



Nutritional Sciences UNIVERSITY OF TORONTO

Our Vision for Growth:

a world class institute for Food, Nutrition and Health—
from genes to populations



Strategic Plan 2011 – 2015



VISION

To become the preeminent institute in North America improving health through research, teaching, and leadership in human nutrition from genes to populations

MISSION

To use nutrition research, education and leadership as a key driver for enhancing the health, wellness and prosperity of individuals and populations



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A MESSAGE FROM THE CHAIR

It is with tremendous pleasure that I share the 2011-2015 Strategic Plan for the Department of Nutritional Sciences at the University of Toronto.

Our healthcare system is at a turning point. The skyrocketing prevalence and economic burden of chronic disease has become a crisis. And while much of the burden of chronic disease is avoidable, our healthcare system remains focused on treating illness rather than preventing its onset.

We know that nutrition is one of the most important mechanisms for preserving population health and slowing disease progression. The potential for reduced healthcare costs and

enhanced economic productivity is significant. Now, more than ever, Canada needs to advance nutrition research and its application.

The Department of Nutritional Sciences is well-positioned to be a national and international leader in human nutrition. Our outstanding faculty is breaking new ground with

innovative research. We are ideally situated in the Faculty of Medicine, enabling collaboration with the highest concentration of university-affiliated hospitals, clinicians, and health researchers in North America. And, as a major healthcare provider, our province has both the social and financial motivation to lead domestic and multinational efforts to improve population health.

We are proud of our many research, educational, clinical and policy accomplishments to date. However, the current reality is that we do not have the necessary infrastructure to support our leadership in addressing many of the urgent and emerging needs within our rapidly changing environment for increased nutrition research and its application.

This plan defines an ambitious strategic direction for growth that includes expansion of our research platforms, faculty, student base, academic programs, partnerships and collaborations. Our existing facilities are old and must be replaced as we build a state-of-the-art and internationally acclaimed Institute for Food, Nutrition and Health.



Executing our strategic plan will require a collective effort from members of the Department as well as resources, support and leadership from the University and our system of partners. We must work hard to realize our goal and that work begins now. I am very grateful to the Strategic Planning Committee for their leadership in developing this plan and to members of the Department for their thoughtful contributions. I especially wish to thank Dean Catherine Whiteside who encouraged us to chart this course and who continues to support us along the way.

This strategic plan represents continuity with our Department's rich history of success and impact, and our responsiveness to the world's need for improved knowledge and application of nutrition research—from genes to populations. I look forward to working with all of you to make it a reality.

Mary R. L'Abbé, Ph.D.
Earle W. McHenry Professor, and Chair
Department of Nutritional Sciences, Faculty of
Medicine, University of Toronto

The Department of Nutritional Sciences is well-positioned to be a national and international leader in human nutrition.

EXECUTIVE SUMMARY

Canadians face a new epidemic—chronic disease.

Currently, one in three Canadians has a chronic disease.¹ The implication for our healthcare system is immense. Diabetes and heart disease alone account for nearly 70 per cent of Ontario's healthcare budget² and the pattern is similar across the country.

Meanwhile, healthcare costs continue to rise. Economists project that healthcare will consume 80 per cent of the Ontario provincial budget by 2030 if significant action is not taken.³

If these trends continue, our healthcare system may well become unsustainable, or compromise funding for infrastructure, education and other critical social programs.

We must shift our focus from treatment to prevention and from illness to wellness. Nutrition offers a critical tool to prevent, delay and treat chronic diseases and to stem the skyrocketing healthcare costs of those that are diet and obesity-related, such as hypertension, diabetes and coronary heart disease. The need to advance nutrition research and its application has never been greater.



¹ 2007 Report on Ontario's Health System. Ontario Quality Health Council, 2007.

² Health promotion, chronic disease prevention and injury prevention. Ontario Agency for Health Protection and Promotion, 2010

³ Charting a Path to Sustainable Health Care in Ontario. TD Bank Financial Group, 2010.

Demonstrated leadership in nutritional sciences

For more than 80 years, the Department of Nutritional Sciences of the University of Toronto has been at the forefront of knowledge generation and application that has meaningfully and measurably enhanced the health, wellness and prosperity of Canadians and populations around the globe.

A recognized leader in nutritional sciences, the Department's extensive research activities span from basic science to clinical applications to population health. This range—from genes to populations—represents the ideal translational model of research and has led to important discoveries and application

of research across the world. The Department's long history of contributions include Pablum, a nutrient-fortified baby food that decreased the high incidence of rickets and iron deficiency worldwide, and Sprinkles, a home-fortification approach to combat iron-deficiency anaemia that has decreased irreversible developmental deficits in children in resource-poor areas of the world.

Today, the Department boasts 50 highly accomplished faculty members who are recognized as global leaders in nutrition. Its reputation among students places it among the most desirable schools in North America and it plays a pivotal role in educating academia, physicians, health professionals, industry, government and the public on nutrition issues.





Our vision—a world-class Institute for Food, Nutrition and Health

With this strategic plan, the Department takes a major step forward, embracing a bold new vision that will transform the Department into a **world-class Institute for Food, Nutrition and Health that integrates nutrition research, education and training, clinical investigation and public policy.**

The Institute will generate leading-edge nutrition research, foster educational excellence and provide national and international leadership in knowledge translation. It will bring together basic scientists, clinical investigators and population health experts to work together and share their complementary expertise in consumer behaviour, nutrition, genetics, communication and health policy.

The Department of Nutritional Sciences is uniquely positioned to take on this leadership role. It is one of the few departments of nutrition in North America to be located within a Faculty of Medicine. This, together with its close linkages with UofT's Dalla Lana School of Public Health, allows the Department to fully explore the relationships between nutrition and human health and disease, and to influence clinical practice and public health programs. It also creates unique opportunities for collaboration with the highest concentration of university-affiliated hospitals, clinicians and health researchers in North America.

Toronto is an ideal environment for nutrition research. It is home to the largest research and development (R&D) hub in Canada and the second largest food cluster in North America.

An era of growth and transformation

Achieving this vision will require significant growth and transformation.

The Department's current home, built in 1927, does not provide the necessary space, structural, or scientific equipment capacity to support cutting-edge research. The Department must also make the transition from a Department to an Institute for Food, Nutrition and Health in order to capture a full breadth of research enterprise under one roof. This increase in research capacity will help to drive targeted research results that have a major impact on health.

Over the next five years, the Department will achieve its vision through three key strategies:

Strategy 1. Optimize our Research Enterprise

Our vision can only be attained if we restructure the way we do research. To succeed as an Institute that achieves major health, social and economic impacts, we will need to focus and better coordinate our efforts to emphasize our carefully selected research platforms:



⁴ The study of how food and diet interact with specific genes in the body to alter the risk of certain diseases.

These focused areas of research will allow us to enhance faculty recruitment, expand academic programs, develop new funding sources and build more strategic partnerships.

**Strategy 2.
Secure the Best People and Partnerships**

The historic success of the Department is founded on the high quality of its faculty, students and partners, including neighbouring hospitals, industry players and other research institutions. As we expand to a world-class Institute, this strategy will ensure we pursue a highly disciplined recruitment and retention process for our faculty, staff and students, and that we explore highly strategic value-based partnerships and alliances as we expand our network.

**Strategy 3.
Cement our Foundations for Growth**

Our third strategy focuses on building the right set of physical, financial and operational infrastructures to enable our vision for growth. The expansion to state-of-the-art facilities is central to this strategy as our current location does not provide the necessary infrastructure or capacity to support the Department’s ambitious research agenda.

To achieve our three strategies we intend to complete eight objectives over the next five years. Detailed action plans for each of these objectives are defined in our plan, including measures for tracking progress and desired outcomes for success. Key personnel will be identified as champions for each.

Strategies	Strategic Objectives
Optimize our Research Enterprise	1. Focus and prioritize research platforms 2. Build breadth and scope of academic practice
Secure the Best People & Partnerships	3. Identify and build critical mass of strategic partnerships 4. Build the best faculty 5. Enrich the student experience
Cement Our Foundations for Growth Capacity (and Innovation)	6. Expand to state-of-the-art facilities 7. Attain sustainable funding for growth 8. Enhance supporting processes for growth

This strategic plan document presents our perspective on the current environment, our vision for the future and a roadmap to move us forward. Executing our strategic plan will require a collective effort from members of the Department as well as resources, support and leadership from the University.

We recognize that our vision for a world-class Institute for Food, Nutrition and Health may take more than five years to achieve. However, we believe our plan sets the stage for pushing the quality and application of nutrition research to new heights and, in turn, provides value to our faculty, students, University, partners, government and to populations around the world.

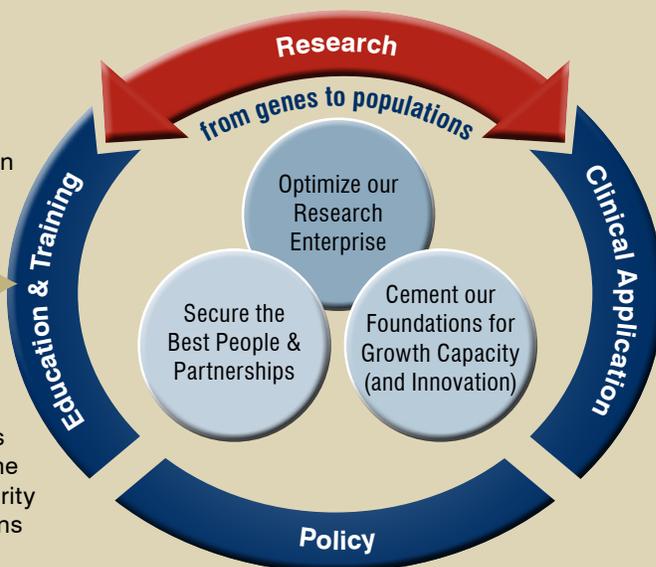
Department of Nutritional Sciences Strategy 2011-2015

Vision

To become the preeminent institute in North America improving health through research, teaching, and leadership in human nutrition from genes to populations

Mission

To use nutrition research, education and leadership as a key driver for enhancing the health, wellness and prosperity of individuals and populations



Our 5 year plan :

To establish a state-of-the art Nutrition Institute that integrates nutrition research, education and training, clinical investigation and public policy



INTRODUCTION

Demonstrated Leadership in Nutritional Sciences



For more than 80 years, the Department of Nutritional Sciences of the University of Toronto has been at the forefront of knowledge generation and application that has meaningfully and measurably enhanced the health, wellness and prosperity of Canadians and populations around the globe.

A recognized leader in nutritional sciences, the Department's extensive research activities span from basic science to clinical investigation and population health. This range—from genes to populations—represents the ideal translational model of research, providing the opportunity for a full exploration of the relationships between nutrition, health, clinical practice and public policy.

This breadth of activity is enhanced by the Department's location within the Faculty of Medicine. This placement allows investigators to draw on the extraordinary strengths of other basic science and clinical departments as well as the Dalla Lana School of Public Health. It also creates unique opportunities for collaboration with the highest concentration of university-affiliated hospitals, clinicians and health researchers in North America. The Department of Nutritional Sciences is one of the few departments of nutrition in North America to be located within a Faculty of Medicine.

