

CHIEF DULL KNIFE COLLEGE  
P.O. BOX 98  
LAME DEER, MT 59043

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## Science Thriving At CDKC

Last summer the college offered an eight week "Student Research Experience" which enrolled fourteen (14) college level students. Six of the students were funded under National Science Foundation (NSF), six under NASA, and the remaining two under the National Institute of Health's (NIH) Idea Network of Biomedical Research Excellence (Inbre) program. The workshops engaged students in ongoing research on West Nile Virus Tracking, water sediment organism assessment using deoxyribonucleic acid (DNA) extraction and identification of bacteria and viruses present in sediments of the Tongue River in southeastern Montana, soil characteristics of soils found on the Northern Cheyenne reservation, alternative energy production using solar power, and irrigation techniques using programmable controls. In addition students were introduced to GIS/GPS technologies used for locating sample sites and recording geo-spatial data. In addition to the college level interns, fourteen (14) area high school students (8 funded under NSF), representing three high schools, were brought to campus to share the research experience and take classes from the college during the summer "free tuition" session. These high school students were exposed to CDKC's math lab through developmental courses offered throughout the summer and partnered with tribal college students in research. The college will run the program once again this summer and high school and college students are encouraged to apply. Call Doug Brugger for details, 477-6215 Ext-141.



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# President's Corner



The year 2040 could be the time when the Cheyenne language disappears from the face of this earth **as a spoken language IF NOTHING IS DONE** to perpetuate it. “As a spoken language if nothing is done” are the operative words regarding our Cheyenne language. Through the written word, the Cheyenne language will last a long, long time. The written aspect of the Cheyenne language is well taken care through dictionaries, the Bible translations, written stories, grammars, and a growing cadre of Cheyenne readers and writers. It is the spoken, conversational, joke-telling, story-relating aspects that we must nurture. We must nurture that part of our language that permits us to talk about pain and euphoria on physical, psychological, spiritual, and emotional bases. The other aspect, and this aspect could be a lot of fun, is to coin new words or revive old words for electronics, diseases, food, social phenomena, and current material. Researching old dictionaries will help. Using our own linguistic creativity will help. For instance, the little Styrofoam pellets that cushion objects being shipped

through the mail could be called “sehtsematse” or “ghost poop” just because they are lightweight and in pellet form. But, I don’t want to go too far with that. I’m just trying to show that our language is still robust enough and flexible enough to take in modern day phenomena.

The point is this: just think of all the fun things that can be done with our language as a spoken language. For questions or comments call 477-6215, extension 104.

## POSITION ANNOUNCEMENT

Chief Dull Knife College

Developmental Reading/Writing Specialist

Starting Salary Range-Salary Schedule Placement Dependent on Experience

10 Month Position/Benefits

**Opening Date:** 4/7/2017 **Closing Date:** Open Until Filled

**First Review:** 4/20/17

**SUBMIT RESUME TO:**

**Selection Committee RWS**

**Chief Dull Knife College**

**PO Box 98**

**Lame Deer, Montana 59043**

**General Job Description:** Selects, designs, develops, and implements a remediation program for students needing such services in improving reading and writing skills. Oversees the language lab and teaches English language within the developmental program.

### QUALIFICATIONS:

**Education:** Master’s Degree in Education or equivalent preferred; reading/writing endorsement desirable; Minimum qualifications: Bachelor’s degree in Education or equivalent with four years related teaching experience. **Experience:** Prefer experience in educational issues affecting Native Americans as demonstrated by work experience, publications, or community service: experience in supervising individualized study.

### Major Job Responsibilities:

Teaches remedial English language skills based on specialized experience.

Works closely with the HiSet program at CDKC.

Works closely with other college faculty in developing an innovative program to address and decrease gaps in reading and writing proficiency levels for incoming and current students.

Builds and implements a foundation program of remedial work necessary to attain readiness for regular college level coursework.

Supervise student tutors working in the language lab.

Ensures coordination of everyday activities relating to the integrity of program accountability, goals and objectives.

Reports to the project Director/Dean of Academic Affairs.

# Reflections

## John Stands In Timber

Recorded by Margot Liberty



Now I'm going to tell a story about Sweet Medicine. Sweet Medicine story is quite a long story; not just one story, but different things what he did.

