NDSU INBRE MONTHLY UPDATE March-April 2018





NDSU INBRE Monthly Update

EVENTS | NETWORKING | SKILL BUILDING | COMMUNITY | LEADERSHIF

NDTCA Hosts AIHEC 2018

Bismarck, ND



AIHEC 2018 Grand Procession and Parade of Flags as part of the General Assembly. Each tribal college is acknowledged to begin the Grand Procession by entering the room with their tribal flags.

Each year, the American Indian Higher Education Consortium (AIHEC) hosts its Spring Student Conference to highlight the talent, culture, and innovation of tribal college students throughout Indian Country. This year, the North Dakota Tribal Colleges Association (NDTCA), consisting of the 5 tribal colleges in the state, worked together to host and plan the AIHEC 2018 Student Conference. This year's conference was held in Bismarck, March 11-14th. Additionally, the Nueta Hidatsa Sahnish College took the lead on hosting the AIHEC 2018 National

Basketball Tournament. AIHEC includes over 37 tribal colleges and universities. Among the many competitions students prepare for each year are: archery, art, Mr. and Mrs. AIHEC, science bowl, knowledge bowl, hand games, one act play, scientific oral and poster presentations, and more.

Alongside these rigorous competitions, are the educational booths at the career fair and the annual AIHEC Powwow to close this celebration. Among the student competitors, these North Dakota tribal college students are affiliated with NDSU

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INBRE: Lizette Alvarez (NHSC), James Meideros (NHSC); Lee Voigt, a student at NHSC, placed 3rd in the poster competition. All have been involved with the tribal air quality project led by NHSC in collaboration with NDSU INBRE faculty and staff. Next year's AIHEC Student Conference is set for March 17-19 in Billings, Montana. For more information about AIHEC visit: www.aihec.org

AISES Region 5 Conference

University of Minnesota-Morris



Professional panel at the AISES Region 5 Conference. Pictured from left to right: Pearl Walker-Swaney, Kris Rhodes, Alex Kmett.

The American Indian Science and Engineering Society (AISES) is a non-profit organization that is focused on the recruitment and retention of American Indians (AIs) into STEM careers. Much like AIHEC, AISES builds a community of support and promotes Als pursuing higher education, research, and professional development. AISES has 7 student regional representatives. Each representative is responsible for ensuring college and high school chapters follow AISES requirements to be considered active chapters, submitting monthly reports from chapters in their region to AISES Headquarters, other tasks, and assisting with the annual spring region conference led by an elected student chapter.

The student caucus at each region conference determines who will be the next host chapter and who will be the incoming regional student representative. Each college chapter in compliance with AISES requirements is eligible to run and cast a vote for the host chapter. Chapters in compliance can also vote for students running for the regional representative. AISES Region 5 includes: Manitoba, Saskatchewan, northwestern Ontario, western Nunavut, Iowa, Illinois, Upper Michigan, Minnesota, North Dakota, South Dakota, Wisconsin, and Nebraska. This year's AISES Region 5 Conference was held March 2-4th at the University of Minnesota-Morris. The theme was Sustainability for the Next Seven Generations.

INBRE Project Manager, Pearl Walker-Swaney (*Standing Rock*), is a Seqouyah Fellow (Lifetime Member) of AISES and was asked by the planning committee to speak at the AISES Region 5. She spoke for two breakout sessions. Pearl was a member of the Professional Panel alongside American Indian Cancer Foundation Director, Kris Rhodes (*Fond du Lac*), MPH, and UMN-Morris Ojibwe Language Instructor, Alex Kmett (*Leech Lake*). During this panel, she was able to share how her experience as a previous Region V Student Representative helped build her skills to enter the workforce. Pearl also gave a presentation on "Finding an REU for You" to students. She provided students with tips on searching for REUs, applying, writing a personal statement, asking for letters of recommendation, following up and documenting their REU experience. This presentation can be shared upon request by emailing pearl.walker@ndsu.edu. For a copy of the conference agenda visit: http://www.aises.org/news/events/2018-region-5-conference

