The Partnership for Native American Cancer Prevention is delighted to share the news that Dr. Hendrik “Dirk” de Heer will be the new NACP Training Core Principal Investigator, previously Dr. Jani Ingram’s role. Dr. de Heer is originally from the Netherlands and came to the US in 2001, running track and cross country for the University of Texas at El Paso (UTEP). He is also a proud father of a 2.5 year-old daughter.

Dirk as he prefers to be addressed, has a background in training in Health Psychology, Industrial/Organizational Psychology, Public Health and Public Health Genomics. He attended the University of Texas El Paso (UTEP) and finished a BS in Psychology in 2004. He then finished an MS in I/O Psychology in 2005 at the University of Groningen, the Netherlands, and upon completion returned to El Paso. In 2009 Dirk completed a PhD in Health Psychology at UTEP as well as a Masters of Public Health at the UT Houston Health Science Center, El Paso campus.

Before coming to NAU in 2011, he worked as a Postdoctoral Fellow at the National Human Genome Research Institute, Social and Behavioral Research Branch in Bethesda, MD.

Most of his research has focused on community based physical activity programs among underserved populations, leading to publications in public health journals such as the American Journal of Public Health, BMC Public Health and Lancet Global Health.
Dr. de Heer first entered NACP as a recipient of seed funding to further develop a partnership and proposal focused on physical activity for Native American cancer survivors. This proposal led to the development of the current team of Dr. Jennifer Bea (UA), Dr. Anna Schwartz (NAU) and Dr. de Heer as co-leaders of a pilot research project that is part of the funded proposal for the current funding cycle. Several students were added to the team, which has really accelerated in the past year, with a grand total of 15 students involved across both institutions.

Dirk was also funded with his first grant at NAU the Ottens Foundation grant, the goal was to promote NIH and other national summer internships for Native American students. After starting work with NACP, Dirk was fortunate to receive additional support for the project from the NACP training core. Through one-on-one mentorship and modest financial support, the Ottens Foundation has been very successful placing students at NIDDK/OMHRC, NCI, NEI, NHGRI as well as Harvard, Fred Hutchison Cancer Center and many other places. In total, 30 Native American students have submitted over 50 successful applications to internships, scholarships, post baccalaureate, post baccalaureate fellowships, graduate school applications and research experiences. From this role, increasing his involvement with the NACP training core was a natural transition.

Dirk has also stated that in this new role with NACP, he has the following goals for the Training Core to build together as a team. He would like to continue the exemplary work led by Dr. Jani Ingram and Christal Black in providing successful cancer research experiences for our students. Dirk would also like to expand our work on individual development plans (IDPs). From previous experience with students, Dirk has understood that different students have different needs and providing the right resources at the right time will be essential in a students' ability to take the next step in their career. Because of Dr. de Heer's experience in grant writing he would also like to submit proposals to support the training core activities through other NIH funding sources, with the goal of securing other external funds by the end of the current funding cycle. Eventually, Dirk is interested in exploring transitional programs to ‘bridge’ the time from successful graduation of a bachelor's degree to acceptance and success in a graduate program.

As a successful mentor to students in the past and currently, Dirk has the following pieces of advice for students. “Please do not be afraid to use the resources around you early and often. Asking for help is not a sign of weakness, but rather the start of a collaboration towards a common goal. Whether it be academic advising, gaining research experiences or finding tutoring for a tough class, there are people who can help you or point you in the right direction!” Another piece of great encouragement from Dirk is to learn to be resilient. The academic world is often full of rejection and that being turned down is not a reflection on your capabilities. Instead when rejected don't just give up but get feedback from others, apply again and keep believing in yourself!

NACP is very fortunate to have Dr. de Heer as the new PI for the Training Core and is excited about what is to come for the future of the program.
UA Student Highlight

Alec Perkins is a recent graduate of the University of Arizona. He earned his bachelors degree in Molecular and Cellular Biology and is a member of the Hopi tribe and part of the Coyote clan. Alec calls Pinedale, Arizona home. He was part of the NACP/UBRP summer research experience for a few years. He has worked in Dr. Sarah Skoch’s lab where his research dealt with depression in cancer patients and their families. He also worked in Dr. Monica Yellowhair’s lab where he preformed DNA extractions from fecal samples that were part of a microbiota project.

