

Leadership in advancing new knowledge, better nutrition and health equity

Department of Nutritional Sciences,
Temerty Faculty of Medicine, University of Toronto





"We wish to acknowledge this land on which the University of Toronto operates. For thousands of years, it has been the traditional land of the Huron-Wendat, the Seneca, and most recently, the Mississaugas of the Credit River. Today, this meeting place is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work on this land." 1

¹ https://indigenous.utoronto.ca/about/land-acknowledgement/



Table of Contents

Quick Facts about the Department			
Ch	nair's Message	4	
Executive Summary Summary of Strategic Goals and Objectives			
Ba	ackground	9	
Stı	rategic Framework	10	
1. Research Strategic Aspiration Background and Current Situation Issues and Opportunities Objectives and Strategies			
2.	Education	13	
	2.1. Undergraduate Studies Strategic Aspiration Background and Current Situation Issues and Opportunities Objectives and Strategies	13 13 13 13 14	
	2.2. Graduate Studies Strategic Aspiration Background and Current Situation Issues and Opportunities Objectives and Strategies	15 15 15 15 16	
	2.3. Professional Studies Strategic Aspiration Background and Current Situation Issues and Opportunities Objectives and Strategies	17 17 17 18 18	
3.	3. Enabling Strategies Strategic Aspiration Background and Current Situation Issues and Opportunities Objectives and Strategies		
lm	plementing the Plan	21	
	Roles and Responsibilities Implementation and Monitoring Process	2 ²	
Αp	ppendix	22	
	Steering Committee Working Groups Interviews External Reviewers	22 22 23 23	



Quick Facts about the Department

Faculty

46

faculty members

Core faculty (14)

Full Professors	9
Associate Professors	3
Assistant Professors	2

Status onlyfaculty (32)

	faculty (32)
Full Professors	12
Associate Professors	6
Assistant Professors	11
Adjunct Lecturer	1
Adjunct Professor	2

Over 50%

of status only and cross appointed faculty are located at either The Hospital for Sick Children or St. Michael's Hospital.

Students

Undergraduate:

Close to 2,200

different classes registered for by students in 2019/2020 academic year

25%

international student registrants

217 students

(2nd, 3rd and 4th year) declared a Major in Nutritional Sciences

15

courses offered



Graduate:

71

with the following breakdown:

- o 34 MSc (1 part-time); 37 PhD
- 9 male and 62 female
- 57 Canadian citizens (89% from Ontario); 6 Permanent Residents; 7 International)

10

courses offered

- Department is a signatory to the Temerty Faculty of Medicine's Harmonized Base Funding Agreement
 - 2020-2021 domestic MSc student = \$30,485 annually
 - 2020-2021 domestic PhD student = \$32,970 annually
- Gross 2018-2019 mean annual income for a PhD student = \$38,185
- Median time to degree for a PhD student between 2014-2017 = 5.0 years



Research Themes

- 1. Healthy human development and aging
- 2. Precision nutrition using -omics approaches
- 3. Chronic disease prevention and treatment
- 4. Nutrition, food and public policy.



Track Record of Achievement

1. National/international faculty awards

- 3 Orders of Canada
- 2 Fellows of the Royal Society
- 5 Canada Research Chairs (CRC)

Canadian Nutrition Society Senior Achievement Awards

- Fellows (3)
- Earl W. McHenry Award for Distinguished Service (7)
- Khursheed Jeejeebhoy Award for Best Application of Clinical Nutrition Research (3)

Canadian Nutrition Society New Investigator Award (8)

American Society of Nutrition Senior Achievement Awards

- Fellows (3)
- Osborne and Mendal Award for Outstanding Basic Research (1)
- Robert H. Herman Memorial Award (1)

2. Critical local and national partnerships with:

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

3. Productivity and citation impact of publications:

- Core faculty: Median h-index 41 (range 12-102)*Scopus
- Cross appointed faculty: Median h-index 24 (range 8-130)
- 4. Extramural research funding, donations, graduate fellows in the last 5-years*:
 - \$35,854.000 *Managed through the Department.
 Does not include funds through partner institutions.

5. Other notable recent achievements include the establishment of:

- Food as Medicine Symposium and the Rundle-Lister Lectureship in Transformative Nutritional Medical Education
- Joannah & Brian Lawson Centre for Child Nutrition
- Nutrition Intervention Centre
- PROOF: Food Insecurity Policy Research and Household Food Insecurity in Canada National Reports
- World Health Organization (WHO) Collaborating Centre for Nutrition Policy for Chronic Disease Prevention



This plan reflects these insights: our commitment to discover new knowledge in nutrition and human health and to integrate this knowledge into our teaching; our dedication to the success of our students; and the commitment to share knowledge as widely as possible in pursuit of improving policy and practice locally, nationally and internationally.





Chair's Message



n behalf of the Department of Nutritional Sciences, I am pleased to present our Strategic Plan for 2021-2026. The work on this plan occurred almost exclusively during the height of the 2020-2021 COVID-19 pandemic. It goes without saying that working on a strategic plan during a global pandemic presents a host of logistical challenges. Over dozens of virtual meetings and drafts of this plan, we, as a Department, debated how to leverage our past successes to build something bigger and more impactful for our students, future faculty members, our community and global citizens. The pandemic was such a significant disruptor that it provided timely clarity of thought in terms of what our priorities are and should be, and to think beyond self-interest and the status quo. This plan reflects these insights: our commitment to discover new knowledge in nutrition and human health and to integrate this knowledge into our teaching; our dedication to the success of our students; and the commitment to share knowledge as widely as possible in pursuit of improving policy and practice locally, nationally and internationally.