AISES Leadership Summit 2018

#AISESLS18 Alpine, CA

In addition to the AISES National Conference and the Region Conferences, AISES hosts an annual Leadership Summit. The Summit is an intensive 3-day event packed with leadership styles, tips, and lessons from professionals in STEM and related careers. The event is limited to 250 participants to create a close-knit environment for students to network, build skills, connect with the AISES Council of Elders, seek mentorship, and for professionals to continue adding to their aptitude toolbox and act as role models for students. The overall goal of the summit is to build upon the skill and aptitude of AISES members in professional and career development. The summit truly reaches this goal. Agenda for the summit can be found here: http://aises.org/news/meet-our-keynote-speaker-matika-wilbur-project-562-founder

INBRE Project Manager, Pearl, also presented at this conference. Her abstract was selected among many professionals to lead breakout sessions during the Summit including individuals from Raytheon, IBM, GM, Chevron, USDA, Nez Perce Tribe, Bemidji State University, and more. Pearl's presentation was entitled *Growing Your Inner Mentor: Tips from a Public Health Professional*. This presentation can be given upon request by emailing pearl.walker@ndsu.edu to coordinate.

In addition, NDSU INBRE supported 4 students from the NDSU AISES Chapter to attend the conference. These students had to meet the following qualifications to attend the summit: must be a current and active member of an AISES Chapter, tribal college graduate attending a university, GPA of 2.0 or higher, and writing a required report summary following the summit. The students selected



Future Ph.D.'s Jacob Walker-Swaney, MPH and Animikii Walker-Swaney pictured above at Solo Greene's presentation "Success is based on Sacrifice"



Veronica Veaux (Leech Lake Band of Ojibwe), of Bemidji State University speaking on "Servant-Leadership as a Jedi"; a model used at Gonzaga University.

were Darrin Frederick (*Turtle Mt*), Kaitlan Lyons (*Turtle Mt.*), Mykaylynne Belgarde (*Turtle Mt.*), and Tyrel Iron Eyes (*Standing Rock*). Each are students at NDSU and active members of NDSU AISES.

Some of their takeaways from attending the summit are as follows:

"AISES provides comfort, humor, family, opportunity, and encouragement."

"Seeing everyone at this conference showed me [that] it is possible to be true to your heritage while being successful in a system that wasn't built for us."

"AISES gives me purpose. Each time I attend a National Conference, I feel empowered and inspired."

"This is a great way to meet new and interesting people of other tribes."

Their commentary on the summit demonstrates the community of support and encouragement that is built by attending AISES conferences. This experience can be echoed at the National Conference and Regional Conferences. Students also meet people that become their mentors, future employers, and life long friends at AISES.

To view a video from last year's summit visit: http://summit.aises.org/ To learn more about the impact of AISES visit www.aises.org/

Tribal College Research Symposium

Candeska Cikana Community College, Fort Totten, ND



Dennis White (Lac Courte Orielles Ojibwe), delivering the keynote presentation.

Candeska Cikana Community College hosted the 6th Annual Tribal College Research Symposium on March 27th. The college hosts this 1 day symposium in its state-of-the-art auditorium each year. The morning sessions of this 1 day symposium includes a welcome from President Lindquist and a prayer from a local elder followed by a keynote presentation and another research related presentation. The symposium includes a lunch and concludes with a poster session in the afternoon.

This year's keynote presentation was delivered by the honorable Dennis White (Lac Courte Orielles Ojibwe), an elder from Wisconsin. He has a background in mathematics and shared his story about his journey and interest in pursuing a career in mathematics and teaching. His graduate studies included the study of Chaos Theory and elegant mathematic equations at the University of Wisconsin. It is his passion for mathematics that influenced his reknown style of traditional Ojibwe beadwork. He referred to his floral beaded vest as the 3-4-5 and discussed the use of the Pythagorean Theorem in the ceration of it – by accident! His humor and wisdom about pursuing higher education left you inspired and intrigued.

Dennis continues to teach at the LCO tribal college in basket weaving. He shared stories about how he teaches weaving with the use of patterns to assist his students in starting their projects. Once they figure out the sequence and no longer need to use his patterns, he will gently tease them and say they do not know how to do it. They laugh together and it fills him with joy knowing that he

can still teach math by way of art. The takeaway message was that there is mathematics in nature and art and art in mathematics.