During Alec's undergraduate career he participated in a parasitology research experience in the Czech Republic. He spent 10 weeks under the mentorship of Dr. Tomas Scholz, a scientist at the Institute of Parasitology at the Czech Academy of Sciences in the city of Ceske Budejovice. Following his summer experience at the Czech Republic he had the great opportunity of attending and being part of the Intramural NIAID Research Opportunity (INRO) Conference in Maryland. He was able to meet “head honchos” that advise the President of the United States. During the conference, participants were set-up with interviews with several different researchers who were looking for people to work in their labs. His participation in the INRO program led him to the NIH Post-baccalaureate Intramural Research Training Award (IRTA) program. The IRTA program is where Alec is currently at. The IRTA program provides recent college graduates whom are planning to apply to graduate or a professional institution to conduct a year or two of full-time research at the NIH. Alec has chosen to partake in the year long research experience with Dr. Jesus Vanezuela.

Dr. Vanezuela is a former University of Arizona UBRP participant and is a researcher at the NIH. Alec will be working with Dr. Vanezuela on running vaccine trails on hamsters. During his time with the IRTA program, Alec will be working on applying to medical school.

We asked Alec if there is a unique perspective that he brings to science because of his background. He commented that he does bring a unique perspective because he did not grow up on the reservation or in the Hopi culture. Given the fact that he did not grow up on the reservation, he has always been aware of his Hopi heritage and it has helped him become aware of issues that pertain to his Hopi culture. Alec’s perspective comes from being both an outsider of both cultures he belongs too. He believes his dual perspective gives him an interesting outlook on science within Native populations. He hopes to take advantage of this in the future when he becomes a professional. He feels there is a gap between individuals who are culturally insensitive to Health Science research when it is dealing with Native populations. We had also asked Alec what advice he would give to future students who wish to start with UBRP. His response, “Just do it!”. He also included that students should keep their ears and eyes open for any opportunities and it also comes down to the people you know.
August 2016

NACP Newsletter

Native Research Network Conference

To start out the month of June, 8 students from Coconino Community College and Dine College, and 2 students from Fort Lewis College arrived on NAU campus ready to take part in the summer program. At the UA, 6 students started their summer with the Undergraduate Biology Research Program (UBRP). A week later, students along with NAU and UA Training Core staff headed east to the 26th Native Research Network conference in Cherokee, NC.

The theme of the conference, “Finding Balance: Sacred Places and Healthy Environments” fit the location well, as we were on the Qualla Boundary in the Great Smoky Mountains. Although the location made it hard to concentrate on the conference, we all were able to gain knowledge and become aware of the many studies being done with Native Communities and by Native American students and professionals.

“Not only did I enjoy learning about the different programs taking place within tribes all over the United States, I also enjoyed the bonding that took place between the group” - summer student

In a span of about 3 days, we attended sessions that explored and discussed environmental health science, health policy, best practices for Native populations, health care needs, and health disparities in Native populations. The conference also provided a forum for Native professionals to network with Native students for the purpose of educating, career development, and research opportunities. Tours of the Cherokee Indian Hospital, the Cherokee museum, and to the Great Smoky Mountain National Park gave an insight to the history and culture of the Eastern Band of Cherokee Indians.

The conference was received well by the students. Some were veterans as they had already attended a national conference, for others, this was a first.

“The Native Research Network trip to Cherokee, North Carolina was a roller coaster ride of knowledge due to my not having been to a conference. I felt out of place at times but also I felt that I was right where I needed to be as a student, learning and participating” - summer student.

To end the week long trip in North Carolina, more bonding took place as students and staff hiked the beautiful Catawba Falls.
The Tribal Environmental Health Summit (TEHS) is a biannual meeting sponsored by the Native Environmental Health Research (NEHR), with the goal to bring together community members, students, and researchers interested in developing relevant solutions to the pressing environmental health issues that are disproportionately experienced by Indigenous communities. This year’s summit was hosted by Dr. Jani Ingram, with the assistance of Dr. Doug Stevens, Salish Kootenai College and Director of NEHR. The summit was held on NAU campus at the Native American Cultural Center and the 1899 Bar & Grill.

The TEHS aimed at bringing together academic, governmental, and community members to discuss tribal environmental health concerns and share recent community-based research findings, as well as provide a venue for fostering potential future collaborations. Another aim of the summit was to provide Native American students at the high school, undergraduate, and graduate level with the opportunity to engage with researchers working on tribal environmental health issues.