Research spans genes to populations

The Department's research programs include basic and clinical nutrition related to human health and chronic diseases including cancer, obesity, diabetes, cardiovascular disease, neurodegenerative disease and osteoporosis, as well as community and public health nutrition. Approaches range from nutrigenomics, nutrigenetics and studies in molecular biology and biochemical metabolism, to clinical trials and population research and policy.

Active research areas in the Department include:

- Bone Health
- Carbohydrate/Fibre Metabolism
- Community and Public Health Nutrition
- Diabetes and Cardiovascular Disease
- Diet and Cancer
- Food Intake Regulation and Obesity
- Functional Foods and Nutraceuticals
- Lipid Metabolism
- Nutrition, Food and Public Policy
- Nutrigenetics and Nutrigenomics
- Nutritional Microbiology
- Nutrition and aging
- Nutrition and Brain Function/Behaviour
- Nutrition in Diseased Populations
- Nutritional Epidemiology
- Nutritional Toxicology
- Paediatric Nutrition
- Protein and Amino Acid Metabolism
- Vitamin and Mineral Metabolism

The Department compares well to others within the University in securing external research support and funding and in conducting scholarly research. In addition to holding three Canada Research Chairs, faculty members have recently led a successful multi-site research grant totalling \$13.6 million from the Canada Foundation for Innovation and the Ontario Research Fund- Infrastructure Program, Ontario Ministry of Research and Innovation (CFI/ORF).

Educational excellence attracts outstanding students

The Department teaches Nutritional Sciences at both the undergraduate and graduate level, offering an undergraduate major, as well as Masters of Science (MSc), Masters of Public Health (MPH) and Ph.D. degree programs.

Currently, there are 201 undergraduate and 82 graduate students in training within the Department. Another 28 students are pursuing an MPH degree in Community and Public Health Nutrition through a joint degree with the Dalla Lana School of Public Health.

The Department's students are high performing. Its graduate students rank second among all Faculty of Medicine basic science departments in securing external fellowships.



Distinguished faculty known internationally

The Department boasts 50 highly accomplished faculty members (including 21 primary, 19 cross appointed and 10 status only appointments) who are recognized as global leaders in nutrition.

Faculty members are accomplished researchers and in recent years have received a number of distinguished awards, including: the Order of Canada (2); Canadian Nutrition Society McHenry Award (3); Fellow of the Royal Society (2); Fellowship of the American Society for Nutrition (3); and University Professor (1).

Seven faculty members have served on the respected panels of the National Academy of Sciences to establish new North American Dietary Reference Intakes—more representation than Harvard, Tufts and MIT combined.

The recruitment of Dr. Mary L'Abbé as Chair in 2009 heralds a new era for the Department. Dr. L'Abbé's wealth of experience and leadership gained as the Director of the Bureau of Nutritional Sciences at Health Canada will help to shepherd the Department in its ambitious strategy for growth and to create better linkages with industry, health associations, institutions and government.

Strong partnerships support broad scope of practice

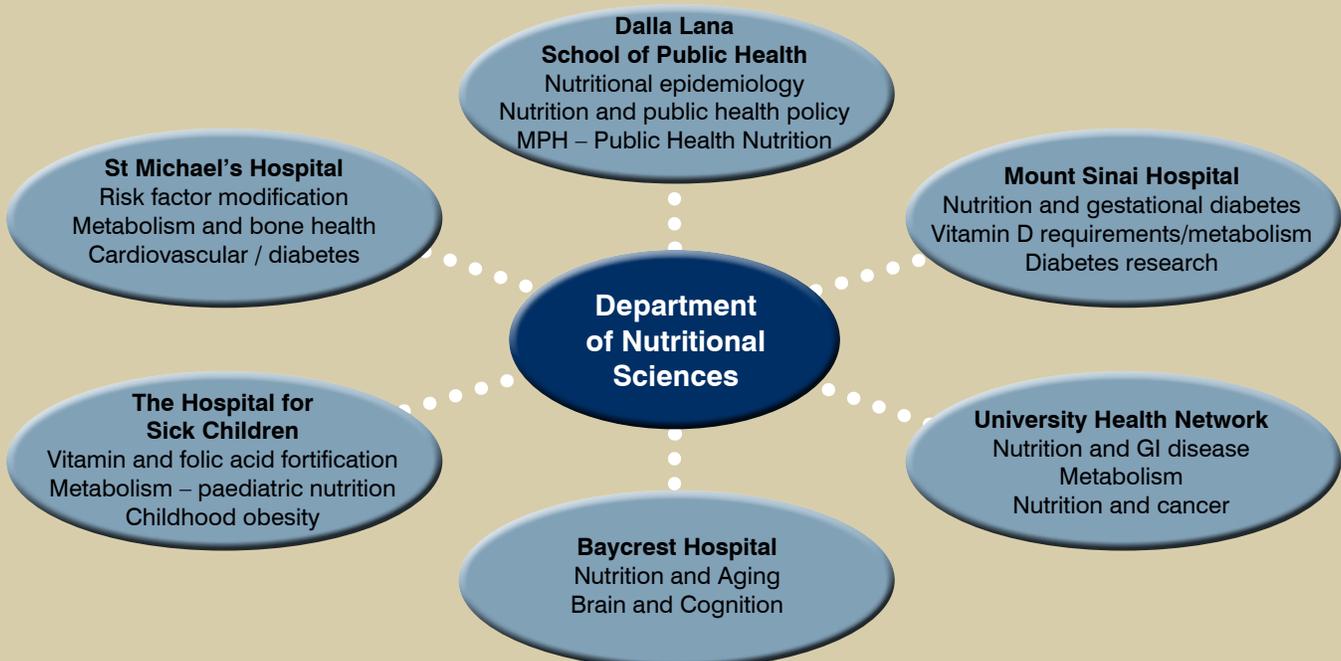
The Department's relationships with Toronto Academic Health Science Network (TAHSN) hospitals and research institutes, coupled with its partnership with the Dalla Lana School of Public Health, afford a scope of practice that does not exist in any other Canadian institution. This scope of practice provides a unique platform for building a stronger, more strategically focused research effort in the future.

The Department also has strong linkages with the food industry resulting in sizeable research support. Through its Program in Food Safety, Nutrition and Regulatory Affairs, the Department has developed a broad base of collaboration with industry, academia, government and non-governmental organizations.

Strategic planning sets future course

The Department of Nutritional Sciences began a rigorous strategic planning process at the end of 2009. The process was led by a Strategic Planning Committee, chaired by Dr. Mary L'Abbé. Faculty and staff participated in a Departmental retreat in early 2010, various Departmental meetings and provided extensive input into the draft and finalized plan.

Strategic local major partnerships provide Department with broad scope of practice





THE CURRENT NUTRITIONAL CONTEXT IN CANADA

The Department of Nutritional Sciences is positioning itself to be a Canadian and global knowledge leader in a complex and ever-changing health and food environment. The following trends provide both challenge and opportunity:

The new epidemic—chronic disease

Canadians face a new epidemic in Canada—chronic disease. The prevalence is skyrocketing.⁵

Currently, one in three Canadians has a chronic disease.⁶ Among Canadians aged 65 and over, the numbers are even higher—four out of five have at least one chronic disease and 70 per cent have more than one.⁷ Chronic disease now accounts for 89 per cent of all deaths in Canada.⁸

Obesity plays a major role in many chronic diseases. Hypertension, Type 2 diabetes mellitus and coronary heart disease are all chronic conditions caused or exacerbated by obesity. And, more than 50 per cent of Canadians, or roughly 17.5 million people, are either overweight or obese.⁹

A changing food environment

Over the past 50 years, safe, convenient and affordable food has become more readily available. But these advances have also led to a food supply that is high in fat, salt and sugar. Consumers do not have a roadmap to help them make the best choices in a complex food environment. And, not all socio-economic groups have benefitted equally from gains in food affordability and choice.

Rising costs threaten health system and economic prosperity

The economic impact of chronic disease is staggering.

In Ontario, healthcare expenditures currently represent 50 per cent of the provincial budget and economists project that they will rise to 80 per cent of the budget by 2030 if significant action is not

taken.¹⁰ Chronic diseases account for the majority of this expenditure. Diabetes and heart disease, alone, represent 44 per cent of hospital stays¹¹ and consume 67 per cent of the healthcare budget.¹²

Across Canada, the total cost of illness, disability, and death due to chronic disease is estimated to be over \$80 billion annually.¹³

The direct healthcare costs from chronic disease are alarming. When combined with the longer-term consequences of chronic disease in the form of lost productivity and poorer quality of life, our current system may well become unsustainable, or compromise funding for infrastructure, education and other critical social programs. The demand of chronic disease exceeds the public's ability to pay.

Prevention: a key strategy to reduce the burden of chronic disease

Preventing and delaying the onset of illness presents many advantages to managing the burden of chronic disease.

In addition to the potential cost savings within the healthcare system, the impact on “indirect costs” is significant. For example, the World Health Organization estimates that mortality associated with stroke, heart disease, and diabetes will deplete our economy of \$8.5 billion dollars in lost income between 2005 and 2015.¹⁴ Moreover, prevention would translate into many less tangible benefits to society and the economy as a result of increased presence of individuals in their communities, increased productivity of people and their families, and overall better wellness, happiness and quality of life.

⁵ *Adult obesity in Canada: Measured height and weight*. Statistics Canada, 2010.

⁶ *2007 Report on Ontario's Health System*. Ontario Quality Health Council, 2007.

⁷ *Ibid.*

⁸ *Facing the Facts: The Impact of Chronic Disease in Canada*. WHO, 2005.

⁹ 2010 Annual Report of the Heart and Stroke Foundation of Canada.

¹⁰ *Charting a Path to Sustainable Health Care in Ontario*. TD Bank Financial Group, 2010.

¹¹ *Population Patterns of Chronic Health Conditions, Co-morbidity and Healthcare Use in Canada: Implications for Policy and Practice*. Anne-Marie Broemeling, Diane E. Watson, Farrah Prebtani and on behalf of councillors on the Health Outcomes Steering Committee of the Health Council of Canada, 2008.

¹² *Health promotion, chronic disease prevention and injury prevention*. Ontario Agency for Health Protection and Promotion, 2010

¹³ *Chronic Disease and Nursing: A Summary of the Issues*. Canadian Nurses Association, 2005.

¹⁴ *An Estimate of the Economic Impact of Chronic Non-communicable Diseases in Selected Countries*. WHO, 2005.



Implementing preventative approaches poses challenges

The current health care system is designed in the infectious disease model of acute care episodes meant to “keep people alive.” It is not structured to capitalize on prevention, delay, managing the chronically ill, or offering integrated treatments for disease. This widespread emphasis on acute interventions has made it difficult for preventative schools of thought to gain momentum.

The benefit of prevention is hard to measure and prevention strategies require a long time horizon to see returns. It is also difficult to secure investment because economic benefits are often accrued in a different location than the investment source. Moreover, the preventative approach is extremely challenging because it is difficult to change behaviour.