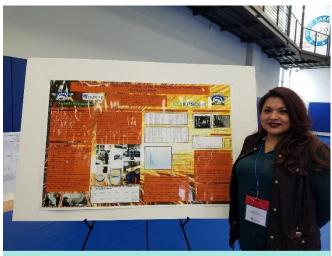
The second morning presentation was delivered by Krystal Tsosie (Dine), MS, Ph.D. (c) in Genetics at Vanderbuilt

University. She is a visiting professor at Turtle Mountain Community College and assists Dr. Best with the Pre-eclampsia study. Her presentation was titled "Assessing a Longitudinal Community-Based Genetics Study: Preeclampsia and American Indian Women" that emphasized the importance of developing a relationship with a tribal community in order to conduct quality, sound research that is for the benefit of the community and is a priority of the community. Her takeaway message was research projects conducted in tribal communities need to ensure that data sovereignty is respected by going through a tribal IRB process.

The following page includes some of the pictures from the poster session. Students affiliated with NDSU INBRE are pictured. Their abstracts along with other students' abstracts can be found by visiting www.littlehoop.edu.



Krystal Tsosie (Dine), M.S., Ph.D.(c), delivering her research presentation.



Lizette Alvarez (MHA), student at NHSC presenting on the tribal air quality project at the 6th Annual Tribal College Symposium.



James Medieros, student at NHSC presenting on renewable energy worked on the inception of the tribal air quality project.



Oyate), CCCC student and SURP alumni presenting her breast cancer research.



Ashly Hall (MHA), NHSC student presenting on rangeland management also worked on the inception of the tribal air quality project.

*Not pictured- Lee Voigt (MHA), NHSC student presenting on climate change also worked on the inception of the tribal air quality project.

SURP Q & A

Recording Available

SURP applications have been extended! They are going to be accepted on a rolling basis. INBRE staff have recorded an info webinar to assist students in applying for SURP 2018. This recorded webinar addresses most of questions under the topic "frequently asked questions". It includes detailed information on the objective of the program and how the program looks for the two-week period. If you want to know more or if you have any questions which we failed to cover in this webinar, please contact the INBRE staff.

Here is the link the recorded webinar: https://www.youtube.com/watch?v=oLgAkye-LBY

Here is the link to the online application: www.ndsu.edu/publichealth/inbre_summer_undergrad/

Expand Your Horizons 2018

Annual Event

Each year, NDSU hosts Expand Your Horizons. The event occurs nationwide and is a 1 to 2-day workshop for 7-9th grade girls. The goals of the event are to influence this age group to pursue STEM and related careers and provide them with professionals in the field that lead the workshops. The workshop leaders are all female; however, males can assist with the workshops.

This marks the third year that INBRE has hosted a workshop for Expand Your Horizons held on April 7, 2018. Pearl Walker-Swaney (*Standing Rock*), INBRE Project Manager and NDSU MPH students Carissa Brownotter (*Standing Rock*) and Hannah Youngdeer (*Eastern Band Cherokee*) facilitated the workshop. INBRE's workshop was titled, "Healthy Women, Healthy Communities". The activities for the workshop were as follows:

- Introductions & Disease Outbreak Activity
- Women's Leadership Panel
- Problem-Policy-Resolve Activity

There was a total of 16 girls in grades 7-9 from schools in the region that attended this workshop. The opening activity is an active demonstration of how quickly a disease can spread and become an outbreak. Water is placed into test tubes and NaOH (sodium hydroxide) is randomly placed into a test tube representing the disease. Each person is to use a plastic pipette and swap their solution with someone else. This was done in 3 rounds. Each test tube is labeled with a number and each round, the girls had to tell the data recorder whom they swapped with. At this point, no one knows who has the disease. Then, a facilitator adds phenol red to every test tube. If the solution turns pink it represents the disease, if it is yellowish it represents no disease. The girls then must look at the chart that shows the swapping from each round to figure out where the disease started. This is a fun way to get youth interested in public health through an introductory epidemiology activity. To demonstrate the impact of a vaccination, vinegar is added to the tubes before the swapping and phenol red is added. The example used in this activity was HPV (human papilloma virus) as an example since it is a sexually transmitted infection that can easily spread through skin-to-skin contact.