When he was able to go out and hunt -- They didn't have no horses. [They] describe an animal like a horse, and other animals; they came after Sweet Medicine's time. And they had bows and arrows, and before they had clubs. During this time that they had bows and arrows, they made different than the bows that you have seen. I have seen some pictures of the bows; other tribes still make that kind of bows and arrows. When Sweet Medicine was a boy and went out hunting, in those days

men they go up on a high hill and look over the country. And, so they planned to go over there early the next morning. The idea is to find a place where they could hide close to the buffalo trails so they could shoot and kill the game quicker that way. And early in the morning all the men start out in different directions, and they find places where they thought the buffalo might come close, following the trail, going to water, or just coming out of water, and going back to the hills. And Sweet Medicine did not do that; he just found, a little way out over the hills, and killed a buffalo calf. They say "yellow buffalo calves;" they were kind of a yellow color when they were calves. And he skinned this animal.

Now in those days the old men, those that were unable to go out a far distance to hunt; crippled men; they go out after the sun rises, expecting to meet the hunters and pack their meat. And they helped them to bring their meat into the village -- that way they get a share of the meat. And another thing, there were some disabled families not able to go out, or widows, each hunter donate a certain amount of meat, give it to these people. They were good that way.

And this one old man went up on the hill and looked, and he could see somebody coming back with his meat. He saw somebody down in the valley. And he walked down there. He found this boy Sweet Medicine skinning the calf. This old man thanked Sweet Medicine when he saw this calf hide laying on one side --he was about finished skinning (but) the calf was still on the hide. And he says, "I been wondering where I could get the hide. This is the kind of hide I want. I'm going to take it."

Sweet Medicine says, "No, you're not going to take it. This is the first buffalo I killed, and I'm going to make use of that hide." And when he got through, he offered half of the meat to this old man, saying, "You can carry that. That's yours." And the old man started to take the hide. "But you're not going to take that hide." And this old man says, "I can take it away from you. I might whip you and take it that way."

Sweet Medicine grabbed the hide. This old man started to pull it, you know, trying to swing that boy around. But he saw the shank of the calf lying on the ground and picked it up and hit the old man in the head and knocked him out. Fell. He watched the old man (and saw he) was just knocked out; so he took the hide and put that meat on it, and rolled it and packed it on his back and started going home. And left that old man. He knew that old man would come out. And later days the fact that the story's been changed; they said that Sweet Medicine was a murderer, murdered another Cheyenne. The story I heard [in] 1895 was a true story; the old man came back after he come out of it.



## Students Enjoy Spring Ski Trip



On March 8<sup>th</sup> 2017 a group of eleven Chief Dull Knife College/ TRiO students traveled to MSU-Billings with Michelle Spang, TRiO Director, and Ronelle Beartusk, TRiO advisor/ administrative assistant. Students were introduced to the everyday tasks that college students face at the four year institution. We were welcomed by Maddie Felts, MSU-Billings Admissions Representative, who informed the students regarding their application, financial aid process, and the degree programs they offer at MSU-Billings. The students asked a lot of good questions pertaining to transferring, college tuition costs, dorm life and the financial aid opportunities. The staff at MSU was very friendly and welcoming; I believe three of the twelve students we took will be attending school there.

After the tour we took in lunch at the campus cafeteria and then hit the slopes for an afternoon of skiing and snowboarding at the Red Lodge Skiing Resort. The majority of the students were first time beginners and had to take lessons. Although there were plenty of spills and tumbles the students all took it in stride and enjoyed their day in the snow. The students were very appreciative and thrilled with their day and the all-around new experiences.

## AIHEC 2017



Coca Cola Scholars 2017



Chloe Ortega and Savannah Charette Honored at 2017 AIHEC

# Mr. Wiseman Goes to Washington

By Dustin Wiseman



Dr Littlebear, Jenny Parker, and Winfield Russell with Dustin in D.C.

My trip to Washington D.C. was such an extraordinary opportunity. Shaking hands with our states senators was eye-opening; Steve Daines was probably my favorite. He was connected and right there in the middle of our group, ha, he even took a big “selfie” with the students and added some on snap chat. Getting to see the Lincoln Memorial has been a dream of mine since I was little, I’m not sure why. But when we were walking around Capitol Hill and the White House, it definitely felt like a republican was in office. AR-15’s, M-16’s and M-4’s were being packed around by security and cops on every nook and cranny it seemed like. So I felt safe, but at the same time felt like what you would see at a prison, or maybe Auschwitz.