Nutrition a proven preventive strategy

However, data is overwhelmingly consistent regarding the potential to prevent, and even reverse, many diseases with the implementation of healthy lifestyle interventions. If tobacco use, unhealthy diet, physical inactivity, and the harmful use of alcohol were eliminated, 80 per cent of heart disease, stroke, and Type 2 diabetes, as well as 40 per cent of cancers would be prevented.¹⁵

Historically, large-scale nutritional interventions have been successful at dramatically improving population health:

- The use of iodized salt in many countries, including Canada, has eliminated endemic goitre and impaired mental development due to iodine deficiency as a major public health problem.¹⁶
- Vitamin A supplementation has reduced young child mortality by 23 per cent in developing countries where deficiency is prevalent.¹⁷
- The addition of folic acid to flour has helped to lessen key neural tube birth defects in North America, (e.g., spina bifida).¹⁸
- The implementation of mandatory nutritional labelling and the concerted efforts to reduce trans fat levels in Canada has reduced the incidence of heart disease, stroke, and diabetes.¹⁹

Improving nutrition is a low-cost intervention that that has significant impact on disease incidence and progression. The use of nutrition as a preventative and alternative treatment tool has significant promise as a means to prevent, delay and treat the onset of illness and to stem the skyrocketing health care costs of diet and obesity-related illnesses in Canada and throughout the world.

¹⁵ The World Health Organization warns the rising threat of heart disease and stroke as overweight and obesity rapidly increase. WHO, 2005.

¹⁶ Andersson M, de Benoist B, Rogers L. Epidemiology of iodine deficiency: Salt iodisation and iodine status. *Best Practice & Research Clinical Endocrinology & Metabolism* 2010; 24: 1–11.

¹⁷ Beaton GH, Martorell R, Aronson KJ, et al. Effectiveness of Vitamin A Supplementation in the Control of Young Child Morbidity and Mortality in Developing Countries. ACC/SCN State of the Art Series. Nutrition Policy Discussion Paper No. 13. United Nations. 1993.

¹⁸ <http://www.health.state.mn.us/divs/eh/birthdefects/prevention.html>

¹⁹ <http://www2.parl.gc.ca/content/lop/researchpublications/prb0521-e.htm#transfatdisease>



LOOKING TO THE FUTURE

Our Vision—A world class institute for Food, Nutrition and Health— from genes to populations

Nutrition offers a critical tool to prevent, delay and treat chronic illness and reduce the burden of illness in society. However, the full potential of nutrition to enhance the health, wellness and prosperity of Canadians will only be recognized through the enhancement of innovative nutrition research, the translation of research findings into effective health promotion and disease prevention initiatives, and the integration of evidence-based nutritional science within public health policy.

Such a transition will require strong leadership—leadership that the Department of Nutritional Sciences is uniquely positioned to provide.

The Department has a strong track record of improving the health and wellness of Canadians through nutrition research, education and

leadership. This strategic plan represents a major step forward, as it embraces a bold new vision that will transform the Department into a **world-class Institute for Food, Nutrition and Health that integrates nutrition research, education and training, clinical investigation and public policy.**



BEGINNING THE TRANSFORMATION

Our Value Proposition

The Department of Nutritional Sciences is launching an ambitious plan to create a world-class Institute for Food, Nutrition and Health and state-of-the-art supporting infrastructure that integrates research, education and training, clinical application and public policy.

The Institute will generate leading-edge nutrition research, foster educational excellence and provide national and international leadership in knowledge translation. It will bring together basic scientists, clinical investigators and population health experts to work together and share their complementary expertise in consumer behaviour, nutrition, genetics, communication and health policy.



New frontiers for research and its application will include:

- Leading research and data analysis in state-of-the-art nutritional assessment facilities and a clinical investigation unit in order to:
 - drive new developments in the basic science of nutrition
 - develop effective community and population-based interventions
 - support evidence-based policy development
- Serving as an expert resource and voice for nutrition to government, academia, industry and the public
- Supporting public education and knowledge dissemination

The Institute will leverage the participation of multidisciplinary teams with expertise in food and nutrition policy, nutritional sciences, public health policy, agriculture policy and economics in order to fully capitalize on a critical mass of knowledge. It will be a centre for cutting-edge nutritional research that affects the public health policies of tomorrow. It will become a catalyst for action within the health care system.

The Department of Nutritional Sciences, with its genes to populations approach and breadth of research, is uniquely positioned for this leadership role.

History of innovative research

The Department of Nutritional Sciences is a national and international leader in innovative research to prevent, delay and treat disease across the lifecycle. Contributions include:

- Invention of Pablum, a nutrient-fortified baby food that has decreased the high incidence of nutritional rickets and iron deficiency worldwide since its introduction in 1931
- Invention and clinical use of ‘Sprinkles’, a home-fortification approach to combat iron-deficiency anaemia. The approach has decreased irreversible developmental deficits in infants in resource-poor areas of world, including India, China, and Africa
- Development of total parenteral nutrition²⁰ techniques and nutrient formulations for patients unable to consume food orally
- Use of diet to delay the onset of complications from chronic illness
- Development of an innovative procedure to intravenously feed gestational infants while their mothers are in surgery
- Development of nutritional support strategies for premature babies, including:
 - Total parenteral nutrition
 - Recognition of the unique benefits of mother’s milk for pre-term babies
 - Recognition of the developing brain’s need for long-chain omega 3 poly-unsaturated fatty acids, (now added to formulas)

²⁰ Parenteral nutrition (PN) is feeding a person intravenously, bypassing the usual process of eating and digestion. The person receives nutritional formulas containing salts, glucose, amino acids, lipids and added vitamins via the veins.



- Development and application of a classification system for food carbohydrates based on their glycemic response for use in the prevention and management of diabetes and cardiovascular disease
- International leadership in defining amino acid and protein requirements of humans.
- Development of dietary strategies to provide nutritional support in the elderly in various stages of cognitive decline
- Leadership in the examination of the interaction between bioactive compounds in plant foods in the prevention and management of breast cancer and the role of nutrients in colon cancer
- Leadership in demonstrating interactions between the genome and food components as determinants of health and the need for personalized nutrition (nutrigenomics)
- Establishment of the first nutrition curriculum and pediatric nutrition research training program in a medical school in China (Sun-yat Sen University of Medical Sciences)

Proven success in attaining competitive funding

The Department has a proven track record in securing peer-reviewed and industry funding, and maintains a wide breadth of partnerships across academia, industry, and government.

In addition to holding three Canada Research Chairs in the areas of Nutrigenomics, Epidemiology of Type 2 Diabetes, and Nutrition and Metabolism, the Department also led the recent \$13.6 million CFI/ORF multi-centred grant, *Diet, the Digestive Tract and Disease: The 3D Centre*.

In addition, the Department also has strong linkages with the food industry that result in sizeable research support. Through its *Program in Food Safety, Nutrition and Regulatory Affairs*, the Department has also developed a broad base of collaboration with industry, academia, government and non-governmental organizations.

Leadership in policy development

Faculty members within the Department are frequently sought out to provide expert guidance to national and international advisory bodies on nutritional guidelines and policies. Significant contributions include:

- Participation and leadership on key national committees and task forces influencing the use of fibre and sodium in the Canadian diet, including the committee which spearheaded the campaign to decrease sodium in store-bought/restaurant-prepared foods in order to stem hypertension and heart-disease.
- Participation and leadership on joint panels commissioned by Health Canada and U.S. Federal Agencies working with the National Academy of Science to set North American Dietary Reference Intakes for Nutrients.

Unique position within Faculty of Medicine

The Department of Nutritional Sciences is one of the few departments of nutrition in North America to be located within a Faculty of Medicine. Most are located within Faculties of Agriculture and focus on food development.

The Department's unique positioning, together with its close linkages with UofT's Dalla Lana School of Public Health, allows it to fully explore the relationships between nutrition and human health and disease, and to influence clinical practice and public health programs. Moreover, it provides the Department with the scale, scope and support of the largest Faculty of Medicine in the country. The Department's primary and cross-appointed faculty include physicians and health professionals, creating a rich model of interprofessional collaboration and education.

As a top university in Canada and the world, the University of Toronto provides the Department with a rich academic and research context. In addition to its medical school and affiliated hospitals, the university also supports a large concentration of life science researchers. As a result, over half of the country's health research dollars are channelled into a tight geographical space of downtown Toronto. The Department benefits from this concentration of expertise, resources and facilities.

Tradition of faculty excellence

The Department's faculty members are recognized as accomplished researchers and leaders in their field. Over the past eight years, the faculty has received more than 20 major national and international awards, including: the Order of Canada (2); Canadian Nutrition Society McHenry Award (3); Fellow of the Royal Society (2); Fellowship of the American Society for Nutrition (3); and University Professor (1).

The faculty regularly publishes in top peer-reviewed journals and frequently provides leadership on national and international forums and expert panels for organizations such as the Canadian Institutes for Health Research, the National Academy of Sciences, the World Health Organization and Canadian and U.S. governments.

Strong partnerships with R&D community

The Department is uniquely located within Toronto's research and development (R&D) health and food clusters. By leveraging these partnerships, the Department continues to broaden the scope of its research, drawing on external expertise and resources to enhance those within the Department.

Current major partnerships include:

- Leading teaching hospitals and their research institutes, including: St. Michael's; Hospital for Sick Children; Toronto General Hospital; Mount Sinai Hospital; Baycrest; and North York General Hospital
- Other universities and their research institutes, including: University of Alberta; University of Guelph; Ryerson University; University of Victoria; University of Calgary; and York University
- Food industry R&D community
- Municipal, provincial and federal governments



Central location in urban and industrial hub

The Department's location in Toronto provides it with a number of advantages as it charts its course as a leading Institute for Food, Nutrition and Health:

- Toronto is the fourth largest urban region in North America, with a population of 7.2 million. It is also home to one of the most ethnically diverse populations in the world—providing the Institute with ready access to the world's population demographics.
- The city is located within the second largest food cluster in North America—representing \$20 billion in annual industry revenue and a workforce of more than 78,000 individuals.
- The city represents the information hub of Canada, with three national newspapers and multiple media outlets. The news of Toronto is disseminated globally.
- Toronto and southern Ontario are home to a large cluster of health institutions and research institutes and a critical mass of highly qualified clinicians and researchers, including:
 - St. Michael's Hospital: Clinical Nutrition and Risk Factor Modification Centre
 - Mount Sinai Hospital: Department of Nutrition & Food Services; Department of Medicine and Laboratory Medicine & Pathobiology
 - Hospital for Sick Children: Research Institute
 - Baycrest Centre for Geriatric Care: Research Centre for Aging & the Brain
 - Sunnybrook Health Sciences Centre: Department of Clinical Nutrition
 - Toronto Rehabilitation Institute
 - University Health Network
 - Women's College Hospital
 - Ryerson University: Centre for Studies in Food Security (CSFS)
 - York University: Department of Biological Sciences, Department of Genetics
 - McMaster University: Children's Exercise and Nutrition Centre
 - University of Guelph: Canadian Research Institute for Food Safety (CRIFS)
 - MaRS Discovery District

Our Research Agenda

Now, more than ever, Canada needs to significantly advance the state of nutrition research and knowledge.

Researchers are only beginning to understand the implications of specific nutritional interventions for chronic disease. Furthermore, advances in understanding the links between genetic makeup and an individual's response to nutrition and propensity to disease are opening new possibilities for nutrition as a primary strategy for disease prevention and control. Significant improvements to both individual and population health are within reach.

