



SEPTEMBER 2023 ENCOURAGING EXCELLENCE

ISSUE 31

To learn more about our programs, visit our website:

www.unmc.edu/sepa

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SEPA MAJOR ACTIVITES SUMMER 2023:

- SEPA Health & Science Fun Camp for Middle School Students
- 2) SEPA Teacher Workshop.
- Find Your Future Career Exploration for High School Students
- I-SPARK (Indigenous Student Program for Advancing Research Knowledge)

SEPA PROGRAM 2023

Dr. Maurice Godfrey, Professor and Liliana Bronner, Asst. Professor SEPA Program Co-Directors

We are pleased to have another academic year and more opportunities to continue working with terrific partners in Nebraska and South Dakota. The UNMC-SEPA team remains strong and committed to providing students, teachers, and communities with health and science programs and fun experiences. None of this would be possible without all the students, teachers, and administrators with whom we have interacted for so many years. As everyone is aware, the challenges of the past few years have been quite apparent. Nevertheless, we hope that we can continue to emerge from those bleak times with a renewed spirit of collaboration and engagement to uplift the students who so deserve novel adventures.

The summer 2023 programs depicted in this newsletter showcase our broad efforts with many partners to open a myriad of possibilities and knowledge for students and teachers. We were excited to welcome Drs. Rita Devine and Nancy Bowen, both Program Officers from the National Institute of Neurological Disorders and Stroke of the National Institutes of Health, to our campus. Drs. Devine and Bowen were able to see our programs in action and even work with some of our students. It is rare for NIH funders to visit programs, so we were especially pleased that they could join us.

As always, we welcome everyone's input for ideas for future programs. Our signature middle school program has been our "health and science fun camp." We have preliminary plans to take our camp 'on the road' to the University of Oklahoma in June 2024. Please stay tuned to future emails and the next Advisory Board meeting (April) as details and plans are developed. In the meantime, always keep in touch, and we look forward to visiting your schools during the academic year.

CAREER EXPLORATION FOR HIGH SCHOOL STUDENTS June 19th - June 24th, 2023







Group of students who took part in career exploration program

SEPA organized a week long shadowing and learning experience at the Munroe-Meyer Institute (UNMC). This year nine students from the following schools Omaha South High School, Benson High School, Burke High School, Millard North High school, Saint Albert Catholic School, Mercy High School took part to learn science in a fun way geared towards career opportunities. The program provided a better understanding of professions that help people living with disabilities. Students were actively engaged in the following professions: Civil Rights and Developmental Disabilities Education, Speech Language Therapy, Physical and Recreation Therapy, Genetics Disorders and Counselling, Psychology, Pediatric Feeding Disorders, Neurodevelopmental Related Disorders





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SEPA HEALTH & SCIENCE FUN CAMP (JUNE 4-7, 2023)

The SEPA science camp is one of our key programs which stimulates interest in science and provides direct interaction with scientists and researchers. This year's topic was "Understanding Space, Health Science, and Information Technology." The camp took place in Omaha; 20 middle school students, 2 junior chaperones, and 6 adult chaperones from 4 different schools participated. The participating schools were McLaughlin Public School, Umonhon Nation Public School, Marty Indian School, and Winnebago Public School. Day 1: The program started on June 4th, 2023, with camp rules by Liliana Bronner and a very exciting and entertaining chemistry show by Dr. Eric Hass and Dr. Kumar. As seen in several pictures below, four days programs were filled with many science hands-on activities. Day 2: Students visited Mind and Brain Lab at UNMC, the new Luminarium - to explore various interactive science activities, and finally built rockets with Dr. Paulman. Day 3: The group visited the Strategic Air Command & Aerospace Museum to learn about space science. The UNMC Allied Health College hosted career activities at UNMC, including X-rays, Learning about Cells, Diagnostic Cytology, Medical Lab Science, and Radiography. The orthopedics department then hosted a hands-on casting clinic, and students learned how to fix broken bones. Day 4: Students visited the UNO Engineering Building for hands-on activities at the College of Information Science and Technology with Dr. Gandhi, and Dr. Ghersi. They also learned about DNA, which they extracted from strawberries. They were involved in discussions, asked many questions, and had many significant learning interactions with our guest speakers. It is huge for the students to get excited about science. We hope they become science professionals.





























