

TEACHING · RESEARCH · OUTREACH

# SYNERGIES

COLLEGE OF PUBLIC HEALTH AND HUMAN SCIENCES

Winter 2017-18

*From here...  
to there*

**Alum turns setbacks  
into success**



**Oregon State  
University**

What's

# OUT THERE

today

**GROWING RECOGNITION THAT EVERY MAJOR SOCIAL ISSUE WORLDWIDE HAS A HEALTH DIMENSION HIGHLIGHTS THE CRITICAL IMPORTANCE OF PUBLIC HEALTH.**

The world's health needs are rapidly changing. Large-scale sociodemographic and macroeconomic forces such as technology advances, globalization, urbanization and population aging are driving the need for new solutions. There is growing awareness of the interdependence of the health of humans and the social and physical environment.

Our college is uniquely positioned to make a profound impact because of our strong interdisciplinary research in public health and human sciences.

Our Extension programs and growing partnerships with community organizations and businesses enable unparalleled opportunities for

translation of scientific discoveries for health promotion activities, health policy and practice. Our students are our greatest responsibility and strength.

In the pages that follow, you'll see examples of the teaching, research and outreach that make a difference — from a student-turned-legislative-intern to the effects a canine friend has on the health and well-being of children with disabilities. You'll also notice a different look for Synergies and all university and college materials in the months ahead.

We're out there — making a difference in the lifelong health and well-being of people in Oregon and beyond. Join us!

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**F. Javier Nieto, MD, PhD, MPH**  
Dean, College of Public Health and  
Human Sciences  
Oregon State University

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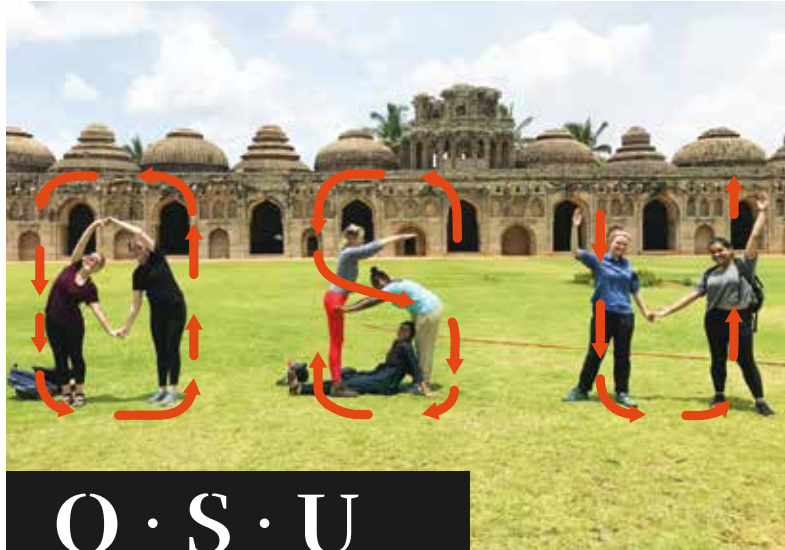
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O · S · U

Summer 2017

**CPHHS students form  
“OSU” at the Elephant  
Stable in Hampi, India,  
on the India Study  
Abroad Program to  
Bangalore.**

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# Shaking things up

## Uncovering clues to alleviate physical stress from heavy equipment vehicles

BY DANI DOUGLASS

A machine resembling an intergalactic metal spider has made its home in the Women's Building basement on Oregon State's campus. Since January, the machine — which scientists call the Six Degree of Freedom (6-DOF) motion platform — has been busy shaking and jerking about.

As its platform rattles, the 6-DOF motion platform collects valuable information that helps CPHHS Assistant Professor Jay Kim and his research team learn more about reducing whole body vibrations (WBV) in heavy equipment operators. WBV is the measure of vibration that drivers experience through their seat or feet by workplace vehicles.

"The 6-DOF motion platform allows us to replicate the exact vibrations felt in the field in the lab, such as the working conditions that mine workers experience," Jay says. "By using this system, we can now look at underlying injury mechanisms associated with WBV exposures by examining biomarkers and joint torques measured by a 3-D optical motion capture system. There are eight cameras collecting information that show whether there is an increased risk for spinal injuries and how much biomechanical loading is being applied to the musculoskeletal system."

