



Toward a Healthy Future

The Campaign for a New
Cal Teaching Kitchen

Berkeley
UNIVERSITY OF CALIFORNIA

College of
Natural Resources

“The doctors of the future will no longer treat the human frame with drugs, but rather will cure and prevent disease with nutrition.”

- *Thomas Edison*

A National Epidemic

Our country is in crisis: Obesity is arguably the greatest public-health issue facing the U.S. today. More than two-thirds of American adults are overweight or obese, according to the American Heart Association's most recent report—and many of them are also suffering from related conditions like high blood pressure, heart disease, diabetes, osteoarthritis, and more.

Since the early 1960s, rates of adult obesity have more than doubled, from 13 to nearly 36 percent. From 1971 to 2011, rates of childhood and teen obesity have more than tripled to about 33 percent. We can blame sedentary lifestyles, calorie-rich foods, and large portion sizes for this growing crisis. And we will look to our next generation of researchers and nutritionists to help us solve it.

“The dietetics program is vital to our mission of improving human health through education, scientific research, and outreach programs. The new teaching kitchen will be the perfect vehicle to educate students—from dietitians to athletes—and to promote healthy diet choices in our community.”

*Andreas Stahl, Professor and Chair
Department of Nutritional Sciences and Toxicology*



Advancing the Field of Metabolic Health

As the birthplace of the nation's first nutrition program, UC Berkeley's College of Natural Resources (CNR) is already leading the fight to combat the obesity epidemic. The Nutritional Sciences and Toxicology Department's Didactic Training Program in Dietetics prepares future dietitians for positions in health care, education, industry, government, community health, and in professional organizations.

Our faculty lead the field as researchers on metabolic health and nutrition. And our students—who achieve a remarkable 100 percent pass rate on their Registered Dietitian exams—are educated in the biological and chemical sciences with specialized advanced coursework that focuses on nutrient/non-nutrient function and metabolism. As our future dietitians, they will make the dietary recommendations to help us achieve optimum health, prevent chronic disease, and ensure safe food production.

“Working in the test kitchen allowed me to apply academic knowledge and gain a deeper understanding of course material. Seeing how the chemical processes of cooking affect the quality of food gave me confidence in educating clients.”

*Rochelle Werner, RD, CLE
BS 2014, Dietetics*



A Culinary Laboratory

At the heart of this exceptional program is the Cal Teaching Kitchen, which serves as the laboratory for dietetics students. In addition, the facility is used by campus health services, Cal Athletics, and student clubs. It's also where the popular Personal Food Security and Wellness course (NUSCTX 20) teaches students from across campus how to prepare healthy meals on tight budgets. This class is now more necessary than ever, as a recent study showed that 39% of undergraduate students and 23% of graduate students at UC Berkeley lack reliable access to sufficient quantities of affordable, nutritious food because of limited money or other resources. Potential students are screened and accepted based on need because the demand for this course has been so high.

On campus, the teaching kitchen is part of a dynamic “food ecosystem” that includes the Berkeley Food Institute, the student food collective, the student food pantry, and campus gardens. More broadly, this ecosystem includes the Berkeley community edible schoolyard program, Northern California agriculture, and the “eat local” movement.

So much revolves around the kitchen—it's the social hub and heart of a home. More than just a place to prepare meals, kitchens are where family traditions are preserved, cultures are shared, and memories are made. In times of joy and sadness, the kitchen is where we go to gather and prepare the food that helps us process these milestones.

At CNR, we want to create this kind of welcoming environment for our community. As part of a land-grant public university, it's our duty to distribute critical knowledge to the world that advances human knowledge and health. And, as a major player in the local community, we are in a strong position to create opportunities for coming together around these issues.

“Our students receive the highest level of training in the chemical and metabolic sciences, and now, with a modernized food kitchen, they'll have a place where they can apply these sciences.”

