# INTRODUCTION

Nutrition research is important to establish dietary requirements, investigate the metabolic basis for therapies, and translate research to dietary behaviors and policies to improve health and prevent disease. The UMass Department of Nutrition research ranges from cellular and metabolic investigations to community-based and policy approaches. With over $2.5 million in annual grant expenditures, the Department ranks among the top of the university departments in expenditures per faculty.

Nutrition faculty utilize laboratory facilities on the UMass campus, along with collaborative community research in Springfield, Holyoke, Lowell, and other communities in Massachusetts, nationally and internationally. In addition, the UMass Extension Nutrition Education Program provides nutrition education to thousands of limited income families annually through eight community-based sites throughout the state.

## ABSTRACT

The mission of the Department of Nutrition, UMass Amherst, is to provide excellence and innovation in teaching, research, and outreach by applying a scientific foundation that addresses the nutritional needs of individuals and diverse populations. We conduct laboratory and applied community-based research that spans a wide range of issues. Housed within the Department of Nutrition, the UMass Extension Nutrition Education Program (NEP) collaborates with more than 100 agencies and provides nutrition education in over 46 communities in Massachusetts. This poster presents 1) the range of work undertaken by faculty, students, and NEP; and 2) highlight faculty research areas as well as emerging priorities for clinical and community-based nutrition research. We are interested in establishing collaborations for improved nutrition and health outcomes with researchers and community organizations across the Commonwealth.

## Department of Nutrition Faculty Research Interests

### Patricia (Patsy) Beffa-Negrini, PhD, RD
Research Associate Professor
Program Coordinator, Online MPH in Nutrition

**Research Interests:**
- Distance education for adult learners
- Interaction and motivation in online education

**Current Projects:**
- Evaluation of the UMass online MPH in Nutrition Program

### Elena Carbone, DrPH, RD, LDN
Associate Professor and Graduate Program Director

**Research Interests:**
- Community-based behavior dietary change interventions among low income, multietnic groups
- Health literacy and nutrition education
- Obesity, diabetes management, cancer prevention

**Current Projects:**
- Examination of the BMI Letter Among Massachusetts Families (CBPR/Baystate).

### Nancy Cohen, PhD, RD, LDN
Professor and Department Head

**Research Interests:**
- Diet quality and food practices in older adults
- Evaluation of nutrition and food safety education programs
- Online education

**Current Projects:**
- Changing the Health Trajectory for Older Adults through Diet & Activity Modifications (USDA)
- Food Safety from Farm to Preschool (USDA)

### Young-Cheul Kim, PhD
Associate Professor

**Research Interests:**
- Impact of nutrients and dietary bioactive components on chronic diseases
- Adipocyte metabolism and gene regulation

**Current Projects:**
- Effects of Dietary Bioactive Phytochemicals on Fat Cell Differentiation and Function

### Jerusha Peterman, PhD, RD, LDN
Assistant Professor

**Research Interests:**
- Causes and consequences of food security among immigrants and refugees
- Dietary changes upon immigration for immigrants and refugees

**Current Projects:**
- Cambodian Young Women's Project
- Health Education Programs for Lowell Adult Education (Design and Evaluation)
- The Role of EFNEP in Promoting Food Security (USDA)

### Alayne Ronnenberg, ScD
Associate Professor

**Research Interests:**
- Role of micronutrient status in reproductive health
- Obesity and pregnancy outcome
- Interactions between micronutrient status and both infectious disease and environmental toxins

**Current Projects:**
- UMass Vitamin D Study
- Epidemiology and Transmission of Dynamics of MDR/XDR Tuberculosis

### Lorraine S. Cordeiro, PhD
Assistant Professor

**Research Interests:**
- Food security, health and risk behaviors in adolescence and early adulthood
- Cross-national comparisons of health and nutrition outcomes

**Current Projects:**
- Improving Food Security Among African American Faith-based Communities in Springfield, MA.

### Richard J Wood, PhD
Assistant Professor

**Research Interests:**
- Functional genomics and the mechanisms responsible for controlling cellular vitamin D activity in the intestine and adipocyte
- Identification of molecular mediators of intestinal calcium absorption

**Current Projects:**
- Use of Bioactive Food Components to Modulate Vitamin D Receptor Function (USDA)

For further information, visit: [www.umass.edu/sphhs/nutrition](http://www.umass.edu/sphhs/nutrition)