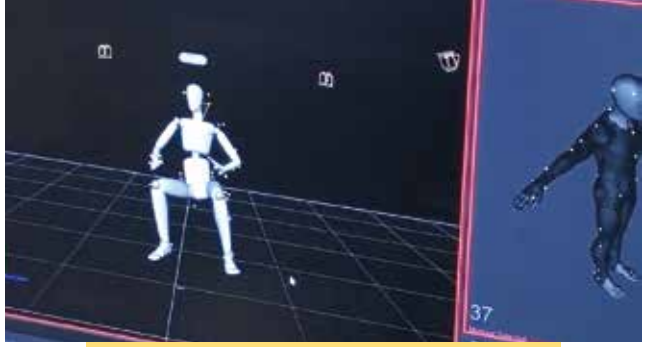
### INDUSTRIES SHAKEN FOR YEARS

Musculoskeletal disorders have plagued the construction, mining, transportation and agriculture industries for years. According to the United States Department of Labor's Bureau of Labor Statistics, there were 6,190 nonfatal musculoskeletal occupational injuries or illnesses involving absences from work in Oregon in 2015 in the private industry and 660 in local government. Of the private industry injuries, 2,830 affected the back and 1,410 were specific to the lumbar region.

"WBV is a leading risk factor for musculoskeletal disorders, especially low back disorders," Jay says. "These disorders are the cause of 40 to 60 percent of all workers' compensation claims in the nation, and the annual cost ranges from \$20 billion to \$60 billion, which is almost the same as cancer."

The United States places no legal regulations on WBV exposure levels. By contrast, workers in European Union countries are protected by Directive 2002/44/EC of the European Parliament, which sets exposure limits and includes employer obligations to determine and assess risk. In British Columbia, Canada, if a heavy equipment operator





experiences lower back pain, their doctor can prescribe a special WBV reducing chair developed by Bose to reduce exposure to vibrations.

Jay says that many drivers spend up to 70 hours each week in the driver's seat. If you multiply that number by the typical 30-year career span, with a two-week vacation taken into account, the number of hours drivers could spend at the wheel is about 105,000, or 13,125 working days.

### EXAMINING BIOMARKERS

"Up to this point, a lot of the research on WBV has been through epidemiological and field-based studies, and those studies have only shown the association between WBV and adverse outcomes," Jay says. "But we don't know the exact underlying injury mechanisms and etiology."

Jay and his team are looking to change that and have been using biomarkers in the blood — inflammatory responses and other stress indicators — to look at the exact relationships between the vibration and the physiological response from our bodies. This will make it possible to delineate the injury mechanism from WBV and low back pain and other musculoskeletal disorders.

### LOOKING TOWARD THE FUTURE

Nearly 75 percent of workers who operate heavy machinery suffer from low back pain. Jay hopes his research will have a significant impact on an industry that has been suffering for decades and that his studies provide the justification needed for improved seating for professional heavy equipment vehicle operators.

His most exciting discovery to date is a driver's seat that would reduce WBV both vertically and laterally. There is currently a WBV reducing chair on the market called the Bose Ride® system. This first-generation chair reduces the vibrations a driver feels on a single axis (up and down) by 50 percent.

Jay is currently testing what he calls the second-generation chair, which features multi-axial vibration reduction.

"The results are very promising," he says. "It's different from a conventional suspension system, which only has vertical suspension. This one also addresses lateral movement, and semi-trucks and off-road heavy equipment vehicles have a lot of rolling motion, so a multi-axial suspension system will greatly reduce the total dose of WBV exposures. By showing that engineering interventions can save drivers' backs, more seat and truck manufacturers can start building more accessible and affordable seating technology to reduce such a significant occupational hazard."

**THESE DISORDERS  
ARE WIDESPREAD —  
AND COSTLY.  
JAY SAYS WE CAN  
DO BETTER.**

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### Get involved

Jay currently has three externally funded research projects under way and is actively seeking study participants. If you'd like the opportunity to help shape the future of the heavy equipment industry, contact him at [jay.kim@oregonstate.edu](mailto:jay.kim@oregonstate.edu) or call 541-737-2166.



