

# YES! Newsletter

Youth Enjoy Science

## April 2024 Newsletter Volume 10

University of Nebraska Medical Center, Munroe-Meyer Institute, Eppley Institute and College of Public Health

### Cancer Education Resources.

The YES program offers cancer curriculum resources, including e-learning modules, cancer vocabulary tools and comic books. **Access these at:** <https://www.unmc.edu/eppley/outreach/cancer-education-resources.html>

### Newsletter Committee:

Regina Idoate  
Joyce Solheim  
Misty Pocwierz-Gaines  
Aislinn Rookwood  
Maurice Godfrey

Special thanks to Brigitte McQueen, Executive Director of The Union For Contemporary Art, for hosting the exhibition



## WE ARE OUR MEDICINE

The University of Nebraska Medical Center-Youth Enjoy Science (UNMC-YES) program participated in a community-academic medical arts partnership in Omaha, Nebraska, to increase community readiness to address cancer among Native Americans. Together, we explored Native American community perceptions of cancer susceptibility and perceived benefits of treatment and curated an art exhibition, WE ARE OUR MEDICINE, showcasing works of art that reflect Native American collective efficacy to address cancer. Over 75 people attended the opening event, including UNMC-YES research mentors, student and teacher participants and community members. Over 50 UNMC-YES student and teacher participants, including the school-based Science Technology Engineering Arts Mathematics (STEAM) club participants visited the exhibition and participated in this arts-based research study.



Mindrup, R.,<sup>1</sup> Rookwood, A.,<sup>2,3</sup> Gilbert, M.,<sup>3,4</sup> McQueen, B.,<sup>5</sup> Abney, M.,<sup>2,3</sup> Tamayo, S.,<sup>6</sup> King, S.,<sup>3,4</sup> Svoboda, L.,<sup>1</sup> Johnson, G.,<sup>2</sup> Rowe, S.,<sup>7</sup> Aita, V.,<sup>2</sup> Idoate, R.<sup>2,3</sup> \*

CONTACT CORRESPONDING AUTHOR



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## Abstract

A community-academic medical arts partnership in Omaha, Nebraska, formed to increase community readiness to address cancer among historically marginalized and excluded groups in the community. In year one, we explored Native American community perceptions of cancer susceptibility and perceived benefits of treatment and designed an intervention to increase Native American collective efficacy to address cancer. The arts can engage community in both research and intervention efforts to promote health and wellness among Native Americans. In this case, the arts not only revealed Native American community understandings of cancer as well as perceived barriers and facilitators to cancer prevention and treatment but also served as the core of an intervention to strengthen Native American collective-efficacy to raise community awareness to cancer and increase community participation in cancer prevention and treatment efforts.

The Community Advisory Board for the Medical Arts focused efforts on Native American communities in the Great Plains in year one, with the long-term goal of working with other populations in the Great Plains to address health disparities and related social determinants of health primarily with historically marginalized and excluded Peoples across Nebraska.

## Background

An urban Native American population in the Great Plains was assessed to be at a low level of readiness to address cancer, with a low level of perceived susceptibility to cancer, a low level of perceived benefit from efforts to prevent or treat cancer, and, consequently, a low level of collective-efficacy to address cancer (Idoate et al. 2019). The Community Advisory Board for the Medical Arts in Omaha, NE, worked together to develop strategic plans for an initial study investigating the effectiveness of arts-based medical humanities research in increasing Native American community readiness to address cancer through 1) raising awareness of the benefits of cancer prevention, treatment and research, 2) increasing the perceived susceptibility of cancer and 3) increasing collective efficacy in cancer education, prevention, treatment, and research. The group strategically developed and curated an exhibition of works reflecting Native American ways of addressing cancer created by local Native American artists, which was publicly exhibited for two weeks, opening World Cancer Day.



## Community Partners



Founding members of the community advisory board represent the following three Omaha-based community organizations:

**Steve Tamayo @ Bluebird Cultural Initiative (BCI)**, an Omaha-based non-profit organization which provides educational lectures, performances, and workshops on a variety of topics related to AI art and culture.

**Brigitte McQueen @ The Union for Contemporary Art**, a North Omaha-based non-profit organization which provides art education, civic engagement, art studio space and exhibitions to strengthen the cultural and social landscape of the community by using the arts as a vehicle to inspire positive social change.

