

## ENGINEERING

President Waded Cruzado 212 Montana Hall Montana State University Bozeman, MT 59717

President Cruzado:

It is my honor to nominate Dr. Anne Camper for the distinction of Regents Professor. Dr. Anne Camper is an exceptional scholar who has achieved international recognition for expertise in the field of water quality. Further Dr. Camper has made unique and sustained contributions to Montana State University (MSU) in the areas of teaching, discovery, and engagement. Dr. Anne Camper has been an extraordinary student, researcher, faculty member, mentor and administrator at MSU for over 40 years.

A native of Wisdom Montana, Anne spent summers camping and fly-fishing with her father on Montana's rivers. Many summer hours were spent on horse back in the Selway Bitterroot Wilderness area. It was during these years that she developed an appreciation for Montana's water resources. A high school science teacher encouraged her to pursue a project where she investigated the change in microbial water quality in the Bitterroot River. This project won the Montana State Science Fair and the opportunity to compete in the International Science Fair. Anne's love of science and her love of Montana were fully merged at this point and her career future established.

College student Anne arrived in Bozeman in the early 70s. She graduated with honors in 1975 when she earned a BS in Microbiology. Anne added a MS in Microbiology to her academic credentials in 1977. Soon after she began working for MSU as a Research Scientist collaborating with Dr. Bill Characklis as he started what was to become the Center for Biofilm Engineering (CBE). Anne has been involved with the CBE since its inception and this involvement led her to earn a PhD in Civil/Environmental Engineering in 1995. Subsequently, she was appointed as an Assistant Professor of Civil Engineering. Dr. Camper became the College of Engineering's Associate Dean for Research and Graduate Education in 2001 and earned the rank of Professor of Civil Engineering in 2004. Today, she serves MSU as the Interim Vice President for Research.

As a researcher, Dr. Camper is internationally recognized for her expertise in biofilms and their effects on water quality. Her research interests are in biofilm growth and control in drinking and industrial water systems; the fate, transport and survival of pathogens in biofilm systems; and the physiology of biofilm bacteria. She has been the principal investigator or co-principal instigator on over 75 grants related to drinking water treatment or distribution. Her research funding has come from a wide variety of sources, including industry, the US EPA, Army Research office, National Science Foundation, National Institutes of Health and the US Department of Agriculture. Grant and contract support for which Dr. Camper was a principal investigator or co-investigator exceeds \$10,000,000.

## Departments

Chemical & Biological Fngineering

Civil Engineering

Computer Science

Electrical & Computer Engineering

Mechanical & Industrial Engineering

Air Force ROTC

Army ROTC

## **Research & Outreach** Centers

Center for Biofilm Engineering

Montana Manufacturing Extension Center

Western Transportation Institute

## Office of the Dean

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Tel (406) 994-2272 (406) 994-6665 Fax engrinfo@coe.montana.edu Dr. Camper has authored or co-authored 77 peer reviewed publications, 13 book chapters, and numerous proceeding and poster publications. She has been invited to deliver over 150 presentations and is the co-inventor on an international patent (with Andreas Nocker). Dr. Camper has been the major advisor for 34 graduate students and five postdoctoral fellows, and every graduate student Dr. Camper has advised has completed his/her degree.

Dr. Camper is a member of the American Water Works Association, serving on national committees, the International Society of Microbial Ecology, the American Society for Microbiology and the American Society for Engineering Educators. Her honors and awards include the Wiley Faculty Award for Meritorious Research (MSU, 2002), the American Water Works Association Distribution and Plant operations Division Best Paper Award (2004), the American Consulting Engineers Council of Massachusetts Grand Conceptor Award (2005), and the American Academy of Environmental Engineering Excellence in Environmental Engineering Research Grand Prize (2005). She was the Chair of the Environmental Microbiology Division (Division Q) of the American Society for Microbiology, and in 2013 she was inducted into the Montana BioScience Alliance Hall of Fame.

Dr. Camper has significant experience with large multi-institutional National Institutes of Health (NIH) grants with a focus on Native Americans and community based participatory research through MSU's Idea Network for Biomedical Research Excellence (INBRE) project. Dr. Camper has been an integral part of the INBRE program for many years. She has co-directed the research core with Dr. Allen Harmsen and serves on the INBRE Council, which is an executive advisory committee to INBRE. She also has played a critical role in on-campus partnerships, especially with the American Indian Research Opportunities (AIRO) program, which supports Native American undergraduate students at MSU. Dr. Camper is currently the Principal Investigator for the multi-year NIH sub-award under MSU's Center for Native Health Partnerships. This community-based participatory research project has initiated a comprehensive risk assessment of exposure to waterborne contaminants on the Crow Reservation, in collaboration with the Crow Environmental Health Steering Committee and Little Big Horn College. Dr. Camper was also instrumental in facilitating collaboration between the Crow Water Project, Amway Corporation and MSU's Engineers Without Borders chapter that conducted pilot testing of Amway-designed household biofilm filtration units as a means to treat surface water on the Crow Reservation for drinking. As a result of this project, Crow community members have had the opportunity to explore a promising new alternative to their typically poor quality well water, and around 20 undergraduate students had the opportunity to engage in hands-on laboratory work in the context of a meaningful cross-cultural experience.

Dr. Camper has played a key role in advancing gender equity at MSU. In 2004 and 2005, she was co-PI on ADVANCE Institutional Transformation proposals that, while not funded, nonetheless built the social and political infrastructure for later successful efforts. In 2006, MSU received a three-year ADVANCE Leadership Award to strengthen mentoring networks and opportunities for women scientists at MSU. Anne was a co-PI on that project and a core contributor to the project's work to expand networking opportunities for MSU's women faculty across a range of colleges and departments. In 2011, Dr. Camper was named chair of MSU's inaugural President's Commission on the Status of University Women, a group that gives voice to women's concerns and provides institutional avenues to improve campus climate, diversify the workplace and accommodate the needs of diverse workers. In her capacity as chair of this commission, Anne played a key role in MSU's 2012 receipt of an ADVANCE Institutional Transformation Award to support a wide range of gender equity initiatives.

Because of Dr. Camper's outstanding contributions to MSU's tripartite mission of learning, discovery and engagement, I believe Dr. Camper to be an extraordinary faculty member and outstanding nominee for the designation of Regents Professor. It is appropriate that Dr. Camper is being considered for this honor during MSU's Year of Engaged Leadership, for I can think of few people who embody the concepts of servant leadership better than Dr. Anne Camper.

Sincerely,

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Brett Gunnink, PhD, PE, Acting Dean