This is the inaugural newsletter of the UNMC YES! Program. Following in the footsteps of our many years highlighting the activities of our SEPA, Science Education Partnership Award, we plan to do the same for YES.

In the coming months, we will have some of our research participants describe their work and the impact cancer research has had on their potential education and career choices. This newsletter will focus on our first program that brought students from schools in Nebraska and South Dakota. (Unfortunately, a spring snow storm decreased the planned attendance, but we will do this again!)

Cancer Biology and You was a full day program designed to explore skin cancer, breast cancer, and experimental design.

Many thanks to Misty, Liliana, and Kim for all the work in organizing the program and choosing the simulated research topics.

The program could not have been successful without the UNMC and UNO student facilitators. They brought enthusiasm for science and research which was important for the high school students to see.

Soon a novel part of the program that brings indigenous research and stories related to the effects of cancer in our partner Native communities will be at the forefront. Led by Dr. Regina Robbins (co-Investigator from the University of Nebraska, Omaha) this part of the YES will prove to be a critical part of the Ignite – Engage – Sustain model we are establishing.

We hope to establish some Youth Enjoy Science! “Clubs” in schools to give students an opportunity to do more science and other collaborative activities. Please let us know if you are interested.
A full day of cancer workshop activities led by UNO and UNMC scientists and students. The hands-on-activities on cancer were divided in two major parts 1. Breast Cancer Risk: Genes and the Environment 2. A Case of Skin Cancer. Students were divided in 12 work stations.

Breast Cancer Risk: Genes and the Development: Students used family pedigree analysis to gain knowledge about the BRCA1 gene, inheritance and cancer risk.

The lab kit contained a BRCA1 Genetic Test sheet to monitor for a simulated genetic mutation in the family. Students also discussed the relationship between exposure of dichlorodiphenyltrichloroethane (DDT) and breast cancer. They used a bead model to determine the approximate chance of a woman developing breast cancer due to exposure of DDT before and after puberty.
Pictures below show students participating in cancer educational activities:

Part 2: A Case of Skin Cancer. Students were involved in evaluating the case of a mole on a shoulder and the results of the biopsy provided in their test kit (see pictures). Research questions pertaining to use of sunscreen for protecting skin from harmful UV light that may cause skin cancer were discussed. They were also engaged in testing hypothesis of their experiments using experimental group, positive and negative controls, using material provided in the test kit, to prevent skin cancer from sun damage. In the end, students used Skin Cancer and Sun Safety sheet to make a “Skin Cancer and Sun Safety” infographics. One person from each group volunteered to talk about prevalence of cancer in the society and steps needed to avoid skin cancer. Overall, students expressed excitement throughout this workshop and the group presentation provided evidence about their new awareness of cancer knowledge and prevention.
**ANNOUNCEMENTS/UPCOMING EVENTS/NEWS**

1. **BOARD MEETING:**  
   Delta Hotel –Marriott, South Sioux City, Nebraska  
   Friday—April 13, 2018  
   Time:  10:00 am – 2:00 pm

2. **SEPA TEACHER WORKSHOP** — JUNE 27-29, UNMC, OMAHA

3. **SEPA SUMMER CAMP** — JULY 10-13, 2018, LINCOLN, NE

4. **YES—TEACHER WORKSHOP** — JULY 30-AUG1, UNMC

**Email us with your questions at:**  
[yesinfo@eppleyits.com](mailto:yesinfo@eppleyits.com) or [sepa@unmc.edu](mailto:sepa@unmc.edu)

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**STUDENTS FROM AREA SCHOOLS GATHERED IN**

**Posted: Apr 04, 2018 12:02 PM CDT**

**SIoux City (KTIV)** -

Over 100 High School students from seven Siouxland Schools gathered at the Delta Marriott in South Sioux City Wednesday.

The students attended an event “Cancer Biology & You” to learn about the biology of skin and breast cancer at the day-long session.

Students took part in hands-on activities in small groups that include design innovations and learned about how to prevent cancer, as well as learning about careers in the field of Cancer Medicine.

“To learn about what can be done for preventing and treating cancer, and for researching better ways to deal with cancer. I think that kind of interactions that we are seeing between the older students and the high school students are very important” said Dr. Joyce Solheim, Professor Eppley Institute

The event was funded by a YES! Youth Enjoy Science grant and was sponsored by the University of Nebraska Medical Center’s Eppley Institute in conjunction with the UNMC Munroe-Meyer Institute, and the University of Nebraska at Omaha department of native studies.

**YES—Cancer Research & Workshop Training for Students**—

Mariah Abney (pictured), an Omaha undergraduate student, who is working in a UNMC cancer genetics laboratory.

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**National Cancer Institute-Sponsored Youth Enjoy Science Research**

**YES Program**

at the University of Nebraska Medical Center  
Fred & Pamela Buffett Cancer Center

The University of Nebraska Medical Center has provided health-related educational programs for many Native American youth on reservations in the Midwest. Our programs have proven to be popular and have significantly impacted many students. To further stimulate appreciation of the health sciences and to interest students in medical research careers, we have expanded this outreach to include a National Cancer Institute-supported Youth Enjoy Science Research (YES) Program, which is open to students from throughout the U.S. In this program, undergraduate college students with Native American ancestry can participate in cancer research in laboratories at the Fred & Pamela Buffett Cancer Center. These experiences include summer research projects, or (for Omaha residents) working on research projects that can be accomplished part-time during the school year is also an option. High school students in the Omaha region can also participate in this research education program. All students receive payment for their participation, and, for some undergraduate students, financial support for housing, food, and travel to Omaha may be available in the summer.

For additional information, please contact:  
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