Aside from all that the memorials from the wars, all the names on the stones, and the graveyard is just mind blowing. To witness the sacrifice that Americans have put in, only to have a president like Trump digress progress by 40-50 years. My experi-

ence is one that I’ll remember forever. Will I ever return to D.C. probably not, it’s a bit too crowded and expensive for my taste. I really enjoyed the different cultures that were represented everywhere you went, people from all over the world. The Native American Museum was very interesting, seems like indigenous peoples from all ends of the world have proven themselves time and time again. To witness such resilience through artifacts and pictures and exhibits was truly a memory for the books.

During the first conference, called the “Briefing Session”, the AIHEC representative in D.C. asked if any volunteers would like to get up and share their TCU story. For like five minutes, the room was silent and no one was getting up. Ha, Dr. Littlebear looked at me and gave the expression and hand signals like, “well what are you waiting for”. So I got up in front of the whole conference and shared my story, I was way nervous, but representing the school and my family gave me a boost. So thank you Michelle Spang, this opportunity wouldn’t have come knocking without you.



# Graduation 2017



Dr. Richard Littlebear, Faculty, Staff, and Board of Directors of Chief Dull Knife College, proudly announce the graduation of twenty four students, on Tuesday, May 9, 2017. Chief Dull Knife College graduation is a day which marks the commencement of a new phase in life for these students.

*The graduates selected their colors of silver and maroon for their caps and gowns, a white rose tipped maroon with silver sparkles. The motto the graduates selected is: “A very great vision is needed and the man who has it must follow it as the eagle seeks the deepest blue of the sky”-Crazy Horse, Oglala Lakota Sioux (circa 1840-1877)*

*Graduation will be held at the High School gym at 6:00 with a “traditional” theme. The graduates will receive a quilted star wall hanging which is placed on the back of their chairs. The graduates will be led in procession by a traditional song sung by the Medicinebull Drum group and will be lead in by Tyson Fox a traditional dancer.*

*The graduation speaker is Dr. Urla Marcus, College of Liberal Arts, School of Mathematics and Social Sciences, Black Hills State University (BHSU). Dr. Urla Marcus is the Director of the Center for American Indian Studies at BHSU. She is an enrolled member of the Northern Cheyenne Tribe from Lame Deer, Montana and is a descendant of the Turtle Mountain Band of Chippewa, North Dakota. For the last fifteen years Dr. Marcus has worked at Black Hills State University, first with Upward Bound, and currently with the Center for American Indian Studies. She also teaches within the School of Mathematics and Social Sciences, teaching courses in American Indian Studies and Education. She has a Master of Science Degree in Curriculum & Instruction from BHSU and her doctorate degree is from the University of South Dakota in Adult & Higher Education Administration. Through the Center for American Indian Studies, Dr. Marcus also supports two student organizations that further support retention and graduation of American Indian students. The first being Lakota Omniciye, which sponsors an annual Cultural Awareness Week and Wacipi to promote fellowship between Native and non-Native students, and the American Indian Science & Engineering Society (AISES) that assists American Indian candidates for science, engineering and technology degrees.*



# Birney Arrow



## Don Hollowbreast

February 28, 1958

REPORTER: Don Hollowbreast-- - TIPIST: Paul Threefingers

Mr. Madison Coombs, who is the head of the Adult Education Program of the Indian Bureau in Washington D.C., came to Birney to Thursday – Mr. Ward, Mr. Jensen our superintendent and Miss Grissom were with him. They looked through the Community Hall and the Henhouse and talked about Adult Education with Mrs. Liberty.

The public health nurse Miss Schrimick stopped at the Community Hall Thursday. She said that Josephine Wolfblack is not feeling very well and would like some help washing for the twins. They are both home now.

Josephine Wolftooth is feeling better now.

On Jan 29, Don Hollowbreast received \$50.00 from F.H. Sinclair, Sec- Manager of All American Indian Days, Sheridan, Wyo. in payment for pictures lost after the 1957 show and has been invited again to enter painting at the next All American Indian Days Arts and Crafts Exposition.

The Birney people held a meeting Wednesday night to discuss matters regarding using of the Community Hall other then the Adult Education Program. However, there was no definite result of anything,

The Birney Boxing Club are planning on having a return match with the Sheridan Boxers. But no date has been set yet.

One of George Hardground's dogs bit Fred Medicinebull, who is now been taken care of at Crow Indian Hospital.

The Busby Eagle took First place in the Class C Basketball Tournament at Forsyth, while the Colstrip Colts took second and St Labre Braves took third place. Hysham Pirates came out with the sportsmanship award.

