

# Small World Could Bring Big Rewards



When antibiotics were first introduced in the 1930s, they seemed almost magical in their ability to save people from previously fatal infections. But recently, the medical community has warned that bacteria are evolving to resist the current drugs available, creating an urgent need for new antibiotics. Now Clark College has joined with Yale University to become part of a program searching for new antibiotics—and getting students interested in science, technology, engineering and mathematics (STEM) at the same time.

Called the Small World Initiative, the project is funded and organized by the Yale Center for Scientific Teaching. Clark is offering the Small World Antibiotics Research classes (BIO 105 & BIO 106) in the winter quarter of 2019, and another session of BIO 105 in the spring quarter.

“Clark College was one of only four community colleges in the country to be picked to start this pilot program,” says Dr. Ryan Kustus, a Clark biology instructor who teaches the Small World class. “That makes Clark not just different from other community colleges, but different from other four-year colleges, other universities. This is a very different learning experience that a lot of students in this country just don’t get.”



Biology instructor Dr. Ryan Kustus, *standing*, helps students in the Small World Initiative class.

In Small World, students learn microbiology by doing hands-on research—in this case, collecting soil samples to test them for potential new antibiotics. Approximately 75 percent of the antibiotics currently in use are derived from microorganisms living in the soil. After students gather their soil samples, they bring them back to the classroom, where they learn to grow the organisms living within those samples in various media in petri dishes until they have enough to test. Students then purify those organisms in order to test them against four sample bacteria that are commonly used to test antibiotic-effectiveness by pharmaceutical companies, in the hopes of finding organisms that can kill them.

“It’s really student-driven,” Kustusch explains. “I give them supplies; I tell them what may work, what might not work; and then they experiment. It really is a truly hands-on, authentic research experience.”

Any promising microorganisms are sent to Yale for DNA testing to see if they already are known to medical science; if they aren’t, these microorganisms could become the source of medicine’s next broad-spectrum antibiotic. During the class’s inaugural run at Clark during the 2014 spring quarter, two students found an organism that killed all four pathogens, and while it turned out that the microorganism had already been discovered and studied by other scientists, the possibility of discovering something that could one day save people’s lives helps keep students motivated and enthusiastic.

“I told everyone I could about that class,” says pre-nursing student Dawn Smith, who enrolled in Small World after seeing a poster advertising it near Registration. “It would be so awesome to be involved in something like finding a new antibiotic. Just the idea of that is incredible.”

It’s also crucial, given that more and more infections have grown resistant to currently used antibiotics.

According to the Centers for Disease Control, each year at least 2 million people in the U.S.



become infected with antibiotic-resistant bacteria; at least 23,000 of them die due to those infections. Yet pharmaceutical companies have been reluctant to research and develop new antibiotics because the drugs are rarely profitable—patients

only take them in emergencies, and only for a week or two at a time.

“We simply do not have enough drugs to treat our current infections,” says Kustus. “We’re going back to the 1800s, when you treated infection by amputation—which is a terrible vision for our future. Someone has to do the initial legwork to find these drugs. We’ll never be the people doing the clinical testing and human trials and all that, but no one else is doing this basic legwork.”

“In this class, money was stripped out of the equation,” says Smith. “All we had was the big question mark hanging over our heads—our curiosity. We didn’t have to worry about profit.”

Kustus says that combination of hands-on learning and potential real-life rewards makes Small World the perfect way to get more students interested in science. BIO 105 has no prerequisites, meaning non-science majors can take it to complete their science requirements for their degree. If a student is interested in the second Small World course, BIO 106, but has not completed the prerequisite of BIO 105, they may contact microbiology professor Dr. Roberto Anitori for a waiver ([ranitori@clark.edu](mailto:ranitori@clark.edu)).

“I had a couple students who had taken a couple classes in biology, and they said this solidified that they really want to go down this path,” says Kustus. “But the majority of the students in this class weren’t interested in science—or thought they weren’t. Now I have two students talking to me about, ‘How do I pursue a B.S. in biology?’ I think that was the goal of this class: For the people who really like science, let’s keep them interested. And for the people who never thought of this as a potential option, they’re now excited and thinking, ‘Maybe I can do something in a STEM field.’ And that’s fantastic.”

*Photos: Clark College/Jenny Shadley*



---

# Clark College Goes Global



In fall 2014, Clark College welcomed its largest-ever class of international students, many of whom will be participating in International Education Week.

On November 17, Clark College hosts its seventh celebration of International Education Week. But in many ways, Clark's celebration began months earlier, with the launching of its new Intensive English Language Program (IELP) at the beginning of this fall quarter.