*Mikelle McCain, MPH, RD
Director, Didactic Program in Dietetics
Lecturer, Nutritional Sciences and Toxicology*



A History of Discovery

- After completing a degree at Berkeley, Myer Jaffa became an assistant chemist of the Agricultural Experiment Station in 1879 and in 1918 was appointed as the first professor of nutrition in the nation. He chaired the Committee on Home Economics in 1913.
- Through his work on food chemistry, Jaffa was largely instrumental in the passage of the California Food and Drug Laws, which were formulated on the same basis as the Federal Food and Drug Act of 1906.
- In 1922, Berkeley anatomist Herbert Evans and physiologist Katherine Bishop discovered vitamin E in green leafy vegetables. Evans isolated linolenic acid in 1934 and vitamin E in 1936.
- In the 1940s, Robert Stokstad was the first to isolate the vitamin folic acid and to determine its structure. He later developed drugs that interfere with folate metabolism, still used as major anticancer drugs today.
- From the 1940s to 1950s, professor Agnes Fay Morgan conducted groundbreaking research on vitamin deficiencies.
- In 1963, Doris Calloway and Sheldon Margen established an in-patient metabolic unit, site of some of the first well-controlled human nutrition research. Their studies on protein and energy requirements later helped the U.S. government prepare Recommended Dietary Allowances.
- From 1970 to 2000, Leonard Bjeldanes' work led to the discoveries of mutagens and carcinogens in cooked meats and anti-carcinogens in Brassica vegetables.
- In the 1980s, Norman Kretchmer was one of the leaders in establishing the scientific basis of pediatric nutrition.
- Today, John Casida, a pioneer in the field of pesticide mode of action and metabolism, has made critical contributions to minimize the hazards of exposure for humans.
- Joseph Napoli is a leader in the field of vitamin A metabolism and has contributed to our understanding of the manifold actions of retinoids in metabolism, human diseases, and fat cell biology.
- Daniel Nomura is developing highly innovative chemical biology and “omic” approaches for the mapping of metabolic and chemical drivers of human diseases such as cancer.
- Janet King has made important discoveries about the increased needs for nutrients including zinc and calcium during pregnancy.
- Andreas Stahl focuses on innovative methods to combat obesity-related diseases through the reprogramming of lipid fluxes while using tissue engineering to enhance safe storage and oxidation of excess calories.



The Birthplace of Nutrition Studies

UC Berkeley is where the study of nutrition began. The University began conducting landmark research in human and animal nutrition in the 1870s, and its first courses on the subject were offered in the early 1900s. Over the decades that followed, research units across campus made groundbreaking discoveries about nutrients.

When the College of Natural Resources was created in 1974, it included the Department of Nutritional Sciences. The department's scientists began to collaborate with economists and other researchers to explore problems related to worldwide food distribution. During CNR's 1992 reorganization, it grew its multidisciplinary research and outreach to include toxicology and to combat the nation's growing epidemic of obesity. Today, the Department of Nutritional Sciences and Toxicology focuses much of its research on metabolic studies using the tools of modern molecular biology.

As we celebrate our 150th anniversary and look toward the next 150 years, our faculty continue to be active in professional practice, and Berkeley researchers are at the forefront of metabolic health and related fields. The dietetics program offers a rigorous, science-based curriculum and many opportunities for undergraduate student research. And it's now part of the Teaching Kitchen Collaborative launched by the Culinary Institute of America and the Harvard T.H. Chan School of Public Health.

“Berkeley’s teaching kitchen is part of a wholistic approach to develop life skills that can expand at the community level. With the rise in diet-related chronic disease, strategies that teach behavioral approaches can improve how people eat and can impact overall health.”

*Arianna Carughi, PhD '86
Nutrition Consultant*



The home economics laboratory (now the home of the teaching kitchen) in Morgan Hall, 1954.

A Facility to Match Our Potential

In contrast to this legacy of scientific achievement, the Cal Teaching Kitchen is now too small to accommodate current class sizes. It hasn't been renovated since its construction in 1953, while Berkeley's student body has grown dramatically. The kitchen accommodates some 2,200 student visits per year in a space that was designed and built for a much smaller group. An old-fashioned layout limits the ways culinary courses can be taught and presents a challenge in meeting current academic needs, let alone pursuing a vision of future excellence.