The boys that participate in the boxing bouts at Sheridan were Mike Sandcrane, Pete Sandcrane and Paul Three Fingers. No serious injury or anything occurs to the boys, actually they came home prouder.

Birney boys held a meeting Sunday night concerning organizing athletic team and likewise appointed the Manager, Coach and Treasurer, etc, They appointed Junior Medicine Elk Manager, Joe Sandcrane, Coach and Paul Three Fingers, Treasure.

Four person show up beside Mrs. Liberty for the coffee hour at the Community Hall Friday morning.

WANTED. . . .More news for the Birney Arrow. Please don't hesitate to give a news so we can fill up a page more quickly.



# Go to College this Summer for FREE

Form a Carpool! Spend on Gas - Save on Tuition!

No money for summer school...NO PROBLEM  
Chief Dull Knife College is offering **FREE** tuition for all classes this summer for all students.

Textbooks provided at no cost to students.

On Financial Aid Suspension?  
This will be a perfect chance to complete a semester on your own and "requalify" for Financial Aid.

4 day weekends all summer

Classes only meet Tuesday, Wednesday, Thursday

All College Credit Courses are fully transferrable to the Montana University System



Free Summer



Free Summer

Classes begin June 6th and continue till August 3rd  
**4th of July Week - NO CLASSES**  
Eight Weeks...3 days a week...as many as 13 credits!

HISTORY / ARTS			MATHEMATICS		
AC 154	Introduction to Photography	2:00-3:30	MA 071-079	Math Skills Seminar	9:00-10:30
HS 251	U.S. History I	9:00-10:30	MA 071-079	Math Skills Seminar	10:30-12:00
COMMUNICATION ARTS			MA 255	Statistical Methods	2:00-4:00
CA 151	College Writing I	10:30-12:00	PSYCHOLOGY		
CA 165	Fund of Public Speaking	9:00-10:30	PY 150	Introduction to Psychology	10:30-12:00
CA 251	College Writing II	12:30-2:00	EDUCATION		
COMPUTER INFORMATION SYSTEMS			ED 120	Parenting	10:30-12:00
CS 150	Introduction to Computers	12:30-2:00	ED 155	Human Development	2:00-3:30
CHEYENNE STUDIES			SCIENCE		
CH 151	Cheyenne Beadwork I	9:00-10:30	SC 158	Discover Biology	2:00-4:00
CH 161	Cheyenne Language I	12:30-2:00	SC 171	Intro to General Chemistry	9:00-12:00
CH 181	Found of Cheyenne Oral Trad	2:00-3:30	ALCOHOL—DRUG STUDIES		
CH 255	Ethnobotany		AD 250	Legal, Ethical, Prof Issues	10:30-12:00
CH 270	History of Cheyenne People	10:30-12:00	AD 251	Prin of Counseling/Groups	9:00-10:30
NATIVE AMERICAN STUDIES					
NS 150	Intro to Native Amer Studies	9:00-10:30			

Contact the Registrar to enroll in classes for the summer.  
406-477-6215 Ext - 105 or 118

# Research News

## Research Director Joins CDKC Staff



Doug Brugger

Doug grew up in Butte, MT and got a Bachelor's in Physics from the University of Montana in 2009. In 2013 he earned a Master's in Civil Engineering from the University of Wisconsin in Madison, studying the increased risk of floods as weather gets more intense due to climate change. Doug then continued graduate work back in Missoula, building an interconnected computer model of hydrology, agriculture, and land use change.

Doug has also been active in tutoring, teaching, outreach, and student advocacy, and in 2016 he was made Flight Director for Montana Space Grant Consortium's BORE-

ALIS program at UM. As Flight Director Doug mentored interns at UM, Great Falls College - MSU, and Chief Dull Knife College on launching and retrieving high-altitude balloon payloads. It only took one visit to CDKC for Doug to feel at home among the people, the landscape, and the culture of the college and the Northern Cheyenne Reservation. Doug started as Research Director at CDKC in Fall of 2016, and plans to teach physics in the 2017-2018 academic year.

"I'm thrilled to have this opportunity because of the important responsibility of giving students the out-of-classroom experiences that will help them stay motivated through their coursework. Success in STEM is about the regular back-and-forth between scientific theories and the experiments that test these theories. Whether working on a rocket for NASA or surveying trees for the Forest Service, this basic rhythm of STEM success can only be learned first-hand."