This program replaces the college's former English as a Non-Native Language program, which focused solely on the upper levels of pre-college English. The IELP offers intensive English-language instruction, but broadens the curriculum to

also include lessons about American culture and U.S. educational expectations. This approach better prepares international students to succeed at Clark and other American institutions of higher education. It also allows them to be admitted at Clark without submitting an English-proficiency test, as was previously required. As a result, 90 new international students enrolled in the IELP for fall quarter, bringing Clark's total international enrollment to a record-setting 213 students from 29 different countries.

"Instituting an open admission policy that does not require the submission of a standardized English proficiency test allows Clark to compete with other community colleges and English language programs in the region that also offer open admissions," says Director of International Programs Jane Walster. "It also allows the college to recruit from a larger pool of prospective students around the world, not just those students with specific standardized test scores."

International Student Recruitment & Outreach Manager Jody Shulnak says Clark's adaptation of the IELP has helped her attract students during her international recruitment trips, which have included countries like China, Vietnam and Japan in the last year alone.



International students enjoy strong support at Clark, as well as field trips to local attractions like the Vista

House in the Columbia Gorge.

“Clark offers comprehensive support services for international students, which I believe really sets us apart in the region,” says Shulnak. “We also have strong university partnerships that provide students with a seamless pathway to earn their bachelor’s degree in the U.S.”

Brazilian student Paulo Giacomelli says he has appreciated his experience at Clark. “The atmosphere at Clark College is great,” he says. “It made it easier for me to attend classes, get involved in activities, and be successful.”

With its strengthened support for international students and frequent events that, like International Education Week, allow those students to share their respective cultures with the Clark community, the college is growing more and more global with each year. Currently, the college’s goal is to achieve an international student population of 300.

“When students from other countries decide to study at Clark, the entire community benefits,” says Shulnak. “It is an exciting learning opportunity for everyone.”

“As global and local become more intertwined, we must all engage in the process of understanding our own culture and those of our neighbors at home and abroad,” adds Walster.

This year’s International Education Week events include presentations by international students about their home cultures, an exhibition by international students and international nonprofits, and screenings of films with international flavor. Visit the event’s web page for a full schedule of events.



---

# Rockets, Eggs, and Safety Goggles



Students compete in the Rocket Boat Rally during the 2014 Elementary Science Olympiad.

Normally, you wouldn't encourage kids to drop eggs on your floor. But this Saturday, all the rules got bent (or possibly refracted) at Clark College's seventh annual Elementary Science Olympiad, where third-through-fifth graders tested the limits of physics with egg drops and challenged their engineering skills with rockets powered by vinegar and baking soda.





Students from Eisenhower Elementary celebrate an unbroken egg after dropping it from the balcony of PUB 161.

Twenty-four teams from 22 different schools in 10 different districts (including one team each from Cowlitz and Pacific counties) participated in this year's olympiad, making for a total of 328 elementary students participating—Clark's largest-ever attendance for the event.

"Interest level this year was amazing and meant we had to work just to squeeze all the teams in," says Clark STEM Coordinator and biology instructor Erin Harwood, who coordinates the event. "We couldn't say no when there was so much enthusiasm!"

The event's size meant the need for even more support from the college community—which, as in years past, stepped in to volunteer. In all, 67 members of the Clark community—including students, faculty, staff, and even a dean—spent their Saturday morning helping young scientists compete in five different event categories. "Four out of five events were new this year, making for an exciting and challenging year," says Harwood.



Engineering instructor Carol Hsu gets participants excited at the 2014 Elementary Science Olympiad.

This year, Chief Umtuch Middle School (Battle Ground) and CAM Academy (Battle Ground) vied for top honors in each competition (see PDF for full list). But as pictures from the fun-filled event show, when young people gather to celebrate science, everyone's a winner.

*Pictures: Clark College/Jenny Shadley. See more pictures in Clark's Flickr album.*

---

## Applause for the Maestro



Don Appert (*Tom Seeman*)

This fall marks music professor Don Appert's 25th year teaching at Clark College, and as befits the director of the college's orchestra, he's celebrating the occasion with plenty of fanfare—winning three prestigious music awards in less than a month.

Last month, Appert received third place the American Prize in the national The American Prize in Orchestral Programming competition. He recently also earned a 2014 ASCAP Plus Award in recognition of performances in Romania, Japan, and the US of his musical compositions. And on November 18, he is receiving a the Clark County Arts Commision's Lifetime Achievement Award.