However, much work remains to be done. There is a need for high quality, leading-edge nutritional research on a national and international scale. Prevention-based interventions, and the education and policy reform to support them, must be grounded in sound research and evidence.

Success requires focused research activity

The Department's transformation into a Institute for Food, Nutrition and Health will allow it to lead these efforts. However, it will require a significant restructuring of the Department's research enterprise.

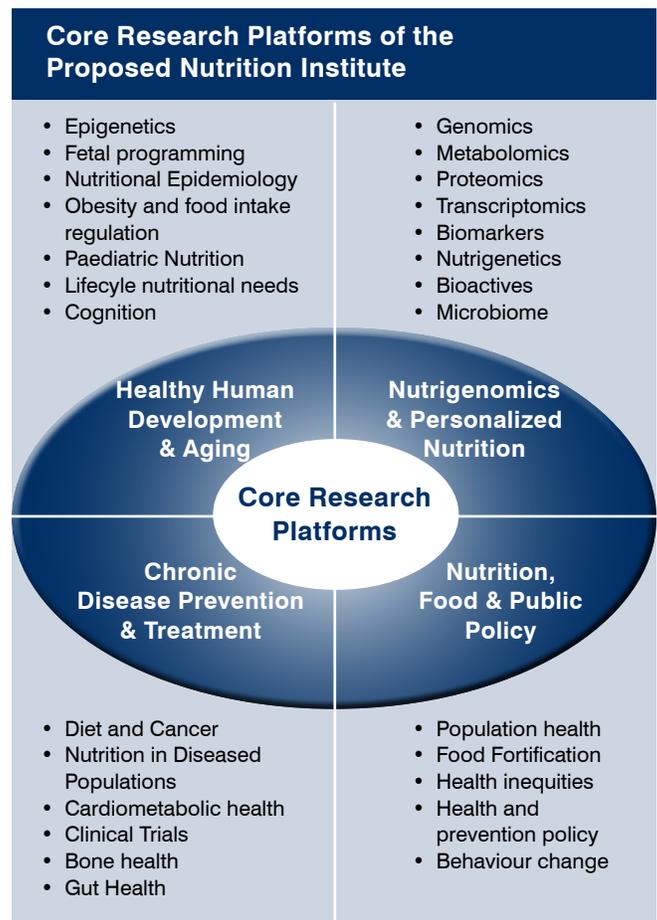
Traditionally, a department is structured around housing the best and brightest scientists and encouraging each of them to conduct independent research. To succeed as an Institute that achieves major health, social and economic impacts, the Department will need to fully capture a breadth of research from basic science to population health policy under one roof.

The Department will need to build capacity, while simultaneously improving the coordination of research efforts—effectively targeting resources and optimizing its ability to develop, teach and apply nutritional science research. Researchers will be called upon to collectively define research strategies and goals and to work towards them in a mission-oriented way.

Research platforms to build on current strengths

Building on its current research strengths and activity, the Department has identified four research platforms in which the Institute will focus its efforts and achieve excellence:

- Healthy human development and aging
- Nutrigenomics²¹ and personalized nutrition
- Chronic disease prevention and treatment
- Nutrition, food and public policy



The Institute will use a translational model of research, ensuring that research findings contribute to evidence-based health and population health policy development.

²¹ The study of how food and diet interact with specific genes in the body to alter the risk of certain diseases.

²² The study of the heritable changes involved in the genetic development of an organism, especially the activation and deactivation of genes, without any change in the DNA sequence; an epigenetic change alters how a gene behaves and may change the appearance or behaviour of cells.

²³ An early stimulus or insult at a critical or sensitive period of prenatal development that results in a long term change in the structure or function of the organism.

The Challenges Ahead

Over the next five years, the Department of Nutritional Sciences will focus its efforts on implementing this strategic plan and achieving its vision of a leading Institute for Food, Nutrition and Health. Building on its accomplishments, strengths and unique advantages, it will move steadily towards its goal.

However, the following factors will play a critical role in the Department's success:

- Support of government at the provincial and federal level. The province of Ontario is North America's largest health management organization. As a single healthcare provider under considerable financial stress, the government has a vested interest in promoting health. We believe that a modest investment in nutrition infrastructure and research has the potential to generate a substantial financial return by reducing the burden of chronic disease;
- Support of the University (financial resources, space, planning resources, infrastructure, expertise, etc.) to ensure the Institute's success.
- Strong knowledge translation and policy mechanisms to ensure that research leads to the necessary changes within the food industry, retailers and among the public to support behavioural changes;
- Establishment of an institute-wide research program that channels the activities of faculty members towards shared, pragmatic, goals;
- Sufficient funding to move to a new and properly equipped site. The Department's present building is close to ninety years old and cannot be retrofitted for modern science; and,
- Resources to recruit new faculty in order to round out the Department's competencies and capabilities.

The Department's vision is ambitious and will require investment but it is certainly achievable. What we propose simply levers many of the resources already in place and responds to the need to transform the healthcare system from a focus on illness to a focus on prevention and wellness. Given the assets available within our Department, the University of Toronto and the province of Ontario, our aspiration to be the leading research and training centre for nutrition in North America is realistic. Indeed, to aim for less would be inconsistent with the potential available to us.

This strategic plan calls for significant work to further refine the Institute's research agenda. As such, the following areas have been identified as priorities:

Nutrigenomics and Personalized Nutrition

Scientific evidence indicates that an individual's response to nutrition and propensity to disease is linked to his or her genetic makeup or "genotype" This may explain why, in the past, studies of nutrition often produced seemingly conflicting results. Genetic responses were seldom taken into account. Therefore, the Institute's research will examine how an individual's ability to metabolize components of food—carbohydrates, proteins, fibre, fats, fatty acids and vitamins—is related to genotype and propensity to disease.

Genotyping is rapidly becoming a relatively inexpensive diagnostic tool, opening up new possibilities for its use in guiding nutrition. In the future, it may be possible for individuals to take advantage of a simple blood or saliva test to learn which foods will keep them healthy and which they should avoid.

Outcomes of this research would lead to better formulations of processed foods, dietary guidelines for entire populations, and individual guidelines according to genotype and disease status, i.e., what individuals should eat to maintain wellness or to combat illness.

Healthy Human Development and Aging

The Institute will explore the links between our nutritional environment in the womb and how our phenotype responds, particularly the epigenetics²² and fetal programming²³ that occurs during the pre- and post-natal developmental period—a critical window that can influence one's susceptibility to the chronic diseases of adulthood.

Chronic Disease Prevention and Treatment

The Institute will examine aspects of the links between diet and heart disease, diabetes and cancer. A particular focus will be how foods and bioactive components, such as novel fibres and proteins, can be used to prevent and/or treat diseases or act as an adjuvant during treatment.

Nutrition, Food and Public Policy

The Institute will strengthen research that can be used for evidence-based policy development and translated into population health policies.

OUR STRATEGY FOR GROWTH AND TRANSFORMATION

Strategic Framework

Significant growth and transformation will be required in order to realize the Department's **vision** to become the preeminent institute in North America improving health through research, teaching, and leadership in human nutrition from genes to populations. The Department has developed a strategic framework to guide its growth efforts in achieving this vision.

The activities of the Department are driven by its **mission** to use nutrition research, education and leadership as a key driver for enhancing the health, wellness and prosperity of individuals and populations. The mission will be fulfilled across the Department's **priorities** which centre on research, education and training, clinical application and policy.

The Department recognizes the need to grow from its current state in order to achieve its overarching objective of a state-of-the-art Institute for Food, Nutrition and Health. It has developed and will execute three strategies in order to achieve this growth:

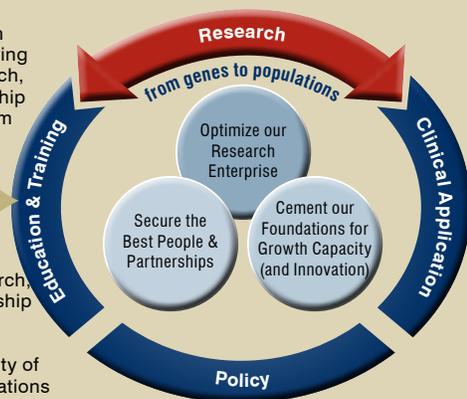
Department of Nutritional Sciences Strategy 2011-2015

Vision

To become the preeminent institute in North America improving health through research, teaching, and leadership in human nutrition from genes to populations

Mission

To use nutrition research, education and leadership as a key driver for enhancing the health, wellness and prosperity of individuals and populations



Our 5 year plan :

To establish a state-of-the-art Nutrition Institute that integrates nutrition research, education and training, clinical investigation and public policy

Strategy 2. Secure the Best People and Partnerships

The historic success of the Department is founded on the high quality of its faculty, students and partners, including neighbouring hospitals, industry players and other research institutions. As we expand to a world-class Institute, this strategy will ensure we pursue a highly disciplined recruitment and retention process for our

Strategy 1. Optimize our Research Enterprise

Our vision can only be attained if we restructure the way we do research. To succeed as an Institute that achieves major health, social and economic impacts, we will need to focus and better coordinate our efforts to emphasize our carefully selected research platforms:

- Healthy human development and aging
- Nutrigenomics²⁴ and personalized nutrition
- Chronic disease prevention and treatment
- Nutrition, food and public policy

These focused areas of research will allow us to enhance faculty recruitment, expand academic programs, develop new funding sources and build more strategic partnerships.

faculty, staff and students, and that we explore highly strategic value-based partnerships and alliances as we expand our network.

Strategy 3. Cement our Foundations for Growth Capacity

Our third strategy focuses on building the right set of physical, financial and operational infrastructures to enable our vision for growth. The expansion to state-of-the-art facilities is central to this strategy as our current location does not provide the necessary space, structural infrastructure or equipment capacity to support the Department's ambitious research agenda.

²⁴ The study of how food and diet interact with specific genes in the body to alter the risk of certain diseases.

These strategies will leverage the Department's priority areas of activity:

- **Research** that focuses on ensuring breadth, depth, prioritization and integration of research efforts
- **Education and Training** that focuses on students, faculty, programs, courses and practica
- **Policy** that focuses on being the leading nutrition expert in the application of research to drive policy
- **Clinical Application** that focuses on the translation of research into clinical interventions and strategies for: delaying the onset of chronic disease, health guidelines and treatment

To achieve our three strategies we will focus on eight strategic objectives that will guide the Department's activity from 2011-2015. These objectives are aligned with the academic plan of the University and the strategic plan of the Faculty of Medicine:

Detailed action plans have been developed for each strategic objective as a guide to direct all activities related to the implementation of the strategic plan.

Each strategic objective has a champion who is responsible for the implementation of the activities outlined in the plan. The champion will form and oversee a team of faculty, students, staff and/or external partners who will help to execute the plan.