The three Strategic Domains of Focus of the Temerty Faculty of Medicine's 2018-2023 Academic Strategic Plan —"Ecosystem of Collaboration", "Groundbreaking Imagination" and "Excellence through Equity" — played a central role in our deliberations and our plan is fully aligned with them. While already known as a collegial department, the unusual circumstances of 2020 enabled many first-time conversations about the mental health, well-being and resiliency of all departmental members. These too are reflected in our plan as is our commitment to expand the diversity of our faculty and students to include under-represented sectors of the community. My comments would be incomplete if I failed to acknowledge the opportunity presented by the pandemic to explore new and more efficient ways of working together and getting things done using technology.

I would like to thank personally all the contributors to this plan including members of the Strategic Planning Steering Committee, members of the four working groups, individuals who participated in one-on-one interviews and all faculty, external reviewers, staff and students who provided feedback to drafts of this plan. I am confident that implementation of this plan will provide focus as we emerge from this challenging time to work towards our vision of promoting "Equitable local and global nutritional health across the lifecycle".

Deborah L. O'Connor, PhD, RD

Earle W. McHenry Professor, and Chair, Department of Nutritional Sciences Temerty Faculty of Medicine, University of Toronto Scientist, Translational Medicine Program, The Hospital for Sick Children





Executive Summary

Over the next five years, the Department of Nutritional Science (the Department) is committed to improving nutritional health across the life cycle, striving for equity-locally and globally-through collaborative research, contributions to policy and practice, and teaching that cover the spectrum from omics to population health.



The Department is also committed to developing the leaders of tomorrow: researchers, educators, industry scientists, policy-makers, regulators and thought leaders.

Today, faculty members are regarded as leaders in their respective fields, generating knowledge in areas of current interest and concern as varied as the nutritional needs of the Indigenous community, newcomers, food insecure individuals and other marginalized groups within Canada and abroad, as well as the involvement of patients and caregivers in defining and developing policy, models of care, care protocols and research priorities. Significant infrastructural improvements as well as the hiring of as many as five new faculty members over the next five years, present an unprecedented opportunity to attract more world-class leaders while expanding diversity. Moving forward, this research-intensive Department and its renowned faculty, will be recognized for contributions to cutting edge research, policy and practice change that makes a difference in the lives of people around the world.

The Department is also committed to developing the leaders of tomorrow: researchers, educators, industry scientists, policy-makers, regulators and thought leaders. To this end, opportunities have been identified at the undergraduate level to extend beyond the current reach of the Department's education mandate. The relevance of course content is to be tested while also rethinking some of the current course structures and related processes to create students who are ready to make a contribution in the nutritional science space on graduation. At the graduate level, in addition to recruiting an excellent student body that includes currently under-represented groups, the focus is on strengthening the environment for student and faculty success.

The Department's commitment to professional education is reflected in the expressed intent to sustain and expand current advances in MD program teaching while recognizing that this will require developing a new compensation model as philanthropic funds currently supporting this initiative come to an end. Ongoing negotiations with the Dalla Lana School of Public Health are underway to determine how best to meet the growing demand being experienced by the Masters of Public Health (MPH Nutrition and Dietetics) program. The Department's commitment to national and international

nutrition policy development and clinical practice guidelines across the health professions is considerable and needs to be encouraged and better recognized in the Progress through the Ranks (PTR) system.

Enabling this success is the Department's commitment to supporting each and every member of faculty across the lifespan of their careers. Building from the existing collegial environment, more formal behavioural statements (Values) have been identified to guide the Department in moving beyond collegiality to creating the conditions for excellence both in research and in teaching: notably a thriving engaged human environment based on equity, diversity and inclusion. Formalized orientation and mentoring processes for junior faculty are planned. Adaptations to processes, practices and systems have been identified to support collaboration and sustainability. Strengthening the current cadre of departmental leadership talent will also enable sustainability as will the acknowledged need to seek additional revenue from non-traditional sources, including private sector partnerships.

The development of this plan occurred in the first year of the Chair's term. The onset of the COVID-19 pandemic provided an interesting opportunity both to conduct a different planning process as well as to promote different conversations. Four working groups were put in place to develop initial propositions with respect to research; undergraduate, graduate and professional education; and faculty development. Given the pandemic heightened the sense of inequality in many ways, important debates about equity, diversity and inclusion (EDI) took place both within these smaller groups and at the faculty level. This inclusive and evidence informed process led to the development of goal statements and measures, which are further defined through objectives and strategies. Initial priorities have been identified, moving the Department from planning to action. Linked to a clearly defined cycle of monitoring, reflection, course correction and ongoing prioritization, the Department is equipped to be flexible and adaptive as it faces a volatile and complex future set of opportunities.



Summary of Strategic Goals and Objectives





Research

Recognized for cutting edge research that is having an impact on people's lives

Objectives

- Expand current talent pool, enriching mix of faculty backgrounds and approaches
- **2.** Strengthen environment for faculty's ongoing success
- **3.** Broaden network of strategic collaborators and partners





Education

Undergraduate Studies - Excellence in delivering foundational nutritional science knowledge of relevance in a rapidly changing and complex world

Objectives

- **1.** Strengthen education offering
- 2. Extend reach



Graduate Studies: Recognized for creating nutrition leaders of tomorrow through continued excellence while expanding diversity and inclusion

Objectives

- 1. Expand diversity of graduate student mix
- 2. Enrich graduate and post graduate student experience

Professional Studies: Recognized and financially sustainable leadership in training health professionals in a range of settings: locally, nationally and globally

Objectives

- Introduce changes to faculty performance management processes to recognize commitment and contribution to professional education
- 2. Develop a sustainable approach to delivery of professional education courses with an initial focus on medical education





Enabling Strategies

Enhanced faculty success through strengthened support, collaboration and efficiency across the Department

Objectives

- 1. Foster academic leadership development
- Continue to upgrade infrastructure, equipment, policies, processes and technology for optimal support for collaboration and sustainability
- 3. Expand Department's profile nationally and internationally
- 4. Partner with Advancement



Background

The Chair, in the first year of her first term, initiated the development of a new strategic plan for the Department. A Steering Committee² (SC) was chartered in the winter of 2020 and an external consultant hired to provide guidance to the process. Given the lockdown required in response to the COVID-19 virus, the initial process was revised to accommodate the new realities while still remaining true to the guiding principles of including multiple stakeholder voices and being data informed.

