

Newsletter



THE ANNUAL
MEETING
EDITION

NEBRASKA ACADEMY OF SCIENCES

PRESIDENT'S NOTE

Abstracts Submitted by Section:

AeroScience	28
Anthropology	8
Applied Sci & Tech	9
Biology	25
Biomedical Sciences	95
Chemistry	14
EarthSciences	22
Env Sciences	9
Physics	9
ScienceEducation	9



Thank you all for your participation in the 134th Annual Meeting of the Nebraska Academy of Sciences! UNL's East Campus provided a great venue for our meeting. Who doesn't enjoy outstanding science, homemade ice cream, and a social hour with a raffle?

This year's meeting set new records for attendance for many sections of NAS and for the Maiben Lecture. I thank Kerri and the Executive Committee members as well as the section chairs for all their hard work to assemble our meeting program and stimulate scientific discussion with researchers across the state. The highly attended Maiben lecture was also outstanding. As a native Nebraskan who spends too much time indoors, I found the documentary work of Grant Reiner and the Platte River Basin both beautiful and meaningful. We hope that attendees also had time to check out the Crane Environmental Trust and Program Booths that were new this year to the NAS meeting. NAS will continue to develop and improve upon initiatives such as Networking Opportunities at the Annual Meeting, Nebraska Educational Field Trips, NAS High School and Collegiate Scholarships, Publication Resources, and Scientific Outreach. Please be on the lookout for NAS emails related to these initiatives in the coming year.



!

**Save the date for next
year's meeting: April 25th**

NAS continues to work on website development and meeting registration details. We hope to see you all at the 135th meeting next April so that you can take advantage of our continued development and improvement!
Here's to Science in Nebraska,
Annemarie Shibata, NAS Past President

The 134th Annual Meeting

A Presenter's Perspective

The NAS meeting was a very interesting experience. Being able to listen to all of these students making these massive and influential studies and ideas was incredible. A part of the meeting that stood out the most to me was after one of the presentations, when being asked questions about his subject, the presenter had hit a wall with his research and was looking for new ideas, and people in the crowd had begun giving advice and checking what all he had accomplished so far to figure out new ideas. I think that being in the room with so many supportive people really resonated with me beginning to move into the science field when I graduate. These meetings are not just about showing off your work, while that may be a large part, but it is also about the community that is shared and is able to give you insight and ideas on how to move forward. The scientific community and the NAS is a way for students to branch out of their comfort zone and gain the experience of presenting their ideas. I think that is probably the most important thing for any college student to experience.

-Andi Collins, Hastings College



As he leaves his role as Past-president and steps back from NAS for a while, the whole NAS Team thanks Dr. David Harwood, seen here helping out at the registration table, for his work and dedication over the last four years. Thanks, Dave!

The gavel is symbolically and literally passed from President Annemarie Shibata to incoming NAS President Bradley Peterson. This gavel is part of the NAS historical Archive, and was used in NAS meetings from 1924.



207 Ice Cream cones were enjoyed by NAS meeting participants from the East Campus Dairy Store!

Section Awards

The University of Nebraska Medical Center and the Nebraska Geological Society Award cash prizes to the Biological and Biomedical Sciences Section, and the Earth Sciences Section. If you have ideas for similar sponsorships in other Sections of the NAS Annual Meeting, contact Kerri at nebacad@unl.edu

2024 UNMC Outstanding Abstracts for research in Biomedical and Biological Sciences

Sophie Ciechanowski, Josephine McLean, and Ye Ye Aye receive UNMC's 2024 awards for Outstanding Undergraduate Research in Biomedical and Biological Sciences

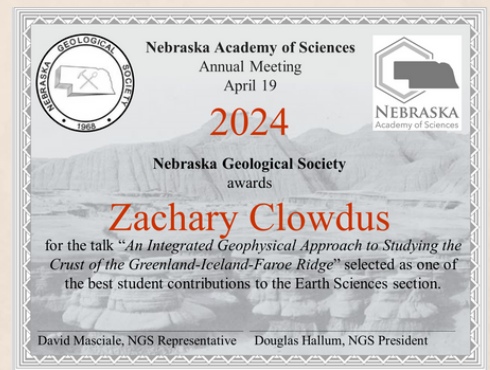
In recognition of the important contributions made by emerging scientists in the state of Nebraska, the University of Nebraska Medical Center (UNMC) is pleased to provide two awards for research presented at the 2024 Nebraska Academy of Sciences meeting. Each award comes with a plaque and a \$500 cash prize and is sponsored by the Interdisciplinary Graduate Program in Biomedical Sciences (IGPBS) at UNMC.

