

The Partnership for Native American Cancer Prevention



2023
Student &
Early Stage Investigator



Feature Booklet



The Partnership for
Native American Cancer Prevention

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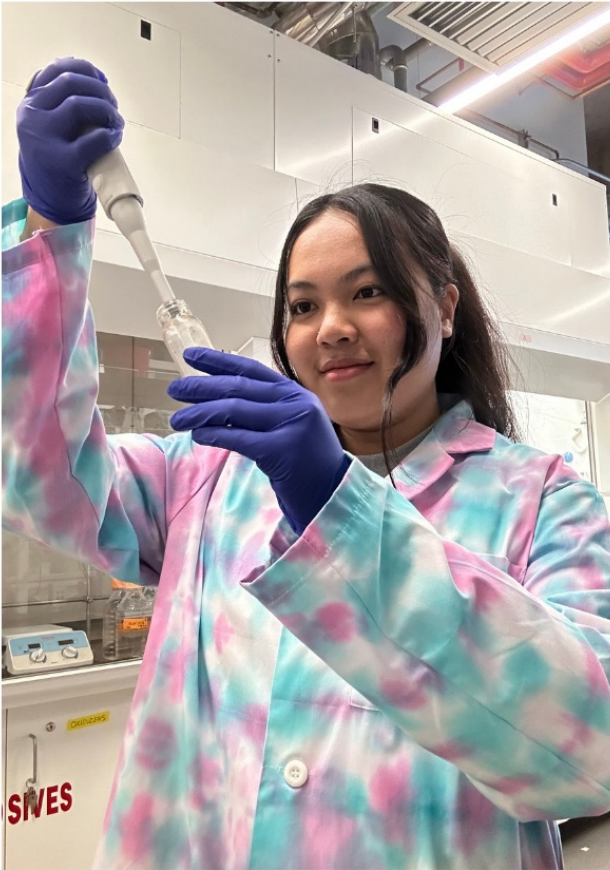
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Research Student Fellows

Marinca Faimau



Where are you from and what motivated you to pursue a career in health or science?

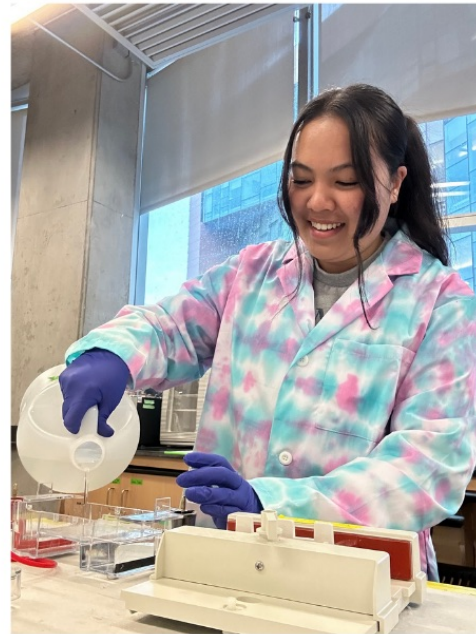
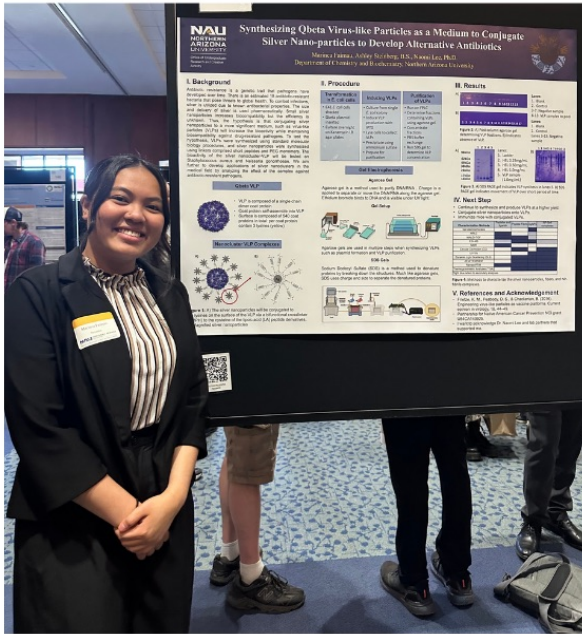
I am a first-generation student from the Republic of Palau, located in the northern Pacific Ocean. I decided to pursue a career in health and science to become a medical professional who can provide healthcare services among Native Americans and underrepresented minorities. I want to improve current healthcare systems by incorporating traditional healing practices and medicinal knowledge to provide accessible treatment by bridging the gap between conventional Western medicine. I hope that through my journey I can address health disparities, advocate for change, and contribute to innovative advancements for Native Americans and underrepresented communities.

What is your current research project and future career goal?

My research focuses on developing virus-like particles as an effective medium to increase the bioactivity of silver nano-clusters as potent antimicrobials to target drug-resistant. Through this research and experience, I aim to pursue an M.D./Ph.D. to enhance traditional medicine to increase accessible forms of treatment to eliminate current health disparities among Native and underrepresented minorities. I look forward to continuing similar research and careers around developing vaccines and antibiotics.

Research Student Fellows

Marinca Faimau, cont.



Provide an example of how NACP has helped you?