Following a successful launch with the SC, all core faculty members agreed to join one of four Working Groups³ (WGs) to develop draft sets of goals and objectives. Invitations to join the WGs were also extended to the president of the alumni association and student leaders as well as several cross-appointed faculty. Informing the deliberations of these WGs was an environmental scan, a current situation assessment and a set of issues and opportunities developed with the SC, as well as input from a series of interviews with outside experts⁴. Initial ideas were presented formally by each WG at monthly faculty meetings, with a first draft of the plan being reviewed by the SC prior to being shared with the Dean and a number of external reviewers⁵.

Not only did the pandemic require the planning process to be adapted, the resulting uncertainties have had to be taken into consideration in developing the strategic directions. The impact of COVID-19 on research requiring in-person subject visits has been profound, affecting both local and international projects. The priorities of the Temerty Faculty of Medicine, as articulated in its 2018-2023 plan, played an important guiding role together with the opportunity presented to revitalize the Department through new faculty hires. While always important, the issue of equity, diversity and inclusion (EDI) increased in prominence over this time period and featured significantly in WG deliberations.

Internally, the Department has seen considerable change since the development of the 2011-2015 strategic plan. Noteworthy is the shift from a deficit to a balanced budget, the hiring of strong junior and mid-level career faculty, the move to refurbished dry and wet laboratory space in the Medical Sciences Building (MSB) and the opening of the new Nutritional

Intervention Centre in the David Naylor Building. In addition, during this past decade, the funding environment became more competitive and university budgets tightened. More effort has been needed – and will continue to be needed - in finding funding from different sources including individual donors, foundations and corporations.

Against this backdrop, the stated purpose of this plan is to serve as a leadership document, defining future direction and inspiring a collective view of the future. More specifically, it will guide recruitment and inform decisions related to the type of support provided to faculty as well as education programming and curriculum development.





- 2 Steering Committee members listed in Appendix
- 3 Working Group members listed in Appendix
- 4 Interviewees listed in Appendix
- 5 External Reviewers listed in Appendix



Strategic Framework

The overall strategic direction is defined by statements of vision - outlining the difference we want to make in the world, mission - defining the work we do, values - to guide our behaviour, and goal statements that define more specifically what we want to achieve over the next five years.

Vision:

Equitable local and global nutritional health across the lifecycle.

Mission:

We improve nutritional health, drawing in diverse voices and working collaboratively with others nationally internationally, and through combination of collaborative research that covers the spectrum from -omics to population health, contributions to policy and practice change, and teaching. We develop the leaders of tomorrow, outstanding scholars and champions of equity and diversity.

In pursuit of the Mission and Vision, every day we will be guided by the following **Values**:

- Courage: we are driven and curious to explore the new and unknown on an ongoing basis.
- Inclusivity: we engage diverse voices in our work and workplace.
- Collaboration: we share ideas and resources, and seek out multiple perspectives in order to advance knowledge.
- Reflection: we take time for the thoughtful deliberation that enables purposeful and innovative insight and foresight.
- Excellence: we seek to be the best both at what we do and how we do it.

Our intent is to achieve the following *Goals* over the next five years:

 Research: Recognized for cutting edge research that is having an impact on people's lives

2. Education:

- 2.1. Undergraduate Studies: Excellence in delivering foundational nutritional science knowledge of relevance in a rapidly changing and complex world
- 2.2. *Graduate Studies*: Recognized for creating nutrition leaders of tomorrow though continued excellence while expanding diversity and inclusion
- 2.3. *Professional Studies*: Recognized and financially sustainable leadership in training health professionals in a range of settings: locally, nationally and globally
- 3. **Enabling Strategies:** Enhanced faculty success through strengthened support, collaboration and efficiency across the Department.



> Research

1

Strategic Aspiration

Recognized for cutting edge research that is having an impact on people's lives

We will measure our success by:

- Changes based on faculty research introduced to the food system, clinical practice, public health practice or policy
- Successful recruitment of world class faculty drawn from currently underrepresented community groups known for their expertise in such areas as:
 - Experimental nutrition involving human subjects (e.g. feeding interventions)
 - Big data analytics and/or Artificial Intelligence
 - Sustainability (linkage to nutritional policy); and
 - Special populations (e.g., women, Indigenous, elderly, identity or gender based)
- Research funding success
- Increased number of publications in peer reviewed journals that:
 - are incorporated into clinical/public health guidelines
 - o are highly cited by other scientists.

Background and Current Situation

The purpose of conducting research is to advance the body of nutritional science knowledge extending from the basic sciences to the food system, and to improve quality of life by contributing to changes in public policy and/or health and public health practices. Research activities contribute to the education mandate of the Department by supporting the development of research leaders, clinician scientists, industry scientists, food and nutrition regulators, etc.