The award for Outstanding Undergraduate Research in Biomedical Sciences is being presented to Sophie Ciechanowski for her project characterizing the role of novel long non-coding RNA in the modulation of the microglial inflammatory response. This work was performed under the supervision of Drs. Kristen Drescher and Annemarie Shibata at Creighton University.

The award for Outstanding Undergraduate Research in Biological Sciences is shared by Josephine McLean and Ye Ye Aye for their projects characterizing novel bacteriophages from soil samples. This work was performed under the supervision of Dr. Bhaswati Manish at Metropolitan Community College.

The IGPBS and the MD/PhD Scholars Program at UNMC provide PhD and MD/PhD training opportunities in the Biological/Biomedical Sciences in more than 150 research laboratories at UNMC.





The Nebraska Geological Society selected three students to award the best student talk prizes in the Earth Sciences Section:

First place and \$150 - REVISING THE BIOSTRATIGRAPHY OF THE EASTERN SIDE OF THE LATE CRETACEOUS WESTERN INTERIOR SEAWAY: NEW INSIGHTS FROM CALCAREOUS NANNOFOSSILS FROM CUBA, KS. Ursula Ziebolz, Jon Schueth (UNO)

Second place and \$100 - USING A RELATIVE GRAVIMETER TO MEASURE SEASONAL FLUCTUATIONS IN NEBRASKA'S GROUNDWATER LEVELS. Kaitlin, Steinauer, Irina, Filina (UNL)

Third place and \$100 - AN INTEGRATED GEOPHYSICAL APPROACH TO STUDYING THE CRUST OF THE GREENLAND-ICELAND-FAROE RIDGE. Zachary Clowdus, Irina Filina (UNL)

Again and again, many thanks to our generous sponsor - the Nebraska Geological Society - for supporting our future!

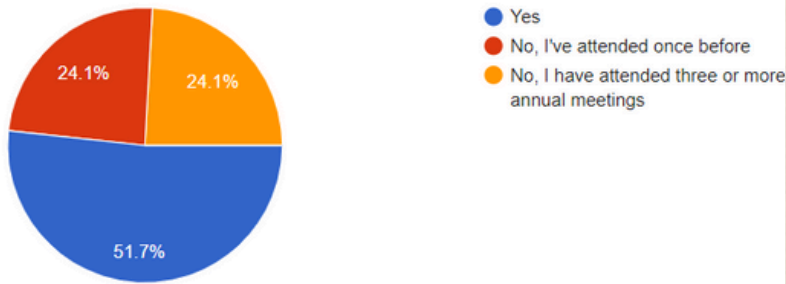


Participant Views on the Annual Meeting

What can NAS do in future conferences to entice colleagues of yours to attend?

Was this your first time attending the NAS annual conference?

29 responses



Awards!

Better Communication

more advertisement

Recognize the best poster and Oral Presentations

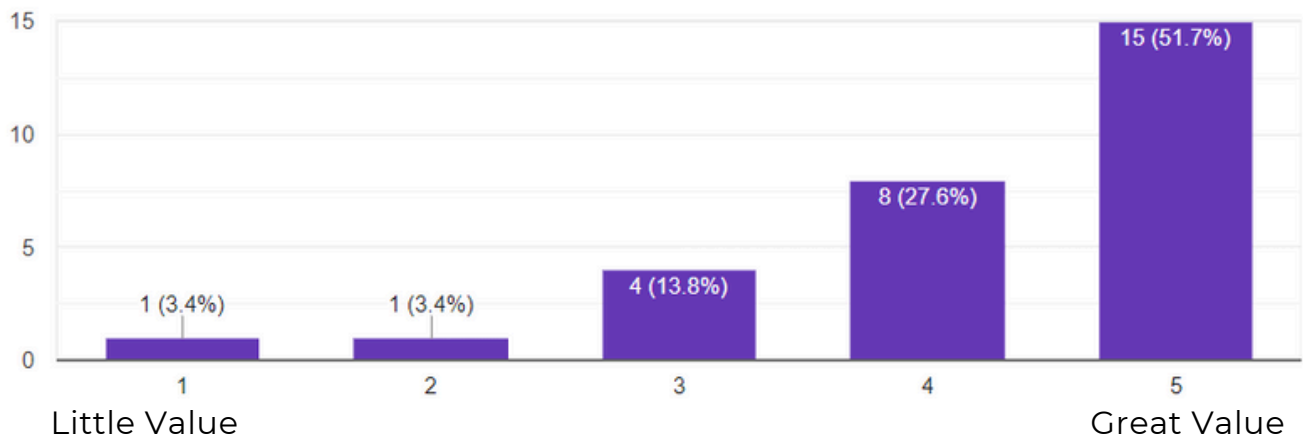
Add agricultural Sciences

Giftbags

Do you believe you received a quality conference for the cost of attending?

