



University of Alaska Fairbanks

1930 Yukon Drive
PO Box 755940
Fairbanks, AK 99775-5940

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COLLEGE OF NATURAL SCIENCE & MATHEMATICS

MATTERS



Your gifts in action

WINTER 2019-2020



University of Alaska Fairbanks

Cover: GeoFORCE Alaska students describe sedimentary rocks at Dinosaur National Monument in Utah. Photo by Leif Van Cise. Back cover: Natural Resources and Environment students participate in the Forest Festival, on UAF campus this fall. Photo by JR Ancheta.

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Welcome, Dean Doerner!

Kinchel C. Doerner

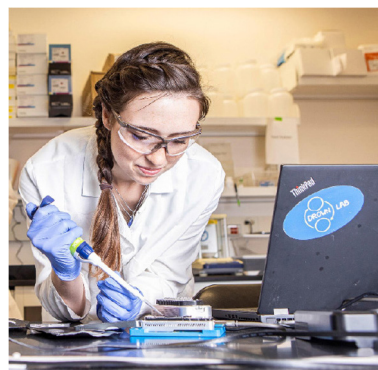
Kinchel Doerner began as the Dean of the College of Natural Science and Mathematics in August. He came to us from

South Dakota State University in Brookings, where he was the Graduate Dean. Previously, Dr. Doerner served as professor of microbiology at Western Kentucky University in Bowling Green.

"I am extremely humbled and excited to serve as the next Dean of CNSM. The faculty are extraordinary scientists, researchers, and teachers and I feel privileged to be part of such a world-class team. CNSM students are doing amazing things in the classroom, laboratory, and field and our alumni continue to excel in their fields. CNSM, like UAF, is facing some challenges but I know we will quickly adapt and remain the remarkable college that you know. I hope I can meet each one of you."

Kinchel C. Doerner

UAF researcher genome sequences a permafrost associated soil microbe



JR Ancheta photo

There has been a lot of news about climate change and melting permafrost lately. What could that possibly have to do with another frequent news item, antibiotic resistance?

Biological sciences graduate student and alumnus Tracie Haan is studying the

connection between the two. She applied cutting edge genetic technology to sequence the complete genome of a permafrost associated soil microbe. She has published this work in the journal *Microbiology Resource Announcements* with UAF undergraduate Scout McDougall and her mentor Dr. Devin Drown as coauthors.



VetMed Program

Cathy Griseto photo

UAF's first class of veterinary students makes history

The program is a way for Alaska to grow its own veterinarians and for local clinics to make an investment in the future workforce.

The first graduates of the University of Alaska Fairbanks/Colorado State University 2+2 veterinary program have all been hired to work here in Alaska and the Lower 48. The 10 students attended the first two years of coursework at UAF and finished their two years of clinical training at CSU. The graduation marks not only a personal triumph for the students, but also a milestone for both universities.



Ross Skeegan photo

Quality Matters Award

Joanne Healy (right) accepts the first Quality Matters Exemplary Online Program award for her Master's in Special Education Program from Brenda Boyd, Quality Matters Senior Academic Director, at the International QM Connect Conference in October 2019. The UAF Special Education Program is the only online special education program to get International recognition from Quality Matters for Exemplary Online Program.

Space Weather Underground

Outreach program partners with UAF

Did you know that there is a connection between the aurora and power outages? Safety concerns aside, we're guessing people in Alaska don't want to spend any more time being cold, or Netflix-deprived than they have to. Which is why the Space Weather Underground program is so useful—under this program, high school students will build and deploy multiple devices across Alaska that measure the Earth's magnetic field. The data will help UAF scientists to understand the potential impacts the aurora can have on power grids and communication networks.



JR Ancheta photo



Leif Van Cise photo

GeoFORCE alumnae Lena Norton and Esther Barger from Noatak, Alaska pose in front of the Reichardt building as first-year geoscience majors. In July 2019 they completed the four-year GeoFORCE Alaska program with 20 other rural high school students. Thank you to the donors who make this program possible.

UAF receives \$16 million to boost biomedical training

Gift will help program increase the diversity and research capacity of undergraduates



JR Ancheta photo

The Biomedical Learning and Student Training Program (BLaST) received a \$16 million grant this summer to increase the diversity and research capacity of undergraduate students in its biomedical programs. This award will fund research experiences for undergraduates, as well as scholarships, equipment and course development. The program uses mentors, research-based instruction, and a One Health approach to engage

students. And check this out: undergraduates from diverse backgrounds, especially those from rural Alaska, actively participate in relevant biomedical research. Students are helped to develop and reach their own goals, and are ideally positioned to help meet the needs of their communities.

UAF researchers learn more about leaf miner attacks on aspen trees in Alaska and Canada



Diane Wagner photo
Jenifer M. Wheeler measuring leaf water potential

Nothing says summer in Alaska quite like the sight of the leaves of a quaking aspen shifting in a slight breeze. But an almost 20-year-long outbreak of the aspen leaf miner moth has damaged aspen trees in Alaska and Canada. UAF biological sciences undergraduate Jenifer M. Wheeler recently discovered that leaf mining compromises the ability of aspen leaves to retain water, making aspen more vulnerable to summer water stress. Her work appears in the journal *Tree Physiology*.



Diane Wagner photo
Image of mined aspen leaves