THE UC DAVIS WORLD FOOD CENTER
THE CHALLENGE IS MONUMENTAL, as crucial as any problem confronting the world today and far into the future: how to safely and nutritiously feed a growing planet without destroying the environment.

With the world’s population projected to increase from the seven billion milestone it reached in 2011 to a staggering 9 billion by 2050, the scope of the issue is enormous. It becomes even more daunting when one considers how climate change will affect food production on a planet the UN says already has a billion people living under conditions of chronic hunger.

How will we develop the capacity to feed so many people in a healthy and nutritionally sound manner when available land for agricultural production is being steadily depleted, eroded or developed?

How will we increase yields in an environmentally sustainable way that doesn’t further foul the air, water and soil we depend on for our survival?

How will we use our growing knowledge about the nexus between food production, sustainable agriculture and human health to create a healthier nation and world?

Of all the think tanks, universities and other institutions engaged in the search for solutions, none is better positioned to provide the necessary global leadership and science-based knowledge than the University of California, Davis.

UC Davis is a bastion of world-class research and scholarship in a region that is the heart of California’s $43.5 billion a year farm economy. It is also a Top Ten public research university and home to the world’s leading college of agriculture.

As a land grant university whose mission is to help solve the world’s most pressing problems, the challenge of feeding the world in a sustainable manner plays to many of UC Davis’ greatest strengths.

With our world-class scholarship in agricultural and environmental sciences, sustainability, engineering, biotechnology, medicine and veterinary medicine—as well as our already strong relationships with partners in industry—UC Davis has the perfect blend of interdisciplinary and collaborative problem-solving expertise that this issue demands.

As Tom Tomich, director of the UC Davis Agricultural Sustainability Institute has noted, by creating a hub for all of the university’s activities in research, education and outreach about agriculture and sustainability, we have the ability to ensure the vitality of agriculture today and for generations to come in California and the rest of the world.

For instance, with research leading to a better understanding of how food can promote human wellness, nutrition will become a pillar of modern medicine and a mainline strategy for the prevention of chronic diseases such as obesity, heart disease, type II diabetes, arthritis and cancer.

These chronic diseases represent 75 cents of every dollar spent by Medicare in our health care system. Health care costs were $2.6 trillion in 2011 or 17 percent of our gross domestic product and are projected to reach a staggering 28 percent by 2017. This is a pattern virtually everyone agrees is unsustainable and it also undermines the health and competitiveness of our nation.

UC Davis, with its top-ranked College of Agriculture and School of Veterinary Medicine, and its rapidly rising School of Medicine, is ideally positioned for global leadership in promoting human and animal wellness through improved nutrition, better choices for consumers, and by shaping global policy.

Malnutrition is one of the world’s most urgent health issues. Through funding such as a $20.9 million Gates Foundation grant, UC Davis is taking a multidisciplinary approach in places like Ghana to find breakthrough solutions.
If we establish a UC Davis World Food Center that helps us reach our full potential, we can expand our research capabilities, add to our growing worldwide reputation for excellence and become a powerful catalyst for economic development and job creation in our region.

It is not at all unreasonable to envision a leadership role similar to the one played by Stanford University during the formative years of the Silicon Valley.

Here, however, instead of the result being an accumulation of the best and brightest entrepreneurial minds of the computer and digital age, along with the cutting-edge economy they spawned, we envision something akin to a UC Davis-inspired “Silicon Valley of Food.”

We do not start this in a vacuum. Far from it. UC Davis, for instance, already has more than 85 seed and seed-related companies located nearby that benefit greatly from their proximity to our great College of Agricultural and Environmental Sciences.

Our researchers are working on everything from flood-resistant rice and infant malnutrition in underdeveloped nations. On ways to limit nitrogen runoff from crop production and how to increase yield by growing crops impervious to drought and salinity.

More than 30 years ago, UC Davis revolutionized the tomato industry by inventing the mechanical tomato harvester and new varieties of tomato that could be harvested mechanically. The breakthrough established California's Central Valley as the world's center of tomato processing. We can have an even more far-reaching and productive impact today and into the future with establishment of a high-profile and high-visibility UC Davis Food Center that will be a world leader on the full range of food challenges and opportunities.

Solutions to systemic problems such as the safe, sustainable and nutritious doubling of global food production over the next several generations can only emerge through the collaboration and agreement of all participants in the world food system.

The problem cannot be solely defined or addressed by governmental mandates or controls. Policy must be linked with capable, market-applicable innovation and creativity. There needs to be a place where the paths and work of those who set food policy, those who produce and market food and those who provide the scientific research that improves food production and nutrition can cross.

Today, however, there is a conspicuous lack of coordination between policy management and the potential solutions that might be achieved by scientific research.

This problem demands end-to-end interdisciplinary collaboration that reaches from top-level policy development to consumer delivery. It requires that government, academic and industry all be at the table together.

UC Davis is perfectly and uniquely positioned to provide the critical mass needed to make this happen. The UC Davis World Food Center will be a place that poses the questions, sets the priorities and brings together the right partners to solve specific problems that can be implemented in real market contexts.

The needed solutions for feeding a healthy planet require immediate access to the greatest possible range of expertise in science, technology, human behavior, education and engineering that is all in one place. That place is the University of California and the proposed World Food Center on or very near our campus.

For more information please contact:
Harris Lewin, Vice Chancellor of Research
(530) 754-7764
lewin@ucdavis.edu

UC Davis research comprehensively spans food issues, such as production, transport, nutrition, safety, health and the environment. For instance, Professor Daniela Barile conducts research on cow’s milk that has promising implications for human health.