Copy

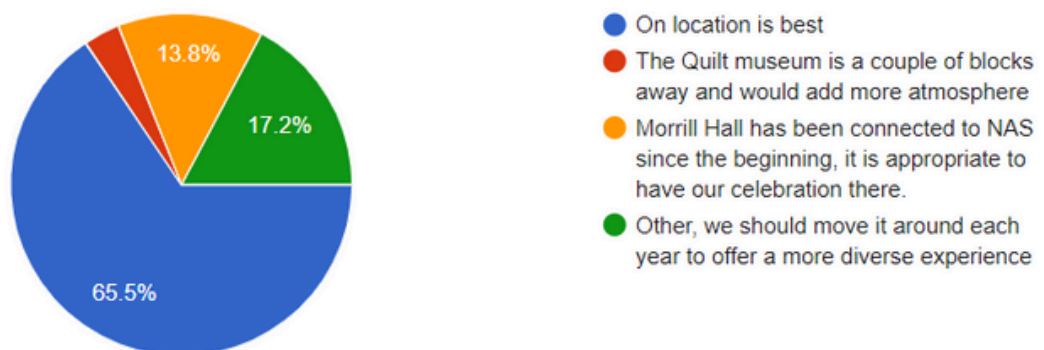
29 responses



Did you like that the social was on location, or would you prefer to move it next year to something with a bit more atmosphere, like the Quilt museum or back to Morrill Hall?

Copy

29 responses



2024 Maiben Lecturer

Cinematographer Grant Reiner's Maiben Lecture on the Platte Basin Time Lapse was incredibly popular and well attended. Well over 100 attendees were treated to a lecture and visual experience showing the changing platte basin through the lens of time. For more information on the Platte Basin Timelapse, see below:

<https://plattebasintimelapse.com/>



Platte Basin Timelapse (PBT) is a conservation storytelling project based in the heart of the Great Plains. Conservation Photographer Michael Forsberg and filmmaker Michael Farrell started PBT in 2011 in partnership with the University of Nebraska–Lincoln (UNL) and other supporters to answer the question ‘Where does our water come from?’ and to set a watershed in motion by leveraging the power of photography and storytelling.

Grant Reiner is a conservation photographer and filmmaker and is a producer with PBT. His career began as a student production intern with PBT when he was studying Fisheries and Wildlife at UNL. He continued his higher education in the Masters of Applied Science program with an emphasis in Science Communication, where he developed educational short films for the Wildcat Hills Nature Center in western Nebraska. Grant is passionate about conservation of natural spaces by the blending of art and science. Grant found cinematography to be his muse to inspire positive change through science and conservation.



Grad School Booths at the 134th



This year Students had the opportunity to talk to Graduate School Programs during their downtime at the Annual meeting. The Following Schools and Departments were represented:

- **Creighton University; Biomedical Sciences and Dr. Richard Bellucci Translational Hearing Center**
- **UNL's Doctor of Plant Health Program**
- **UNL's Doctor of Earth and Atmospheric Sciences**
- **UNL's Department of Plant Pathology**
- **UNL's Agronomy & Horticulture**
- **UNMC's Interdisciplinary Graduate Program in Biomedical Sciences**

Additionally, there was booth from the Crane Trust

Don't see your department here? Join us next year!!

2024 NAS Scholarship Winners

Colleiate Winners



Fransico Cantillo is a non-traditional student studying Chemistry and Environmental Science and Climate Change at the University of Nebraska at Kearney.

The Nebraska Academy of Sciences collegiate scholarship in memory of C. Bertrand and Marian Othmer Schultz will be offered to a Junior or Senior enrolled in an accredited college or university in the state of Nebraska. The applicant must have a declared major in a natural science discipline (chemistry, physics, biology, geology) and be anticipating a career in a science related industry, science teaching or scientific research.