**Aislinn Rookwood @ Youth Enjoy Science (YES)**, a national cancer institute-funded cancer research education and workforce development program which motivates, involves, educates, and mentors AI students and their communities in cancer prevention, treatment, and research.

## Specific Aims

The Community Advisory Board for the Medical Arts has three related aims:

1. Develop a community advisory board with Native American community members, community arts organizations, Indigenous artists, healthcare professionals, and researchers from academic institutions with diverse expertise related to cancer education, Indigenous studies, and arts-based research to provide input and advice on implementation efforts and to elicit recommendations for improvements.
2. Engage the community advisory board and Native American community in identifying the Native American community's perceptions of cancer susceptibility & perceived benefits of treatment to determine barriers that may impede implementation and strengths that can be used in the implementation effort.
3. Design a strategic community-based participatory research study with a stage-appropriate arts-based educational intervention to increase collective efficacy, address barriers and leverage facilitators that were identified through earlier data collection for addressing cancer among Native American community members.

## Academic Partners



Founding members of the community advisory board include the following three Multiple Principal Investigators:

**Rachel Mindrup** is an Associate Professor of Fine and Performing Arts in the College of Arts and Sciences and the Richard L. Deming, MD Endowed Chair in Medical Humanities at Creighton University. Her current painting practice is about the study of the figure and portraiture in art and its relation to medicine, healing and identity.

**Mark Gilbert** is an Associate Professor of Art and Art History in the College of Communication, Fine Arts and Media at the University of Nebraska Omaha. He is an artist, teacher and researcher who has conducted several high-profile art-based research projects using portraiture to illuminate the patient and caregiver experience of illness, recovery, and care.

**Regina Idoate** is an Associate Professor of Health Promotion and the Director of Spirituality, Culture and Health in the College of Public Health at the University of Nebraska Medical Center (UNMC). She is also affiliate faculty in Medical Humanities at the University of Nebraska Omaha. She is a population health scientist.

## Arts-based Research Methods

**Methods:** Following the Community Readiness Model and employing arts-based research methods, this partnership conducted a narrative inquiry study through the collection and analysis of **storytelling** by conducting a talking circle (n=7) and **poetry** by collecting written testimonies (n=10). All data was analyzed qualitatively for emergent themes by community-academic partners and shared with the community. Findings informed the development of an arts-based intervention (an exhibition) to demonstrate Native Peoples' collective efficacy to address cancer among Native American community members.

**Results:** Preliminary findings suggest that:

- 1) cancer is a holistic experience for Native Americans,
- 2) improving cancer prevention and treatment requires systems change (in social systems, political systems, education systems, food systems, healthcare systems),
- 3) aspects of behavioral health (of mind/body/spirit) and environmental health (air, soil, water) can be both barriers and facilitators to prevention efforts, and
- 4) aspects of accessibility, quality, and cultural congruency in healthcare can be both barriers and facilitators to treatment efforts.



Figure 3. YES program visual mission statement; "They're back" by Donel Keeler (Crow Creek Dakota and Northern Ponca)

**Acknowledgements:** This project was funded Great Plains IDEa-CTR Network through the National Institutes of General Medical Sciences of the National Institutes of Health. Additional support is provided by Youth Enjoy Science (R25CA221777) from the National Cancer Institute of the National Institutes of Health and the UNMC College of Public Health Spirituality, Culture & Health. The authors would like to thank the Omaha Public Schools, Native Indigenous Centered Education (OPS-NICE) program for their support of this project.

## References

Idoate, R., Gilbert, M., King, K. M., Spellman, L., McWilliams, B., Strong, B., ... & Solheim, J. (2021). Urban American Indian Community Health Beliefs Associated with Addressing Cancer in the Northern Plains Region. *Journal of Cancer Education*, 36(5), 996-1004.

# Native American Cancer Resources

## **The American Indian Cancer Foundation**

<https://www.americanindiancancer.org/>

This foundation is a national nonprofit organization that strives to reduce the burden of cancer in AIANs through community-based programs.

## **Keep it Sacred National Native Network**

<https://keepitsacred.itcmi.org/>

This national network of tribes, tribal organizations, and tribal health programs works to reduce tobacco use and cancer disparities among AIANs across the United States by disseminating culturally tailored informative resources to organizations that serve AIANs.