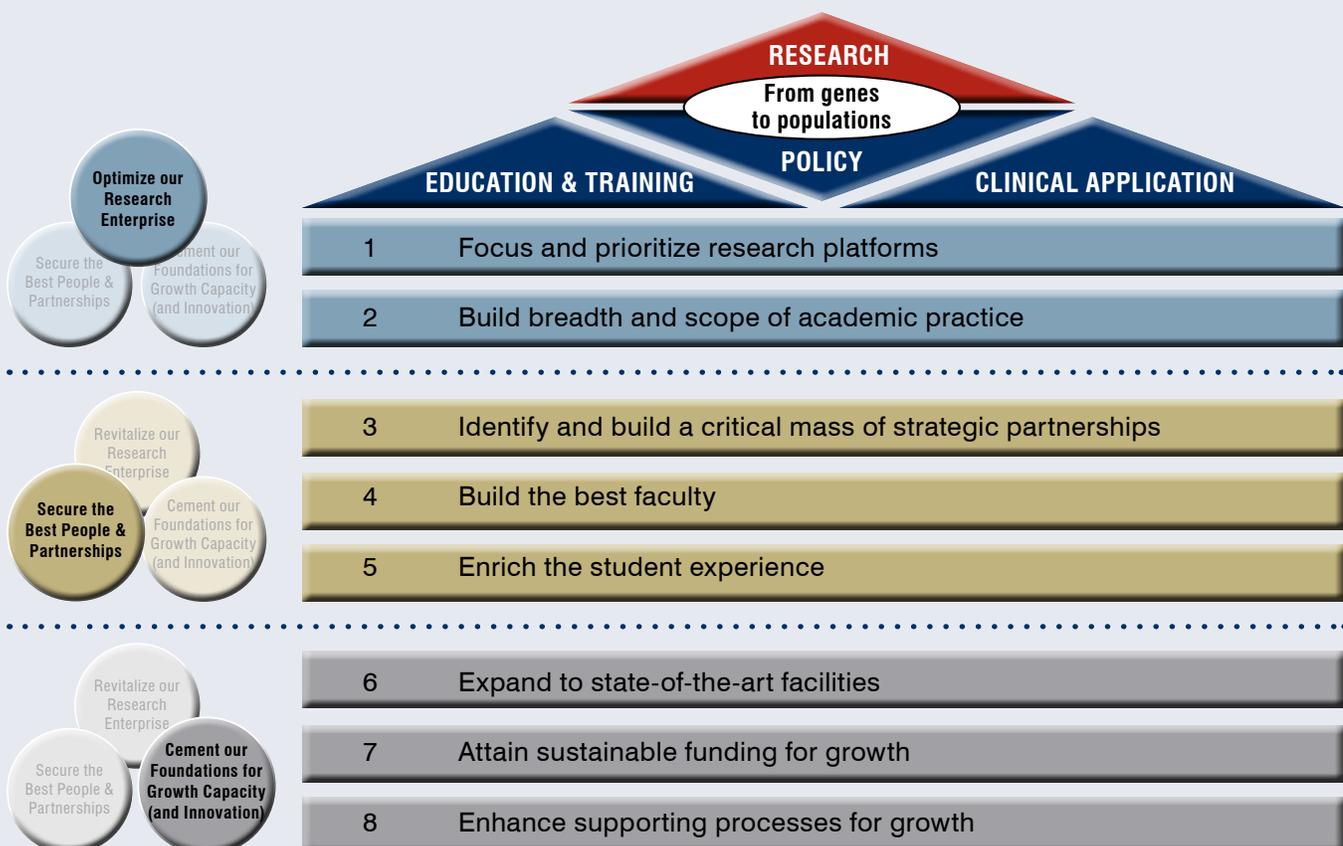
The action plans are meant to be iterative working documents. They outline activities that should be performed to accomplish the objective. The activities are listed in sequential order. Each activity is supported by a corresponding set of task(s). A set of measures is provided

which will be used to evaluate progress towards completing the activities and tasks.

The desired outcomes of the activities are described to better understand the significance behind each step in the action plan. The champion and his/her team will likely need to modify the set of activities, tasks or measures over time.

Each strategic objective has a champion who is responsible for the implementation of the activities outlined in the plan.

Eight strategic objectives form the basis of the 2011-2015 Strategic Plan for growth



Objective #1. Focus and prioritize research platforms

The Department of Nutritional Sciences is fortunate to have some of the most innovative and respected nutritional sciences researchers in the world. Their interests span from basic science to population health and represent the ideal translational model of research—from *genes to populations*. Their achievements are impressive, and their work has led to significant improvements in both individual and population health.

These research activities provide a critical foundation, but the Department’s vision will require a significant expansion of research activity. Growth must be focused on key platforms of strategic research that allow the Department to effectively target its resources and optimize its capacity to develop, teach, and apply nutritional science research.



The following actions have been prioritized to achieve a focused research platform within the Department:

Activity	Tasks	Measures	Outcomes
1. Establish the research committee	<ul style="list-style-type: none"> Identify desired set of individuals to participate on the committee Recruit advisory panel to inform decision making 	<ul style="list-style-type: none"> Number of advisors solicited Number of faculty solicited 	<ul style="list-style-type: none"> Structure for decision making
2. Refine working portfolio of research platforms where a Nutrition Institute should (and can) achieve excellence as a focus for growth	<ul style="list-style-type: none"> Review platforms (healthy human development and aging; nutrigenomics and personalized nutrition; nutrition, food and public policy; chronic disease prevention and treatment) Undertake strategic foresight exercise by developing a better understanding of external research trends through analysis of grant winners, publication trends and conference topics 	<ul style="list-style-type: none"> Unified agreement from research committee Exercise is performed 	<ul style="list-style-type: none"> Better allocation of internal resources
3. Conduct further due diligence on each research platform	<ul style="list-style-type: none"> Interview experts outside DNS community Validate research platforms with broader Department and Faculty Identify key forums, funding sources, and audiences for each research platform 	<ul style="list-style-type: none"> Exhaustive understanding of each topic Internal consensus on selected platforms 	<ul style="list-style-type: none"> Breadth and scope of research
4. Prioritize and further develop research platforms	<ul style="list-style-type: none"> Develop prioritization criteria Evaluate platforms based on current strengths, trends and key needs 		
5. Validate findings and plan with internal stakeholders and external experts	<ul style="list-style-type: none"> Establish a panel appropriate for validation 	<ul style="list-style-type: none"> Consensus on prioritization of research topics 	<ul style="list-style-type: none"> Third party validation
6. Develop action plan to realize target research platforms keeping in mind our commitment first and foremost to excellence	<ul style="list-style-type: none"> Develop communication plan Share results of prioritization with other departmental committees (e.g. faculty recruitment, funding Chairs, etc.) to inform their work Identify next steps and assign leads 	<ul style="list-style-type: none"> Ownership of all research topics Grant approval rate Media references 	<ul style="list-style-type: none"> Higher productivity and utilization

Objective #2. Build breadth and scope of academic practice

The Department has created a breadth and scope of academic practice that does not exist in any other Canadian department of nutrition. A critical mass of scientists has been achieved through strategic recruiting, cross-appointments and status only members.

As a result, the Department's research activities span the full range of nutritional science, from basic science, to dietary interventions for treating disease, to public health policy. The Department also plays a pivotal role in educating academia, physicians, health professionals, industry, government and the public on nutrition issues.

This breadth has allowed the Department to stay on the leading edge of education and has created opportunities for convergence, collaboration and coordination across academic activities. Further emphasis is needed to exploit and expand on the full potential of these opportunities in order to achieve impact from genes to populations. To do this, the Department plans to increase the breadth and scope of faculty expertise, course offerings, and inter- and intra-departmental collaboration.

The following actions have been identified to build a breadth and scope of academic practice within the Department:

Activity	Tasks	Measures	Outcomes
1. Identify key academic areas where building more breadth and scope is crucial to achieving the overall vision and near-term goal of a new Institute	<ul style="list-style-type: none"> Organize small team to coordinate decision making Develop framework for understanding the potential breadth and scope of academic areas Map current academic areas to framework Identify areas of gap or potential increased scope Communicate findings to Chair 	<ul style="list-style-type: none"> Comprehensive list of academic areas Number of potential opportunities to increase breadth and scope Approval from Chair on priority areas 	<ul style="list-style-type: none"> Aligned strategy
2. Enhance positioning and profile in the Masters of Public Health program	<ul style="list-style-type: none"> Benchmark DNS positioning relative to other joint-programs with MPH Identify key gaps and make recommendation to improve 	<ul style="list-style-type: none"> Number of joint-program MPH students 	<ul style="list-style-type: none"> Greater visibility amongst policy and public health professionals
3. Identify levers to build breadth and/or broaden scope of academic practices based on prioritized research platforms	<ul style="list-style-type: none"> Levers may include: new student talent pools, additional student programs, partnerships with key academic players (See 3a through 3c) Prioritize actions relative to impact of each lever Develop implementation plan 	<ul style="list-style-type: none"> Number of new programs 	<ul style="list-style-type: none"> Increased breadth and scope of academic programs
3a. Partner with key academic players, as well as hospitals and research institutes who can support programmatic growth and enhanced quality	<ul style="list-style-type: none"> Identify educational stakeholders Conduct stakeholder consultation Develop educational strategy with partners 	<ul style="list-style-type: none"> Completion of Stakeholder map Number of consultations conducted 	<ul style="list-style-type: none"> External support in educational development
3b. Explore new student talent pools for recruiting	<ul style="list-style-type: none"> Identify key intellectual thought partners from other faculties Draft value proposition for relevant student pool Recruit graduate students from cognate and related programs 	<ul style="list-style-type: none"> Number of student applicants Number of different disciplines represented by applicants 	<ul style="list-style-type: none"> Enriched student mix
3c. Explore additional student programs and offerings with the intent of providing a more comprehensive curriculum to students	<ul style="list-style-type: none"> Undertake a comparative analysis of course offerings relative to similar Departments, Centres or Institutes Conduct a survey that evaluates the satisfaction with course selection Hire faculty that are capable of teaching new courses 	<ul style="list-style-type: none"> Satisfaction rate from student survey Number of new courses developed/current courses updated 	<ul style="list-style-type: none"> Enriched curriculum Greater interest from prospective students
4. Play a leadership role in the coordination of nutrition and advanced health professional education	<ul style="list-style-type: none"> Identify appropriate inter-departmental forum Nominate representative to contribute to forum List opportunities for the department to take on leadership role 	<ul style="list-style-type: none"> Number of participants on inter-departmental committees Number of new initiatives enacted 	<ul style="list-style-type: none"> Better integration with health professional education in the Faculty

Objective #3. Identify and Build a critical mass of strategic partnerships

In today's economic environment, partnerships are a key to growth. They provide access to skills, knowledge, infrastructure, resources and capital required to push the limits of current science. Currently, the Department's partnerships with neighbouring hospitals, industry, the Dalla Lana School of Public Health, and other stakeholders have created opportunities to develop and apply leading research through the sharing of resources.

For the Department to grow and become the pre-eminent institute for nutritional science, it must develop a value-based paradigm for strategic partnerships. Developing an approach to identify, operationalize and evaluate partnerships will ensure the Department can manage the increased breadth and scale of potential partners that will be interested in the Nutrition Institute. This approach will be coupled with a plan for working with representatives from stakeholder groups including academic institutions, third-party research organizations, government, the food industry, advocacy groups, relevant professional associations and the public.