Between the dietetics program, campus health services, Cal Athletics and campus clubs, competition for time in the kitchen is fierce. The department desperately needs a facility that will allow dietetics students the space to experiment beyond their classroom work; a place where other students can learn to cook for themselves on a budget; a site where staff can sharpen cooking skills and faculty can innovate new curricula. Berkeley deserves a culinary center where members of the campus and surrounding communities can gather and learn how to take control of their health through cooking.

The University currently has many systems in place to grow and distribute food on campus. It has strong policy advocates working to increase food security on a national level. And it already possesses the tools and brain-power to end the nation's obesity epidemic. A new Cal Teaching Kitchen will allow us to realize our full potential—translating lab discoveries into real-world applications, improving lives, and building communities.

Our Mission

- To combat the obesity epidemic and associated chronic diseases
- To understand health from a metabolic perspective
- To advance leading-edge research
- To promote nutrition and health education
- To build healthy communities
- To train students in the preparation of nourishing and sustainable food



An architectural rendering of the vision for an updated Cal Teaching Kitchen. IMAGE: Robert Becker

The Opportunity to Make a Difference

To bring the Cal Teaching Kitchen up to par with its outstanding programs, we're seeking to raise \$2.5 million in capital funds to build a state-of-the-art facility that will support the academic needs of dietetic students while providing a teaching resource for the larger campus and community. We intend to be both inspired by—and to inspire—the world-class chefs and food experts of Northern California. We will become a leader in culinary innovation and food preparation while advancing our knowledge of human nutritional requirements.

Designed to match the 1,708 square-foot layout of the existing site, the kitchen's new format will provide each student group its own ADA-accessible cooking station, increased counter space, and a highlighted instructor station. State-of-the-art equipment will include gas ranges, energy-efficient appliances, and commercial-grade refrigerators and dishwashers. An adjacent patio will extend the learning and community engagement outdoors.

“UC Berkeley has the opportunity to help prove that teaching kitchens can serve as catalysts of personal and societal health enhancement. A new teaching kitchen at Berkeley would be a beacon for the rest of the country.”

*David Eisenberg, MD
Director of Culinary Nutrition, Harvard T.H. Chan School of Public Health
Teaching Kitchen Collaborative Co-Director*



It All Begins in the Kitchen

The new Cal Teaching Kitchen will have a ripple effect that stretches far beyond the Berkeley campus. Your generous gift will enable us to fight obesity and its associated chronic diseases. To improve food security on the Berkeley campus and in the surrounding community. To train the next generation of nutrition thought-leaders and practitioners. And to empower students and others to take control of their health through cooking. It all begins in the kitchen.

Giving and Naming Opportunities

There are a number of giving and naming opportunities to recognize your support of the capital campaign to build a new Cal Teaching Kitchen, including:

- Culinary Research Center
- Teaching Kitchen
- Classroom and demonstration space
- Director and Program Endowment
- Patio with gardens

We would be happy to meet with you about the best possible way to structure your gift.



Berkeley's Nutritional Sciences–Dietetics Program at a Glance

- Offered the first university courses in nutrition in the U.S. in the early 1900s
- Hired the first professor of nutrition, Myer Jaffa, who chaired the Committee on Home Economics in 1913
- The Department of Home Economics was founded in the College of Letters & Sciences in 1916
- Students achieve a 100% pass rate on their registered dietitian exams
- Supports leading researchers on metabolic health and nutrition

Berkeley's Food Ecosystem

- Berkeley Food Institute
- Berkeley Student Food Collective
- Campus gardens
- Berkeley Student Food Pantry
- The City of Berkeley's Edible Schoolyard Program
- Northern California agriculture
- The “eat local” movement



A New Vision for the Cal Teaching Kitchen



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