Currently, research activity is defined within four research themes that create a 'big tent', an inclusive space, in which all current researchers see a place for their work. Faculty members continue to be regarded as leaders in their respective fields, known for doing ground-breaking work. Their research includes knowledge generation in areas of current interest and concern such as the nutritional needs of the Indigenous community and other marginalized groups within Canada and abroad, as well as the involvement of patients and caregivers in defining and developing policy, models of care, care protocols and research priorities. Senior faculty members have national and international relationships and roles that provide platforms for the dissemination of important information to support the practice of other professionals and to influence the development of policy affecting the food and health systems.

A number of infrastructure improvements have been introduced including the move to the MSB, retrofitting of wet and dry labs, new dry laboratory space, and the development of the Nutrition Intervention Centre. New equipment has been purchased through a combination of Canada Foundation for Innovation (CFI) grants and funding for new faculty members.

Issues and Opportunities

Funding is in place to recruit three new faculty members, with upcoming retirements expected to create the opportunity for another two recruitments for a possible total of five new faculty members by 2026. The final number is dependent on funding being found for the two retirement positions. It is expected that these faculty members will be world class, the 'best' possible recruits, selected while also bearing in mind opportunities to diversify the racial/ethnic mix of faculty. Current priority areas for recruitment include but are not limited to: experimental nutrition involving human subjects (e.g. feeding interventions), big data analytics and/or artificial intelligence, sustainability (linkage to nutritional policy), and special populations (e.g., women, Indigenous, elderly, identity or gender based).

Additional efforts will be needed to source research funding from non-traditional sources which may include finding new ways to engage with industry. National granting competitions continue to be highly competitive. Early, and possibly mid-career, scientists require support to attain research



funding. Expanded collaborations and partnerships may be needed in support of different grant applications (including team grants) which might include bringing basic science into a clinical trial design, and/or looking for more international opportunities. Making collaboration more difficult are communication and reporting challenges: faculty members indicate that they are not always aware of the research studies underway within the Department or of relevant studies across the Temerty Faculty of Medicine and other parts of the University.

The various avenues of influence senior colleagues are pursuing in terms of disseminating their research findings are not always as visible or recognized as they could be. Mechanisms to support and mentor junior faculty members in building these critical national and international relationships would be helpful.

Objectives and Strategies

In response to these issues and challenges, moving forward the following streams of activity have been identified:

Expand current talent pool, enriching mix of faculty backgrounds and approaches

- 1.1. Seek world-class scientists, world leaders, taking into consideration EDI as well as expertise in such areas as:
 - Experimental nutrition involving human subjects (e.g. feeding interventions)
 - b. Big data analytics and/or artificial intelligence
 - c. Sustainability (linkage to nutritional policy); and
 - Special populations (e.g., women, Indigenous, elderly, identity or gender based)
- 1.2. Consider joint-hires including across the Temerty Faculty of Medicine, the University and Research Institutes
- 1.3. Continue to welcome cross-appointed faculty who are prepared to contribute to strategic priorities in a meaningful way. They could be drawn from across the Temerty Faculty of Medicine, the University, or nutritional science departments in Ontario, including from departments with stronger representation of marginalized communities and/or are tackling issues related to systemic inequity

2. Strengthen environment for faculty's ongoing success

2.1. Provide support to early career faculty by putting in place a structured orientation process and providing mentorship focused on collaboration, access to

- research funding opportunities and dissemination/ impact
- 2.2. Expand funding through traditional and non-traditional channels
 - Establish peer review of grant applications within the department
 - i. Encourage participation in the Temerty Faculty of Medicine's "Pathway Grants Program", an opportunity for peer review prior to submission. This provides access to bridge funding for faculty unsuccessful in the formal grant submission but who were highly ranked in the competition
 - ii. Offer bridge funding through the Department for faculty who participate in the Temerty Faculty of Medicine Pathway Grants Program, rank highly in the competition but miss out on bridge funding offered through the Faculty
 - Establish a mechanism for matching funding perhaps through University Advancement
 - c. Investigate public private partnership sources

3. Broaden network of strategic collaborators and partners

- 3.1. Establish collaboration as a departmental expectation and provide guidelines
- 3.2. Forge, on a proactive basis, international and national relationships, selected with input from faculty
- 3.3. Identify incentives that would motivate collaboration e.g. Team Grants, guidance as to how to structure international partnerships, opportunities to use Nutrition Intervention Centre space (e.g. for WHO Collaborating Centre, other Departments, clinical trials, an international centre).

Initial Priorities

- Continue faculty renewal by moving forward with new faculty searches. Expand diversity by hiring from currently under-represented groups, working closely with the University and Temerty Faculty of Medicine
- Capitalize on new streams of funding and make them accessible through transparent and equitable processes
- Strengthen infrastructure and enablers of strategic collaboration.



> Education

2

2.1. Undergraduate Studies

Strategic Aspiration

Excellence in delivering foundational nutritional science knowledge of relevance in a rapidly changing and complex world.

We will measure our success by:

- Increased enrollment in Undergraduate nutrition courses
- Expanded number of students in major and minor streams
- Higher acceptance rates of major and minor graduates into graduate research and professional programs
- # of teaching awards received by faculty

Background and Current Situation

As a basic science department within the Temerty Faculty of Medicine, the Department makes a significant contribution by teaching undergraduate nutritional science education to students registered predominantly through the Faculty of Arts and Science. In addition to being an important source of revenue for the Department, these 15 courses, currently taught by a combination of teaching and tenure stream faculty as well as sessional lecturers, meet a number of needs including:

- Providing the core courses and research skills needed for students considering a career in nutritional science and recognizing the need to attain, at minimum, a master's degree qualification
- Preparing students to be competitive for graduate school admission or for a career in another health and/or life science/professional program (e.g., dentistry, medicine) by enabling students both to complete the undergraduate degree requirements while also providing them with valuable course content
- 3. Fulfilling the personal interest of students in learning more about nutrition; and
- Creating knowledge translation/dissemination opportunities for faculty to share research findings.

