



### Mission

To alleviate the unequal burden of cancer among Native Americans of the Southwest through research, training, and community outreach programs in collaboration with the communities we serve.


### In this issue:

- Insights on Head and Neck Cancer
- Bridges to Baccalaureate
- Congratulations Beyonce Bahe
- NACP Investigators Start New K-12 Program

The Partnership for Native American Cancer Prevention (NACP) is a partnership of Native American communities, Northern Arizona University, the University of Arizona Cancer Center, and the National Cancer Institute to address cancer health disparities in Native Americans.

## Greetings!

University faculty members can make a positive impact on humanity through the discoveries made by the research teams that they lead. In some cases, they may have an even greater impact through the many students who they teach, train, and mentor. This month, NACP celebrates new funding that faculty members at Northern Arizona University have been awarded for training programs. These programs will touch the lives of many students from kindergarten to college. We hope you enjoy learning about the programs and reading the other articles in this issue.

  
 Jani Ingram      Francine Gachupin      Jason Wilder      Margaret Briebl

## Insights on Head and Neck Cancer

Head and neck cancer is both preventable and treatable. It is caused by exposure to cancer-causing agents (carcinogens) such as alcohol and tobacco smoke, but also by the human papilloma virus. This is the same virus that causes cervical cancer. Vaccination of young adults against the human papilloma virus can prevent head and neck cancer. Dentists are trained to detect head and neck cancer. Twice yearly visits to the dentist help ensure that this cancer is caught at an early and treatable stage. Head and neck cancer starts as 'white/grey' plaques in the mouth or throat. When metastatic, it spreads to the lymph nodes around the head and in the neck. Remember, vaccination against the human papilloma virus and early detection are the keys to beating head and neck cancer.

## Bridges to Baccalaureate



Bridges students at a SACNAS meeting

NACP congratulates Drs. Jani Ingram, Alvin Altamirano, Aaron Tabor, and Ms. Sheena Hale on their recently funded training program, Bridging Arizona Native American Students to Bachelor's Degrees.

The program is designed to increase the number of Native American students from federally recognized tribes completing baccalaureate degrees in the biomedical and behavioral sciences at Northern Arizona University by providing a unique transfer program for students originating from Coconino Community College that is academically sound, highly engaging and seamless. This program will increase the number of Native Americans trained in the area of biomedical and behavioral sciences which are of importance to Native American communities. Bridges students receive two-years of support (tuition, fees, and stipends) as well as professional development, hands-on research experiences, and networking with other Native American scholars.



## Congratulations Beyonce Bahe



Beyonce Bahe

Congratulations to NACP student, Beyonce Bahe, who has been awarded a Cobell Undergraduate Scholarship. This national scholarship honors Elouise Cobell (Blackfeet Nation) who worked tirelessly to correct the wrongs that the U.S. government committed against her tribe. Recipients of the scholarship are selected based on their potential to continue Eloise Cobell's legacy. Ms. Bahe is a junior at Northern Arizona University. She is double majoring in biomedical sciences and chemistry. Ms. Bahe joined Dr. Naomi Lee's laboratory in January 2020 as an undergraduate research assistant through NACP. Her research project is titled "Self-Assembling Peptide-based Vaccines against HIV." In her work on the project, Ms. Bahe is utilizing her chemistry knowledge to synthesize peptides, or small fragments of proteins, that could be used to develop new vaccines. Through her research with Dr. Lee, Ms. Bahe is learning a variety of specialized research techniques that she can use to solve important health problems. In summer 2021, she participated in the virtual Health Disparities in Tribal Communities summer internship program that is funded by the National Institutes of Health. In acknowledging Ms. Bahe's selection for the Cobell Undergraduate Scholarship, Dr. Lee wrote: "I could not be prouder of the hard work, dedication, and growth Beyonce displayed over these unprecedented school years. I look forward to her continued growth and success as an aspiring Indigenous scholar."

## NACP Investigators Start New K-12 Program



Dr. Greg Caporaso



Dr. Joslynn Lee

A groundbreaking new program from NAU will put computers, high-tech computing software and computing experts in classrooms with K-12 students on Native American reservations with the goal of creating a pipeline of historically underserved students into science and technology fields. Dr. Greg Caporaso is a principal investigator on the project, along with Dr. Jani Ingram (Dine'), a



Dr. Jani Ingram

Dr. Naomi Lee

Regents' professor in chemistry, and Dr. Naomi Lee (Seneca), assistant professor of chemistry at NAU, and Dr. Joslynn Lee (Dine', Haaku, K'awaiki), a chemistry professor at Fort Lewis College. It is funded by the Chan-Zuckerberg Initiative. "The ultimate goal of this project is to increase representation of Native Americans in the field of scientific computing," said Dr. Caporaso, a QIIME 2 creator. "By working to diversify this field, we can bring different perspectives, skills and creative insights to scientific computing projects and build healthy and engaged software development communities, which enables open source developers to deliver innovative, high-quality software and educational resources that are useful to user communities with widely varying backgrounds."

## Contact Information and Websites

Jani Ingram, PI at NAU  
[Jani.ingram@nau.edu](mailto:Jani.ingram@nau.edu)  
 (928) 523-7877

Margaret Briehl, PI at UACC

[mmbriehl@pathology.arizona.edu](mailto:mmbriehl@pathology.arizona.edu)  
 (520) 626-6827

NAU: <https://in.nau.edu/nacp/#>

UA: <https://cancercenter.arizona.edu/researchers/collaborative-research/nacp>

Maria Jackson, Program Manager at NAU

[Maria.jackson@nau.edu](mailto:Maria.jackson@nau.edu)  
 (928) 523-8383

Maria Prevatt, Research Administrator at UACC

[mprevatt@uacc.arizona.edu](mailto:mprevatt@uacc.arizona.edu)  
 (520) 626-6979