The summit started and ended with very informative sessions. Each session had a speaker who presented on what they were involved in or working on. All presenters are involved in work addressing environmental issues in Indian Country. There was also a session for students, where they too presented their work in a poster session.

NACP students, Riley Smith, Andee Lister and Tommy Rock participated.

To get to know the Flagstaff area well, some presenters arrived a day early and/or stayed a day later. They visited downtown Flagstaff, Lowell Observatory (part of the summit), the Grand Canyon, Sedona, and the nearby reservations.

The success of the TEHS was made possible by many: NAU Office of the President, Office of the Vice President for Research, Native American Cultural Center, 1899 Bar & Grill, NACP, National Institute of Environmental Health Sciences, NEHR, USEPA Office of Chemical Safety and Pollution Prevention, and Salish Kootenai College.
Summer has always been a very interesting time for students, they can be spent working a part time job, sitting at home, traveling with family and some are spent participating in internships. This past summer, NAU hosted 2 Fort Lewis College summer research participants through NACP Supplement funding. There was also collaboration with the Bridges to Baccalaureate Program which funds 8 students from tribal and/or community colleges to conduct research for 10 weeks at NAU. The UA also hosted summer research participants, 6 in the Undergraduate Biology Research Program (UBRP) and 2 in the Graduate Summer Transitional Enrichment Program (GSTEP).

Throughout the summer students from both universities participated in the program activities which often include Responsible Conduct in Research (RCR) training, weekly research, career development, university credit and evaluation. At the end of the program the participants are expected to have completed a research project in order to create and present a research poster.

On Thursday, August 4th students as well as staff participated in the End of Summer Research Collaboration Day. To become familiar with each other, students participated in the NAU Ropes Challenge Course. Due to inclement weather the planned activities was moved inside, however this did not diminish the time spent in team building and having fun as a group. The purpose of the ropes course is to help bring participants out of their comfort zone, be challenged to share ideas and to learn from each other. Each student participated and afterwards shared how it challenged them physically and mentally. It was a fun experience they were glad to be a part of.

A student panel was set up for the afternoon following lunch, where current and past NACP students shared educational and personal stories leading up to where they are now. The panel included Wayne Nez Jr, Adam Settimo, Janice Wilson and Tomoko Wilson. This has always been a popular session.
for students as they can relate to the struggles of balancing life's demands while being a student.

To show the importance of mentoring, a speed mentoring session which included 9 NAU mentors across many disciplines took place after the student panel. The students were paired off and each pair sat at a table with a mentor for 5 minutes to ask questions and have conversations. At the end of the speed mentoring students were also allotted more time to go back and speak with other mentors that they didn’t quite finish a conversation with.

The conclusion of the day’s activities culminated in a banquet where summer research participants brought guests and mentors attended. The banquet also hosted a guest speaker, Dr. Clarita Lefthand-Begay a member of the Diné Nation and an assistant professor at the University of Washington (UW), and director of the Indigenous Water Project in Seattle. She spoke on her current research as well as encouraging students to pursue higher education and to give back to their communities.

Following Dr. Lefthand-Begay’s presentation, NACP staff and students recognized former program coordinator, Christal Black for her years of hard work and dedication to summer programs. The banquet ended with presentations of certificates to students for their completion in the summer programs. The following day, Friday, August 5th, students presented their research through a poster session located in the Wettaw lobby on NAU campus. This poster session was open to the public and allowed for students to learn about the projects the members in their cohort conducted. The efforts in the collaboration day was a success and we are looking forward to recruiting the students for next summer.
Summer ‘16 Internships

Kaitlyn Haskie, National Institutes of Diabetes and Digestive and Kidney Diseases’ Diversity Summer Research Training Program, Phoenix, AZ

Kaitlyn Haskie (Navajo), is the salt clan, born for the water-flows-together clan, her maternal grandfather was the many-goats, and her paternal grandfather is the towering-house clan. She is originally from Lukachukai, AZ, but currently resides in Flagstaff, AZ. Kaitlyn attends NAU where she is pursuing double degrees in Applied Indigenous Studies and Microbiology. The rising senior is working with Dr. Dirk De Heer on the clinical research study Physical activity and cancer among Native American cancer survivors. Kaitlyn is interested in pursuing a graduate degree at the University of Arizona or the University of Texas Health Science Center.