## **Partnership for Native American Cancer Prevention**

<https://nartc.fcm.arizona.edu/partnership-native-american-cancer-prevention-nacp>

The Partnership for Native American Cancer Prevention is a collaboration between Northern Arizona University and the University of Arizona Cancer Center. Through research, education, and community outreach, the NACP seeks to reduce the cancer burden of AIANs living in the Southwestern US

## **Native American Cancer Initiatives**

<https://natamcancer.org/Documents>

Native American Cancer Initiatives (NACI), Inc., is a for-profit company founded in 1998 (based in Park County, a rural area in Colorado) to provide technical assistance to communities, patients, researchers, academicians, universities, research institutions, and professionals on Native Americans, cultural issues, program development and assessment and the full continuum of cancer (outreach through end-of-life care).

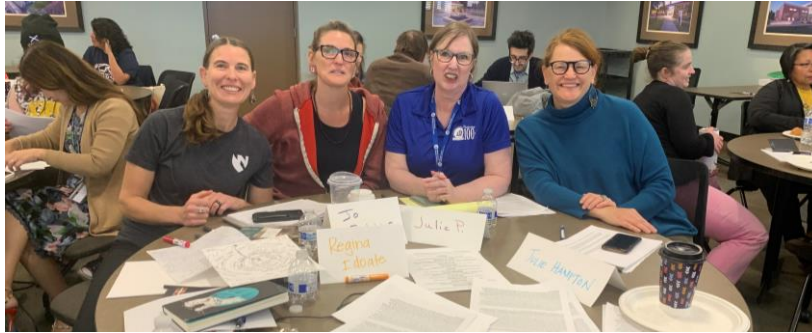
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Congratulations to UNMC-YES participants who completed the Weeklong Institute for Students in High School 2023. From left to right, Aislinn Rookwood (UNMC-YES Program Manager), Aiyana Freemont (Omaha Tribe of Nebraska), Elliana Sitting Eagle (Oglala Lakota), Erela Wounded Head (Oglala Lakota), Freda Moore (Omaha Tribe of Nebraska), Kylese Walker (Omaha Tribe of Nebraska), Lailoni Gregory (Sicangu Lakota), and Regina Idoate (UNNC-YES MPI-Cherokee Nation of Oklahoma).



# 2024 YES Teacher Workshops Cancer: Genetics & Environment

*Online & In-Person*



**Apply Today!**



or

<https://rebrand.ly/YESTWS22>

Teachers are invited to participate in teacher workshops through the Youth Enjoy Science (YES) research education program. All workshops are focused on developing Indigenous STEM pedagogy, practices and resources in relation to cancer education. Participants will be paid \$75 per workshop.

## WORKSHOP SCHEDULE

**March 29<sup>th</sup> 8am-12pm: Implementing Indigeneity**

Location: Phoenix College

**April 18<sup>th</sup> 4pm-6pm: Indigenous Cancer Research Education for Environmental Justice**

Location: Nebraska SciFest Virtual Science Café

**May 22<sup>rd</sup> 2pm-5pm: Genes and Society**

Location: University of Nebraska Medical Center Munroe Meyer Institute

**June 20<sup>th</sup> 4pm-6pm: Environmental Health**

Location: Online

**July 25<sup>th</sup> 12pm-4pm: Native Science & Lab Skills**

Location University of Nebraska Omaha, Department of Biology

# Genetics & Spirituality Conference

*Online & In-Person*

**Why is it important to relate Genetics and Spirituality?  
Join us as we explore this question in a one-day conference.**



## “Genetics and Spirituality: Conversations at the Nexus of Science and Faith”

**May 22, 2024; 8 a.m. – 5 p.m.**

**University of Nebraska Medical Center, Scott Campus  
Munroe-Meyer Institute  
6902 Pine St, Omaha, NE 68106**

### Synopsis

A one-day conference exploring the cultural and spiritual implications of recent advances in genetics through meaningful dialogue among genetic counsellors, geneticists, spiritual leaders, theologians, and others interested in the intersection of science and spirituality.