I-SPARK (Indigenous Student Program for Advancing Research Knowledge) Jun 18 - Jul 14, 2023 A High School Student Summer Program for Exploring Research & Careers in the Health Sciences

The I-SPARK program encourages, guides, and inspires high school students from traditionally underrepresented populations in science. The program gives underserved students the opportunity to gain an understanding of basic laboratory procedures, techniques, and science research experience to compete with their peers for summer research internship programs when they become undergraduate students. Thirteen students participated, as shown in the pictures below; students are engaged in a variety of activities related to careers in health and science.

The activities at UNMC, UNO and Creighton University included: I-EXCEL- health simulation technology and imaging, Neuroscience, Radiology, Biomechanics & Bioengineering- analysis and application, Nursing, Genetics, Microbiology Research (visited Dr. Scot Ouellette's lab), Diagnostic Medical Science, Aviation Health Science, Dermatology, Podiatry, Cancer Research (visited Dr. Joyce Solheim's lab), Kinesiology, Dentistry, Learning about resume writing and interviews, Resources for college scholarships, and Chemistry lab activities.

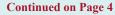








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I-SPARK: We are fortunate to have had several NIH directors visit our programs over the years. This year, Rita Devine, PhD, assistant director for science administration in the division of intramural research at the National Institutes of Health, and Nancy Bowen, DrPH, with the office of the scientific director for the National Institute of Neurological Disorders and Stroke at the NIH visited Omaha during I-SPARK program as shown in pictures below. They were impressed with several lab activities that we organized for the students and said, "These programs have great faculty and staff. They are dedicated to providing exceptional learning experiences and giving each student individualized attention." More about their visit here: https://www.unmc.edu/newsroom/2023/08/24/nih-visitors-praise-shpep-wish-i-spark-programs/







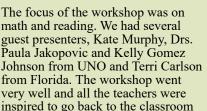


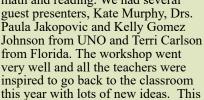




SEPA's Math-Focused Teacher Workshop

The teacher workshop provided an opportunity to explore current topics, hands-on learning and practical application. This year's topic was "The Intersection of Math Literacy & Reading Comprehension" held at Munroe-Meyer Institute from June 12, 2023 to June 15, 2023. Twelve teachers from following school took part: McLaughlin School District, Tiospa Zina Tribal School, Winnebago Public School, The Collegiate School at FSU, Winnebago Public School, Andes Central School District, Marty Indian School, McLaughlin School District, and Umonhon Nation Public School.









this year with lots of new ideas. This teacher workshop equipped teachers with techniques and modern pedagogy that could help them better connect with their students to positively impact academics in the areas of reading and math.

ANNOUNCEMENTS & UPCOMING EVENTS

1. SEPA Board Meeting

Date: Friday, September 15, 2023

Time: 10 AM - 2 PM

2. School Visit—Family Science Night

Location: Umónhon Nation Public Schools, Macy Date: Wednesday, September 13, 2023

Time: - 3 - 8 PM

3. I-SPARK—Fall Program at UNMC
Date: November — TBA Time: 10 AM - 3 PM

4. I-SPARK—Spring Program at UNMC

Time: 10 AM - 3 PM **Date:** February—TBA

5. SEPA Visit to Different Partner Schools

September—December

Email us with your questions: sepa@unmc.edu

NIH-SEPA Conference held at Washington D.C. from May 30 - June2, 2023:

UNMC SEPA team members Dr. Maurice Godfrey and Ms. Kim Soper attended SEPA meeting and presented "Immunology warriors & Math Wizards: **Empowering Native** American Learners with Innovative Tools".