This summer Kaitlyn was a part of the National Institutes of Diabetes and Digestive and Kidney Diseases’ Diversity Summer Research Training Program for undergraduate students or NIDDK-DSRTP. During her 10 week stay in Phoenix, AZ, she conducted clinical research at the Phoenix Indian Medical Center. Kaitlyn worked with mentors Dr. Karyne Vinales, a clinical fellow, Dr. Marci Gluck, Principal Investigator and Dr. Jonathan Krakoff, section chief, on the investigation of select metabolic and hormonal predictors of weight change. Her favorite part about the internship was meeting wonderful and inspirational people who have ignited a passion for clinical research in Native American communities. She also gained invaluable professionalism and confidence.

Kaitlyn missed the quiet and stillness of home, opposed to her every day commute on the public transit and the bustling metropolis with lost of risible people. With her time outside of lab/work she has met friendly people and fulfilled a life long dream, as she attended Comic Con.

Wayne Nez Jr, University of Utah School of Medicine, Salt Lake City, UT

Wayne Nez Jr (Navajo), is from Coalmine Mesa, a small community 15 miles east of Tuba City. He will be entering Fall 2016 as a junior pursuing a BS in Biomedical Science and a minor in chemistry.

His short term goals are to complete his undergraduate degree and gain as much research experience as he can. Professional networking and clinical shadowing/volunteering are also some things he wants to do more of. His long term goals are to be admitted into a NIH funded Medical-Scientist Training Program, with his top tier institution being Albert Einstein College of Medicine in the Bronx, New York.

Wayne is finishing up his internship this summer at the
University of Utah School of Medicine. He was placed into a Type 1 Diabetes research lab. His project consisted of screening for already FDA-approved drugs that may be used to treat hypoglycemia unawareness. He used a rat model and injected them with preferred drugs over a span of 5 days and on the last day of the protocol, he injected insulin to create hypoglycemic conditions and then measured blood glucose levels and food intake. His favorite part of the internship was attending the American Diabetes Association National Conference in New Orleans, Louisiana with his PI and fellow group members. Not only did he learn about the latest scientific research concerning diabetes, but he also took advantage of what the city offered: great food, great sights, and great company. Like most students, Wayne's least favorite part was the first week of the internship, which was spent doing online training modules and the unorganized schedule didn't help either. Outside of lab, Wayne got aquatinted with the area pretty fast, he spent time working out, watched movies, and dined at local restaurants. The one thing he enjoyed most was hiking the mountains that are located behind the university and student housing. Wayne's overall experience was a good one. He learned about Type 1 diabetes and some research being conducted at the University of Utah. He learned how to administer drugs to rats and the humane treatment of rats in a research setting. Although, this internship didn't change any future educational or career moves, it definitely gave Wayne an insight and a possible pursuit in diabetes research.

Fernando Tom Jr, MHIRT 2016, Auckland, New Zealand

Hello, my name is Fernando Tom, Jr. and I am a proud citizen of the Navajo Nation. I am from Kaibeto, Arizona. I am currently double majoring in Biomedical Sciences and Chinese for the Global Science and Engineering Program (GSEP). I am also double
minoring in Chemistry and Japanese. I was involved in various programs across NAU. I volunteered at the Louie’s cupboard ever since I was a freshman, was a Global Advisor for the International house for two years, worked on various projects with GSEP, Native American Cultural Center (NACC), and the International house. I know pretty much everyone on campus. On the weekends, I would come back to Page and volunteer my time working at Page Public Library. This is actually my fourth year. However, I will be studying abroad in Shantou, China for a whole year taking upper division Chinese and science courses in the fall semester and doing an internship at one of the university's partner hospitals for the spring semester. I will do research and will gain some experience in traditional Chinese medicine. My future goals at the moment is to get a master's in Chinese medicine in Taiwan. Then, come back to the US to do medical school at Stanford. After I finish with all of my studies, I would like to be a part of “Doctors Without Borders”, helping the people from rural communities across the world. My side goals is to learn ten languages, so far I know Navajo and English. I am learning Mandarin Chinese and Japanese here at NAU. My ultimate goal is to return to my reservation to help my people and hopefully inspire future generations to gain a higher education in clinical research and the medical field.