The following actions have been prioritized to build a critical mass of strategic partnerships:

Activity	Tasks	Measures	Outcomes
1. Establish strategic partnerships committee	<ul style="list-style-type: none"> Identify desired set of individuals to participate on the committee Recruit individuals to committee 	<ul style="list-style-type: none"> Number of committee members 	<ul style="list-style-type: none"> Structure for decision making
2. Define the range of potential partnerships the Department could explore, mapped to the priority research platforms of the new Institute	<ul style="list-style-type: none"> Gather list of research platforms from the research committee Conduct a joint meeting with the research committee and partnerships committee 	<ul style="list-style-type: none"> Minutes from joint meeting with potential partnerships outlined 	<ul style="list-style-type: none"> Consistency amongst different objectives and committees
3. Develop an evaluation framework for understanding the value created by relationships with various partners	<ul style="list-style-type: none"> Outline the purpose(s) of each potential partnership Identify the partners that were mapped to the most significant research platforms Prioritize the importance of attracting each partner 	<ul style="list-style-type: none"> Defined framework List of partners Evaluation of partners 	<ul style="list-style-type: none"> Identification and prioritization of most valuable partners
4. Develop an engagement strategy for approaching potential partners	<ul style="list-style-type: none"> Consult with other UofT departments which have gone through similar experiences Engage external expertise to refine engagement approach 	<ul style="list-style-type: none"> Written strategy Developed presentation that can be presented to multiple partners 	<ul style="list-style-type: none"> Successful communication tool
5. Work closely with Advancement Office to further funding objectives	<ul style="list-style-type: none"> Schedule monthly update meetings with the Advancement Office Validate engagement strategy with Advancement Office 		<ul style="list-style-type: none"> Coordinated funding strategy

Objective #4. Build the best faculty

The University of Toronto's academic plan identifies the need to strengthen, support, and renew faculty as a key priority. The Faculty of Medicine also prioritized support and renewal of academic leadership in its strategic plan. The Department is fully aligned with the University and the Faculty. Its success—in scholarly research, competitive educational programs, awards and recognition, and external research support—is fundamentally the result of the high quality of its faculty.

Building a faculty of the best educated, most intellectually creative, and most diverse academic leaders is a key pillar for growth. There are two primary drivers impacting the faculty. First, the scale of the Institute and breadth of its activities will require an expansion of the Department's faculty. Second, the eventual retirement of faculty will create a void that must be filled by new leaders. To ensure the Institute is driven by the best minds, the Department will need to develop a comprehensive recruitment and retention strategy.

The following actions have been prioritized as key components of the department's strategy to build the best faculty:

Activity	Tasks	Measures	Outcomes
1. Recruit additional faculty with unique expertise and leadership in target research platforms to support research and curriculum expansion	<ul style="list-style-type: none"> Establish recruiting committee Develop recruiting strategy: Prioritize key areas of expertise aligned to strategic objectives #1 and #3 Develop marketing plan Perform targeted outreach to potential candidates (including status-only, cross appointment candidates and tenured tracks) Evaluate candidates across priority areas Update relevant committees and working groups on linkages and progress towards recruitment 	<ul style="list-style-type: none"> Number of new faculty members 	<ul style="list-style-type: none"> Expanded scope and knowledge base of the department
2. Introduce a career management support program that facilitates career mentorship, research assistance and additional educational training	<ul style="list-style-type: none"> Interview faculty to assess and map out potential career paths Review career mentorship and assistance programs available in other departments and schools Develop mentorship program that connects faculty earlier on in the career path to a more senior member who followed a similar path 	<ul style="list-style-type: none"> Staff satisfaction Turnover rates Number of mentor relationships established 	<ul style="list-style-type: none"> Increased faculty satisfaction
3. Promote positive working environment to retain current faculty and attract new faculty	<ul style="list-style-type: none"> Develop and deliver staff satisfaction survey Identify key value-add opportunities and/or gaps relative to other departments Develop strategy to ensure staff have access to the necessary tools / training / capabilities needed for their research and/or teaching and/or clinical studies 	<ul style="list-style-type: none"> Staff satisfaction rate Turnover rate 	<ul style="list-style-type: none"> Increased interest in program Better communication link between staff and administration
4. Identify and support emerging leaders	<ul style="list-style-type: none"> Assess internal and external reputation of faculty members Facilitate conferences led by faculty members Promote potential internal leaders to high-profile administrative roles, or national and international scientific roles 	<ul style="list-style-type: none"> Number of faculty members with leadership positions Time from faculty appointment to recruitment to leadership position 	<ul style="list-style-type: none"> Increased program recognition Higher satisfaction
5. Develop process for recognizing outstanding faculty and nominating for awards	<ul style="list-style-type: none"> Provide recognition and incentives to reward excellent achievement in the classroom Develop communication strategy to inform department and key stakeholders on faculty achievements Ensure DNS candidates are nominated for national and international awards 	<ul style="list-style-type: none"> Number of awards / incentives provided Staff satisfaction rate Number of external awards received 	<ul style="list-style-type: none"> Increase in staff satisfaction rate Improved reputation / status in nutrition community

Objective #5. Enrich the student experience

The Department of Nutritional Sciences is well known at the local, national and international levels as a leader in pushing the boundaries of nutrition through research, clinical investigation and public health policy. Its reputation among students places it among the most desirable schools in North America and it has a track record of developing leaders in the field of nutrition. The Department is committed to attracting the best students and providing them with excellent training in a stimulating research environment.

The Institute for Food, Nutrition and Health will allow the Department to enrich the student experience on a number of fronts. The Institute will provide students with increased access to cutting-edge research, education and learning tools; it will create a forum for closer integration amongst medical students and other health professionals who are seeking the highest quality of training in nutritional health issues; and it will act as a hub for external stakeholders who wish to recruit the best nutritional science graduates.



The following actions have been prioritized to enrich the student experience:

Activity	Tasks	Measures	Outcomes
1. Raise the profile of the Department and its key academic program amongst students and health professionals	<ul style="list-style-type: none"> Develop marketing material and distribute at targeted events Coordinate academic events with Faculty of Medicine at UofT 	<ul style="list-style-type: none"> Number of applications to programs Number of event participants 	<ul style="list-style-type: none"> Raised awareness and reputation
2. Provide students with increased access to cutting-edge research methodologies and new technologies	<ul style="list-style-type: none"> Develop and distribute student satisfaction surveys Identify technology gap relative to other institutes Determine priorities for investment through consultation with the university and similar departments Include technology selection in facility planning documents 	<ul style="list-style-type: none"> Dollars invested in research equipment relative to other institutes Student satisfaction with teaching methods and tools 	<ul style="list-style-type: none"> Needs assessment Procurement of new technologies as per gap analysis
3. Establish an internal career management program that provides coaching and support for students looking for career opportunities upon graduation	<ul style="list-style-type: none"> Leverage Faculty or University career management personnel who specialize in providing career advice Conduct workshops that focus on resume building and networking tools Facilitate interviews amongst employers and students 	<ul style="list-style-type: none"> Percentage of students receiving offers of employment Attendance at workshops 	<ul style="list-style-type: none"> Increased number of student applicants Increased percentage of students employed upon graduation
4. Collaborate externally to allow graduates to pursue a wide range of careers	<ul style="list-style-type: none"> Identify potential areas for alignment between DNS and external opportunities for graduates across education, research, lab / life / health sciences, government and advocacy Perform targeted outreach for potential collaborations and discuss feasibility of enhanced relationship Develop MOU for identified organizations 	<ul style="list-style-type: none"> Number of practica Number of MOUs 	<ul style="list-style-type: none"> More opportunities available to graduating students Increased enrolment Enhanced relationships with key partners

Objective #6. Expand to state-of-the-art facilities

The Department has set an ambitious goal of housing the Institute for Food, Nutrition and Health in a world-class, large-scale research facility. The desired concentration of basic scientists and clinical investigators will be unparalleled in Canada and competitive internationally. No where else will a group of scientists work in such close conjunction with other clinical and academic partners to advance discovery into practice.

The creation of an Institute will allow researchers, clinicians and population health experts to work together and share their complementary expertise

in consumer behaviour, nutrition, genetics, communication and health policy. Moreover, a multidisciplinary team with expertise in food and nutrition policy, nutritional sciences, public health policy, genomics, agriculture policy and economics will allow critical mass to be built at all levels of the research value chain. It will become a catalyst for action within the current system.

After conducting a high level assessment of its assets, the Department believes that its infrastructure represents the biggest impediment to establishing a world-class Institute.

DNS Gap Analysis: People, Processes and Infrastructure

Asset Category	Department of Nutrition Assets	Assessment
People	<ul style="list-style-type: none"> World renowned researchers High-calibre students and highly qualified personnel Collaborations with leading hospitals and research networks Strong levels of grant funding 	Excellent
Processes	<ul style="list-style-type: none"> Strategic planning process in place Leveraging Faculty of Medicine and University support resources, like IT, public affairs, and others Consistent marketing and communication materials are still under development 	Fair
Infrastructure	<ul style="list-style-type: none"> 80+ year old facility Lack the capacity to add additional state-of-the-art equipment Administration and IT capacity to support growth 	Poor

Becoming the pre-eminent leader in nutrition, education, research and science will require a significant investment in infrastructure. The Fitzgerald building, built in 1927, does not provide the necessary structural, plumbing, electrical or scientific equipment capacity to support cutting-edge research.

Two options have emerged to expand facilities: (1) create a new state-of-the-art building on or near the campus, or (2) partner with a hospital/research institute and utilize or build on their existing infrastructure.

The Department is currently working with University and Faculty of Medicine Space Planning groups to develop a plan for the new Institute. The final project plan is still under development and this strategic plan will be updated when that report is complete. The preferred option under consideration is a new

building on a site in downtown Toronto, in close proximity to the University of Toronto campus and Toronto's Discovery District. The building would include:

- State-of-the-art nutritional assessment facilities including BIA, Calorimetry, Bod Pod, DEXA, and bone mineral density, MRI as well as specialized ultrasound facilities
- A Clinical Investigation Unit to conduct nutritional trials involving human subjects
- State-of-the-art analytical and computing labs for population health studies (dry labs)
- State-of-the-art analytical equipment for support of nutritional biochemical, metabolomic, and genomic analyses labs, as well as cell culture facilities (wet labs)
- A bio-repository/freezer farm

Preliminary estimates, still to be confirmed, suggest that the total required space would be approximately 60,000 square feet and could cost approximately \$70 million.

As an alternative to a new building, another option is to partner with an existing research institute with mutual research interests, philosophies, and available infrastructure. Currently, it appears that St. Michael's Hospital has great potential synergy with the academic and research goals of the Department. St. Michael's has strengths in knowledge translation, registries/clinical trials, and evaluation which could be extremely helpful in the translational aspects

of the science generated by the Department. The partnership would have 14 full-time basic and translational scientists in the Department of Nutritional Sciences move to new research space at St. Michael's Hospital. Such a move would permit the Department's physician scientists who are already located at St. Michael's to expand their primary research endeavour into one location working closely with their basic science, public health and clinical investigator colleagues. There are a number of options for the specific location and size of this project. At this stage, costing on this project is not available.