"It is a great honor to receive the 2014 Clark County Arts Commission Lifetime Achievement Award," says Appert. "In fact it is a bit overwhelming and somewhat difficult to adequately express my feelings in words. To be recognized for one's work is always deeply satisfying. Concurrently winning Third Place in The American Prize for Orchestral Programming and also another ASCAP Plus Award for my musical compositions makes this a truly significant 25th anniversary of my teaching at Clark College."

Appert, 61, chairs the college's music department and conducts its orchestra. He also serves as the music director/conductor for the Oregon Sinfonietta and Jewish Community Orchestra in

Portland, as well as the Sanctuary Choir Director for First United Methodist Church of Vancouver, and has been a guest conductor for the Vancouver Symphony. Appert has bachelor's and master's degrees in trombone from the New England Conservatory of Music and a doctorate in orchestral conducting at the University of Kansas.

Clark County commissioners and the arts commission will present the Lifetime Achievement Award at 9:45 a.m. at the Clark County Public Service Center, 1300 Franklin St. Appert will also be featured in a CTV "Clark County Close Up" program that will begin airing November 16 on Comcast channels 21 and 23 and online.

Clark College Director of Choirs April Duvic nominated Appert for the award, according to a news release issued Friday by the county.

"Don has always been a champion of promoting music by and for the community," she wrote. "The Clark College Orchestra is an amazing connection for players from all walks of life. The community members serve as examples and mentors for the students as well. Don composes music for the college choirs and the students are eager and honored to perform his works. It's rare to have a composer of his excellence and renown at a community college."

"It has been a great pleasure to watch the ongoing growth and development in size and quality of the Music Department, the Clark College Orchestra, and my own creative efforts as educator, conductor, and composer," says Appert. "My thanks and deep appreciation go to my colleagues in Clark College's faculty, staff, and administration, as well as to the student and community musicians who have encouraged and supported me these past 25 years."

*Photo courtesy of Clark College Music Department*



---

# Student Club Prepares for Veterans Day



Clark College Veterans Club member Steve Mitchley hangs a ribbon from the Honor Tree that will be displayed during this year's Veterans Day celebration.

Members of the Clark College Veterans Club and Associated Students are staffing a table outside of Gaiser Student Center from 1 p.m. to 3 p.m. all week in advance of the college's Veterans Day celebration on November 10. Members of the college community are invited to write holiday cards to be sent to members of the military serving overseas. They can also add ribbons to an Honor Tree that will be displayed during Monday's celebration.



Ribbons are color-coded.

- **White ribbon:** in memory of a loved one who gave/lost their life in service
- **Blue ribbon:** in honor of a loved one who is serving
- **Red ribbon:** you are currently serving or have served
- **Yellow ribbon:** general support and thanks to all veterans and service members
- **Black ribbon:** in recognition of someone who was a POW/MIA
- **Purple ribbon:** in honor of Purple Heart recipients



A Clark College student hangs a ribbon on the Honor Tree and fills out a holiday card to be sent to a servicemember overseas.

This is the second year that the college is hosting a Veterans

Day celebration. Last year, the event included the presentation of a grant from the Community Foundation for Southwest Washington that helped start and staff the college's Veterans Resource Center, which opened earlier this year.

The college is always closed on Veterans Day, so each year the celebration takes place on the day before or after the official holiday. This year's Veterans Day celebration takes place 1 p.m. to 3 p.m. in Gaiser Student Center. In addition to the honor tree and card-writing station, it will include a Presentation of the Colors, guest speakers, free food and refreshments, and kid-friendly activities. It is open to the all members of the Clark College community, regardless of military status, and to the greater Southwest Washington community as well.

*Photos: Clark College/Jenny Shadley*

---

## **Clark Theatre Crosses the Border**



In its 2014-15 season, Clark College Theatre takes its audience on a wild trip across the border—whether that’s the border between two countries, between propriety and hedonism, or between reality and art. With the announcement of its three productions—*Night of the Iguana*, *The Rocky Horror Show*, and *bobrauschebergamerica*—the college’s Theatre Department continues its push to provide work that challenges, entertains, and provokes.

The season opens with *Night of the Iguana* by Tennessee Williams. Often considered the last great play written by that classic American dramatist, this provocative exploration of sin and virtue is set in the dusty swelter of a ramshackle Mexican resort, where defrocked minister T. Lawrence Shannon has come to escape both the law and his own inner torment. He’s seeking solace, but instead finds the sultry widow Maxine and the quiet artist Hannah—a gathering of lost souls that quickly ignites into scenes of passion, despair, and surprising poignancy. Nominated for a 1962 Tony Award for best play, this is a major work by one of theatre’s most respected and celebrated writers. The production is directed by Mark Owsley and runs Nov. 7 – 22.