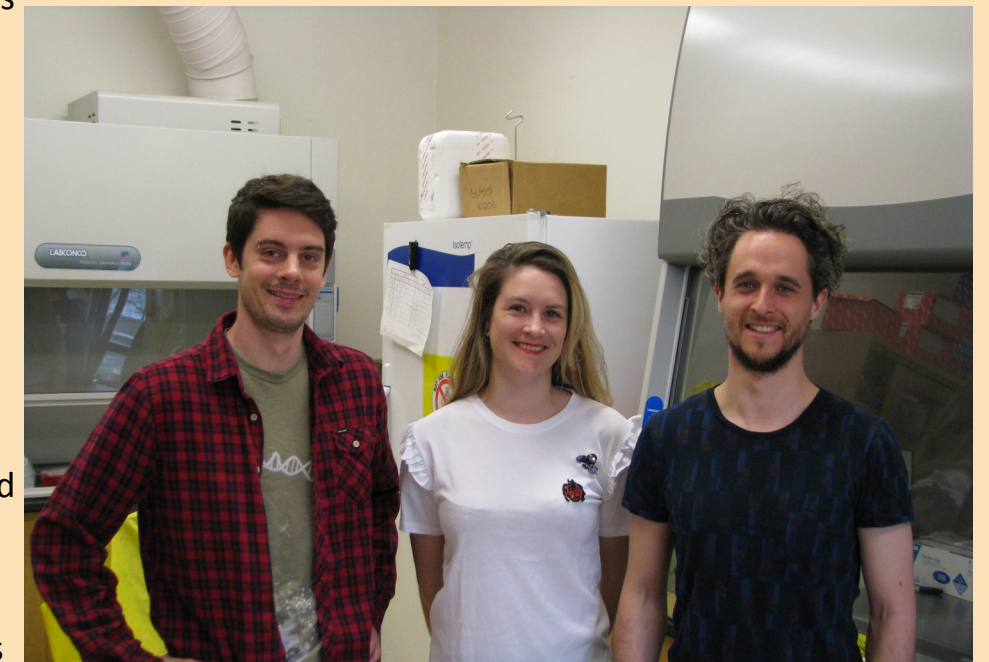
# Research News

## MIT Researchers On Campus

Researchers from MIT in Massachusetts arrived at Chief Cull Knife College during the week of April 11 to kick off an international study into the "microbiome" living in the human gut. The study will look at microorganisms living in the gut through a revolutionary new process of collecting fecal samples from participants and analyzing the remains of digestion. In the modern world of antibiotics, recent research has begun to notice harmful effects of antibiotics on the human gut microbiome. The second leading cause of death in US hospitals is dehydration and illness caused by bad microbes taking over the gut. As the researchers described, "it's like killing all the plants in your yard and then waiting to see which new plants come up first". In our yards it will be weeds, in our guts it will be nasty bacteria. The college is excited to be part of this world-

wide effort to categorize the microbiomes of populations which rarely have interactions with each other. Each participant will be given an analysis

of their sample and informed about what their microbe profile looks like. All data collected in the study is private and anonymous. Procedures which are being used in the study will at some point be part of a routine medical checkup at the doctor's office.



Sean Gibbons, Mathilde Poyet, Mathieu Groussin



# Students Comment on STEM Internships



## Deciding to apply to the internship program

Student interns learned about the program in a variety of ways, including from current interns, from faculty and from former interns. Some interns were drawn to the program because of the kinds of opportunities they would have to work on interesting projects.

I've only heard good things about the college, and coming and being here as an intern, I'm seeing good things. You hear about coming to a college and not getting opportunities until your Senior year, but here, week 2 I had a project proposal on [CDKC Research Director's] desk, for a small scale hover car that I've dreamed up. I can make it a reality if I can get the magnets working.

When I first got this opportunity with the NASA internship I learned that they worked with forestry. I would have never thought of them working on something like that. It has opened a lot of doors.

Besides the money, it's a great atmosphere here. The potluck is just very nice. This room gives you opportunities for information. The NASA internship, it's not just about rockets and nerds. Ten years ago, I never thought I'd be somewhere like this. It's a different environment than what I'm used to. It's a good experience learning to socialize with other people.

I would rather be here in an environment where I feel comfortable. Here I am in a family, it feels like a family. Here I'm home. Here I want to take as many classes as I can, and the cost is so much less. I always promise my Dad, I will pay for it myself, you don't need to worry about me. I like that here, they are pushing you to succeed. There I am just a number.