## BIG KUDOS TO THESE STAND-OUT FACULTY

### Professor Donald Jump awarded NIH funding

Professor Donald Jump received a \$1.3 million award from the National Institutes of Health's (NIH) National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) for his project "Omega-3 fatty acids and the control of fatty liver disease."

### Assistant Professor promoted to co-editor of academic journal

Assistant Professor John Geldhof was promoted from associate editor to co-editor of Applied Developmental Science. John has served as the journal's Methods and Measures section editor since late 2012.



The journal has experienced tremendous growth since that time, and John says he is grateful for the opportunity to continue cultivating the publication's reputation as a source of cutting-edge theoretical, methodological and empirical research. John will officially begin his editorial duties with the 2018 volume, along with Kristina Callina of Tufts University.

### Marit Bovbjerg receives Best Research Article Award

Clinical Assistant Professor Marit Bovbjerg is a 2017 recipient of the Journal of Midwifery & Women's Health Best Research Article Award for her article "Maternal and newborn outcomes following waterbirth:

The Midwives Alliance of North America Statistics Project, 2004 to 2009 cohort." She received her award certificate and honorarium at the ACNM Annual Meeting and Exposition in Chicago.

### Western Society for Kinesiology and Wellness honors Assistant Professor Sam Logan

Assistant Professor Sam Logan was selected as a 2017 Dr. Art Broten Young Scholar Award recipient by the Western Society for Kinesiology and Wellness (WSKW). Sam was honored during the organization's annual conference in Reno, Nevada. The WSKW was established in 1956 and began the Dr. Art Broten Young Scholar Award in 1987. Two CPHHS faculty — Professor Brad Cardinal (1990) and Associate Dean for Student Success Vicki Ebbeck (1993) — have also received the award.

### Professor receives \$1.6 million to study alcohol's impact on bone

Professor Urszula Iwaniec and colleagues obtained a five-year, \$1.6 million grant from the NIH's National Institute on Alcohol Abuse and Alcoholism (NIAAA) for the study "Complex systems analysis of the impact of alcohol on bone in non-human primates."

CPHHS co-investigators include Adam Branscum, Russ Turner and Carmen Wong, in collaboration with researchers at Oregon Health & Sciences University and Baylor University.



**These aren't the only movers and shakers. Visit [synergies.oregonstate.edu/kudos](http://synergies.oregonstate.edu/kudos) to see more notable mentions.**

# DIY for better health

## Grow your own broccoli sprouts

BY DANI DOUGLASS

Growing your own broccoli sprouts from seeds is a simple, affordable and fun way to incorporate more sulforaphane — a cancer-fighting sulfur compound found in cruciferous vegetables — into your diet. Broccoli sprouts are three- to five-day-old broccoli plants, contain 50 times the amount of sulforaphane as broccoli florets and provide powerful protection against disease.

“Sulforaphane helps detoxify the body from harmful carcinogens and also may help slow cancer growth,” says Professor Emily Ho, endowed director of the Moore Family Center for Whole Grain Foods, Nutrition and Preventive Health. “Sulforaphane has been studied in many other disease processes as well, and studies have shown it may help fight against inflammation, symptoms of diabetes and some neurological disorders.”



### GOT SULFORAPHANE?

Follow this simple DIY tutorial to witness food science unfold right in your kitchen.

#### STEP 1: OBTAIN YOUR SUPPLIES

- 1-quart wide mouth mason jar
- Sprouting jar lid (available on Amazon and other vendors)
- Broccoli sprouting seeds (organic is best)
- 1 tablespoon measuring spoon
- ½ teaspoon 8.5 percent non-scented bleach
- Bowl for rinsing
- Rack for draining

#### STEP 2: START YOUR SEEDS

Start by sanitizing your seeds to avoid contamination. Add ½ teaspoon of bleach to the mason jar and fill nearly to the top with cool water and stir. Add 2 tablespoons of sprouting seeds and stir again. Let sit for 20–30 minutes. Add sprouting lid and rinse water by tipping the jar upside down over a sink. Refill jar with about 3 inches of water. Replace lid and store in a warm, dark place overnight.

