



Laboratory Medicine & Pathobiology
UNIVERSITY OF TORONTO

THE LMP STRATEGIC PLAN 2023–2028

Enabling people to be their best

imp.utoronto.ca/strategy



WE INVESTIGATE DISEASE. WE IMPACT HEALTH. WE LEAD THE WAY. WE ARE LMP.

The Department of Laboratory Medicine and Pathobiology is diverse. Our community is engaged in investigating disease mechanisms and patterns, and translating new knowledge and discoveries into improved health outcomes for patients and populations.

Through basic, clinical, and translational discovery, teaching and clinical training, we educate and mentor the next generation of life science and laboratory medicine critical thinkers.

We are at a unique interface where we can take clinical questions and investigate them at the bench. Our discoveries can be translated into diagnostics and treatments for patients or to advance and challenge current knowledge. This cycle of discovery and translation means that our extraordinary people have a direct and lasting impact on health across multiple fields.

Through innovations in research and education, we are already leading the way in laboratory medicine. We see a future where LMP's inclusive and vibrant community leads in collaborative research and agile education. Where we bring Artificial Intelligence into the teaching and practice of healthcare. Where we demonstrate the importance of our field, not only in day-to-day healthcare, but in the frontlines of the next pandemic or health crisis.

We cannot predict the future – what we can do is to grow our department in a way that brings out the best in every single one of us, and to do that in an equitable and inclusive way. That is the driving force of this plan.



This plan is by LMP, for LMP and I encourage you to get involved – there is something in here for everyone.

Join us as we look to the next five years and our future. Together.

RITA KANDEL
Professor and Chair of LMP

LMP IN 2022

450+

Faculty

100+

Research active labs
across 16 sites

~800

Papers published

\$44.8m

In research funding

10

Active Canadian
Research Chairs

61

Tri-Agency Council Grants

85+

Undergraduate Pathobiology
Specialist Program students

50+

Undergraduate
summer students

250+

MSc and PhD research
stream students

20

MHSc in Laboratory
Medicine students

80

MHSc in Translational
Research Program students

100+

Postgraduate trainees

HOW WE DEVELOPED OUR PLAN: PUTTING PEOPLE AT THE CENTRE

This is LMP's strategic plan, so it was important that the people of LMP develop it.

In 2021, we asked our staff, trainees and faculty: How do we shape the future of Laboratory Medicine and Pathobiology in a time of great innovation and change?

More than 300 voices were involved in the first phase of exploration, which involved discussions with Vice Chairs and Program leads, focus groups with students, postgraduate trainees and junior faculty, and a survey sent to everyone in the department.

From this, topics for three collaborative meetings were identified:

- 1. Shaping Disruptive Innovation;**
- 2. Orchestrating Collaboration; and**
- 3. Nurturing a Thriving Community**

The first meeting had 76 participants, with about 35 people joining each of the other two.

Participants in the strategic planning discussions identified a shared direction for the future that builds on current strengths and progress, while positioning us at the forefront of the many changes in our field.

What we found important was not focussing on areas, but in putting our people at the centre and building strong foundations that would enable us to identify the major emerging ideas. This would give us the flexibility we need to adapt and lead in our rapidly changing fields.

OUR MISSION

What we exist to do

We prepare future leaders in laboratory medicine and pathobiology and improve the health outcomes of individuals and populations through the integration of innovative research, education, and clinical practice.

OUR VISION

What we work toward

We help societies get healthier by advancing the understanding and diagnosis of disease.

OUR VALUES

What we see in our people

We care about improving health for all

We strive for excellence

We collaborate to look at problems in new ways

We bring out the best in people

We are diverse and inclusive

We invest in the wellness of our people

We are agile in our response to emerging ideas and technologies



OUR STRATEGIC OBJECTIVES

The five pillars of our strategic plan are entwined and build on each other.

They demonstrate our commitment to reinforcing or building the foundations, that enable our people to be the best they can be in research, teaching and learning, clinical work, to adapt to change, and to develop collaborations.



INCLUSIVE COMMUNITY

1

Create together an equitable, inclusive learning and working environment.

Objective 1

Strengthen outreach and recruitment of learners, clinical laboratorians, and scientists from wider communities and diverse backgrounds, particularly those from under-represented groups.

We will do this by....

