions that matter—that we respond to industry and community needs—and that CAHNRS research is always relevant. Basic, fundamental research questions make more sense when tied to real world problems. Funding agencies, from the U.S. Department of Agriculture to the National Science Foundation, understand this. Our partnerships make CAHNRS successful in competing for federal research funding.

Direct funding of research to support graduate students or buy equipment is a mainstay of the research enterprise at CAHNRS. But as an increasingly recognized engine of economic development, we require state of the art facilities—whether a farm field lab or a lab in Johnson Hall. Innovative funding arrangements to support faculty and students as well as research facilities are the hallmark of 21st century research at WSU.

At CAHNRS, our partnerships mean the world to us. Read on, for some examples and to see what we mean.
SOWING THE SEEDS OF WORLD-CLASS RESEARCH

Agriculture is a driving force in Washington State’s economy, second only to California in the diversity of production. Behind many of these large cropping systems are agencies known as commissions.

Over the years, these Washington state commissions have provided valuable resources to spur research impactful to their respective industries. Commodity commissions raise funds among their members to support the research priorities important to their industries. Derek Sandison, director of the Washington State Department of Agriculture and a board member of all 23 of the state’s commissions, knows how important these partnerships are for agriculture in our state.

“Washington’s agricultural industry relies on WSU to stay abreast of innovation, whether it involves breakthroughs in addressing pests and disease, or new harvesting techniques,” he said. “Going forward, these partnerships remain vital for continued growth of our agriculture industry.”

In the Campaign for Washington State University, four commission partners elevated their investments beyond traditional research and extension funding. They recognized an opportunity to expand the research and extension enterprise at WSU through the establishment of new endowments, strategic investment in new facilities, and upgrading and expanding existing facilities.

Collectively, since 2006, the Washington Grain Commission, the Washington State Potato Commission, the Washington Tree Fruit Research Commission, and the Washington State Wine Commission invested over $50 million in WSU endowments and facilities, and another $45 million in grant funding.

In many ways, this funding is the envy of every land grant institution across the United States. Jim Moyer, director of the WSU Agricultural Research Center agrees, “When we are at conferences with our peers we are regularly asked how we forged these partnerships. The answer is simple: We work to have solid, two-way communication with each commission, which informs our strategic planning as well as theirs. So when we are developing a research agenda and faculty hiring plans, the growers know that they inform the process from day one, ensuring that we are focused on their most pressing needs.”

In order to continue growing and expanding research and extension at WSU one strategy the commissions deployed was the creation of endowments. Endowments from the commissions at WSU generate income that guarantees funding will be available permanently—attracting world-class scientists, upgrading facilities and infrastructure, funding graduate students, and providing funding for seed grant activities. In short, endowments allow WSU to do bigger and better things.

In fact, the commissions collectively established 19 new endowed research positions for CAHNRS in The Campaign for WSU, which is unprecedented in comparison to peer land grant universities.
Attracting the best

The leverage of commission support has attracted world-class researchers from as near as Wisconsin and as far as Italy. Stefano Musacchi, Thomas Henick-Kling, and Randy Fortenbery are three such researchers who would not have come to WSU if it weren’t for commission-supported endowed chairs.

Fortenbery came to WSU from the University of Wisconsin to fill the Thomas B. Mick endowed chair in grain economics, made possible by the Washington Grain Commission.

“It allowed me to start and develop an exciting research and outreach program,” Fortenbery said. “I have been able to respond to important issues that might not have been possible if I had gone through traditional funding channels.”

Washington’s wine industry also invested in permanent capacity to enhance research, teaching, and extension with an endowed chair for viticulture and enology, filled by Thomas Henick-Kling.

Thanks to an endowed chair in tree fruit physiology and management, funded by the Washington Tree Fruit Research Commission, Stefano Musacchi, an internationally recognized leader in tree fruit research and orchard management has come to WSU from Italy. Attracting Musacchi would not have been possible without the industry’s investment.

A place to produce

While outstanding researchers are vital to the industry, the place where they conduct their research has a profound effect on their ability to be exceptional. Our commission partners recognized the need for world-class facilities to support world-class research.