Being a part of the NACP has been an exceptional journey that has transformed my life in numerous ways. One of the significant ways NACP has supported me is by allowing me to participate in programs for professional development.

Furthermore, NACP's commitment to my personal growth extends beyond academic pursuits. The program has fostered a supportive community where I have had the opportunity to connect with individuals who share a common passion for helping others. The program's unconditional support for my academics and career goals and guidance in navigating graduate programs have been invaluable.

I am immensely grateful for the opportunities NACP has provided me and the lessons I have learned. The experiences and skills gained through this program will continue to shape my future endeavors, enabling me to contribute meaningfully to the field of public health and make a difference in the lives of others.

Research Student Fellows

Ashley Hale



Where are you from and what motivated you to pursue a career in health or science?

Ya'at'eeh (Hello), I am a part of the Diné (Navajo) tribe from Window Rock, Arizona. I'm an undergraduate at Northern Arizona University majoring in Psychological Sciences and minoring in Criminology.

As a Navajo woman, I was taught to be compassionate, empathetic, and to be hopeful. I lived on the Navajo reservation where I observed and experienced many mental health disparities within the Navajo communities. As I got older, I started to ask questions and analyze these mental health disparities. Through my curiosity and my desire to help my community, I want to pursue a career in mental health.

What is your current research project and future career goal?

Currently, I am working with Dr. Ricky Camplain. Her lab focuses on health and wellbeing of people incarcerated in rural county jails. In addition, this current research project I'm a part of seeks to understand what physical health looks like in rural county jails. For this project we hope to promote physical health amongst the incarcerated population, and help establish a physical activity program in Coconino County Jail. For my future career goal, I hope to become a child psychologist or a mental health researcher.

Provide an example of how NACP has helped you?

NACP has helped me become more confident in myself as an individual, student, and researcher. It has broadened my perspective in many ways by connecting with my colleagues and other researchers in different disciplines.

Research Student Fellows

Jennifer Hudson, MPH



Where are you from and what motivated you to pursue a career in health or science?

I was raised on my grandfather's ranch in Tsayatoh, New Mexico and I was fortunate to be surrounded by family who constantly motivated me to pursue my dreams. As I grew older, I became aware of the impact chronic diseases had on not only those I loved, but on others throughout my community.

I always had a passion for health and science so it was then I knew, I wanted to utilize both to help alleviate the prevalence of chronic diseases among my people.

What is your current research project and future career goal?

I'm a recent graduate from the Master's in Public Health Indigenous Health Track program at NAU and I worked as a Graduate Research Assistant on the Healthy Diné Nation Act (HDNA). Through my work, I've learned a lot about this important legislation and how it has positively impacted the health and wellness of the Navajo people. I plan to use the experiences I've gained and my degree to pursue a career in health research, since research has become an invaluable tool in understanding and alleviating the health disparities that affect Native American communities like my own.

Provide an example of how NACP has helped you?

A project through NACP was actually my first introduction to research, and is where my passion for research began. NACP recognized this passion and provided me with countless opportunities and acts of support that inevitably fostered the growth of the researcher and student I am today.

I am extremely grateful to NACP for their efforts in assisting young researchers like myself grow their skills and pursue incredible research opportunities.

Research Student Fellows

Michael Becenti



Where are you from and what motivated you to pursue a career in health or science?

I am from Flagstaff, Arizona. I have always had a desire to help other people by giving medical services because I always felt like this is a great way to impact the lives of others in a positive way. I also always knew that I would want a hands on job where I get to interact with a lot of different people.

What is your current research project and future career goal?

In the summer of 2021, I was mentored by Dr. Ron Heimark on the role of nitric oxide synthase 2 in Triple-Negative Breast Cancer. In the summer of 2022, I was mentored by Dr. Ken Batai where I researched body composition correlated with age at diagnosis among renal cell carcinoma patients. My future career goal is to get accepted into medical school.

Provide an example of how NACP has helped you?

NACP has helped me gain experience in the research field and I have been able to connect with other great students and staff in the NACP program!

Research Student Fellows

Tanjia Clarkson



Where are you from and what motivated you to pursue a career in health or science?

I'm a part of the White Mountain Apache Tribe and reside of the Fort Apache Indian Reservation; I live in the small community of Canyon Day, Az.

Residing in a rural community for most of my life and recognizing the health disparities and a small representation of Native American within local Indian Health Service is what motivates me to continue along this journey: along with seeing a small portion of Native Americans in the STEM field.

What is your current research project and future career goal?

My current research is within the Aerospace and Mechanical Engineering area with a focus on Bioengineered Organ-On-a-Chip specifically prostate cancer. I hope to continue my work until the end of my undergraduate career and to find a greater perspective of researcher within graduate school and potentially a career in a PharmD program.

Provide an example of how NACP has helped you?

During the UBRP-NACP Poster presentation I was able to meet with numerous of amazing guest that attend the presentation. I was able to meet this one particular person who is great looked upon in the research field. Recently, I was able to connect with them once again during the Cancer Engineering Symposium at the UA and we chatted about our research and how things are looking since meeting a couple times. Being able to connect with people in different fields of research and just talking, getting to know one another is very special to me.

Research Student Fellows

Leyla Cordova



Where are you from and what motivated you to pursue a career in health or science?

