

EMERGING CAREERS IN HEALTH RESEARCH: NUTRIGENOMICS
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There exists an entire alphabet of dieting plans—from Aitken's, Blood Type and Glycemic Index, to Pritikin, South Beach, and the Zone diet—but no single approach works for everyone. How can we expect there to be, when nutritional needs and how the body uses the food seem to be so individual? We all know people who can eat as much as they want without becoming fat, and others who simply cannot lose weight, no matter how strictly they adhere to a calorie-reduced diet and exercise regimen.

Now scientists are beginning to understand why, through an emerging discipline called Nutrigenomics (or Nutritional Genomics): The study of "how genes determine our nutritional requirements and how food components interact with our genes and influence outcomes."¹ The technology now exists for scientists to be able to look at a person's DNA and identify their specific diet-related genes. From this information it will be possible to identify the individual's dietary requirements for optimal health, predict when in life s/he may be particularly vulnerable to diet-related diseases, and to make appropriate dietary adjustments. The practical goal of Nutrigenomics is early intervention in diet-related diseases and, ideally, the prevention of disease. But we're not quite there yet; much more research is needed.

Nutrigenomics specialists are in high demand in ALL sectors—industry, government and academe. As obesity and other diet-related diseases increase in frequency across the globe, public pressure to find solutions will increase, research funding will expand, and with it, job opportunities.

If you're looking for a way to combine your interest in nutrition with your desire to develop practical, cutting-edge approaches to optimizing human health, investigate Nutrigenomics!

Starting Points for Further Information

Dietitians of Canada <http://www.dietitians.ca>

American Dietetic Association <http://www.eatright.org>

The largest organizations of food and nutrition professionals in Canada and the United States. These sites provide information for professionals, students, and the lay public, including standards, professional and career information, job postings, research; links to degree, internship and practicum programs; requirements for certification; and consumer information.

¹ DeBusk, Ruth. "DNA and Diet." American Dietetic Association. March 2006. Available online at <http://www.eatright.org/ada/files/DNAHOT.pdf>

The topic of our next profile will be: Neurosciences

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