The following actions have been prioritized to expand to state-of-the-art facilities:

Activity	Tasks	Measures	Outcomes
1. Establish project team and governance model	<ul style="list-style-type: none"> Identify key members of faculty and University to inform facility planning decisions Identify key external experts to act as advisors Establish governance model for the project and the Institute Recruit advisory council and project team 	<ul style="list-style-type: none"> Terms of membership established 	<ul style="list-style-type: none"> Organization structure for decision making
2. Finalize space, equipment and resource requirements with Space Planning team	<ul style="list-style-type: none"> Develop a space plan with architect Develop a list of requirements with committee and individual faculty members Ensure alignment to research priorities 	<ul style="list-style-type: none"> Completed project plan Documented Departmental preferences Consensus from faculty 	<ul style="list-style-type: none"> Infrastructure that meets the needs of the program
3. Conduct feasibility assessments of main options	<ul style="list-style-type: none"> Decide whether to partner with existing facility or build a new building on/near campus (where groups may want to move into new institute) Identify physical space, equipment and resource requirements for partnership Inform site selection process Identify key partners and their potential roles Engage stakeholders in discussion/negotiation 	<ul style="list-style-type: none"> Completed project plan Documented Departmental preferences 	<ul style="list-style-type: none"> Memorandum of understanding
4. Develop business (capital) plan for facility expansion, with support of Space Planning	<ul style="list-style-type: none"> Procure services of internal and external experts to help: Create a marketing plan Engage in fundraising activities (sustainable funding) 	<ul style="list-style-type: none"> RFPs written Plan documented 	<ul style="list-style-type: none"> Vendors procured
5. Complete academic provost and governing council approval process	<ul style="list-style-type: none"> Governing council approves a series of steps over a 6-8 year process (rough estimate) 	<ul style="list-style-type: none"> Approval from governing council 	<ul style="list-style-type: none"> Validated process
6. Develop transition plan	<ul style="list-style-type: none"> Establish a practical timeline for the construction process and appropriate dates for moving into the building Finalize moving logistics and enter into facility 	<ul style="list-style-type: none"> Dates are met 	<ul style="list-style-type: none"> Organized transition phase

Objective #7. Attain Sustainable Funding for growth

The Department has a track record of maintaining a solid financial foundation through sound financial management. It has been very successful in bringing in external monies for its research activities and has worked strategically with the Faculty of Medicine and other partners to ensure adequate financial resources are available to the Department. However, the transition to an Institute for Food, Nutrition and Health would require a significant change in the scale of funding.

The Department plans to develop a new funding platform to achieve its ambitious growth objective. Specifically, it will work with the University Advancement office, all levels of government, private donors, corporate sponsors and research organizations in order to identify sources, to obtain funding and to fill the gap between its current operational budget and the capital and operational needs of a world-class Institute.

The following actions have been prioritized to develop a funding platform for growth:

Activity	Tasks	Measures	Outcomes
1. Inventory / benchmark all potential sources of funding that currently exist	<ul style="list-style-type: none"> List of all traditional and innovative sources of funding (research awards, new research chairs, professorships, funding of specific programs by corporations or governments, new shared resourcing arrangements with nearby hospitals) 	<ul style="list-style-type: none"> List creation 	<ul style="list-style-type: none"> Benchmark tool
2. Inventory current and 5-year historical sources to understand areas of strength and risk	<ul style="list-style-type: none"> Understand which individuals within the Department are linked to donors Develop an understanding for why certain donors are repeat funders and others are not Analyze successful tools that were used to attract donors and tools that failed to attract donors 	<ul style="list-style-type: none"> Members of small task force allocate a total of 40 hours to this research 	<ul style="list-style-type: none"> Better understanding of a successful strategy for the future
3. Map priority research platforms (from strategic objective #1) to current and potential funding sources	<ul style="list-style-type: none"> Identify which research focus areas are currently funded and establish gaps in funding Develop a list of potential donors interested in unfunded initiatives 	<ul style="list-style-type: none"> Thorough mapping document 	<ul style="list-style-type: none"> All key research areas fully funded
4. Prioritize potential new funding sources and develop advancement strategies for each	<ul style="list-style-type: none"> Gather the faculty and create a list that identifies potential donors Prioritize funders based on size of contribution and likelihood of success Work with experts including UofT advancement services, external experts, etc. Develop better understanding of similar funding models used in the University and in other jurisdictions Analyze the viability of different funding options Create a strategic funding framework 	<ul style="list-style-type: none"> List creation Success rate Funding model scan Strategy documented Approved by the Department and university 	<ul style="list-style-type: none"> Thorough list of donors that can be used for present and future funding needs A balanced strategy for ongoing program and facility funding
5. Recruit required resources to drive the fundraising efforts	<ul style="list-style-type: none"> Hire senior advancement officer Hire external experts to support (banks, PR) Contract or appoint a dedicated grant writer 	<ul style="list-style-type: none"> Dollars received Successful hiring 	<ul style="list-style-type: none"> Sustainable financial position Ownership of funding goals
6. Execute on advancement plan	<ul style="list-style-type: none"> Developed method for approaching potential donors (private and public) with the department's value proposition Identify and engage key individuals in government who could provide funding in collaboration with university government relations 	<ul style="list-style-type: none"> Number of meetings with potential funders Number of positive meetings with funders Iteration of value proposition based on funder feedback 	<ul style="list-style-type: none"> Commitment for funding

Objective #8. Enhance supporting processes for growth

Historically, the Department has operated as a collection of high performing individuals who have furthered Departmental objectives through a sense of shared responsibility and by leveraging internal resources available from the Faculty and the University. This collaboration has worked effectively for the current scale of activities. The Department recognizes that the transition to a world-class Institute will require significant expansion and refinement of organizational processes. Therefore, it has identified key priority areas where enhanced organizational processes will help achieve its growth objective.



The priority activities include:

Activity	Tasks	Measures	Outcomes
1. Enhance Internal Communications	<ul style="list-style-type: none"> Identify key channels for communication Build calendar of communication events Execute on plan Establish a feedback loop to refine as needed 	<ul style="list-style-type: none"> Feedback mechanism Number of communication products / issues released 	<ul style="list-style-type: none"> Improved communication tools
2. Establish capabilities in external communications and marketing	<ul style="list-style-type: none"> Develop integrated marketing plan Identify relevant channels and content (website, Strategic Planning document, Department brochure, stock slide deck) Benchmark other best practice departments for ideas Solicit external vendor to support communications activities 	<ul style="list-style-type: none"> Increased budget for communication and marketing initiatives 	<ul style="list-style-type: none"> Increased awareness Better communication of DNS strategy
3. Strengthen Strategic Planning practices	<ul style="list-style-type: none"> Establish calendar for the Strategic Planning meetings and agendas, including an annual retreat Develop governance process to oversee the finalization of the implementation plan development, and to track progress 	<ul style="list-style-type: none"> Thorough calendar of events 	<ul style="list-style-type: none"> Up-to-date Strategic Plan
4. Better integrate across DNS disciplines, especially with clinical investigation activities	<ul style="list-style-type: none"> Identify logical areas of integration across the various research platforms Prioritize areas that are critical for success of the new Institute Identify areas of strength and weakness in integration Benchmark and solicit input on best practice ways to improve integration Develop the action plan and execute <ul style="list-style-type: none"> Marshall resources as needed Track and report to key stakeholders 	<ul style="list-style-type: none"> Action plan developed for better integration Ownership of plan 	<ul style="list-style-type: none"> Integrated strategy amongst all DNS disciplines

MEASURING SUCCESS



The strategic planning process has yielded eight objectives. Action plans have been developed for each objective that outline the champions, activities, tasks, measures, and desired outcomes. While this structure is valuable, it potentially disguises the fact that the objectives are mutually reinforcing. The Department will only be able to make meaningful progress towards its vision by making progress on all objectives. To account for this inter-dependence, the Department has set targets that align to the three strategies, rather than to individual objectives.

The Department will need to develop and use several measurement tools to evaluate its progress along each strategy. The set of tools that may be used include:

- Surveys of students, faculty and staff
- Analysis of program statistics
- External review of news and publications
- Internal review of program financial statements
- Internal review of process documentation

The list of targets described below is intended to be preliminary and is based on the commitment of the Faculty of Medicine for 12 per cent growth for the Department over the next five years coupled with our advancement initiatives and enhanced strategic partnerships. Other indicators will need to be developed as the implementation process unfolds.

Strategy	Targets for 2015
Optimize our Research Enterprise	<ul style="list-style-type: none"> • Be in the top 10% - Canadian Institutes of Health Research (CIHR) nutrition-funded research or publications in Canada • Increase instances of quoted expertise by 50% • Establish five new or adapted course offerings
Secure the best people and partnerships	<ul style="list-style-type: none"> • Increase the size of faculty by 75% • Increase cross-appointed faculty by 75% • Increase undergraduate and graduate enrolment by 75% • Increase the number of applicants by 40% • Achieve 95% staff satisfaction • Achieve 95% student satisfaction
Cement our Foundations for Growth	<ul style="list-style-type: none"> • Expanded facility to approximately 60,000 square feet • Secured funding for new equipment and facility (value TBD) • Integrated communication and marketing strategy in place



Department of Nutritional Sciences members capture major awards at the 2010 Canadian Nutrition Society Annual meeting.

The Department of Nutritional Sciences: Quick Facts

One of only a few nutrition departments in North America to be located within a Faculty of Medicine.

- The Department can fully explore relationships between nutrition, human health and disease.
- Provides scale, scope and support associated with the largest medical faculty in the country.

Size of Department: 385 (2010/2011)

- 50 Faculty: 21 Primary Appointed (10 tenure, 1 tenure-stream); 10 Status-Only Appointed; 19 Cross Appointed
- 311 Students (Undergraduate Majors, Masters and PhD Students)
- 3 Post Doctoral Fellows
- 5 Research Associates
- 16 Staff

Distinguished faculty:

Over 20 highly prestigious national and international awards within the Primary Faculty.