I was born and raised in Tucson. I'm motivated to pursue a career in science because there is so much to learn that is already known and also so much that has not yet been discovered.

What is your current research project and future career goal?

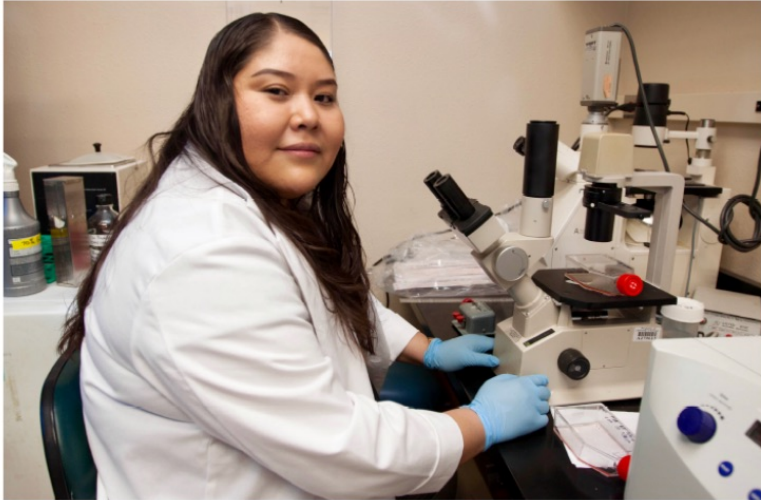
My current research project is measuring drug penetration in cancer cells. My future career goal is to work in a lab analyzing different substances, either toxicology or chemist.

Provide an example of how NACP has helped you?

NACP has provided me with a great experience that includes getting research experience for my future career and networking with others interested in science.

Research Student Fellows

Jennifer Daw



Where are you from and what motivated you to pursue a career in health or science?

I grew up on the Navajo Nation in a small community known as Tonalea, AZ. My experiences of growing up on the reservation and desire to give back to the community has motivated me to pursue a career in science

What is your current research project and future career goal?

My current research project focuses on the pro-inflammatory protein nitric oxide synthase 2 (NOS2) in the progression of triple-negative breast cancer (TNBC). I am interested in studying how NOS2 expression in TNBC cells is induced via transcription factors NF- κ B p65 and STAT1 that are activated by pro-inflammatory cytokines in the tumor microenvironment. Further, I am studying TNBC-associated long non-coding RNA (lncRNA) Mammary Tumor-Associated RNA 20 (MaTAR20), which is associated with metastasis and invasive breast cancer, and its role in cytokine-induced NOS2 expression. My future career goal is to continue my cancer research training as a post-doctoral fellow at a university located on the west coast. Then I would like to conduct cancer research for Native American communities and be a tribal liaison connecting non-Native researchers with Native researchers, medical doctors, tribal leaders, traditional healers, and community members.

Provide an example of how NACP has helped you?

NACP has helped me by providing opportunities during my undergraduate to build my research experience to become a competitive candidate for graduate school. NACP has also been a support group as well as a Native community on campus for me.

Research Student Fellows

Shanoa Nez, MPH



Where are you from and what motivated you to pursue a career in health or science?

I am Shanoa Nez, from Rapid City, South Dakota. What inspired me to pursue a degree in health is my grandfather. I spent many hours listening to my grandfather as he talked about his life as a rancher and the need for his grandchildren to pursue a "western education" while retaining our Diné traditions and culture. On February 13, 2015, my grandfather died of lymphoma. Due to being exposed to radioactive contamination from nuclear weapon testing in the 50s and 60s. The downwind of this environmental catastrophe prematurely took the lives of many of my relatives. I began to think of my grandfather's death and how his life could have been extended through stronger health policies and interventions in and off the Navajo Reservation.

My experience with my grandfather is what motivated me to pursue my undergraduate degree in biology and then my Masters of Public Health to provide education, prevent diseases, prolong life, and promote health among the AI/AN population.

What is your current research project and future career goal?

I currently conduct research under Dr. Robin Harris and Dr. Heidi Brown's guidance; we have conducted one of the most innovative research to understand *Helicobacter Pylori* (*H. pylori*) among Southwest American Indians. We are one step closer to understanding how *H. pylori* grows and affects the gastrointestinal tract using qualitative research methods. In addition, I am currently a research design team member for the Aspen Institute's American Indian and Alaska Native (AI/AN) Wellbeing Measure Project. For the AI/AN Wellbeing Project, we are researching how to effectively implement culturally grounded wellness measures among AI/AN youth. With the goal that AI/AN youth implement/develop wellness practices that support their overall health.

As a future public health professional, my goal is to continue to strengthen research relationships with American Indian communities that are grounded in trust and respecting their culture and traditions.



Research Student Fellows

Shanoa Nez, cont.

What is your current research project and future career goal? Cont.