I was part of NAU's Minority Health and Health Disparities International Research Training (MHIRT) program this past summer in Auckland, New Zealand. This was actually my first summer internship I’ve ever done! The MHIRT program was a ten-week program that ran from late May to early August. I did a week before at NAU preparing for the international site. The last week we did the research presentations, abstracts and posters. Within the eight weeks I was in Auckland New Zealand, I was able to work at the Liggins Institute, which is one of the research centers for the University of Auckland. My mentor was Dr. Paul Hofman. I can honestly tell you that I loved every minute of it and I actually didn’t want to leave at the end of the program. The weather was so nice, everyone was super friendly. The work environment was completely different from the US. The Liggins Institute staff and New Zealand in general was pretty laid back. They worked less hours, but were super productive. It was New Zealand's winter and majority of the projects finished before we got there and the new projects didn't start until the last two weeks before we left. I think a big influence to making the MHIRT program a success was Dr. Hofman's second in command person, Janene Biggs. She took time out of her busy schedule to show us the different equipment, such as the DEXA, Biodex, pqCT, Leonardo and the vibrational plates. In addition, being self efficient and motivated is essential in working at this specific site. The other MHIRT sites were working on a single project. Whereas, my colleague and I worked on various projects. I have gained a great deal of hands on experience working on the different projects, such as typing in and analyzing data for an Italian PhD student, Valentina’s gut probe project, to being a major help on the OptiMuM: Optional Nutrition in the Elderly: High Diets for Muscular, Metabolic elderly study, and helping Sarah with preclinical mailing and helping her with her first few participants in her pre-eclampsia study in the last two weeks we were there. My favorite part was the nutrition
study. It was the main research that my colleague and I worked on while we were there. It was a ten-week high protein/high carbohydrate diet study on 30 elderly men ranging from 70 years and older. The 30 subjects were put into two separate groups (high protein and high carbohydrate diets). This was definitely a program that you wanted to be apart of. The elderly men had all of their meals provided for them. I so wanted to be part of this study, can't pass up free food! They got screened before and after in the ten-week nutritional program. I got to see how a muscular biopsy was done. I was also able to do a couple of the initial interviews to see if the elderly men were able to participate for the study. In addition, I helped out with the blood collection and pipetted a few blood samples. It was so funny, I have to tell you this story. When I said the work experience was hands on, the primary investigator was Cameron. He showed me how to remove the cannula and he did it in five seconds. It was super fast! I had to remove the next guy's cannula from his arm and I was so nervous! I guess my nervousness showed and the old man started freaking out too! However, I pulled it out and it wasn't as hard as I thought it would have been. With the data that we collected, we learned that having a high protein diet will help maintain muscular function and mass in elderly people. There has to be an early intervention in adulthood.

I didn't have any dull moments. I learned quite a lot on how to develop my own research protocol, how to efficiently read scientific papers, and developing the abstract, presentation and poster. It has definitely influenced me to continue on in doing research and going into the medical field.

Dr. Hofman wanted us to experience more of the New Zealand culture so he gave us Fridays off. So on the weekends, I did a ton. You can say I visited the entire North Island while I was there! We went on a couple of excursions with the Massey University group to a traditional Maori Marae. The Maori people are the indigenous people of New Zealand and the marae is their traditional home, which is similar to a Navajo hogan. Asian culture was prevalent in New Zealand. I actually got to try Chinese dimsum, which is a traditional Chinese meal that Chinese people would have on the weekends. It was such a whole new experience! I actually got a chance to try chicken feet! I got to see Rotorua, which is the must see place in north island. I can write a book about my experiences there. Someday I will return to New Zealand to see the South Island.
Announcements and Upcoming Events

STUDENTS

• August 22nd - UA classes begin

• August 29th - NAU classes begin

• September 1st - October 14th - 2017 NAU MHIRT program application cycle open
  • Applications due October 14th by 5pm
  • Info: MHIRT@nau.edu or kathleen.freel@nau.edu

• September 15-16th - NAU Showcase

• September - NAU NACP Monthly Meeting - TBD

• October 13-15th - SACNAS Annual Meeting

FACULTY AND STAFF

• August 18th-19th — Summer Research Conference

EXECUTIVE COMMITTEE

• September - Executive Committee Meeting - TBD

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