Another intern discussed how she decided to take a chance on the internship. She heard about the science internship program from the Math instructors. She explained that they would talk about the projects and it sounded interesting. Although she said she was "kind of intimidated at first," once she got started in the internship she really liked it.

Now she wants to get her AAS; "It really changed my mindset."

## Experiences with the science research projects

Student interns discussed their experiences with different science research projects from either the year before or the fall semester. The students appreciated the opportunities to learn about the projects and then choose projects to focus on. One student who started working on the water sampling project explained, "I had never really been in science or research, but after seeing what was happening with the wells I wanted to be more involved." She continued to describe her experience:

It was cool; it was different. It was cool just to learn how to go out and find different wells; to go out and test them and go and find out what was in the water. Then, we got to send them out to different labs to find out even more. I've never had that experience.

Another intern also described her experiences with the water research project, indicating that it meant something to her to be part of a project that could help local communities.

The very first project I worked on was the DNA extraction. I helped a little with this project, then this summer I was on the water research team. We were looking at domestic ground water, which is considered safe for domestic use, to see if there are concentrations of different chemicals in the water. We wanted to see what is in the different wells. We did a little DNA extraction too. Just being able to be a part of something that could help the reservation was really nice.

One intern discussed her uncertainty about joining the GIS/GPS project and what that experience involved:

When I came on I was working on the GIS/GPS project. When I applied I wasn't sure where I would end up. ...I had some knowledge about how many acres are in a section, but there was a lot to learn. Working on the project was a long process, from using GPS to Google Earth, but it was awesome to know what a computer device and the GPS could do together to bring the map alive.

Others intern discussed the training for the GPS/GIS project and the skills they gained. While a lot of training was required, the interns appreciated working together and relying on each other. The following interview quotes indicate the views of different interns on what they valued about the GPS/GIS project.

First we started out with the ESRI trainings. They prepared us for working with topography and the GPS units themselves. They trained us to create our own topography maps. I'd say that half of our internship was training on ESRI. We would go occasionally and do hands-on work with GPS, put it on a topography map, and map out locations.

Two or three of us would go out with another group, like [CDKC Math instructor DJ's] group, and we would use our GPS along with them to pinpoint the locations where they were collecting samples. In that, we kind of relied on each other.

It was pretty good, the trainings. You would forget something, and another one would remember it. Once we worked with the other groups, we would map the out on the computer and would print it out for them to use.

Just working with the topography maps and learning different elevations was incredible. When we would go out with other groups, I would start to notice the environment we were in, and that would become more interesting. Before, I would see a tree, a rock, a hill, but after the training with the topomaps, I started seeing things differently. I started seeing topographically, and it was amazing.

In addition to the research projects, several interns went with a CDKC group to Wallops Islands to participate in a NASA program where they built rockets. One intern described the challenges she experienced, saying, "The computer programming was intimidating." However, she really liked soldering and said she "got really good at it." Additionally, there were lots of Native American students in the program, and she learned that the tribal college students kept up

## The benefits of the internship experience

Several interns discussed the benefits of their internship experiences and the skills they acquired. For example, one student commented about the value of the GPS/GIS training:

Just having the knowledge of GPS/GIS is valuable. You have those certificates, and that is a specific knowledge you gained from what you took during the summer. If you apply to the BIA, you have those certificates to show them for passing the courses. This is a great opportunity and it's worth it. Those certificates have your name on it for completing a course. And if they ask you, "Do you know how to run a Trimble unit?" you can say "Yes, I do. I've done that before."

Other interns expressed different views of the benefits of the internship experience. For example, one intern commented that the internship helped her to learn to be outgoing and gave her exposure to new things. Similarly, another intern commented on the benefits of his participation in the program:

Someone talked to me yesterday that they were glad to see me back here. He said, "We're all rooting for you." ...I want to push forward in a lot of aspects of my life. The more you know, they better off you are, but it's hard being your own advocate. Once you're in something like this, you get opportunity. What you do with it is up to you.

The science paraprofessional highlighted additional benefits, from his perspective, that the interns gained from their participation in the internship program:

I think it's the process of doing research itself. It's irrelevant what we throw at them, whether it's West Nile or alternative energy. It is the process of learning something and doing research and learning new things. Wherever they go from now, they can apply it in life. That's the biggest thing they can do with it; that's what I got out of it.

## 2016 CDKC Interns and Mentors