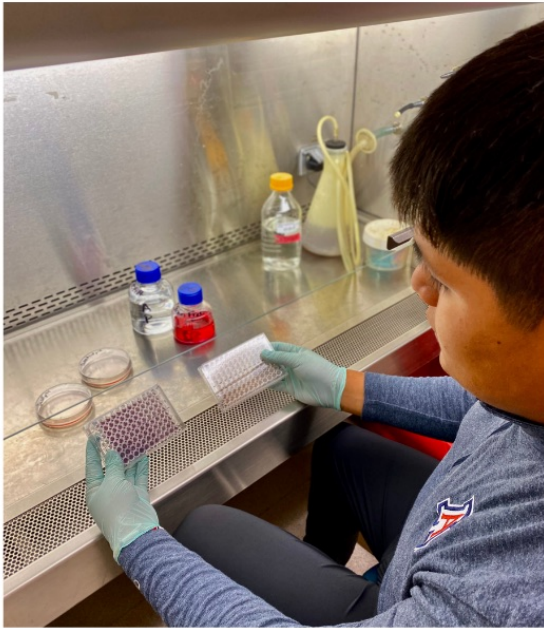
I see myself contributing to the public health field by implementing multiprong approaches that utilize theory, health promotion, and creating culturally relevant approaches. My role as a public health professional will aid in mitigating health disparities by promoting healthy lifestyles, preventing injury/disease, and creating a safe environment for individuals to receive care.

Provide an example of how NACP has helped you?

NACP provided me with experiences and skills such as conducting comprehensive literature reviews, analyzing qualitative data, interpreting the data, developing recruitment material, conducting quantitative surveys and developing qualitative study questions. In addition, NACP has provided me with knowledge of cancer disparities among American Indians and a stronger understanding of the health concerns among American Indians and how to address them through community-based participatory public health research.

Research Student Fellows

Allan Paxson



Where are you from and what motivated you to pursue a career in health or science?

I am from the Hopi Reservation located in Northern Arizona. I come from the village of Mishongnovi and of the Spider Clan. The Hopi community has strong values including selflessness, compassion, and empathy which I feel served as a driving force in my decision to pursue a career in the healthcare field. Furthermore, my scientific curiosity and constant desire to know more allowed me to fit perfectly in the scientific community. Using this combined factors, I hope that I can give back to my community and communities beyond through the fields of health and science.

What is your current research project and future career goal?

Currently, I am working with Dr. Anne Cress and her lab on understanding the smooth muscle invasion of cancer. My research project in the lab focuses on using anti-cancer drug therapies as a secondary prevention measure to prevent complications like lethal metastatic disease. Using these compounds, I determine inhibitory concentration values which provide evidence for drug resistances and sensitivities in our tested prostate cancer cell lines. With this laboratory research experience, I plan to build my scientific knowledge on the molecular mechanisms of cancer progression as well as how to effectively translate science from the scientific to non-scientific community. I hope to accomplish this through the field of medicine as a healthcare provider.

Provide an example of how NACP has helped you?

NACP has allowed me to create extremely valuable relationships with faculty and staff at the University of Arizona which has ultimately helped me expand my network and grow as an undergraduate student. Furthermore, I have been able to contribute meaningful works of data to the scientific community as a Hopi student which is not common.

Research Student Fellows

Ferris Saad



Where are you from and what motivated you to pursue a career in health or science?

I am originally from Mesa, Arizona. I wanted to pursue a career in medicine because I was eager to learn more, and act, to solve life-threatening issues that affect a diverse population of individuals in our society.

There are many unsolved mysteries in healthcare that disproportionately affect many people of all age groups and backgrounds, and I felt a personal need to do my part to alleviate any burdens that I can.

What is your current research project and future career goal?

We are currently researching estrogen and follicle-stimulating hormone binding characteristics in different organ systems. I plan to attend medical school, though I am unsure which exact specialty I would like to work in.

Provide an example of how NACP has helped you?

NACP has helped me learn more about how different forms of cancer affect individuals of different demographic and medical backgrounds, especially individuals who reside in the southwest region of our country. While working in Dr. Bea's lab, I have learned much more about different forms of cancer that may be linked to underlying metabolic conditions and comorbidities, and I was also able to be skillfully trained in abdominal-pelvic CT and MRI segmentation. I plan to use this skills to enhance my knowledge and efforts in my future medical career.

Early Stage Investigators

Ricky Camplain, Ph.D.



Where are you from and what motivated you to pursue a career in health or science?

My interests in public health disparities began in Grants, New Mexico where my family and friends experienced health issues that stemmed from living in rural America. My early life offered experiential evidence of the links between social injustice and ill-health.

I explored medicine while an undergraduate at the University of New Mexico. However, I was drawn to research that would improve health at the population level as opposed to treating individual patients in a clinical role.

What is your current research project and future career goal?

My research focuses on disease prevention and health promotion among incarcerated populations with a primary focus on understanding, in partnership with communities, the health needs of those at the intersection of being Indigenous and incarcerated. I am currently funded by a National Institute on Minority Health and Health Disparities Career Development K Award on promoting physical activity among individuals incarcerated in the Coconino County Detention Facility in Flagstaff, Arizona. I want to identify programs and help establish policies to increase physical activity while incarcerated with the hopes to improve short and long-term health of individuals involved in the criminal justice system.

Provide an example of how NACP has helped you?

NACP has helped me connect with brilliant researchers who are both early in their career and more established; both of which have been incredible mentors in research, academics in general, and in life. NACP has also provided writing resources, including workshops, one-on-one help, and the space to "just write" that have been invaluable to my productivity.

Early Stage Investigators

Amanda Hunter, Ph.D.



Where are you from and what motivated you to pursue a career in health or science?