Cast includes: Garrett Dabbs (Pancho), Linda Mathews Owsley (Maxine Faulk), Steven Koculis (Pedro), H. Gene Biby (The Reverend T. Lawrence Shannon), Philip Graves (Wolfgang), Rianna Workinger (Hilda), Nathan Willbanks (Dorph), Sam Ruble (Herr Fahrenkoph), Madison Harris (Frau Kahrenkoph), J.D. Carpenter (Hank), Emily Wells (Miss Judith Fellowes), Elana Mack (Hannah Jelkes), Kiara Goulding (Charlotte Goodall), Zak Campbell (Nonno), and Wayne Yancey (Jake Latta). Production includes strong language and adult themes.

Show Dates: November 7, 8, 14, 15, 20, 21, and 22. All show



times are at 7:30 p.m. November 15, there will also be a 2:00 p.m. matinee.

Ticket Information: Students (with ID) \$9; Alumni (with membership) \$9; Senior Citizens \$11; General Admission \$13. Tickets may be purchased in person at the Clark College Bookstore in Gaiser Hall, online at [http://www.clarkbookstore.com/site\\_theatre.asp](http://www.clarkbookstore.com/site_theatre.asp), or call 360-992-2815. If you need accommodation due to a disability in order to fully participate in this event, contact Clark College's Disability Support Services Office at or (VP), or visit Penguin Union Building room 013, two weeks before the event.

---

## **Educating for the Seventh Generation**



“Educating for the Seventh Generation” is a night of sharing music, dance, and traditions.

On Friday, November 7, Clark College will welcome the community as it hosts “Educating for the Seventh Generation,” a celebration of indigenous cultures.

The event, which is free and open to the public, will be held in the Gaiser Student Center on Clark College’s main campus. The event will begin at 5 p.m., with free food and refreshments served. A performance by Native American flutist and flute-maker Isaac Trimble will begin at 5:45 p.m. The Welcome Address and opening ceremonies for a powwow will begin at 6 p.m. Closing ceremonies will take place at 10 p.m. Vendors and informational booths will be present 5:00 – 10:00 p.m.

This is the sixth year that Clark College has coordinated and hosted an event in honor of Native American Heritage Month. It is one of four signature events hosted by the college annually to celebrate diverse cultures.

This year, the celebration will include the announcement of an effort to create a new scholarship. Entitled the Dream Catcher Scholarship, this fund would go toward the tuition of a Native American student studying at Clark.

“Studies show that Native Americans experience some of the highest poverty rates of all racial groups in the U.S.,” said Anna Schmasow (Sisseton Wahpeton Dakota Oyate Tribal Member), an office assistant at Clark College who has been integral to the organization of Educating for the Seventh Generation. “I believe that education is the most effective tool in escaping poverty. A scholarship fund can help students who are in need attain a successful career.”

Longtime community organizer and celebration committee member Becky Archibald (Shoshone-Bannock Tribal Member) said she hoped the Dream Catcher Scholarship would make college more accessible to Native American youth, many of whom have historical and cultural reasons to distrust educational institutions. “It helps to soften that step, to create that sense of inclusion,” she said. “The scholarship fund would promote the idea that college is possible for the Native American youth in today’s world. It would assist students in bringing their dreams and goals together through higher education.”

According to organizers, “Educating for the Seventh Generation” references “our responsibility to teach the future Seventh Generation to maintain our resources, traditions and customs. It is the way of caring and preserving for the Seventh Generation, which is a true sustainable practice.”

See images from last year’s celebration in Clark’s Flickr album or watch the following video to learn more about this annual event.

---

# Clark to offer its first bachelor's degree



This has been a year of highlights for Clark's Dental Hygiene program, including the opening of the Firstenburg Family Dental Hygiene Education and Care Center and now the introduction of a Bachelor of Applied Science degree.

The Northwest Commission on Colleges and Universities (NWCCU) has approved Clark College's proposal to add the college's first baccalaureate degree. Starting in the fall of 2015 the college will offer a Bachelor of Applied Science in Dental Hygiene.

The B.A.S. in Dental Hygiene will benefit both students and



the community, according to Dr. Tim Cook, Vice President of Instruction at Clark College. He explained that this program opens up additional job opportunities to students, while adding very few additional courses to their degree plan. "Previously, students in the Associate of Applied Science program in Dental Hygiene were here for four or more years because of the requirements of the program," Dr. Cook said. "Being able to offer this degree allows Clark students to earn a bachelor's degree in the same time." The new program builds on the current dental hygiene program, with an increased emphasis on research and educational methodologies. Because all dental hygiene curriculum is standardized by the Commission on Dental Accreditation (CODA), minimal changes to the A.A. program are required.