**Save the Date! Scan the QR code to register for the conference.**

“Early Bird” Registration until April 24 is \$35  
Registration after April 24 is \$50  
For more information on scholarships, email:  
richard.o.randolph@gmail.com



For a detailed description of the conference, go to  
[www.scienceandspirituality.org](http://www.scienceandspirituality.org)



**Partnering Organizations for this Event**





# AMERICAN INDIAN SCIENCE AND ENGINEERING SOCIETY

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### Contact AISES:

<https://www.aises.org/membership>

**Omaha Student Advisor:** Scot Ouellette  
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### Nebraska AISES Program Partners



Bluebird Cultural Initiative



AMERICAN INDIAN HIGHER EDUCATION CONSORTIUM



**SEPA** SCIENCE EDUCATION PARTNERSHIP AWARD  
Supported by the National Institutes of Health



# YES! Outstanding Research & Creative Activity Award Winner – Hayli Spellman

Hayli Spellman, Sicangu Lakota, is a YES Cancer Research Intern at the University of at the University of Nebraska Medical Center (UNMC). During the time that Hayli has participated in the YES Program, she has clearly been enthusiastic about health-related training and research. She has participated in many aspects of the YES Program, beginning with the SHPEP-YES WISH Program. During the pandemic, she was an active and dedicated participant in the YES Program on-line Zoom sessions and Canvas-based training modules, learning about cancer-related topics from Cancer Research Doctoral Program Ph.D. and M.D./Ph.D. students. In addition, she completed a YES Program summer lab research experience in Dr. Jixin Dong's laboratory at the Eppley Institute for Research in Cancer & Allied Diseases at UNMC. Hayli contributed to the narration of an interactive e-learning uBEATS module about pediatric cancer that is available on the UNMC YES Program web site as an educational tool for students. She continued as an intern on-line, meeting regularly with Dr. Joyce Solheim and several other YES interns for discussions of cancer related topics and of how those topics have an impact on the lives of Native Americans. Stemming from her work in the on-line activities in the UNMC YES Program, Hayli had a first author poster presentation at the Midlands Society of Physiological Sciences (held in Omaha in October 2023). Her presentation featured a long-term collaborative project in which YES interns worked together (with Hayli in the leading role) to develop innovative new ways to deliver cancer education to students with Native American heritage. The culmination of this project was a creative multi-media video display using pictures, text, and sound that Hayli creatively merged. This video was accompanied by worksheets that could be used by teachers in their classrooms to educate students about cancer biology and treatment, and both the video and the worksheets are on the UNMC YES Program web site so that they can be broadly accessed by the public. In Summer 2024, Hayli plans to participate in combined activities of the YES Program and the Eppley Institute Summer Undergraduate Research Program, which will enable her to learn new information about cancer research at the Buffett Cancer Center while also engaging in a laboratory research project with Dr. Travis Robbins (a YES Program Co-Investigator) at the University of Nebraska at Omaha. Hayli's zest for science, her longstanding involvement with the YES Program, and her remarkably innovative contributions to cancer education for Native American students make her an Outstanding Research and Creative Activity Award Winner.

<https://www.unmc.edu/eppley/outreach/community-engagement-storytelling.html>



A Native Perspective  
On Cancer

VIGNETTES MADE BY NATIVE STUDENTS

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## Upcoming Events

### NIH SciEd 2023 Conference

Salt Lake City, UT

Tuesday, May 28 – Friday, May 31, 2023 in person

### Genetics & Spirituality Conference

Omaha, NE

Wednesday, May 22 in person & online

### YES! Teacher Workshops: Cancer: Genetics & Environment

Hybrid: University of Nebraska Medical Center, University of Nebraska Omaha, Phoenix College & online

March 2024 – July 2024

### Summer Health Professions Education Program (SHPEP), Youth Enjoy Science (YES) Weeklong Institute for Students in High School (WISH)

University of Nebraska Medical Center

Sunday, July 7–Saturday, July 13, 2024 in person

## Announcements



Congratulations to **Dr. Liliana Bronner** who completed her doctoral studies in April 2024!

Liliana Bronner, PhD, MHSA, MBA

Assistant Professor, Department of Family Medicine  
Clinical Education Manager, Primary Care Center for Education, Research, & Healthcare Design  
Director, Medical Pathways, College of Medicine,  
Office of Diversity, Equity, and Inclusion



Congratulations to **Dr. Aislinn Rookwood** who completed her doctoral studies in December 2023!

Aislinn Rookwood, PhD, MPH

Assistant Professor, Department of Health Promotion  
College of Public Health  
University of Nebraska Medical Center