I'm from Tucson, Arizona and I chose to pursue a career in health after taking an anatomy and physiology class in high school. As an undergraduate, I discovered my love for research.

I was motivated to pursue a career in public health research after working in the medical and pharmaceutical fields. I love that public health research allows us to think about disease prevention and health promotion.

What is your current research project and future career goal?

I am currently working on a pilot project through the Southwest Health Equity Research Collaborative's (SHERC) Pilot Project Program. My research focuses on developing, implementing, and evaluating a culturally-grounded after-school program for Native American youth. We hypothesize that participation in the culturally-grounded after-school program will strengthen youth cultural identity, self-esteem, resilience, and prevent substance use. One of my future career goals is to continue working for Native American communities in Arizona to develop culturally-grounded after-school programs.

Provide an example of how NACP has helped you?

I worked for NACP while earning my Master's Degree and during that time, I developed skills in community-based participatory research while also meeting inspiring Native public health scientists and community members. NACP has also hosted a workshops for Early Stage Investigators that helped me develop my NIH biosketch.

Early Stage Investigators

Chesleigh Keene, Ph.D.



Where are you from and what motivated you to pursue a career in health or science?

I was born in Tuba City, Arizona and grew up in Phoenix and Southwest Colorado. I was motivated to pursue a career in health and population sciences by my father's work with the Indian Health Services. I grew up with interdisciplinary IHS providers in and out of our house for social visits, but overheard many conversations about health disparities and criticisms of a healthcare system that didn't meet the needs of Native Americans and remained a rigid model of health care. I also have had family members suffer preventable illness and death. My personal passion was influenced by the passion of my father and his peers and really drove me to want to help and devise new and better solutions to unrelenting health disparities.

What is your current research project and future career goal?

I'm partnering with NAU CHER and NACP on health-focused studies, but my current independent studies really focus on exploratory studies of community-driven health equity and using mobile health to support smoking cessation in hopes of identifying pathways to predict quitting behaviors among Native American smokers. Tobacco use remains the leading preventable cause of cancer and cancer deaths across all populations but is a particular disparity for Native Americans. Native Americans were already experiencing increasing smoking rates before the Coronavirus (COVID-19) pandemic and now reports from 2020 and 2021 are suggesting smoking increased a lot during the pandemic. Now that I'm faculty, my career goal is really focused on supporting Indigenous communities in improving health and wellbeing and greatly reducing mental health and cancer disparities.

Provide an example of how NACP has helped you?

NACP has really served to make me feel at home at NAU. Through NACP, I've been connected to an amazing network of cancer researchers and Indigenous scholars working in cancer research. I've received great writing coaching and as I determine which project to pursue K funding for, I know I have the ready support of NACP. They've already helped me identify which program to submit to and offered great suggestions for a mentorship team. NACP is a major factor in why I chose NAU as my academic home.

Early Stage Investigators

Naomi Lee, Ph.D.



Dr. Naomi Lee is an Assistant Professor in the Department of Chemistry and Biochemistry at Northern Arizona University. Dr. Lee is from the Seneca Nation Tribe and conducts research in public health, infectious diseases, vaccine development, and epidemiology.

Where are you from and what motivated you to pursue a career in health or science?

I am from the Seneca-Cattaraugus Reservation in western, NY. Personal experiences and witnessing health disparities with family members with also a drive to give back motivated me to pursue a career in science.

What is your current research project and future career goal?

The Lee lab utilizes biological and chemical techniques to synthesize peptide and protein-based vaccines. The group aims to find effective new vaccines for chronic and infectious diseases. In addition, the research group applies their knowledge of biomedical sciences to increase the health and welfare of Native American communities through public health, STEM education, and mentoring.

Provide an example of how NACP has helped you?

REC - Continued support for students
Research projects core - start-up package and continued research support through the pilot project; GUIDeS and mentoring among faculty
Outreach core - educational materials for community-based projects and networking.



Early Stage Investigators

Heather Williamson, Ph.D.



Dr. Heather Williamson is an Assistant Professor in the Department of Occupational Therapy at Northern Arizona University. Dr. Williamson is originally from Florida and conducts research at CHER facility to investigate health equities among adults with intellectual and developmental disabilities in Arizona.

Where are you from and what motivated you to pursue a career in health or science?

I am originally from Florida and I have a background working as a health professional. Seeing what societal challenges people with disabilities faced while working as an occupational therapist inspired me to pursue a career in health research.

What is your current research project and future career goal?

I am currently working on a project funded by NACP to improve the health advocacy of Native American women with intellectual and/or developmental disabilities. With our two community partners, Hopi Cancer Support Services and Tucson Indian Center, we have developed an educational program called My Health, My Choice, in which Native American women with intellectual and/or developmental disabilities learn about health care advocacy related to getting breast and cervical cancer screenings. My future career goal is to continue to address the health equity of individuals with intellectual and/or developmental disabilities.

Provide an example of how NACP has helped you?

NACP has helped my research career through working with NACP students in our research, providing guidance on grant opportunities, giving me critical feedback on my research, and hosting the regular writing accountability groups.