Recent awards include:

- 2 Orders of Canada
- 2 Fellows of the Royal Society
- 3 Canadian Nutrition Society McHenry Awards
- 3 Fellowships of the American Society for Nutrition
- 3 Canada Research Chairs (CRC)
- 1 University Professor (highest academic award at UofT)

Outstanding students:

- 201 Undergraduate Students majoring in Nutritional Sciences (61 second year, 55 third year, 85 fourth year)
- 1,410 Undergraduate Students enrolled in Nutritional Sciences classes
- 100 Graduate students including: 20 MPH Students/8 MPH-Advanced Standing Students; 47 MSc Students and 35 PhD Students
- In 2008-09, 62% of our graduate students were awarded national or provincial level competitive awards, the second highest ranking among the Faculty of Medicine basic science departments



Critical partnerships with:

- Influential hospitals (St. Michael's Hospital, Hospital for Sick Children, University Health Network, Baycrest and Mount Sinai Hospital)
- Other universities/research institutes
- Health NGO's
- The Dalla Lana School of Public Health
- Municipal, provincial and federal governments
- Breadth of food industry players

External research funding²⁵:

- \$5,022,388 (2008/2009)
- Total number of research awards: 120
- Graduate student funding (awards and stipends): \$1,418,828 (2008/2009)

Total operating budget: \$2,239,799 (2009/2010)²⁶

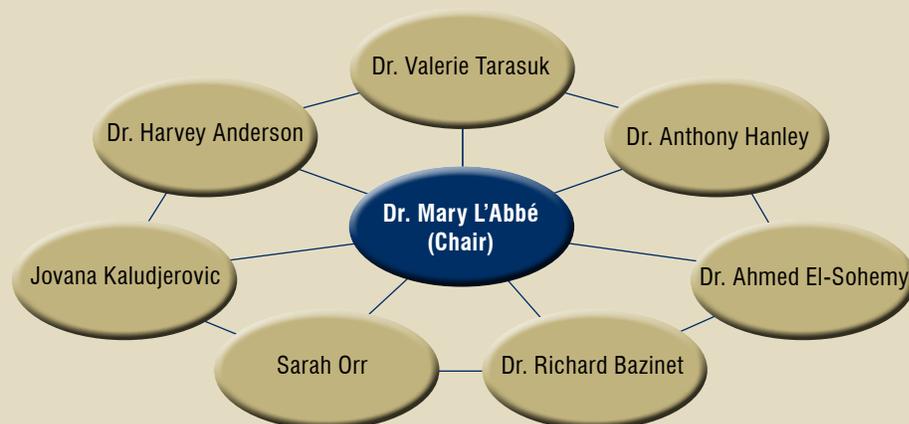
²⁵ Only includes those holding a primary appointment in Nutritional Sciences.

²⁶ On campus only.

Key Partnerships

Institution Type	Partner
Hospitals	<ul style="list-style-type: none"> • Baycrest Hospital • Hospital for Sick Children • Mount Sinai Hospital • North York General Hospital • Princess Margaret Hospital • St. Michael's Hospital • Sunnybrook Healthcare • University Health Network
University of Toronto Partnerships	<ul style="list-style-type: none"> • Dalla Lana School of Public Health • Department of Anthropology • Department of Medicine • Department of Paediatrics • Department of Pathology • Department of Pharmacology and Toxicology • Department of Psychiatry • Department of Physiology
Other Universities	<ul style="list-style-type: none"> • University of Alberta • Ryerson University • University of Guelph • York University • University of Calgary • Mount Saint Vincent University • University of Victoria • York University • Laval University • University of Milan, Italy
Government Institutions and Health Organizations	<ul style="list-style-type: none"> • Health Canada • Public Health Agency of Canada • Agriculture and Agri-Food Canada • Ontario Ministry of Agriculture, Food and Rural Affairs • Ontario Agency for Health Protection and Promotion • Centre for Addiction & Mental Health • Centre for Research in Women's Health • Clinical Nutrition & Risk Factor Modification Centre • Ontario Cancer Institute • Cancer Care Ontario • City of Toronto • Heart and Stroke Foundation • The Canadian Diabetes Association • The Canadian Foundation for Dietetic Research • The Canadian Cancer Society
Industry / Industry Associations	<ul style="list-style-type: none"> • 15 partners from the Program for Food Safety, Nutrition and Regulatory Affairs <ul style="list-style-type: none"> • Canada Bread Company Ltd. • Canadian Sugar Institute • Cargill Inc. • Casco Inc. • Coca Cola Ltd. • Dairy Farmers of Canada • General Mills Canada Corporation • H.J. Heinz Company of Canada Ltd. • Kellogg Canada Inc. • Kraft Canada Inc. • Mead Johnson Nutrition (Canada) Co. • Monsanto Canada Inc. • Nestle Canada Inc. • PepsiCo Canada • Unilever Canada • Beef Information Centre • Campbell Soup, USA • Dairy Farmers of Ontario • Dairy Farmers of Canada • Kraft Inc, Chicago and Canada • National Starch, USA • Pulse Canada • Saskatchewan Pulse Growers

Strategic Planning Committee Members



List of Faculty Appointments

Primary Appointments	Status-Only Appointments ²⁷	Cross Appointments
<p>Professor and Chair: L'Abbé, Mary</p> <p>Professors Emeritus: Beaton, George H. Bruce, W. Robert Kronld, Magdalena M. Rao, A. Venketshwer Thompson, Lilian U.</p> <p>Professors: Anderson, G. Harvey Archer, Michael C. Greenwood, Carol Jenkins, David J.A. Tarasuk, Valerie Wolever, Thomas M.S.</p> <p>Associate Professors: El-Soheymy, Ahmed Hanley, Anthony J.G. Ward, Wendy</p> <p>Assistant Professors: Bazinet, Richard Comelli, Elena</p> <p>Senior Lecturer: Fox, Ann L. (Director of MPH Program)</p> <p>Lecturer: Morris, Melanie (Associate Director of MPH Program)</p> <p>Sessional Lecturers: Gurfinkel, Debbie M. Parker, Sharon</p>	<p>Adjunct Professors: Karmali, Mohammed, Public Health Agency of Canada Magnuson, Bernadene, Cantox Canada Munro, Ian C., Cantox Canada Nemours & Company</p> <p>Professors: Ball, Ronald O., Dept. of Swine Nutrition, University of Alberta Mendelsohn, Rena A., School of Nutrition, Ryerson University O'Connor, Deborah, L., Hospital for Sick Children Vuksan, Vladimir, CNRFMC*, St. Michael's Hospital</p> <p>Assistant Professors: Darling, Pauline B., St. Michael's Hospital Keith, Mary, St. Michael's Hospital</p> <p>Lecturers: Boucher, Beatrice A., Cancer Care Ontario</p> <p>* Clinical Nutrition and Risk Factor Modification Centre † Public Health Research, Education & Development</p>	<p>Professors: Allard, Johane P., Dept. of Medicine & Toronto General Hospital Boyd, Norman F., Dept. of Medicine and Princess Margaret Hospital Josse, Robert G., Dept. of Medicine and St. Michael's Hospital Kim, Young-In J., Department of Medicine Kreiger, Nancy, Dept. of Public Health Sciences & Cancer Care Ontario Leiter, Lawrence A., Dept. of Medicine and St. Michael's Hospital Levitt, Anthony J., Dept. of Psychiatry and Sunnybrook Health Centre McCordle, Brian W., Dept. of Paediatrics and Hospital for Sick Children Narod, Steven, Centre for Research in Women's Health Sellen, Daniel W., Department of Anthropology Vieth, Reinhold, Dept. of Pathology and Laboratory Medicine and Mount Sinai Hospital Zlotkin, Stanley H., Dept. of Paediatrics and Hospital for Sick Children</p> <p>Professor Emeritus: Eysen, Gail E., Department of Public Health Sciences Jeejeebhoy, Khursheed N., Dept. of Medicine and St. Michael's Hospital Pencharz, Paul B., Dept. of Paediatrics and Hospital for Sick Children</p> <p>Associate Professor: Pausova, Zdenka, Dept. of Physiology and Hospital for Sick Children</p> <p>Assistant Professors: Berall, Glenn B., Dept. of Paediatrics & North York General Hospital Cohn, Tony A., Dept. of Psychiatry and Centre for Addiction & Mental Health Martin, Lisa, Ontario Cancer Institute</p>

²⁷ Status-only professors are researchers whose primary academic appointment is with the Department of Nutritional Sciences, but whose employer is external to the university.

Key Recent Awards and Accolades

Year	Recipient	Award
2002	Paul Pencharz	The Osborn-Mendel Award from the American Society of Nutritional Sciences The Nutrition Award from the American Academy of Pediatrics
	Ahmed El-Sohemy	Tier II Canada Research Chair in Nutrigenomics
2003	David Jenkins	Fellow of the Royal Society of Canada
	Robert Josse	Lindsay Fraser Founders Award from the Osteoporosis Society of Canada
	Paul Pencharz	Crampton Award from McGill University for Distinguished Service in Nutrition
2004	Paul Pencharz	Earle Willard McHenry Award from the Canadian Society for Nutritional Sciences for Distinguished Service in Nutrition
2005	George Beaton	Distinguished Nutrition Award from the Danone Institute
	Wendy Ward	Future Leaders Award from the International Life Sciences Institute
	Stanley Zlotkin	Earle Willard McHenry Award from the Canadian Society for Nutritional Sciences for Distinguished Service in Nutrition
2006	Anthony Hanley	Early Researcher Award from the Government of Ontario Tier II Canada Research Chair Epidemiology of Type 2 Diabetes
	Paul Pencharz	Honorary Life Membership by Dieticians of Canada
	Stanley Zlotkin	Member of the Order of Canada
	Lawrence Leiter	Gerald S. Wong Award from the Canadian Diabetes Association
2007	Pauline Darling	Education Scholarship Award from St. Michael's Hospital
	Paul Pencharz	Physician Research Award for Career Excellence from the Department of Paediatrics, U of T
	Harvey Anderson	Fellow of the American Society of Nutritional Sciences
	Robert Josse	Distinction in Clinical Endocrinology Award from the American College of Endocrinology Distinguished Service Award from the Canadian Society of Endocrinology and metabolism
2008	Richard Bazinet	Early Career Award from the International Society for the Study of Fatty Acids and Lipids
	David Jenkins	Fellow of the American Society of Nutritional Sciences
	Paul Pencharz	Fellow of the American Society of Nutritional Sciences
2009 - Present	Harvey Anderson	Faculty of Medicine Graduate Faculty Teaching Awards
	Richard Bazinet	Jordi Folch-Pi Memorial Award from the American Society for Neurochemistry International Life Sciences Institute Future Leaders Award
	David Jenkins	The Kursheed Jeejeebhoy Award from the Canadian Nutrition Society American College of Nutrition Mastership Award from the American College of Nutrition
	Mary L'Abbé	Earle Wilard McHenry Award from the Canadian Nutrition Society
	Lisa Martin	CIHR New Investigator Salary Award
	Vladimir Vuksan	Charles H. Best Award from the Canadian Diabetes Association
	Stanley Zoltkin	Distinguished Nutrition Leadership Award from the Danone Institute

Summary of Research Funding (2008/2009)

Sources of Funding²⁸:

Canadian Institutes of Health Research	\$1,575,490
Natural Sciences and Engineering Research Council	\$474,114
Industry	\$234,941
Other Sources	\$2,737,843
Total Research Funding:	\$5,022,388
Total Number of Awards:	120

Operating Budget (2009/2010)²⁹

Academic Salaries	\$1,358,388
Administrative Salaries	\$221,276
Sessional Lecturers	\$44,783
Teaching Stipend	\$26,750
Teaching Assistants Salary & Benefits	\$149,831
Staff Benefits	\$366,856
Supplies & Office Equipment	\$17,433
Other Expenses	\$54,482
Total	\$2,239,799

Bursary / Endowment Budget²⁹

Funds on Hand December 9, 2010

Total Endowments:	\$156,136
Total Trust Funds:	\$2,291,187
Total of Endowments and Trust Funds	\$2,447,323

²⁸ Only includes those holding a primary appointment in Nutritional Sciences.

²⁹ On campus only.

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Nutritional Sciences UNIVERSITY OF TORONTO

**Department of Nutritional Sciences
Faculty of Medicine, University of Toronto
FitzGerald Building, 150 College Street
Toronto, ON, Canada M5S 3E2
Tel: (416) 978-2747
Fax: (416) 978-5882
www.utoronto.ca/nutrisci**