Yijing Chen is a senior at UNL and is interested in environmental Sciences and aspires to contribute to the cutting edge research at NASA



High School Winners

Marian O and Betrand Schultz Scholarship Awardee Denelle Nebesniak for \$750

This scholarship is available to any Nebraska high school senior with an interest in climate and environmental change.

Denelle Nebesniak is the 2004 Marian O. and Betrand Schultz Scholarship Awardee. She attends Kearney High School and has a cumulative GPA (weighted) of 4.25. She is ranked 15th in her class of 346 students. Denelle is active in Orchestra and Choir. Denelle will attend the University of Nebraska in the Fall.





Grace Sparwasser was the awardee for the Loren Eiseley \$500 Memorial Scholarship. 2024 Awardee Grace Sparwasser has a 4.49 GPA and attends Marian High School in Omaha. Grace has been admitted to Notre Dame.

Loren Eiseley was a scientist, author, and one of Nebraska’s great twentieth century naturalists. This scholarship is available to any Nebraska high school senior who has been accepted to an accredited college or university.



Kubicek Scholarship Award Winner for 2024 is Katelyn Shimic for \$1,000. She currently attends Gering High School in Western Nebraska and has an unweighted 4.0 Average. Katelyn will attend the University of Nebraska in the fall and will go to the College of Business with an indicated area of study in Actuarial Science. This scholarship is available to any Nebraska high school senior OR Henry County High School (Paris, TN) OR Colegio San Felipe High School (Arecibo, Puerto Rico) with an interest in business and the environment.



Jalen Kent was the recipient of the Marie and Howard Taylor Scholarship for \$100. Jalen Is currently a Senior at Cambridge High School and has a 3.98 GPA. She has been admitted to the University of Nebraska College of Technical Agriculture (NCTA) and will pursue an Undergraduate Degree in Agronomy.

This scholarship is available to any Nebraska high school senior who has been accepted to a Nebraska college or university. The student should express a special interest in the study of geology in particular, Nebraska geology.

2024 Friends of Science Awardees



Dr. Kim Carlson, Professor of Biology at the University of Nebraska at Kearney

Dr. Kim Carlson is a Professor of Biology focusing on molecular genetics and teaching introductory and human genetics, as well as Bioethics. She received her B.S. and M.S.Ed in Biology from the University of Nebraska at Kearney, her Ph.D. in Genetics, Cellular, and Molecular Biology from the University of Nebraska-Lincoln, and was a Post-doctoral Research Fellow in the Center for Neurovirology and Neurodegenerative Disorders at the University of Nebraska Medical Center. She became a Research Associate and Proteomics Core Director at UNMC before returning to UNK as faculty in 2003.

Her research focuses on the role of genetic factors in aging and innate immunity using *Drosophila melanogaster* as a model system. Her research is funded by NIH grants as part of the NE-INBRE program and Great Plains Center of Transitional Research (GP-CTR; IDeA-CTR) program, in which she sits on the executive steering committees for both. She is also a member of the Executive boards for the Nebraska Women in STEM program and Nebraska Cures, which promotes, supports, and advocates for scientific research and education to advance our quality of life and our economy, as well as being an officer in the UNK Chapter of Sigma Xi for the last 20 years. She is the only current faculty member at UNK to win all three Pratt Heins Foundation awards for Service, Teaching, and Scholarship/Research and UNK's highest honor, The Leland Holdt Security Mutual Distinguished Faculty award for Service, Teaching, and Scholarship, as well as being the only Sigma Xi Fellow in the University of Nebraska system or the state.

Dr. Dee Griffin, Beef Cattle Production and Health management Veterinary Specialist



