THE UNIVERSITY OF ARIZONA | MEL AND ENID ZUCKERMAN COLLEGE OF PUBLIC HEALTH

Food as Medicine
Improving Human Health Through Innovative Nutrition Interventions

Food's Natural Ability to Manage and Prevent Chronic Disease

INTRODUCTION

Food as medicine refers to using diet and nutrition to promote overall health and wellness. Food and nutrition play a crucial role in health promotion and chronic disease prevention. Foods such as fruits and vegetables contain a largely unexplored array of bioactive components that are not among the 40 essential nutrients. Thousands of natural compounds consumed in food may impact health. Widespread consumer use and the potential role of bioactive compounds in foods and supplements in health promotion and disease prevention are of public h ealth interest. Accumulating data show a wide range of inhibitory effects of non-nutrient compounds in the diet on carcinogenesis and other chronic diseases.

The practice of medicine-both past and present-often involves the prescription of plant foods or their potent derivatives, to treat a wide spectrum of illnesses. Studies of the Mediterranean diet are of particular interest to better understand and quantify these effects in view of the methods of preparation, and frequency and range of fruit and vegetable consumed by these populations. The Mediterranean diet produces favorable effects on cardiovascular diseases, protect against oxidative stress and carcinogenesis

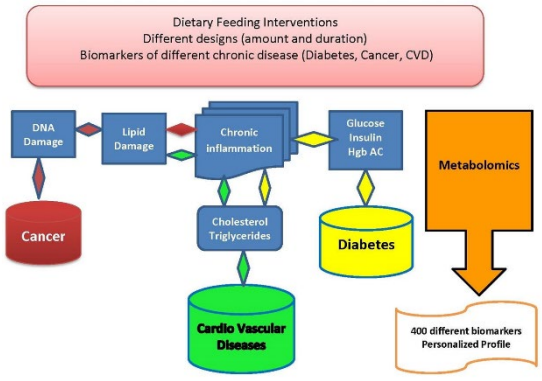
SIGNIFICANCE

Our goal is to undertake leading edge research focused on modulating oxidative DNA and lipid damage, tackling obesity, improving glycemic control and reducing chronic inflammation, thereby helping to improve the health and well-being of the global population and to reduce the risk chronic diseases such as diabetes, cancer, cardiovascular and neurodegenerative diseases.

Metabolic syndrome is a serious public health problem, characterized by several metabolic risks such as diabetes mellitus, obesity, and hypertension. Recently, natural products have been evaluated for their role in modulating biomarkers of diabetes and metabolic syndrome.

PLAN

Conduct a series of feeding intervention studies (clinical trials) to evaluate the protective effects of different foods reach in bioactive food compounds on the levels of glucose, insulin, biomarkers of Chronic inflammation, lipid peroxidation by-products and antioxidant defense systems in the blood and urine of high-risk populations such as obese and diabetic children, smokers, and high-risk adults.



Metabolomic biomarkers will be also measured *(the quantitative measurement of the dynamic metabolic response of our body to pathophysiological stimuli or genetic modification*).

Fundraising Goal

To accomplish our mission human capital and physical resources are needed. Our goal is to significantly meet all of these challenges within the next 5 years.

Priorities	**Budget**		
Research support			
• Students Research Scholarship	$ 250,000	$10,000/student/semester	
• Pilot Intervention studies	$ 250,000		
• New exploratory studies	$250,000		
Dissemination			
• Website for dissemination	$50,000 (development & regular maintenance/update)		
• Public Health Series	&50,000		
• Publications	$50,000		
• Online certificate	$100,000 (4 courses: development and teaching)		
Total	**$1,000,000**		
Endowments (Long Term Goals)	**Principal**	**Annual Yield**	**College Match**
• Research infrastructure (Pilot studies)	$1,500,000	60,000/Y	$15,000/Y
• Endowment for diverse post-doctoral fellows	$1,500,000	$60,000/Y	$10,000/Y
• Endowment for students research scholarships	$1,000,000	$40,000/Y	$10,000/Y
Total	**$4,000,000**		

How You Can Be Involved

Contributions to support the "Food as Medicine" Initiative are being accepted by the Zuckerman College of Public Health. All contributions are 100% tax deductible trough the University of Arizona Foundation. https://give.uafoundation.org/results?id=b2d3c2b4-4fb9-4b93-b625-bac12b31519a

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