- Surveying to determine current composition of our community
- Developing a plan to further recruit, include and support learners, faculty, and staff who are members of under-represented groups
- Working with student associations and faculty to broaden high school outreach
- Strengthening and expanding our summer student program targeted at under-represented groups
- Advocating for equity in our community, such as more funding and opportunities for under-represented student groups and for postdocs

Translational Research Program students, Gabrielle Retta and Gemma Kabeya present their research project "The Black Birthing Experience" at the LMP Research Day 2022

PILLAR 1 LEADS



DR. ISABELLE AUBERT

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DR. GINO SOMERS

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DR. CATHY STREUTKER

Vice Chair Promotion and Mentorship

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Undergraduate students enjoy the Annual Celebration of Excellence (June 2022)

Objective 2

Develop sustainable initiatives and practices that encourage everyone to work at their best.

We will do this by....

- Creating a Vice Chair position for wellness, inclusion, diversity and equity
- Facilitating access to wellness resources for the LMP community
- Improving awareness of wellness at clinical chief's caucus meetings
- Providing educational resources to enable faculty to role-model wellness to trainees and colleagues
- Expanding professional development funds for staff to include wellness as eligible activity
- Continuing to fund annual resident and post-doctoral trainees wellness retreat
- Organizing LMP staff wellness activities (e.g. summer retreat/picnic, holiday get-together)
- Considering additional funds to CLAMPS and LMPSU to support wellness activities for graduate and undergraduate students

Email LMP.STRATEGY@UTORONTO.CA to get involved in this pillar

DYNAMIC COLLABORATION

2 Create the structures that enable and encourage local and international collaborations for a greater global impact.

Objective 1

Enhance connections and communication between basic scientists and clinicians, across programs, disciplines, and the University.

We will do this by....

- Providing a platform to enable faculty and learners to find people who are interested in the same topics, approaches and/or opportunities (i.e. establish a community / collaboration hub for interest groups)
- Building in regular networking events
- Considering establishing cross-disciplinary initiatives (i.e. collaborative specialization programs, catalyst grants, co-supervision, joint courses / programs, and co-curricular activities)
- Identifying cross-university opportunities for natural partnerships to fill clinical and knowledge gaps, (e.g., clinical embryology and computational medicine & biology)

PILLAR 2 LEADS OBJECTIVE 1



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DR. JANICE ROBERTSON
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- Developing curriculum / courses for the computational medicine & biology program
- Promoting collaborative initiatives such as the Quality Council that advance harmonization of clinical laboratory practices
- Fostering industry partnerships



Dr. Rumina Musani teaching hematology technologists at the Aga Khan Hospital, Kisumu, Kenya (January 2023)

Objective 2

Broaden LMP's global health footprint.

We will do this by....

- Expanding and broadening global outreach beyond forensic pathology
- Increasing the profile of current global collaborative activities
- Growing networks into indigenous communities
- Fostering investigations into the impact of climate on health

Members of the Yuzwa Lab working in MSB

Email LMP.STRATEGY@UTORONTO.CA to get involved in this pillar

PILLAR 2 LEADS OBJECTIVE 2



DR. MICHAEL POLLANEN

Vice Chair Global Health

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IMPACTFUL RESEARCH

3 Solidify our leadership in the full spectrum of science, from discovery to translational research that will advance knowledge and improve health.

Objective 1

Enable our faculty to build strong research programs at all stages of their careers.

We will do this by....

- Working with Temerty Medicine to advocate and simplify “red tape” around research between hospital sites and the university
- Optimizing access and usage of core facilities across the university and affiliated research institutes
- Leveraging The Temerty Centre for Artificial Intelligence Research and Education in Medicine (T-CAIREM) and the Health Data Nexus
- Identifying datasets to add to the Health Data Nexus
- Recruiting faculty who want to lead interdisciplinary research
- Creating more opportunities to increase learners’ exposure to research
- Advocating for more support for protected research time for clinical faculty

Postdoc Sam Killackey teaches an undergraduate student in MSB

PILLAR 3 LEADS OBJECTIVE 1



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The Mekhail Lab in the MaRS Centre

Objective 2

Foster a community of researchers to create opportunities for shared learning and mentorship.

We will do this by....

- Organizing an LMP faculty development day to bring together faculty across the disciplines
- Strengthening and expanding the faculty and student mentorship programs

PILLAR 3 LEADS OBJECTIVE 2



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DISRUPTIVE INNOVATION

4

Lead the way in identifying and applying emerging research and technology to benefit clinical laboratory diagnostics, life sciences, and health outcomes.

Objective 1

Deepen our existing expertise in precision medicine by integrating advanced imaging, omics, and big data.

We will do this by....