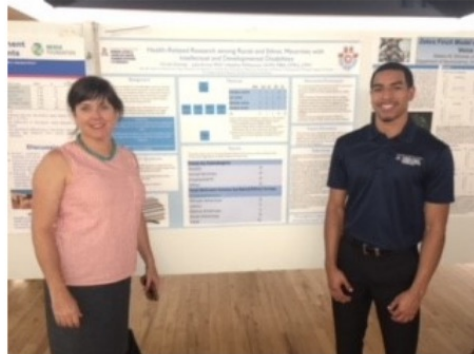
Early Stage Investigators

Julie Armin, Ph.D.



Where are you from and what motivated you to pursue a career in health or science?

I grew up in Los Angeles, California. Before graduate school, I handled communications for the American Cancer Society. In that role, I interacted with many communities who experienced unjust cancer burden. This ignited in me a desire to work with communities to address barriers to cancer care. My doctoral training in medical anthropology informs my interest in community engaged action research in health and health care.



What is your current research project and future career goal?

My project with Heather Williamson (NAU), Tucson Indian Center, and Hopi Cancer Support services is focused on adapting a cancer navigation program to align with a cancer screening education program (My Health My Choice). We are testing this addition's feasibility and acceptability. I hope to continue building a cancer control research program in collaboration with communities.

Provide an example of how NACP has helped you?

NACP's support has been invaluable as I establish my research program. NACP provides formal and informal mentorship, and a supportive structure for meaningful community-based cancer research.

Early Stage Investigators

Jonathan Credo, Ph.D.



Where are you from and what motivated you to pursue a career in health or science?

Home City: Flagstaff, Arizona

I have always found science to be an interesting subject, especially environmental sciences. During my senior year of high school I became interested in understanding how human and ecosystem health are impacted by anthropogenic progress. This interest followed me into college where I became involved with undergraduate research focused on quantification of contaminants in drinking water on the Navajo Nation. During my undergraduate time I came to see the possible overlap between environmental science and health sciences. This has led me to pursue an M.D./Ph.D. in toxicology with a focus on minority, rural, and Tribal communities.

What is your current research project and future career goal?

Currently, I have an on-going F31 through the NIEHS that is investigating the impact of annual agrichemical application in La Paz County, Arizona through the use of a local rodent animal model. Tissue samples collected from the rodent model are run through genomic and metabolomic techniques to see if areas of agrichemical application impact either of these pathways. Additionally, I am a Co-PI on an USEPA grant that is quantifying environmental contaminants in a Tribal community with the goal of assisting this community to establish their own environmental monitoring program. Although my primary focus is completing the final year of my M.D. training afterwards I plan to pursue further training for medical toxicology, I still make time for my research obligations. My time in clinic and in medicine has helped to make me realize how my dual degrees (M.D./Ph.D.) can help make a difference for the communities and populations I hope to work with in the future.

Early Stage Investigators

Jonathan Credo, cont.



Provide an example of how NACP has helped you?

NACP not only encouraged me to pursue a career in science and medicine, it has directly given me the training, experience, and opportunities that have allowed these dreams a reality. As an undergraduate in college and as an individual who is introverted, I did not know how to network or become involved in research. NACP opened those doors and provided a safe environment that promoted my growth as a scientist.

NACP and the mentors involved also encouraged me to continue my training at every step of the way. Even now, after having finished my Ph.D. and as I finish my M.D., the connections and skills I gained through my years with NACP have proved to be a great support with each new challenge!

Early Stage Investigators

Jennifer Erdrich, MD, MPH



Where are you from and what motivated you to pursue a career in health or science?

I was born and raised in San Diego. All of my extended family is from North Dakota, which is where we spent summers growing up. On my father's side we are Turtle Mountain Ojibwe. My family emphasized that I should do something that gives back to others and a career in medicine seemed like a good fit.

What is your current research project and future career goal?

With my project through the NACP, I am currently trying to learn about the inflammatory pathway in carcinogenesis – How it occurs at the cellular level, how it can be measured, and how lifestyle interventions might impact this pathway and the tumor microenvironment. My career goal is to be a surgeon–scientist delivering interventions that improve cancer disparities for our Native American populations.

Provide an example of how NACP has helped you?

NACP has provided outstanding mentorship, fostered my intellectual curiosity, helped me articulate my research question and developed my skills in grantsmanship. This is the kind of encouragement that is necessary for someone like me with a clinical background striving to initiate her own program of research.

Early Stage Investigators

David Garcia, Ph.D.



Where are you from and what motivated you to pursue a career in health or science?

I am from Southern Arizona. My motivation for my career stems from early life experiences in which many of my family members were affected by modifiable chronic diseases such as Type 2 Diabetes.

I lost my grandparents at an early age due to these factors. Ultimately, my passion for helping others is motivated by losing them and wanting others to have their loved ones with them as long as possible.

What is your current research project and future career goal?

Our current project is focusing on advancing liver cancer prevention for Arizona American Indian communities in Navajo Nation and Tohono O'odham Nation.

My future career goal is continue helping underserved and under resourced communities gain access to early detection, screening, and treatment strategies to mitigate the risk of liver disease.

Provide an example of how NACP has helped you?

While NACP provides resources, which, are helpful, the most valuable contributions are that of the leadership team. We have been constantly supported throughout our way, particularly when barriers have presented themselves.

The collaborative spirit of the NACP team is a significant strength!

Early Stage Investigators

Timian Godfrey, Ph.D.