#### STEP 3: RINSE, DRAIN AND REPEAT

The next morning, drain the liquid from the jar and add fresh water. Replace lid and rinse the seeds and drain again. Place jar in a slanted position on a drying rack for half an hour to ensure water is fully drained. Return jar to warm, dark place. Repeat the rinse-and-drain process twice a day for a few days. You will notice the sprouts are yellow to pale green.

#### STEP 4: MOVE TO SUNLIGHT

Once the sprouts are about ½ inch in length, move them into direct sunlight. Continue to rinse and drain throughout this process.

The sprouts will be ready when they become dark green and fill the jar; the whole process can take up to a week. Give sprouts a final rinse in a bowl of water once they are ready to allow tough outer seed hulls to separate from sprouts. Drain and allow to air dry on a paper towel for five to 10 minutes. Store sprouts in a sealed container in the refrigerator for three to four days and enjoy in salads, sandwiches, soups and smoothies!

# Of the people, by the people, for the people

## Health policy alum finds his groove as Sen. Merkley intern

BY KATHRYN STROPPEL

Five job offers. A three-month internship. More than 300 phone calls each day. One U.S. senator.

Ranteg Sandhu, BS '16, had a busy summer. As one of U.S. Sen. Jeff Merkley's legislative interns, Ranteg met people throughout the state and can now write the most concise one-pager around.

Although he engaged the busy senator only a handful of times, he nevertheless got an up-close, hands-on education into the inner workings of Sen. Merkley's Portland office. Day to day, that meant taking a barrage of calls from constituents, ranging from routine to bizarre to heartbreaking. After making note of the concern, it was relayed to the senator so he had an informed outlook to make decisions. "Making calls is important," Ranteg says. "It does make a difference."

In addition to routine calls, he also fielded constituent casework more individual in nature, such as delayed veterans' benefits or individual assistance with the Oregon Health Plan. He made a point to visit the five caseworkers and six field reps in the office, especially on health issues. "I told them, any work that requires background research, planning or organization, send it to me."

He also tracked the senator's quotes for accuracy, helped prep for session and did background research for constituents ranging from immigration to Medicare to housing issues.

"It's one of most beneficial aspects of government — to help constituents. To help people in Oregon with day-to-day issues. It's a small piece," he says, "but I see how it fits into the larger picture."

Just like at Oregon State — and an internship with Oregon Rep. Dan Rayfield during his last term as a student — Ranteg set himself to a high standard. Health care law and writing case briefs were favorites, as was reading legal decisions and learning to be concise in his writing.

"Being a legislative intern gives you insight and exposure to the highest professional standard you can get in any office setting," he says. "In D.C., regardless of where you go, there's a certain standard and expectation to rise to — so you do it. It shows you what you're capable of in the right environment."

### SPEAKING OF THE RIGHT ENVIRONMENT...

Initially an Exercise and Sport Science major (now Kinesiology), Ranteg participated in three NPC Physique fitness competitions on the West Coast and trained on campus while balancing school and completing an internship in athlete rehabilitation and functional movement training. It was his first test of time management — and he was failing.

His GPA was low, his classes were going "terribly" and he was on academic warning. It was just the wake-up call he needed. "I'm not the kid who gets academic warning."

After talking with his advisor, he began seeing himself in the world of health policy. The lesson? "Don't let the first one or two years dictate the next two years. Even if you failed, if you put your mind to it you can set a pace to graduate. Don't do it alone."



After switching majors, things turned around. He was taking on a bigger work load — and his GPA was improving.

“I was in the right place and in the right mindset. I transitioned from a student going through the motions to making use of my time with professors and at the library. More responsibility made me rise.”

He also realized an important distinction between vocation and avocation. “There’s a difference between what I want to do in my personal life and what to do for financial compensation,” he says.

“Health care is my vocation; fitness is my passion.”

### **MAKING THE CUT**

In the midst of completing his legislative internship and sending out more than 40 applications for a full-time position, he also learned the things that really count: hard work, a positive attitude and focusing on the daily actions that shape your life.

A new field support specialist for Maxim Healthcare, Ranteg says, “There were times I just sat in my room and completed application after application listening to Bob Proctor speak about the law of attraction and keynotes from Eric Thomas. You just couldn’t discourage me. I knew that with each ‘no’ I received, I got closer to a ‘yes.’”