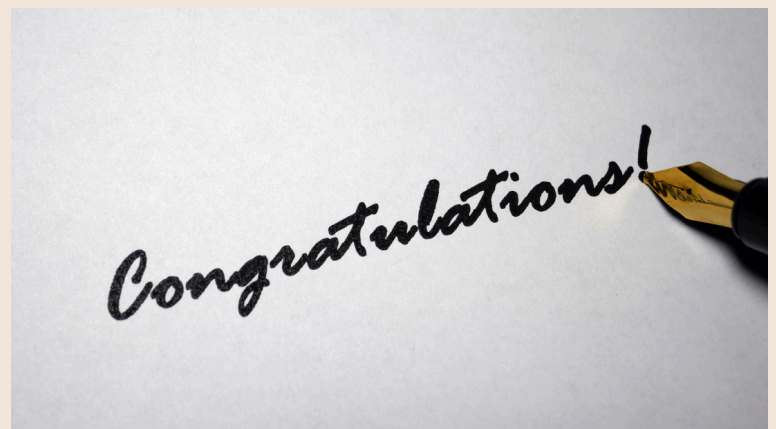
Dee Griffin has focused his entire professional career on cattle. After completing his veterinary degree from Oklahoma State University, he did his residence with Dr. Harold Amstutz Purdue University. While at Purdue, he completed dual master's degrees under Dr. Tiden Wayne Perry in Ruminant Nutrition and Dr. Harvey Olander in Veterinary Pathology. Dr.

Griffin has worked in the cattle industry his entire career. He was the staff veterinarian for Hitch Enterprises, a family-owned operation that had 1200 cows, as many as 20,000 stockers, over



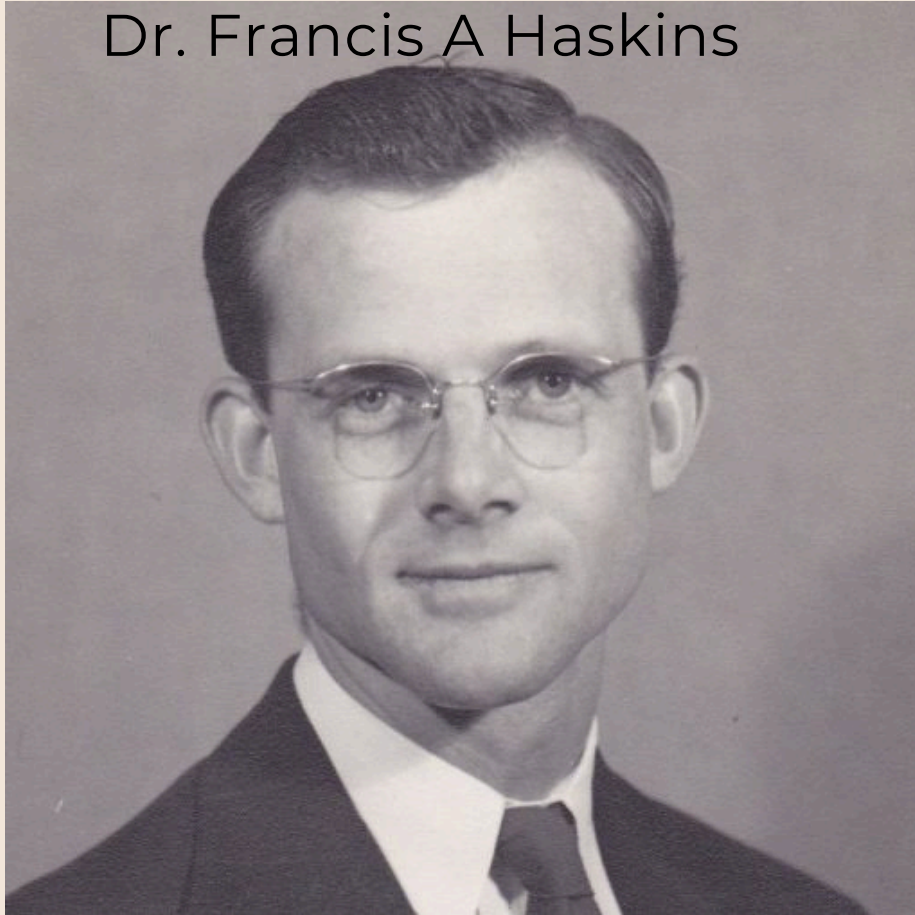
250,000 feeder cattle and two packing plants. He has worked with the BQA program since its inception when Hitch became the first USDA Verified Control Production beef operation. He is the retired Director of the Texas A&M University College of Veterinary Medicine's Veterinary Education, Research & Outreach (VERO) Center of TAMU-CVM and retired Professor from the Great Plains Veterinary Educational Center(GPVEC) of the University of Nebraska located at the US-MARC. I love students and my last year had students from 12 different university veterinary colleges. Personal note: "Over the decades during fall and Christmas breaks high school students became regulars in my lab developing their science projects ... the future is in GREAT hands."