Issues and Opportunities

Overall, the courses offered are well regarded with high levels both of enrolment and interest evident across all three campuses. Given the courses are taught currently only at the St Georges campus, this presents an opportunity to extend the Department's nutritional science expertise to the Scarborough and Mississauga campuses.

The general sentiment among faculty is that it is time to revisit and enhance the relevance and currency of some of the course offerings as well as the student experience, both hybrid and on-line. The move to creating courses on-line will provide more students/learners — whether located locally, nationally or internationally — with access to world-class nutritional science courses. Having a library of online courses is also a potential revenue opportunity.



One ongoing - and far from unique - challenge for the Department is communicating clearly to early year Arts and Science students about their academic options, including the difference between nutritional science and the more applied coursework (not available through the Department) required to be eligible to pursue a career as a registered dietitian (RD).

Across the University, a priority is placed on job readiness. Given that students are enrolled through the Faculty of Arts and Sciences and take a variety of other courses, the responsibility for creating job-ready students does not rest entirely with the Department. However, there are improvements that could be made to enhance the ability of graduates to find interesting work in the nutritional science field as well as to address the gap in graduates being ready to take the next step towards RD licensure.

In a research-oriented Department, the expectations of faculty teaching load are a limitation on expanding student enrolment. However, new faculty as well as post-doctoral fellows and research associates do provide additional teaching resources.

Objectives and Strategies

In response to these issues and challenges and bearing in mind the significant growth in student learner numbers over the past few years, moving forward the opportunity is twofold:

1. Strengthen education offering

- 1.1. Introduce a Minor program option that adheres to current standards in order to increase the exposure of more students to nutritional science
- 1.2. Evaluate current Year 3 and 4 courses offerings and update and revise as appropriate
- 1.3. Revise individual courses to strengthen critical evaluation and problem-solving skills, take into consideration diversity of food patterns and embed considerations of the social determinants of health impacting nutrition
- 1.4. Improve career readiness by, for example:
 - Expanding student awareness of course options, including major and possible new minor

- Extending exposure to relevant career opportunities
- c. Identifying options to facilitate students interested in pursuing a career as a RD in obtaining the credits necessary to apply for the MPH Program (Nutrition and Dietetics) housed in the Dalla Lana School of Public Health or some equivalent program elsewhere
- Increasing hands-on research opportunities in addition to the summer research experience currently available
- Strengthening the requirements for the major program option to ensure fundamentals are covered.

2. Extend reach

- 2.1. Drive full enrolment in all courses each semester through marketing and awareness outreach to all undergraduate students and explore mechanisms to foster closer linkages of students to the Department
- 2.2. Expand teaching footprint to include Scarborough and Mississauga campuses and possibly other departments within the Temerty Faculty of Medicine
- 2.3. Strengthen online offerings and explore national and international revenue possibilities.

Initial Priorities:

- Review current course offerings to increase relevance and currency
- 2. Consider offering a Minor in Nutritional Sciences
- **3.** Explore opportunities to expand the reach of course offerings to sister campuses and beyond
- **4.** Assemble a list of eligible courses to support undergraduate students' admission to the MPH Program (Nutrition and Dietetics) or another practical training program as the next step towards attaining RD licensure.



2.2. Graduate Studies

Strategic Aspiration

Recognized for creating nutrition leaders of tomorrow though continued excellence while expanding diversity and inclusion

We will measure our success by:

- Excellence of application pool based on:
 - Undergraduate performance
 - Competitive external scholarships earned
 - # of first authored peer reviewed publications, conference presentations, awards, etc achieved
 - o Relevant work/research experience
- The student body reflecting historically under-represented groups including Indigenous persons

Background and Current Situation

The purpose of the Department's Graduate Education program is to train graduate students in the field of nutritional science to be academic and practice leaders, able to make a difference in health outcomes. The program also aims to provide a positive, growth, engaging, nurturing yet challenging experience for graduate learners.

In a research-intensive department, heavy emphasis is placed on an independent thesis research project with minimal course requirements and tight timelines. The breadth and depth of faculty skills enable a wide range of education/learning needs to be met. While course offerings are limited, the courses available are valued. In addition, students have multiple options for courses from other departments.

The small size of the Department enables student/faculty interaction and the leadership of faculty in their respective fields, facilitates graduate student involvement in key conferences, workshops, think tanks, etc. At the post-doctoral fellow level, the excellence of faculty is a compelling draw. The overall high quality of the students and the impact of alumni is testament to the success of the model.

Issues and Opportunities

Nationally and internationally, the graduate program is extremely well regarded. The main opportunity identified, in alignment with the priorities of the Temerty Faculty of Medicine, is to facilitate the inclusion of underrepresented groups into the graduate student population. Expanding the engagement of under-represented groups will require attention to be paid to the recruitment of black and Indigenous faculty members and students. A part-time master's program has already been implemented to attract students with mid-career experience who are not in a position to attend graduate school on a full-time basis. The new University of Toronto policy allowing international PhD students to pay domestic tuition fees opens opportunities for recruiting the best and the brightest globally. However, a continued drop in CIHR research funding success rates may put at risk the ability of individual faculty to offer graduate stipends.