**BORN IN D.C., RANTEG AND HIS FAMILY MOVED TO SALEM WHEN HE WAS 10. HIS FATHER, SATVINDER SINGH SANDHU, WORKS FOR THE FEDERAL GOVERNMENT AS A CIVIL ENGINEER, AND HIS BROTHER, AMAR SANDHU, GRADUATED FROM OREGON STATE WITH A DEGREE IN FINANCE IN 2014. “MY DAD ALWAYS WANTS US TO BE THE BEST AT WHATEVER WE DO,” RANTEG SAYS.**



## insights

### SPECIAL OLYMPIANS HELP RESEARCHERS GAIN VALUABLE INSIGHTS

More than 2,000 athletes who participated in Special Olympics Oregon Summer State Games were a valuable part of research examining the health of people with intellectual disabilities. The screenings were provided by Special Olympics Oregon's Healthy Athletes Program and included hearing,

eyesight, dental health and strength, flexibility, balance and endurance assessments. The information collected went into one of the largest data sets for individuals with disabilities in the world.

Postdoctoral Scholar Alicia Dixon-Ibarra says that it's a misconception that people with intellectual disabilities can't be as healthy as those without.



Postdoctoral Scholar Alicia Dixon-Ibarra is involved in the study.



### FAMILY DOG BOOSTS ACTIVITY FOR KIDS WITH DISABILITIES

Recent research involving Associate Professor Megan MacDonald revealed that the family dog could help children with disabilities incorporate more physical activity into their daily routines. In addition to physical activity, researchers found that the relationship also improved motor skills, quality of life and human-animal interactions.

### TOBACCO FREE

Oregon State University is the first university in Oregon to receive funding from the American Cancer Society's Tobacco-Free Generation Initiative. Associate Professor of Practice Marion Ceraso and Professor Marc Braverman were awarded an \$18,000 grant to work with university partners in exploring options for strengthening tobacco policies at OSU's Corvallis campus and other OSU locations across Oregon, aiming for policies that are 100 percent tobacco-free.



Associate Professor  
Kathy Gunter

## RURAL OREGON STUDENTS STEPPING UP THEIR PHYSICAL ACTIVITY

Children in rural Oregon elementary schools — who are more at risk for becoming obese than their urban counterparts — are getting more physical activity when their teacher uses a toolkit developed by Associate Professor and OSU Extension specialist Kathy Gunter.

A pilot study looked at six schools that were given a Balanced Energy Physical Activity Toolkit (BEPA-Toolkit) and found that children in classrooms implementing the toolkits got more moderate to rigorous physical activity during the day than children in classrooms not using the kit.

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## Study reveals new data on nursing homes

“The state of nursing facilities in Oregon 2016” was co-authored by CPHHS Associate Professors Jeff Luck and Carolyn Mendez-Luck. Nursing facilities play a crucial role in Oregon’s continuum of long-term care, especially for people needing skilled nursing care or rehabilitation after discharge from a hospital.

The researchers found that in 2016, 34,627 people were admitted to a nursing facility in Oregon for at least one day, which is a 3 percent increase from 2015. Other key findings include: the state’s nursing facility population is younger than national estimates; Medicaid was the primary payer for 59 percent of stays during 2016, which is a 6 percent decline over the last seven years; and lengths of stay are among the shortest in the nation — seven in 10 stays lasted one month or less.

# health care

## Wide racial difference among young adults on Obamacare

There was a significant increase in health insurance coverage among young adults following the 2010 passage of the Affordable Care Act (ACA), but there are large differences in racial and ethnic groups, particularly among African Americans. CPHHS researchers found that the overall percentage for young adults age 19 to 25 increased to 6.1 percent after the ACA, also known as Obamacare, was implemented. However, the increase varied greatly, with 7 percent of whites covered compared to 1.2 percent of African Americans. Aurora “Rory” Van Garde, PhD candidate and study collaborator, says that although there have been huge steps taken with the policy, there is still work to be done.