The new B.A.S. in Dental Hygiene is Clark College's first baccalaureate degree. Students with an associate degree are typically employed in private practice offices or clinics. The bachelor's degree provides opportunities for dental hygienists to work in dental sales, public health, and research. "Like many other healthcare professions, dental hygiene has experienced a gradual yet steady movement toward the bachelor's degree as the desirable degree for entry-level professionals," Dr. Cook stated.

The approval of this program caps off a year of highlights for the program, including the opening of the Firstenburg Family Dental Hygiene Education and Care Center. The \$3.3 million renovation was funded by donations from a variety of entities including the Firstenburg Foundation, Roy and Virginia Andersen Endowment, M.J. Murdock Charitable Trust, John A. and Helen M. Cartales Foundation, and many others. Renovations of the space allow the program to serve more students and more patients – particularly children and underserved populations.

The addition of the B.A.S. in Dental Hygiene is part of a larger push to expand access to baccalaureate education in Washington State that began with the passage of HB1794 by the

Washington Legislature in 2005. This bill, which included language allowing community and technical colleges to begin offering applied baccalaureate degree programs, was designed to meet the state's goal of increasing the number of baccalaureate degrees earned in Washington to 42,400 by 2019. As of the fall of 2013, there are 11 colleges in the State Board of Community and Technical College (SBCTC) system offering 23 different applied baccalaureate degrees.

Applied baccalaureate programs are seen as a perfect fit for community and technical colleges because they fill the gap some employers are finding in filling jobs that require both technical proficiency and the skills that a baccalaureate degree typically provides. These degrees also broaden the range of jobs and promotion opportunities available to students, both key goals for community and technical colleges.

---

## **Our Trees Need Your Vote!**



Members of Facilities Services proudly display Clark College's Tree Campus USA award during the college's 2013 Arbor Day event.

Clark College is one of 10 finalists in the national Arbor Day Foundation's annual Tree Campus USA "Celebrate Arbor Day Event Contest," large school division. The contest, which includes college campuses from across the United States, will reward five colleges in each division with materials, funding, and support for a special Arbor Day celebration in 2015.

Winning colleges will be determined by the number of votes received at the contest's website. Public voting begins October 15 and runs through October 22. Every person is allowed to vote once per day. As of noon on October 15, Clark was leading in number of votes in its category, outpacing much larger schools like Colorado State University and the University of South Carolina.

Clark College has earned Tree Campus USA designation from the Arbor Day Foundation for the past four years in a row. If the

college is a winner in this contest, it plans to use the prize to host a tree-themed geocaching scavenger hunt.

---

## Foundation Ensures a Bright Future



Clark students and Oswald reveal the total amount raised for Clark's Ensuring A Bright Future fundraising campaign during a campus celebration September 30.

A burst of sunshine lit up the stage on September 30 as Clark College students lined up to reveal the final amount raised for the college's five-year Ensuring a Bright Future fundraising campaign. More than 150 guests were in attendance as the Columbia River High School marching band, bedecked in black and gold uniforms and high-crowned shakos, made their

way up the campus' mall and positioned themselves behind the line of students holding blank placards.

Clark College Foundation President/CEO Lisa Gibert and Clark College President Bob Knight called out the numbers, one at a time, as students turned their placards to reveal another digit in the figure. When it was done, the band's drums pounded, the horns blew, and the crowd erupted in cheers to see \$26,593,789 raised for student success at Clark.

"The Ensuring a Bright Future Campaign has been instrumental in bridging the challenges facing our community," said Gibert. "The funds raised have made it possible to offer relevant and accessible education and training for people in tandem with industry workforce needs."

The festivities were a culmination of five years of fundraising spearheaded by Clark College Foundation. More than 4,000 donors contributed to the successful campaign that included raising money for scholarships, programs, facilities, endowments and faculty development.

Rain dampened the lawns as the afternoon celebration began, but didn't dampen the spirits of the people who gathered under large, peaked carnival tents to explore interactive demonstrations at a variety of tables. There were microbes in Petri dishes being tested for antibiotic properties, mini-catapults made with tongue depressors and cotton balls, body composition testing, network cable making, and more. Guest also enjoyed complimentary hot dogs, rice-and-vegetable bowls, and sweet desserts such as funnel cupcakes and strawberry shortcake cups.

Bryce Ruppe, a business major at Clark, stood at the microphone to describe how Clark's faculty are invested in his success. He also thanked the foundation and the audience for supporting him financially through a scholarship.

"Having access to scholarships is life-changing," said Ruppe.



“It’s great comfort for me to receive a scholarship that helps relieve the pressure of paying bills while I’m in college. Thank you so much for helping me.”