Where are you from and what motivated you to pursue a career in health or science?

Being of Navajo descent, the traditional belief of Hozho is deeply rooted in who I am as person. Hozho is a holistic belief of interconnectedness between health and well-being resulting in physical and spiritual beauty, harmony and goodness. The wellness philosophy of Hozho has guided me and serves as a scaffold in my personal behavior, decision-making and led me to choose a career in nursing; first as a nurse, then nurse practitioner, and now training as a scientist. I am in pursuit to become an independent social and behavioral scientist and am in the dissertation phase of my PhD program. Health equity in biobehavioral disease processes is the overarching umbrella of my proposed area of research. As a member of the Navajo Nation, I am particularly passionate about partnering with Native American communities to promote scientific advancement towards health equity.

What is your current research project and future career goal?

The disproportionate impact of type 2 diabetes (T2D) and cancer on Native American people is well documented and associated disparities persist despite general scientific advancement in this area. To explore dual diagnosis management for cancer and T2D disparities among Native Americans, there is an urgent need for culturally and contextually relevant management programs, ideally, led by Native investigators. In response to this need, my dissertation will focus on culturally adapting a multilevel social support diabetes and cancer intervention and conducting a pilot feasibility study with the Tohono O'odham Nation. I am eager to acquire the research skills that will enable me to make clinical and public health impact for Native American communities as a tenure-track faculty at a research-intensive university. Findings from my dissertation research will directly inform a KO1 application to conduct a preliminary efficacy trial on the culturally adapted intervention.



Early Stage Investigators

Timian Godfrey, cont.

Provide an example of how NACP has helped you?

Due to clinical responsibilities, it is rare for health care providers to take the lead on a research-driven behavioral intervention to address a disease diagnosed among a large proportion of the service population. As a nurse practitioner in the Tohono O'odham Nation Health Care system, I am invested in the community where I work and my dissertation will highlight existing strong community and familial norms, thereby increasing its potential success. That being said, I am a novice in conducting research and the mentorship and training workshops offered by NACP have been invaluable to my development.

Being able to engage with researchers experienced in partnering with tribal communities has provided critical insight into best research practices that maintain both scientific rigor and cultural humility. NACP also hosts weekly writing groups that help my productivity in writing and was essential to completing my PhD dissertation proposal. Also, the sense of belonging that has been cultivated through NACP cannot be understated.

Being the only Native American faculty at the College of Nursing, and one of a few as a PhD student, can be an isolating experience. However, NACP faculty and other students have given me the support and encouragement needed when I feel like I can't do this. Aligning with my personal and professional experience, NACP embodies the understanding that, for Native American people, community and social support are critical components to improve health outcomes.

Early Stage Investigators

Nicole Jimenez, Ph.D.



Where are you from and what motivated you to pursue a career in health or science?

I have always been naturally curious growing up in an all-female Mexican-American family in Arizona, so it is no wonder I ended up pursuing a career as a scientist focusing on women's health. I used to collect jars of insects and let my lunch items mold in my dresser drawers just to observe the changes. I was lucky my mother encouraged my curiosities and continually supported my passion for science.

As I got older, I was inspired by my undergraduate mentors from programs like Si Se Puede Foundation and Arizona State University's Los Diablos Program. I observed people leading change in the community and people with similar cultural experiences as mine, clinicians, professors, and CEOs who were also women from underrepresented groups. I think it was a culmination of these experiences that really motivated me to pursue a career in science and to focus on aiming to be that role model for others as well.

What is your current research project and future career goal?

A species more recently associated with endometrial and cervical cancers is *Atopobium vaginae*, recently renamed to *Fannyhessea*, a bacterium associated with bacterial vaginosis (BV) and other gynecologic and obstetric sequelae. This project is investigating novel bacteria-host mechanisms that have been underexplored for *Fannyhessea* species in gynecologic cancers. I am utilizing a multi-omics approach and the 3D human cervical cell model to mechanistically understand how newly identified *Fannyhessea* species modulate potential hallmarks of cancer. The data from this proposal will lead to fresh insights into the mechanisms employed by these emerging pathogens to influence cancer development/progression within the cervicovaginal microenvironment.

Early Stage Investigators

Nicole Jimenez, cont.

What is your current research project and future career goal? cont.

In tandem, I am also identifying the frequency and phenotypic presentation of these *Fannyhessea* species in two racially and ethnically diverse cancer cohorts that represent the demographics of Arizona. The findings from my postdoctoral independent study will lead to foundational knowledge of the pathogenesis of gynecologic cancers as well as potential targets for microbiome modulation for improved cancer outcomes as well as propel me for an independent career in academic research.

Provide an example of how NACP has helped you?

NACP has helped me both grow in knowledge around health disparities research and support me as an underrepresented early-stage investigator in their GuIDeS program. Through the NACP I was able to be a co-author of a literature review discussing the HPV vaccine and targeting the cervicovaginal microbiome for novel approaches to decreasing health disparities of cervical cancer in the Native American community, a collaboration with Dr. Naomi Lee's lab at Northern Arizona University. Dr. Herbst-Kralovetz's lab works closely with Dr. Lee and Dr. Greg Caporaso at NAU to investigate multi-omic clinical studies representative of Arizona's diverse demographics, which are often underrepresented in other clinical studies. Both our clinical and wet-bench work in the Herbst-Kralovetz lab is performed in hopes of biomarkers discovery for early diagnostics and insight into novel therapies, such as metabolites or probiotics for the prevention and treatment of gynecologic cancers.