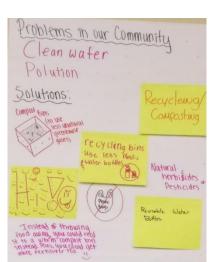
Following the outbreak activity was the Women's Leadership Panel featuring local women in public health. Danni Pinnick, MPH, a graduate of NDSU's Master's in Public Health program with an emphasis in Infectious Disease Management, works in the NDSU Department of Public Health on a project called AFIX. She travels across the state to educate health care providers about HPV vaccines and is also a candidate for District 41 Senate. Ruth Buffalo (MHA Nation), MPH, works as an independent consultant and has been contracted to conduct focus groups around health throughout the state. She graduated from NDSU's Master's in Public Health program with an emphasis in American Indian Public Health and is a candidate for District 27 Senate. Chelsea Mattern is at Blue Cross Blue Shield and has a health background as a respiratory therapist. She previously served in the state legislature and is active advocate for health in the community. They each spoke about their educational journeys, work in public health, and how STEM influenced their career path as well as how it impacts policy. The workshop concluded with a small group activity called Problem-Policy-Resolve. This activity placed the girls into 4 small groups. Each group had to identify 1 problem they see in



Panelists for the Women's Leadership Panel. Pictured from left to right: Danni, Ruth,

their community, identify solutions to the problem, and brainstorm ways that they can turn the solutions into a policy. Each small group shared their problem-policy-resolve with the larger group. The goal of this activity was to show them an outlining process often used in public health. Pictured are the ideas from each small group. These girls are

future leaders on the move!









Upcoming Travel

As part of the continued engagement with tribal colleges and recruitment for SURP, NDSU INBRE will be travelling to the following communities in April:

- April 12th TMCC Career Fair
- April 20th- Four Winds Parent Fair
- April 27th- NHSC Career Fair

SDSU Paid Research Experience

KEY FEATURES

- 10-week program each summer for two summers
- First summer at South Dakota State University
- Second summer internship at an industry/business/ university site of participant's choice
- Training on soft skills and career coaching Research/extension experiences to prepare for: Industry/business Jobs, Attending graduate school, Teaching Science/Agriculture Education in School
- Networking/Community Building Opportunity
- Mentor-student ratio = 2:1

ELIGIBILITY

- US Citizen/Permanent resident
- Native American
- College freshmen/sophomore/junior

BENEFITS

- \$6,000 stipend for 10 weeks each summer
- On-campus housing
- Round-trip travel from Brookings to student's hometown covered

PROJECT CONTACT

Dr. Madhav Nepal (madhav.nepal@sdstate.edu)

WEBSITE:

www.sdstate.edu/biology-and-microbiology/fast-reeu-fellowships

Cheyenne River Research Symposium April 26th

4th Annual Research Symposium

Cheyenne River College is hosting its 4th Annual Research Symposium on April 26th in Eagle Butte, South Dakota. This year's theme is Researching, Restoring, & Rebuilding Our Oyate for a Better Life. The agenda for the event is below.

9:30-9:45am	Registration
9:45am	Welcome remarks & Prayer
10:15am	Data Sovereignty, Wayne Ducheneaux
11:15am	Genomic Research & Data Sovereignty in Tribal Communities
12:00pm	Lunch & Informal discussions
1:00pm	Breakout session
2:00pm	Breakout session
3:00pm	How Local Research Impacts You
3:30pm	Evaluation
3:45pm	Closing

For questions or more information about the symposium contact Joseph Yrcheta, joseph.yrcheta@mbiri.com or 605-964-3418.

Woodlands/High Plains Powwow April 14th

29th Annual

NDSU is hosting the 29th Annual Woodlands/High Plains powwow on Saturday, April 14, 2018 at the Benston Bunker Fieldhouse. Grand entries will be at 1pm and 7pm. Host drum is Buffalo River. For questions contact Jered Pigeon jered.pigeon@ndsu.edu or 701-231-7267

UNDIA Time Out Week and Powwow

48th Annual

University of North Dakota Indian Association is hosting its 48th Annual Time Out Week and Wacipi April 16-21st. Find the list of events and powwow info here:

https://www.facebook.com/UNDIndianAssociation/



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If you would like to nominate a student to be featured in our newsletter, have suggestions, or questions, contact us!

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