Tree fruit industry contributions funded endowments to permanently expand capabilities at the WSU research and extension centers in Prosser and Wenatchee. In addition to six endowed chairs, they funded an endowment to expand information and technology transfer to meet the changing needs of the industry, and developed permanent funding for research orchard and facility expansion. WSU is also upgrading research orchards in Wenatchee and Prosser with new irrigation and trellising systems and new, modern equipment.

Grain growers invested in the future of Washington’s grain industry with one endowed professorship, five endowed chairs, and a new state-of-the-art Washington Grains Plant Growth Facility.

And, thanks in large part to a lead gift from the Washington State Wine Commission, WSU is home to the most technologically advanced wine science center in the world. The Ste. Michelle Wine Estates WSU Wine Science Center, located on the WSU Tri-Cities campus in the heart of the wine-producing region of the state, is the culmination of this public-private partnership.

In Othello, the WSU Potato Research Program has conducted commercial potato seed lot trials at the WSU Irrigated Agriculture Research and Extension Center. The university’s longstanding partnership with this commission improves the competitiveness of Washington’s potato industry. The Washington Potato Commission donated three center pivots to the irrigation system, as well as a tractor, to upgrade the Othello research farm.

Collectively, the impact of Washington’s commission partnerships will leave an indelible mark on WSU and the future of agriculture for generations to come.

Derek Sandison, director of the Washington State Department of Agriculture, is a board member of all 23 of Washington’s commodity groups.
Dany Cavadini grew up on a wheat farm and cattle ranch, and never wanted to leave. “It was really hard to go to college and realize I wouldn’t be able to work on the farm every day with my dad and grandpa,” said Cavadini (‘15, Animal Sciences).

She wanted to be around agriculture and help farmers, but wasn’t sure how. Then, at a career networking night in 2014, sponsored by the WSU Center for Transformational Learning and Leadership (CTLL), she met representatives from Northwest Farm Credit Services.

CTLL, which was founded in 2013, provides learning and leadership experiences for WSU students, faculty, staff, alumni, and industry partners. For students like Cavadini, that meant networking events with employers, internship experiences, job shadowing, and professional mentoring, among other opportunities.

“We want our students to get more out of their WSU experience,” said CTLL director and acting CAHNRS dean, Kimberlee Kidwell. “We value making meaningful connections that support people with building relationships and achieving excellence.”

Professional connections, personal roots

For Cavadini, that opportunity to build a professional connection led her back to agricultural roots. “I’ve always had a passion for agriculture,” said the Bridgeport, Wash. native. “With Northwest, I get to help farmers be successful and keep them producing food and fiber for the world.”

Cavadini spent nine months in Northwest’s training program, working under a mentor as she learned how to analyze farmers’ financial situations and industry cycles. She uses that information to recommend loans and other financial services.

“I took economics classes, but it wasn’t my strength,” said Cavadini, who works in Northwest’s Moses Lake office. “But now I have an understanding of the business decisions farmers make, and the services that we can provide to help them be successful.”

Northwest targets WSU students for their training program; approximately 35 percent of their new hires come from WSU.

“We want the best and brightest students that love agriculture,” said Jesika Harper, a senior human resource officer at the company. “And we don’t just need or want finance or econ majors—ag education students have been a great fit due to their strong communication skills.”

Northwest, a customer-owned credit service for agricultural producers, was one of the first companies to provide sponsorship to CTLL because they saw a way to both help the university and reach WSU students.

“[CTLL’s] focus on leadership is a major help,” Harper said. “Their enthusiasm in promoting students, that reflects down from the leadership of the college. They’re also good at pointing interested students to the right places.”

Cavadini was one of those interested students just over a year ago, and she appreciates having had the opportunity to learn about Northwest.

