The OSU Center for Health Sciences program ties American Indian culture with medicine and science.

Under the blazing New Mexico sun, Jake Duke spent the first part of summer doing something he had never done — digging for vertebrate fossils.

“My favorite part was digging up actual prehistoric fossils,” says Duke, who is in the first year of a doctoral program in hospitality administration at OSU. “I got the opportunity to learn about areas of science that I knew very little about.”

Duke was one of 10 American Indians who participated in a unique summer expedition for college students offered by the OSU Center for Health Sciences in Tulsa. The program, Native Explorers, combines science and medicine with American Indian cultures to spark an interest in these career fields.

Dr. Kent Smith, interim associate dean in the Office for the Advancement of American Indians in Medicine and Science and associate professor of anatomy and cell biology at OSU-CHS, is hoping to attract American Indians to medicine and other STEM — short for science, technology, engineering and mathematics — professions through Native Explorers.

“Growing up as a Native American, there was a paucity of Native professors and research scientists who could serve as mentors for me,” says Smith, who is Comanche and Chickasaw. “Less than 1 percent of university faculty are of American Indian descent, and only 2.5 percent of those are in a STEM field.”

Smith co-founded the Native Explorers Foundation with Reggie Whitten, one of two senior partners at Whitten Burrage law firm in Oklahoma City. Jeffrey Hargrave currently serves as the executive director of the Native Explorers Foundation, which provides funding for the program’s initiatives. “I was immediately attracted to Native Explorers because of my ancestry and desire to help those who don’t have a lot of opportunities outside their communities,” says Hargrave, who is Muscogee Creek and Choctaw. “Growing up in Indian Country, I saw firsthand the lack of opportunities for our youth to learn and experience science.”

Any American Indian 18 years and older may apply for the program.
Applications are accepted each spring. Ten college students are selected to participate in the summer science and cultural expedition.

They start at the OSU-CHS to learn more about medicine and OSU’s physician training programs.

“The unique program offers hands-on activities in an outdoor setting to get these students excited about sciences,” Smith says. “We also show them how science blends with Native cultures and traditions and help them realize how science impacts their lives every day.”

The blend of tradition with science is what attracts many applicants to the highly competitive program.

“Mixing in the culture with the science really made Native Explorers multi-dimensional and added depth to the learning process,” says Duke, who earned his bachelor’s degree from in 2010 and Master of Business Administration in 2013 at OSU. “It made the entire program an exciting journey.”

After time in Tulsa, participants move on to several paleontological and historical American Indian cultural sites across the southwestern U.S. In 2014, the group traveled to Albuquerque, where they met with Gary Morgan, curator of vertebrate paleontology at the New Mexico Museum of Natural History and Science. He provided a tour of the vertebrate collections for the students.

The group also stopped in northern New Mexico, where they collected vertebrate fossils under the guidance of Morgan and Philip Gensler, regional paleontologists for Arizona, California and New Mexico at the U.S. Bureau of Land Management in Santa Fe. The group was honored as special guests at the Taos Pueblo.

The final stop on the expedition was a trip to west-central Nevada, where students collected rock samples for radiometric dating and learned about the local geology of the rock units.

“Since we started the program, our participants have made several scientific discoveries, which have resulted in peer-reviewed publications” Smith says. “It is awesome to see their reactions when they find something new and experience the science involved in paleontology.”

Native Explorers has partnerships with scientists and educators from various tribes; museums such as the New Mexico Museum of Natural History and Science, Nevada State Museum and the Sam Noble Oklahoma Museum of Natural History; universities such as OSU, University of New Mexico, University of Oklahoma and the South Dakota School of Mines and Technology; and government agencies such as the U.S. Department of Agriculture Forest Service, the Utah Division of Wildlife Resources and the U.S. Bureau of Land Management in Arizona, California, Nevada and New Mexico. These scientists and educators serve as mentors for the students.

Nicholas Czaplewski, curator of vertebrate paleontology at the Sam Noble Oklahoma Museum of Natural History, is one of those mentors. His work with Native Explorers has enabled the program to access a variety of paleontological resources and internship opportunities for the students.

“Our mentors help us cultivate connections with the participants after they head back home,” Hargrave says. “Several of our participants have come back to serve as mentors to other students.”

Brandie Macdonald is one of those students. She first attended Native Explorers in 2011 and has returned twice to serve as a mentor.

“I had an amazing experience my first year and made friendships and connections with people I never imagined; we became a big family. It transformed the way I view the sciences and let me work side-by-side with some brilliant people who were willing to share their expertise with me,” says Macdonald, a museum educator at the Red Cloud Indian School in Pine Ridge, S.D. “Going back the second year as a mentor was like going home again. Each year it gets a little bigger, and we are able to share this incredible experience with a new group of students.”

continues
Summer expedition 2015
Applications will open soon for the 2015 Native Explorers summer expedition. Visit NativeExplorers.org to find out how to apply.

A member of the Chickasaw Nation, Macdonald enjoyed the program so much that she implemented parts of it in her current position to encourage students to consider careers in science.

Native Explorers participants receive three hours of upper-level undergraduate college credit through OSU, with all the tuition and fees paid for by the Chickasaw Nation, the Whitten Burrage law firm and the Whitten-Newman Native Explorers Scholarship Fund.

