

***The Institute of Biochemistry, Food Science and Nutrition  
Improving Human Health and Longevity  
Robert H Smith Faculty of Agriculture, Food and Environment***

According to an age-old saying, a person is what he eats. At the Institute of Biochemistry, Food Science and Nutrition at the Robert H. Smith Faculty, Israel's leading experts are engaged in a wide range of research activities designed to uncover the effects of nutrients on human health. Multi-layered studies, this often-original work is conducted on the molecular, cellular, and physiological levels. Scientists are also studying the molecular composition, physical properties and technological aspects of a variety of basic foods.



The Institute of Biochemistry operates in a multidisciplinary research environment, enabling faculty with biochemical and medical expertise in nutrition and metabolism to collaborate with colleagues versed in the chemistry, physics and technology of food and food components.

The Institute has four main areas of research concentration:

**FUNCTIONAL FOODS AND NUTRACEUTICALS**

The goal → To investigate therapeutic properties of food products

**FOOD SCIENCE, TECHNOLOGY, AND BIOCHEMISTRY**

The goal → To improve food quality and create innovative technologies for new product development

**NUTRITION AND HEALTH**

The goal → To examine the impact of diet on gene expression and metabolism

**CLINICAL AND COMMUNITY NUTRITION INTERVENTIONS**

The goal → To work with communities in Israel, such as the Ethiopian immigrant community, to increase human nutrition and health

Faculty at the Institute of Biochemistry are internationally recognized, and their work has led to significant advances. Productive studies have assessed the impact of diet on longevity and determined the therapeutic properties of particular fruits and vegetables. The use of pro-biotic bacteria is being explored as a potential anti-cancer and anti-inflammatory agent. Scientists are developing new means to prevent food spoilage and contamination. They are investigating the relationship between the circadian clock and human metabolic functions as well as obesity and aging.

In addition to its research activities, the Institute of Biochemistry offers top-notch undergraduate and graduate degree programs unduplicated elsewhere in Israel. Faculty also participate in the teaching of hotel management, food resources and tourism, the latter being especially important to Israel as part of the nation's economic base.

Scientists from around the world visit the Rehovot campus to participate in major conferences and consultations with Institute of Biochemistry colleagues. International exchange students and post-doctoral fellows likewise come to the Robert H. Smith Faculty and its Institute of Biochemistry, energized by the atmosphere of intellectual exchange and eager to learn practical, cost-effective solutions to agricultural and health-related issues.

Currently, intensive planning is under way to renovate and expand the Institute of Biochemistry building, which is adjacent to new teaching laboratories for undergraduates. These much-needed facility upgrades will ensure that Israel has a state-of-the-art center for conquering challenges in the fields of food technology and nutrition.

American Friends are invited to help support these vital activities. Many giving and naming opportunities exist at the Institute of Biochemistry, where state-of-art science is improving human health and longevity on a worldwide basis.