The graduate experience overall is monitored on an ongoing basis with particular attention being paid every three years when department-level data are available from the Graduate Student Experience survey and can be analysed comparatively against Temerty Faculty of Medicine and the whole University. The latest survey results indicate that Temerty Faculty of Medicine initiatives should be accessed to help address identified needs such as improving the job readiness of graduates not following an academic career and supporting students' mental health.





Finally, broadening the experience and exposure of post-doctoral fellows and research associates within the Department could benefit all parties. Currently, while some post-docs and research associates are highly engaged in the Department outside their own research team, others are less so. Expanding their visibility overall has the potential to strengthen the learning opportunities across the group while contributing to the dissemination of knowledge across research teams. Further, by their taking on valued learning and resume enhancing activities such as teaching and grant writing, time and space can be freed up for faculty members to take on other projects.

Objectives and Strategies

In response to these issues and challenges, moving forward the opportunity is twofold:

1. Expand diversity of graduate student mix

- 1.1. Conduct targeted outreach to historically underrepresented groups in the graduate program
 - a. Identify and nurture talented prospects
 - Develop proactive strategies to recruit strong doctoral candidates, leveraging changes to tuition fees for international students pursuing a PhD

- 1.2. Collaborate with other initiatives underway across the Temerty Faculty of Medicine and/or the University to foster diversity
- 1.3. Support the hiring of under-represented minorities including black and Indigenous faculty members

2. Enrich graduate and post graduate student experience

- 2.1. Facilitate access of students to U of T and Temerty Faculty of Medicine career development and mental health resources, customizing and enhancing as needed
- 2.2. Hold regular Town Hall student meetings to identify issues and consult with students on relevant matters (e.g. changes to the curriculum)
- 2.3. Encourage participation in current Departmental seminars and support the hosting of formal and informal learning opportunities (e.g., monthly journal clubs, mini symposia) for post graduate fellows and research associates.

Initial Priorities

- Develop recruitment plan to attract the best and brightest doctoral students globally
- **2.** Engage proactively in University and Temerty Faculty of Medicine best practices initiatives surrounding student mental health, equity, diversity and inclusion.



2.3. Professional Studies

Strategic Aspiration

Recognized and financially sustainable leadership in training of health professionals in a range of settings: locally, nationally and globally

We will measure our success by:

- Increased enrolment in sustainably funded graduate nutritional science courses and nutritional science continuing education opportunities by medical students, MPH (Nutrition and Dietetic) students, practicing physicians, dietitians and other healthcare professionals
- Leadership in the development of international/national nutrition policies or practice-based guidelines

Background and Current Situation

The Department has important additional educational responsibilities including a service obligation to the MD Program as a part of the Temerity Faculty of Medicine and a long-standing commitment to providing nutritional science expertise and course delivery for students within the MPH Program (Nutrition and Dietetics), currently run by the Dalla Lana School of Public Health.

The reason that the work of the Department is so relevant to the MD and MPH programs is the leadership provided by faculty nationally and internationally in the development of evidence to inform clinical and public health practice with respect to nutrition, the development of practice guidelines, public health standards, regulatory affairs, etc. The Department is at the forefront of developing evidence-based policy and practice on a wide variety of topics that link nutritional science to health.

For many physicians, their exposure to nutrition during training is extremely limited. As the importance of diet and nutrition to health generally, including prevention and recovery, has become more widely known and appreciated, the significance of these knowledge gaps has been accentuated. The Department addresses these gaps in a number of different ways: supporting the translation of research into practice guidelines; providing nutrition focussed continuing professional development (CPD) offerings for practicing physicians; contributing to postgraduate medical education through the supervision of Residents and Fellows in clinical settings at affiliated teaching hospitals; and leading and delivering undergraduate medical education through the Lifestyle Medicine Week course (a week-long hands-on course with a significant nutrition component), the nutrition theme, and transition-to-clerkship course (nutritional science module), contributing to Transition-to-Residency 'selectives' as well as supervision of clinical clerks in the MD Program.

Funding from the Joannah and Brian Lawson Centre for Child Nutrition (the Lawson Centre) enabled the redesign of the nutritional sciences curriculum as part of the shift to a competency-based medical education. However, this funding is not intended for long term sustainability given the Lawson Centre's role as an innovator and incubator. The implications of this in terms of the demand placed on the Department's operating budget are now being realized. Moving forward, issues of long-term sustainability will need to be addressed at the planning stage of new projects.

With the creation of the stand-alone Dalla Lana School of Public Health in 2013 (previously part of the Temerty Faculty of Medicine), the MPH Program (Nutrition and Dietetics), along with related tuition revenues, moved to the new School. Despite this, the Department remained responsible for offering the nutrition courses required of the MPH (Nutrition and Dietetics) students. The relationship with the Dalla Lana School of Public Health Policy was laid



out subsequently in a memorandum of understanding (MOU) signed in 2017.

Student feedback and high levels of enrolment would indicate that all the course offerings are well received.

Issues and Opportunities

The importance of the Department's contribution to both medical, allied health and public health professional education is well established. However, many activities currently conducted by faculty, such as providing practitioners with tools, frameworks and insights to support them develop solutions to policy and practice problems, are not captured within the formal functions of research, teaching and administration and so often are not reflected adequately in the Department's current workload policy and Progress through the Ranks (PTR) system. Further, part of the challenges associated with provision of this support by faculty is that it is, for the most part, not remunerated and frequently, not well recognized. Given this reality, the Department currently does not support additional healthcare professional learners within the Temerty Faculty of Medicine even though the demand exists.

In the case of medical education, given the practice of the Temerty Faculty of Medicine not to remunerate departments for teaching in the medical program or for time spent on CME activities, one of the key issues moving forward relates to resourcing, especially in the light of expanding demand. The delivery of the Lifestyle Medicine Week course, though well received, is not affordable as designed.