Dr. Griffin has presented over 300 lectures at state, regional, national and international veterinary and beef producer's organizations. He has authored 41 articles, textbook chapters and the first two editions of the Nebraska Beef Quality Assurance (BQA) Manual and the first National BQA Manual. Much of his work has focused on BQA including residue avoidance, injection site damage, proper antibiotic selection and use in beef cattle, feeder cattle heat stress and beef cattle welfare. He is the past president of the Academy of Veterinary Consultants (AVC) and the winner of the AVC's Veterinary Consultant of the Year. He is the winner of the American Association of Bovine Practitioners (AABP) national award for Excellence in Preventive Medicine, the AABP's national award for Institutional Teaching, Research and Service Excellence and the AABP's Mentor of the Year Award. He received the National Cattlemen's Beef Association's (NCBA) BQA Education National Award for Excellence and the NCBA's BQA Educator of the Year. He is also the recipient of the Nebraska Cattlemen's, and Nebraska Veterinary Medical Association's Distinguished Service Award and selected as an Oklahoma State University College of Veterinary Medicine Distinguished Alumni. He was honored by the "Bovine Practitioner" magazine, a Vance Publication, as one of the industries VIP's for his contributions to the feedlot industry and was selected by the same publication as one of the 20 Most Influential Veterinarians in the U.S. He was chosen as "A Top 15 Veterinary Professor" by the American Veterinary Technician Blog. He serves on the NCBA's Cattle Health and Well Being Committee and the NCBA's Beef Quality & Safety Assurance Advisory Board. He served 12 years on the Professional Animal Auditors Certification Organization (PAACO) Board of Directors. He has recently retired from the AABP Board of Directors, the FDA's Veterinary Medical Advisory Committee, and the FDA Minor Species Drug Use Committee. More recently elected to the Nebraska Hall of Agricultural Achievement, inducted into the Cattle Feeder's Hall of Fame, receiving their Industry Leadership Award and the AABP's Amstutz-William's life-time achievement recognition.



In Memoriam

Dr. Francis A Haskins



August 20, 1922–April 20, 2021

Dr. Haskins was a long-time member and supporter of the Academy. He, along with Rosalind Morris and Bob Johnson were instrumental in guiding the academy through a difficult time of financial uncertainty in the mid-1990s. Dr. Haskins served as President for NAS, and he was a graduate and 35 year professor of Agronomy at the University of Nebraska Lincoln.



News from our Science Affiliates

Physics of Earth

UNL-based summer camp (including housing and food) for high school students

Have you ever wondered why continents move? And why and how do oceans evolve?

about the Earth
earthquakes works?
and
volcanoes?

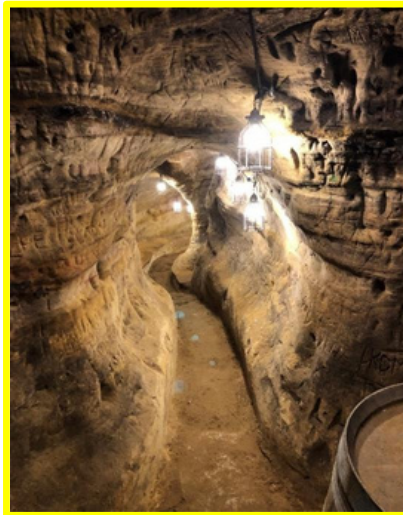


Are you curious
Do you want
to know how



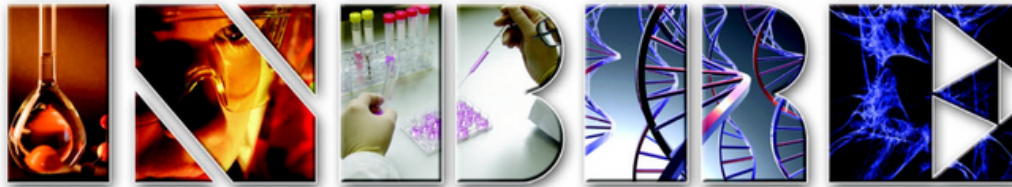
Come spend a
week in this
interactive camp
on June 9-14, 2024!

4h.unl.edu/big-red-camps



We will:

- Go over the basics of plate tectonics
- Have a field trip and deploy some geophysical instruments
- Go to the Robber's Cave and the UNL State Museum
- Reconstruct Earth's past and predict its future!



Nebraska's Institutional Development Awards (IDeA) Networks
of Biomedical Research Excellence (INBRE)

UNL East Campus Union



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