Rory Van Garde,  
PhD candidate

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## Pregnant women on Medicaid more likely to seek prenatal care

A recent study shows that pregnant women are more likely to receive timely prenatal care since Oregon implemented coordinated care organizations (COOs), which are regional networks of providers who work together to treat patients. The study showed that after a year of implementation, mothers on Medicaid were more likely to receive prenatal care starting in the first trimester of pregnancy.

The improvement was more prominent among white and Asian women and those living in urban areas, suggesting that more work is needed to reach women in other racial and ethnic groups and those living in rural areas, says study co-author S. Marie Harvey, associate dean of research and graduate programs.

# Hitting the *genetic jackpot*

Exceptional aging a rarity

BY DANI DOUGLASS

*Although reaching exceptional age has a strong genetic component, nearly 80 percent of normal aging is within our control.*

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Your environment — including food choices, exercise habits and sun exposure — contributes the most when it comes to living to an average age. But it is your genes that determine how likely you are to live to an *exceptional* age.

“We define exceptional age as the top 1 percent survival rate in a particular birth year cohort,” says Assistant Professor Harold Bae, who investigated the role of genes on longevity in a recent study published in the *Journals of Gerontology: Biological Sciences*.

“For example, in the New England Centenarian Study, the birth year cohort is 1900. That means that males age 96 and older and females age 100 and older have reached exceptional age.”

One example of our genes’ influence on exceptional aging is on siblings. Male siblings of centenarians are 17 times more likely than other men born around the same time to reach 100, and female siblings are 8.5 times more likely to reach 100.

## A GENE DEBUNKED

Harold and his team looked closely at genetic data in the blood samples of 2,072 subjects from four centenarian studies. One of the most interesting findings was that a gene called FOXO3, which the scientific community has been widely studying for a decade, has less of an impact on exceptional aging than previously thought.

“The definition of longevity wasn’t consistent in prior studies,” Harold says. “The data shows that as subjects got older, the effect of FOXO3 went down and there was no survival benefit over the age of 95.

“We don’t think that it’s a *single* gene,” he adds. “It looks like it’s a combination of genes, and that when they work together they’re able to push your health span closer to life span, which is related to a hypothesis introduced over 35 years ago called compression of morbidity.”



**HAROLD BAE,  
ASSISTANT PROFESSOR  
OF BIOSTATISTICS**

Compression of morbidity was coined by James Fries of Stanford University in 1980. He theorized that most illness is chronic and occurs later in life — and that the lifetime burden of illness could be reduced if the onset of chronic illness could be postponed.

People living to exceptional age typically have an elongated health span close to life span, meaning they live in a healthful state until just a few years before they die. Those who live an average lifespan typically have a shorter health span and suffer longer in their later years.

### CONTROL THE AVERAGE

The average lifespan for Americans is currently 78.8. The good news for the majority of the population who won't reach exceptional longevity is that 70 percent to 80 percent of normal aging is within our control in the choices we make daily for our health and well-being.

Harold cites the Seventh Day Adventists as an example. "This is a population that doesn't engage in a lot of risky behaviors," he says. "They don't smoke or drink and they eat well, and their lifespan is eight to 10 years longer than average."

Because the healthy aging and longevity gene combination remains unknown, Harold and his team are focusing their efforts on using more advanced statistical techniques to combat small sample size. The more he can study these prodigious individuals, the more we can learn about living the longest — and healthiest — life possible.

## CALLING ALL CENTENARIANS

LIVING TO

# 100

HAS ITS BENEFITS, SUCH AS  
A LONGER HEALTH SPAN  
AND SPECIAL WORDS  
TO DESIGNATE  
THE MILESTONE.

### *centenarian*

Someone who has reached 100 years of age. Occurs at a rate of about 1 in 5,000.

### *semi-supercentenarian*

Someone between the ages of 105–109. Occurs at a rate of about 1 in 250,000.

### *supercentenarian*

Someone who is 110 years of age or older. Occurs at a rate of about 1 in 5 million.

## centenarian stats

According to a 2010 report published by the United States Census Bureau, the number of centenarians nationally is on the rise.

1980

**32,194** 1.42 in every 10,000 people

2010

**53,364** 1.73 in every 10,000 people

In 2010, centenarians were overwhelmingly female.