“Providing opportunities for people to use their education is important,” she said. “I hope CTLL evolves to be more instrumental in CAHNRS students’ lives.”
LOOKING TO THE FUTURE: Preparing to address grand challenges

When we look back on the last eight years, the success of this Campaign truly is a monumental achievement. To think WSU raised over $1 billion, and CAHNRS accounted for over $250 million, is simply amazing. Yet, the dollars raised do not even begin to tell the story of how these funds will impact our students, programs, and facilities today—and tomorrow.

The Campaign for WSU: Because the World Needs Big Ideas has set the stage for CAHNRS to address the societal Grand Challenges of tomorrow: sustaining health, sustaining resources, improving quality of life, advancing opportunity and equity, and supporting basic security.

To answer these Grand Challenges, it will take a diverse collaboration of disciplines. No other college is better positioned to do that. It’s what we do best in agricultural, human, and natural resource sciences through the land-grant system.

CAHNRS and WSU Extension will continue to make investments to strengthen our faculty resources in these critical areas. We must mobilize to work in interdisciplinary teams to address these complex societal issues with partners across WSU and other leading universities across the country and around the world.

Simply put, failure in addressing these critical societal needs is not an option. Staying true to our land-grant roots, we will never stop innovating, improving, and enhancing CAHNRS teaching, research, and extension to address issues important to our students, our communities, our state, our nation, and beyond.

Because of you—our CAHNRS alumni, friends, stakeholders, and donors—we have made history, and in doing so set an incredible foundation for our collective future. There are simply not enough words to express our gratitude for your generosity.

Thank you for believing in CAHNRS, believing in WSU, and believing in the Campaign for WSU, to build a brighter future as we address the Grand Challenges of tomorrow.
Future COUGS!

Emma Clarke

Ivy Griffin & Evan Smart

Mitchell & Mikey Adam

Iain Crimmins

Keep in Touch

@wsucahnrs
facebook.com/CAHNRS
instagram.com/wsucahnrs
cahnrs.wsue.edu
cahnrs.reconnect@wsu.edu
Remembering ‘Barley Bob’

From the field to the research lab, Robert Nilan left a lasting legacy

Sixty-five years ago, Robert A. Nilan came to then-Washington State College to breed better barley. He ended up changing the world.

Nilan, who passed away at age 91 this past October, transformed barley breeding and genetics on a global scale. His 41-year impact at WSU lives on in the programs he founded, the people he trained, and in farmers’ fields across the Northwest.

“Bob’s legacy to the farmers of Washington is profound,” said Kevin Murphy, current barley breeder at WSU. “He is still talked about today in almost reverent tones by many older growers.”

Arriving in Pullman in 1951, Nilan jump-started a tiny barley breeding program and created a genetics program from scratch. In 1964, he released a new barley variety, Steptoe, that changed the game.

“Steptoe revolutionized the barley world on the Palouse,” Murphy said. The cultivar yielded so well in Washington’s arid croplands that it took many years for breeders to surpass it. Steptoe was one of five Nilan varieties that significantly increased yields, acreage and demand across the Northwest, helping farmers and the food supply.

As a globetrotting geneticist, he discovered new mutagens and launched a successful barley genome mapping project, helping WSU become a world-renowned center for research. Always approachable and kind, he trained more than 75 graduate and post-doctoral scholars.

“Dr. Nilan was a great mentor and friend to students and colleagues from around the globe,” said Dr. Kim Kidwell, CAHNRS Acting Dean. “He was among the most loving, dedicated and supportive individuals I have ever known. He left an incredible mark on many of us, and forever changed WSU for the better.”

Today, Nilan’s legacy continues through the Robert A. Nilan Endowed Chair for barley research funded by a gift from the Washington Barley and Washington Grain Commissions. A celebration of his life is planned for January 23, 2016, at the WSU Pullman Ensminger Pavilion.

A TURFGRASS CHAMPION: Roy L. Goss

Roy L. Goss, who founded and championed turfgrass science and teaching at WSU, passed away at age 89, this past October.

Born in Weslaco, Texas, in 1926, Goss was the youngest of eleven children who all attended school because their father insisted they receive an education. He served on the battleship U.S.S. Indiana during World War II, and worked as a North Cascades smoke jumper as he put himself through Washington State College (B.S. agriculture and B. Education, 1950).