The MOU with the Dalla Lana School of Public Health was effective in addressing specific issues at the time but now needs to be re-visited to reflect current realities including a significant increase in enrolment into the highly subscribed MPH Program (Nutrition and Dietetics). Given that the Dalla Lana School of Public Health has a very limited faculty complement in nutrition, this growing demand places expanded teaching demands on the Department.

Given the above, consideration should be given to seeking an alternative funding model for these growing professional education demands as well as changes to the faculty's recognition and reward process.

Objectives and Strategies

In response to these issues and challenges, moving forward three different streams of action have been identified:

- Foster faculty's contribution to the development of international/national nutrition policies and/or practicebased guidelines
- 2. Introduce changes to recognize commitment and contribution to professional education
 - 2.1. Work with Human Resources to ensure all U of T policies and procedures with regard to PTR are followed, and revise the unit workload policy to recognize the time commitment for significant professional education activities
 - 2.2. Introduce specifics with respect to significant professional activities into the annual workload letters
- Develop a sustainable approach to delivery of professional education courses with an initial focus on medical education.

Initial Priorities

- Amend the unit workload policy and annual workload letters to acknowledge faculty contribution to professional education
- Identify and pursue potential sources of medical education funding.



Enabling Strategies

Strategic Aspiration

Enhanced faculty success through strengthened support, collaboration and efficiency across the Department

We will measure our success by:

- Expanded engagement in leadership roles
- # of early career faculty included in large senior faculty-led projects in their first two years
- of faculty receiving acknowledgement (e.g., achievement awards)
- Level of faculty, alumni and student satisfaction with infrastructure and collaboration support
- Deepening alumni engagement
- Philanthropic funds to advance strategic priorities

Background and Current Situation

Faculty member satisfaction, resilience and success will be enabled by creating a supportive environment through strong recruiting, onboarding and recognition processes, by encouraging personal reflection, and by providing the necessary administrative and academic infrastructure and processes. The collegiality of the Department has been identified as a strength, including in the most recent External Review. However, historically, faculty development and support has been approached on a somewhat ad hoc basis. Given the current highly competitive environment, the more recent complexity and uncertainty introduced by the pandemic as well as the opportunity provided to recruit an unprecedented number of new faculty over the next five years, there is value in adopting a more strategic approach.

The foundation to enable a more strategic approach has been laid. Over the past couple of years, the job descriptions of the administrative team have been revised and approved. A strong and engaged team is in place that works well together and with the Education Studies Coordinators. In addition, the Dean has offered additional support in the form of commitment to fund a new Research Officer position, a role that will provide support in a number of areas including: assistance with large team operating and CFI grants (including budgeting and ordering equipment), organizing internal peer review of grants, oversight of the Nutrition Intervention Centre, identifying achievement award opportunities, etc.

Issues and Opportunities

With the challenges being faced within the academic and health sectors, with the spread of disinformation and more generally, the expanding volume of information, centralized or top-down leadership is no longer viable. In addition, the aspirations of faculty as well as the complexity of the mission, require leadership within the Department in multiple areas and at multiple levels. There are opportunities within the Department for faculty members interested in growing their leadership skills to take on roles, receive mentorship support, and contribute to the growth and success of the Department, while preparing themselves for bigger and more visible positions. Adoption of these opportunities could be facilitated by their inclusion in annual workload letters.

Building from a strong base, there is opportunity to provide additional support to faculty, both in terms of infrastructure as well as in strengthening the collaborative culture in alignment with the Temerty Faculty of Medicine's drive for higher levels of equity, diversity, collaboration and sustainability as well as individual health and wellbeing. This includes accessing existing programs and initiatives from Artificial Intelligence through to expertise in



helpful in this regard as will supporting staff to grow their skills, including by attending courses offered by the Temerty Faculty of Medicine.

In a constrained funding environment, it will be helpful to expand awareness of the achievements of the Department. Gaps have been identified in the Department's ability to tell stories of its successes given the tracking and measuring systems are not well identified. Sharing success stories occurs in somewhat of a haphazard way and there is limited consistency in putting faculty and staff forward for competitive awards in recognition of their accomplishments. Success stories such as the trisector convening role played by The Natural Sciences and Engineering Research Council of Canada (NSERC) University-Industry Program in Food Safety, Nutrition and Regulatory Affairs (PFSNRA) that has led to health and public health policy changes, should be celebrated on a regular basis. In summary, a more intentional approach to measuring and recognizing success is needed.

Objectives and Strategies

Given the identified issues and opportunities and recognizing the ongoing commitment to providing effective and efficient administrative support, moving forward four different streams of action have been identified:

1. Foster academic leadership development

- 1.1. Consider redefining and expanding the number of leadership roles within the Department to enable faculty members to become more engaged in decision-making while continuing to make strong academic contributions. This includes revisiting the committee structure
- 1.2. Encourage early career faculty to observe the functioning of an awards or granting committee to become more familiar with committee expectations and the quality of the different parts of a submission
- 1.3. Build expectations of administrative leadership and mentorship into the unit's workload policy and annual workload letters
- Continue to upgrade infrastructure, equipment, policies, processes and technology for optimal support for collaboration and sustainability
 - 2.1. Continue to identify state-of-the-art equipment needs and acquisition approaches to enhance research output

- 2.2. Complete infrastructure build out of the Nutrition Intervention Centre
- 2.3. Align the development of big data analytics capability with the initiatives of the Temerty Faculty of Medicine
- 2.4. Provide additional administration support for collaborative endeavours including Team Grants
- 2.5. Introduce a faculty mentorship program using a variety of approaches across the career lifespan
- 2.6. Strengthen internal grant peer review process

3. Expand Department's profile nationally and internationally

- 3.1. Develop a communications and public relations strategy that optimizes the presence of the Department in all Temerty Faculty of Medicine and University publicity vehicles. Identify spokespersons to be available to the media on topics of interest
- 3.2. Systematize a process that identifies recognition opportunities for faculty and publicizes success widely

4. Partner with Advancement

- 4.1. Identify fundraising priorities that can be supported
- 4.2. Identify potential donors to help advance the strategic priorities
- 4.3. Deepen engagement with alumni, as ambassadors of the Department, mentors of current students, and as prospective donors.