**82.8% female** versus **17.2% male**



# CPHHS student going for his **PERSONAL GOLD**

## Keet Dailey is maximizing his time at OSU

BY DANI DOUGLASS

Keet Dailey, 22, is a Kinesiology student in the College of Public Health and Human Sciences — but he's so much more. Keet is also a student-worker at OSU's Dixon Recreation Center, a member of the OSU Triathlon Club and recently completed a half Ironman.

Believe it or not, Keet somehow is able to sleep at night. He manages his busy schedule with a delicate balance of keeping a meticulous calendar and asking for help from his advisors.

"It's important for students to talk to their advisors and their professors to make a flexible plan to meet their goals," Keet says. "It can be a difficult task to balance school, work, family, friends and a social life, but that doesn't mean it can't be done."



Photo courtesy of Rec Sports

### FINDING HIS ACADEMIC PATH

Keet's original path at Oregon State didn't include the CPHHS. When he was initially accepted to OSU, he thought he wanted to be a physician and chose Biology as his major.

Since he's been a student in the CPHHS, Keet has been impressed with the many opportunities to be involved and says that there is more he wants to learn about public health and human sciences.

### MENTALLY AND PHYSICALLY STRONG

Keet's been involved with the OSU Triathlon Club since he was a freshman living off campus. He says joining the club helped him get comfortable with the transition to college.

Continuing to sharpen his skills has paid off. On May 5, 2017, he placed third in his age group at the St. George Ironman 70.3, which qualified him for the Ironman 70.3 World Championship in Chattanooga, Tenn., on Sept 10. He placed 30th in his age group and 289th in the world.

Keet trained an average of 15–28 hours each week in preparation for the event and arranged his schedule so that he could swim, bike, run, lift and do core work three to five times each week.

### CROSSING THE FINISH LINE

Keet plans to graduate with his bachelor's degree in Kinesiology in Spring 2018. For now, he's taking it one step at a time toward graduation and is thinking about his personal goals, which currently include becoming a professional triathlete by the time he graduates.

"I would love to travel the world racing as a professional triathlete and have the opportunity to experience different cultures at each race," he says. "I've had the opportunity to see many places here in the U.S., and there is still a lot I'd like to see."

Read the full story at [synergies.oregonstate.edu](http://synergies.oregonstate.edu).

# Show the LOVE

RECOGNIZE A DESERVING PROFESSIONAL WITH AN IMPACT AWARD

We all know that one person ...  
the go-getter, the problem solver  
who goes the extra step,  
the one you can always count on  
no matter the job. They may be out  
front leading the way or working  
quietly behind the scenes,  
but their impact is transformative.

Help this person get the recognition they deserve by nominating them for the 2018 Impact Awards.

We're looking for outstanding graduates making an impact in their community, alumni or friends of OSU who are dedicated to the college and internship site supervisors who have gone above and beyond to help student interns.

If you know someone who fits the bill, help us recognize their achievements and nominate them by January 15, 2018, at [health.oregonstate.edu/alumni/ovation](http://health.oregonstate.edu/alumni/ovation). Award recipients will be recognized at Ovation on May 3.

## OVATION

6-8 P.M. THURSDAY, MAY 3, 2018  
CH2M HILL ALUMNI CENTER

Save the date and plan to attend OVATION, the college's annual event showcasing the impact of our alumni, volunteers and friends.

Everyone is invited to mingle with college faculty, staff, students, volunteers and alumni as we celebrate the college's Impact Award recipients.



2017 IMPACT AWARD RECIPIENTS WERE (FROM LEFT):  
LAUREN LIEBERMAN, PHD '96, TATIANA DIERWECHTER  
AND ALEITA HASS-HOLCOMBE.



# OUT THERE

Taking on the world's health challenges

With more than a century of public health expertise, we believe that solutions to our most pressing health challenges are out there in the communities we serve.

That's why we're in all 36 Oregon counties, working collaboratively, getting to know our communities, identifying the social determinants of health and asking what we need to learn today to create a healthier tomorrow — in our state and around the world.

We ask questions ...  
and we don't stop  
until we find solutions.

[health.oregonstate.edu](http://health.oregonstate.edu)



**Oregon State University**  
College of Public Health  
and Human Sciences