ENDOWMENT PURPOSE
The Peter J. Shields Chair in Dairy Food Science was established in 1983 by the California Milk Advisory Board and the California Manufacturing Milk Advisory Board to attract and sustain outstanding dairy food science scholars in the Department of Food Science and Technology. The Chair was named to recognize the historic relationship of the “founder of the Davis campus” to the dairy food industry, and should provide the occupant with opportunities to conduct exemplary research and teaching, as well as to offer continuous interaction with the dairy food industry.

RESEARCH
I examine the link between bioactive molecules in milk and the beneficial bacteria they enrich. Since these bacteria are also used as probiotics, this research theme enables the development of novel synbiotic applications that enhance human health. The Shields Chair endowment is funding, in part, the Milk Processing Lab and the Milk-Oriented Microbe collection in the Robert Mondavi Institute for Wine and Food Science.

TEACHING
I teach fermentation microbiology and participate in courses focused on gut health and food microbiology. I also developed and ran a workshop on modern microbial ecology analysis in conjunction with the 2013 International Milk Genomics Consortium meeting.

OUTREACH
The Milk Processing Lab is an important component in the discovery and testing of milk components that are protective and enable intestinal repair. We are using the Milk Processing Lab in conjunction with two existing grants funded by NIH and the Bill and Melinda Gates Foundation as well as various dairy industry funding. In the last year we succeeded in garnering additional funding to enhance the Milk Processing Lab and Milk-Oriented Microbe collection research. This includes further funding from the Gates Foundation and two additional NIH grants focused on bovine milk components. Endowment funds have also generated the preliminary data needed to obtain a Sloan Foundation grant to examine the

Save The Date!
Donor Recognition & College Celebration
Friday
OCTOBER 10
3 - 5pm Donor Recognition
5:30 - 8:30pm College Celebration
Pavilion UC Davis

More details to follow soon. We hope you will join us so that we may thank you in person!
microbial ecology of dairies and creameries within California.

SPECIAL ENDOWMENT USE
1) The Shields endowment has helped to fund students to work in the UC Davis Milk Processing Lab to better identify and characterize milk glycans for existing (and pending) Gates and NIH grants. These Milk Processing Lab activities are also supported in part by Hilmar Cheese, California Dairies, Sterling Technology, LabBelle Inc., Arla Foods, SmartFlow Technologies, GEA Filtration and Tamarak Biotics.
2) We have been able to host key dairy scientists from: Penn State University, U. Wageningen, University of Washington and California Polytechnic State University at UC Davis to discuss their research.
3) The fund has supported travel to meetings to foster collaborations with prominent milk glycan scientists in Washington State University, Korea, Armenia and Georgia.
4) The fund allowed us to develop and present a workshop at the 2013 International Milk Genomics Consortium meeting on tools for microbial ecology analyses.
5) Because of the Shields endowment, we have been able to examine the microbial ecology of dairies and creameries within California including Clover Farms, Cowgirl Creamery and others.

THANKS
It is a great honor to be the Shields Endowed Chair in Dairy Food Science. Funding from this endowment is supporting exciting new studies in the UC Davis Milk Processing Lab (MPL) and Milk-Oriented Microbes collection within the Robert Mondavi Institute for Wine and Food Science. This research is defining the health benefit of milk but also identifies novel bioactive molecules and microbes that can be employed to improve intestinal health. We are also using novel techniques to map microbial transfer throughout dairy production facilities, thus providing insight into dairy spoilage and contamination processes. In short, we are training the next generation of dairy scientists focused on using milk processing and milk components. It is an amazing time to study milk—the only food that evolved to make the consumer healthy.