Initial Priorities

- Redesign the current faculty administrative structure in the Department including formalizing the positions of Associate Chair of Research, Undergraduate Studies and Graduate Studies
- Design and implement a mentorship program for new faculty hires
- **3.** Strengthen the internal grant peer review process



Implementing the Plan

This brief section outlines how the plan will be moved into action, progress assessed and priorities reviewed on a regular basis.

Roles and Responsibilities

The Chair and identified leaders play a central role in implementing the plan. However, the directions identified should inform decision-making across the Department.

- Chair leads implementation of the plan; informally and formally provides support and monitors progress on a regular basis; performs (or arranges to have performed) any required modeling of financial implications of proposed changes and tracks funding against priorities; determines deployment of resources. Reports back to faculty on a regular basis with respect to progress against plan
- Accountable Leads accountable for achieving the targets and deliverables. Develop a more detailed implementation work plan each year based on the priorities, outlining key deliverables/outputs, timelines and any resource requests. Recruits support e.g. committee members, working closely with the Chair. Reports progress against plan to Chair and faculty on a regular basis
- Faculty and Staff utilize concepts and directions set out in this plan to guide decision making and prioritize work. Participate in committee work, as requested, to support the implementation of the plan.

Implementation and Monitoring Process

On a regular basis, a small number of priorities will be identified. Initial priorities have been established as part of the development of the strategy. At the annual faculty retreat, these will be reviewed and input provided as to whether changes are needed. Implementation work plans will be developed by the Accountable Leads with support from the faculty committee in each of the functional areas. These committees will meet regularly to move the implementation forward and to monitor progress. Periodically, updates will be provided to faculty and other stakeholders. Prior to the mid-way point, a review of progress against plan will be undertaken, possibly with external support, and appropriate adjustments made.

Moving forward, the unknown and unknowable factor that must continue to be taken into consideration is the unpredictability of the current external environment. Should significant changes be required in the way the Department is functioning currently, adjustments will be needed to implementation plans and timelines.





Appendix

Steering Committee

	Name	Formal title	POV bringing to the planning process
1.	Deborah O'Connor	Professor and Chair	Chair of DNS
2.	Ahmed El-Sohemy	Professor*	Undergraduate Co-ordinator
3.	Valerie Tarasuk	Professor*	Graduate Co-ordinator/Population Health
4.	Richard Bazinet	Professor*	Basic Researcher
5.	John Sievenpiper	Associate Professor	Clinical/Medical Education
6.	Mary L'Abbe	Professor	Past DNS Chair/Policy
7.	Jonathon Maguire	Associate Professor	Lawson Chair in Patient Engagement
8.	Philip M Sherman	Professor	Former Chair, CIHR Institute of Nutrition, Metabolism and Diabetes
9.	Vasanti Malik	Assistant Professor	New Faculty Member
10	. Laura Pasut	President, DNS Alumni Association	Alumni
11.	Laura Vergeer	President, NSGSA	DNS Graduate Student
12	. Frid Mughal	President, NSSA	Undergraduate Student
13. Slavica Jovanovic		Business Manager, DNS	Administration

^{*}Note: At the time of printing, these Steering Committee members have been appointed to the role of Associate Chair to facilitate implementation of this plan.

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Administrative Support: Aneta Plaga, Executive and Research Coordinator

Working Groups

1. Research

- 1. Richard Bazinet (lead)
- 2. Jonathon Maguire
- 3. Vasanti Malik
- 4. Zdenka Pausova
- 5. Daniel Roth
- 6. Philip M Sherman
- 7. Deborah O'Connor (ex officio)

2. Undergraduate Education

- 1. Ahmed El-Sohemy, Lead
- 2. Harvey Anderson
- 3. Elena Comelli
- 4. Bibiana Garcia-Bailo
- 5. Debbie Gurfinkel
- 6. Frid Mughal
- 7. Laura Pasut
- 8. Deborah O'Connor (ex officio)

3. Graduate and Professional Education

- 1. Valerie Tarasuk, Lead
- 2. Pierrette Buklis
- 3. Glenda Courtney-Martin
- 4. Anthony Hanley
- 5. Daniel Sellen
- 6. John Sievenpiper
- 7. Laura Vergeer
- 8. Deborah O'Connor (ex officio)

4. Faculty Development

- 1. Mary L'Abbe, Lead
- 2. Jacqueline Beaudry
- 3. Catherine Birken
- 4. David Jenkins
- 5. Slavica Jovanovic
- 6. Deborah O'Connor (ex officio)



Interviews

- 1. For current situation and future opportunity perspective: individual interviews with each Steering Committee member
- 2. For the international perspective: Drs. Zulfiqar Bhutta and Stanley Zlotkin of the Global Centre for Child Research, SickKids
- 3. For the Post-doctoral research fellow and Research Associate perspective: Drs. Amel Taibi and Hrvoje Fabek.

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