In 1958, he accepted the newly created turfgrass research and extension position at WSC’s Western Washington Experiment Station, earning his doctorate in agriculture in 1960.

Goss was instrumental in developing fertilizer management for golf courses that cut down on fungicide, and his work led to the use of sand as a base for golf greens and sports fields, improving drainage, durability and maintenance. His innovations are today’s industry standards.

In 1987, he established the Roy L. Goss Endowment to fund student travel to conferences and to fund scholarships for turf management majors. The next year, when he retired after a 30-year career at WSU, Goss challenged the turf industry to fund education and research by offering to match others’ donations.

Goss, and his wife Marcella, strongly believed in supporting research and education. To honor this dedication, WSU’s turf research farm at Puyallup was named the R.L. Goss Research Farm in 2006.

Donald W. Steiger • 11/06/1934–12/04/2015

On December 4th, CAHNRS lost a wonderful volunteer and a loyal Coug. Don Steiger was raised on a farm in Colfax, Washington, graduated from WSU in 1956, and served 28 years on active duty in the U.S. Army, retiring in 1986 as a colonel.

In 2006, Don created the Steiger Family Graduate Fellowship in Crop & Soil Sciences. Don volunteered with the CAHNRS Office of Alumni and Development and served on the CAHNRS Campaign Council. Don lived fully throughout his years and leaves a legacy of courage, love, wisdom, and service.
President Floyd was very supportive of spreading the WSU spirit internationally and thought our mission of assisting the world’s most neediest a necessary Coug goal.”
— Chris Pannkuk, director, International Research & Agricultural Development

“He made us all proud to be Cougs with his leadership, kindness, and humanity.”
— Sylvia Kantor, CAHNRS Communications, SRS30 Recovery Team Member

“Dr. Floyd helped us to build something truly special, a unique partnership with the tree fruit industry in the state.”
— Joe Poovaiah, Regents Professor and Interim Chair, Department of Horticulture

President Floyd’s impact and his charisma were enormous. He was a tireless champion for educational opportunities for all.
— Cheri Brennan, WSU alumna, volunteer, and donor

Elson S. Floyd
1956–2015

CAHNRS REMEMBERS
WSU PRESIDENT

READ CAHNRS E-NEWSLETTERS
- On Solid Ground—news.cahnrs.wsu.edu/osg
- Voice of the Vine—news.cahnrs.wsu.edu/vov
- Green Times— news.cahnrs.wsu.edu/gt
“President Floyd respected the land-grant university model and the corresponding need to help rural Americans. This showed in his support for making sure WSU agriculture was the cornerstone of the university. It is hard to imagine a better president for Washington State University.”

— Chuck Eggert, Founder, Pacific Foods

For more tributes to President Floyd, please visit: cahnrs.wsu.edu/blog/category/elson-floyd.

THE MOST IMPORTANT DAY FOR WASHINGTON STATE UNIVERSITY?

TOMORROW.

Be a part of what’s next.
Effective leaders don’t fit a mold, but they do share similar traits: a remarkable awareness of themselves and their surroundings, an ability to influence others, and a propensity for making values-based decisions. Tidal Leadership training will help you develop these attributes and more as you build your own personal platform for becoming an effective leader.

“Tidal Leadership has allowed me to explore concepts of leadership in a mindful and supportive context. I now have tools that increase my effectiveness as a leader and helped transform me into a better person.”

~ Joan Ellis
Chair & Professor, AMDT

16-Week Online Format

COURSES TAILORED FOR

- Women
- Working Professionals
- Graduate Students
- Customized Training Opportunities

Phone: 509-335-2243, or email: ctl.leader@wsu.edu for information

Course schedule online: tidal.wsu.edu

CERTIFICATE FEE

- Standard Fee ......................... $2,950
- University Faculty & Staff....... $1,950
- Enrolled Graduate Students ...... $995
- Custom Training....................... Varies

Sample a FREE PREVIEW. Sign up at tidal.wsu.edu.