The Native Explorers program is part of an expanded effort by OSU-CHS to attract American Indian students to careers as physicians and scientists. The new Office for the Advancement of American Indians in Medicine and Science serves as an outreach effort to Native American tribes in Oklahoma.

“Our goal is to identify American Indians who have an interest in medicine and science and increase the number of Native American students in our medical and graduate programs,” Smith says. “We’ll be working with tribes on ways to combine culture and traditions with the health and wellness needs of their citizens to make a positive impact on our state.”

The effort has been a top priority for OSU-CHS President Kayse M. Shrum, who says the outreach program fits well with the center’s mission to provide primary care physicians to underserved areas of Oklahoma.

“Oklahoma is experiencing a shortage of physicians, primarily in rural areas of the state,” Shrum says. “We are working to establish relationships with tribal leaders to develop programs to attract American Indian students who will return to their communities to practice medicine.”

Native Explorers is personal for Hargrave. He wants to see more American Indian students graduating from college and coming back to serve as mentors for future generations.

“Native Americans have the lowest graduation rates among all the minorities,” he says. “I see Native Explorers as a way to combat these terrible stats and improve our education system in Indian Country.”

The program is already having an impact for students like Duke, who
want to expand their knowledge in science fields.

“It makes me wish I had pursued a science degree when I was an undergrad- uate,” Duke says. “But it is great to know that there are programs out there now that will introduce students to these science fields at an early age.”

OSU-CHS Partner Named Among Most Influential

Time named OSU Center for Health Sciences partner Sister Rosemary Nyirumbe to its list of the 100 Most Influential People for 2014. The OSU medical school has worked with Sister Rosemary for more than two years to support the women and children who have been affected by the wars in Uganda and South Sudan.

“Sister Rosemary stands as an inspiration to our students and to millions of others around the world for her bravery in standing up to rebel leaders and her service to the people of Uganda,” says Dr. Kayse M. Shrum, OSU Center for Health Sciences president. “Everything Sister Rosemary does is in service of others, and that’s a value we instill in our students as they prepare to be physicians and community leaders in Oklahoma.”

Sister Rosemary works with women and children torn away from their families and forced to serve as sex slaves in Joseph Kony’s Lord’s Resistance Army. Saint Monica’s Girls Vocational School in Uganda is a refuge where the women and girls learn to make clothes, grow food and support themselves and their families.

Through the university’s affiliation with Pros for Africa and its founder, Reggie Whitten, OSU-CHS developed close ties with Sister Rosemary. OSU-CHS adopted Saint Monica’s as an international education partner and began developing an international medical rotation in Uganda for students and faculty.

For more information, visit Time’s list at time.com for a profile of Sister Rosemary written by actor Forest Whitaker, or go to statemagazine.okstate.edu for an OStateTV video featuring Sister Rosemary talking about the OSU-CHS partnership.

OSU-CHS President Awarded for Service

The Oklahoma Osteopathic Association presented Dr. Kayse M. Shrum, president of the OSU Center for Health Sciences, with the Outstanding and Distinguished Service Award in April. The award is given to an osteopathic physician who is an outstanding asset to patients, physicians, hospitals, medical students and professional organizations.

Shrum was recognized for her strong rural advocacy efforts in Oklahoma and her dedication to preserving the principles and philosophies of osteopathic medicine at the OSU College of Osteopathic Medicine.

After earning her doctor of osteopathic medicine degree from the OSU College of Osteopathic Medicine, she began her career as a pediatrician in private practice and was named the Oklahoma Osteopathic Association Rookie Physician of the Year in 2001. She became provost of the OSU Center for Health Sciences and dean of OSU College of Osteopathic Medicine in January 2011 and was named president of OSU-CHS in 2013, becoming the youngest and first female president and dean of an Oklahoma medical school, as well as the first OSU Center for Health Sciences graduate to become dean of the college.

OSU, Mercy Finalize Medical Center Agreement

Mercy Health and the OSU Medical Authority have finalized an agreement for the health care network to manage the OSU Medical Center in downtown Tulsa.

“OSU has built a solid foundation of quality medical care and compassionate healing in downtown Tulsa, and it will be a privilege to build on that success,” says Di Smalley, Mercy’s regional president for Oklahoma. “The Mercy mission of cultures will be an ideal fit in Tulsa. We are already working to make the transition seamless.”

The OSU Medical Center has a dual role to care for the medically underserved in the region and to serve as the teaching hospital for the OSU College of Osteopathic Medicine.

“Mercy shares our commitment to provide primary care physicians to Oklahoma through our medical school and teaching hospital. The OSU Medical Center is the nation’s largest osteopathic teaching hospital, and this agreement ensures that our medical students and residents will have an excellent facility, mentors and faculty to continue their medical education,” says Dr. Kayse Shrum, president and provost of the OSU Center for Health Sciences. “A strong pipeline of primary care doctors is essential to improving Oklahoma’s overall health picture. The management agreement is a major achievement and an important step in building a long-term relationship with Mercy.”

The Tulsa economy depends on the OSU Medical Center for more than 900 high-paying jobs with more than $125 million in economic impact including tax collections. The agreement went into effect May 1.