With the support of the GuIDeS program, I was also recently able to publish a first-author paper at *MSphere*, where I utilized metabolomics and 3D cervical cell culture model approaches to investigate lactobacilli, beneficial bacteria of the cervicovaginal microbiome, and discovered potential antibacterial compounds which may contribute to their role in the prevention of the ascension of oncogenic microbes like HPV and bacterial vaginosis-associated bacteria (BVAB). The NACP continues to support me as an ESI in hosting workshops, and retreats, and providing financial support for publications and conferences to enhance my career as an independent scientist in health disparities cancer research.

Early Stage Investigators

Paweł Łaniewski, Ph.D.



Where are you from and what motivated you to pursue a career in health or science?

I grew up in rural Poland and I am a first-generation college student. After graduating from high school, I moved to Warsaw to study biotechnology. During my bachelor's and master's studies, I inherited the passion for microbiology from my tutor and first mentor Professor Jagusztyn-Krynicka. I loved spending time in a lab and exploring how microorganisms relate to health and disease and that is why I decided to pursue my Ph.D. at the University of Warsaw. My early research focused on the development of vaccines against gastrointestinal pathogens.

After completing my Ph.D., I pursued my career in the USA and held a postdoctoral fellowship at the Biodesign Institute at Arizona State University, where I continued my work in the field of vaccinology. In 2015, I joined the Herbst-Kralovetz Laboratory at the University of Arizona College of Medicine-Phoenix as a Postdoctoral Associate to study genital microbiota in the context of cervical cancer. In 2018, I was promoted to an Assistant Research Scientist position.

What is your current research project and future career goal?

My current research project (funded by NACP) focuses on understanding the role of vaginal microbiome, genital inflammation, and human papillomavirus (HPV) infection in the development and progression of cervical cancer in Native American women. Other clinical translational projects, which I am involved in, include microbiome studies in the context of cervical cancer health disparities in Arizona Latinas, endometrial cancer, infertility, and COVID-19. In addition, I perform basic research studies utilizing in vitro human three-dimensional (3D) cell culture models and omics technologies to better understand host-microbe interactions, which can relate to cancer and other adverse gynecologic and obstetric outcomes.

Early Stage Investigators

Paweł Łaniewski, cont.

What is your current research project and future career goal? Cont.

In future, I would like to continue to pursue research endeavors in the field of human microbiome to unravel the functional mechanisms that contribute to reproductive and gynecologic disease and cancer. My long-term career goal is to develop a unique set of skills in the field of mucosal immunology and infectious diseases and to apply my expertise in the arena of reproductive biology and host-pathogen interactions to enhance women's health outcomes.

Provide an example of how NACP has helped you?

In 2019, NACP supported me to attend the 12th American Association for Cancer Research (AACR) conference on the Science of Cancer Health Disparities in Racial/Ethnic Minorities and Medically Underserved (September 2019, San Francisco, CA). I presented a poster on integrative multi-omics approaches to study complex interplay between HPV, host and microbe during cervical carcinogenesis. Last year I attended virtual STI & HIV 2021 World Congress (July 2021, virtual from Amsterdam, the Netherlands). My abstract on human 3D cervical models and role of cervicovaginal bacteria in increased STI acquisition, such as HPV, and development of cervical cancer, has been selected for oral presentation. The NACP supported funds for the registration fee.

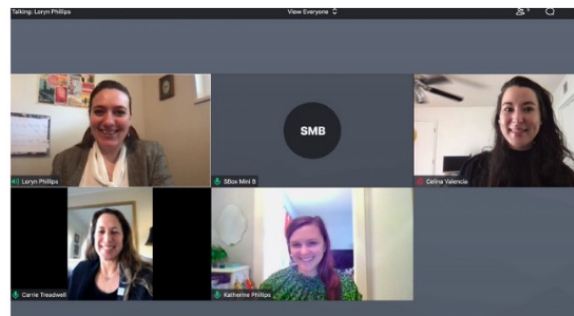
Early Stage Investigators

Celina I Valencia, Dr.PH.



Where are you from and what motivated you to pursue a career in health or science?

I am from the rural Arizona/Mexico border community of Nogales, Arizona. When I was eight years old, my dad received a late stage Non Hodgkins Lymphoma diagnosis from his exposure to Agent Orange in Vietnam. The experiences we navigated following his diagnosis motivated me to be the first in my family to graduate from college and dedicate my life to working on health equity.



What is your current research project and future career goal?

I focus on social factors that inform cancer disparities. I am developing novel methods of measuring social constructs for estimating breast cancer risk and mortality. The overarching goal of this research is to identify sites for prevention and intervention to tackle breast cancer mortality disparities experienced by women of color. My goal over the next 10 years is to be a tenured professor at a Research 1 university who is a leader in the field of social epidemiology focused on breast cancer outcomes.

Provide an example of how NACP has helped you?

I recently submitted a NCI KO1 and I received incredible support from GUIDES in the development of the application.

The Partnership for Native American Cancer Prevention

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