- Creating departmental areas of focus in emerging technology, such as “omics” and advancing point of care diagnostics
- Investing in microbiology through targeted faculty recruitment in collaboration with EPIC (Emerging Pandemic & Infections Consortium)

PILLAR 4 LEADS



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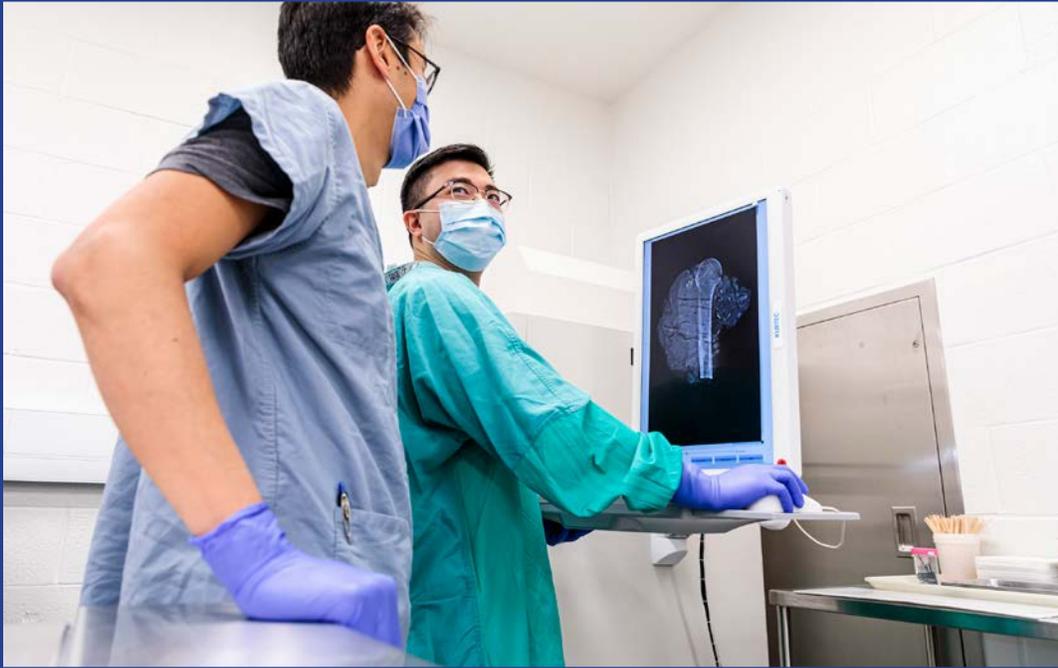
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Graduate students work in the Bendeck Lab





Pathologists' Assistants Brian Chow and Will Tsui at Mount Sinai Hospital

Objective 2

Seize opportunities to advance clinical diagnostics, research and education, using emerging technologies (e.g., AI, digital pathology, and advanced imaging).

We will do this by....

- Identifying new and emerging research in LMP that could be disruptive in the future or new ways of applying existing knowledge/techniques
- Translating AI into clinical contexts through The Temerty Centre for Artificial Intelligence Research and Education in Medicine (T-CAIREM)
- Refining AI algorithms from an Equity, Diversity and Inclusion (EDI) lens as appropriate
- Developing a point-of-care centre
- Expanding the digital media library and its use in education
- Encouraging the incorporation of AI into digital pathology
- Increasing the use of digital pathology in clinical training programs

Email LMP.STRATEGY@UTORONTO.CA to get involved in this pillar

AGILE EDUCATION

5

Create responsive and equitable education that reflects the evolution of our field and supports the development of lifelong learners and leaders.

Objective 1

Continue to evolve our curriculum to incorporate the rapidly changing advances in science and laboratory medicine.

We will do this by....

- Establishing an Education Council
- Embedding a core stream of “emerging essentials” that everyone who studies at LMP will develop basic literacy in, regardless of their discipline (e.g. translational research, genomics, AI, bioethics, commercialization).

Objective 2

Embed equity, diversity and inclusion into the curriculum.

We will do this by....

- Reviewing existing programs with an Equity, Diversity, Indigeneity, Inclusion, Accessibility (EDIIA) lens
- Reviewing recruitment practices with an EDIIA lens

PILLAR 5 LEADS



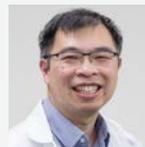
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OBJECTIVE 1, 3, 4



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OBJECTIVE 1, 3, 4



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OBJECTIVE 1, 3



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OBJECTIVE 2



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OBJECTIVE 2



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OBJECTIVE 4



Dr. Carlo Hojilla gives a demonstration to residents at Mount Sinai Hospital

Objective 3

Foster individualized pathways that allow for “personalized learning”. Strengthen education scholarship around fostering development of innovative teaching models for virtual and in-person learning.

We will do this by....

- Expanding funding so all learners in LMP can participate in the LMP Workshop Program
- Expanding our portfolio of graduate modules and certificate programs as needed
- Growing our CPD offerings
- Developing educational technology programs, starting with our post-graduate medical programs
- Exploring innovative teaching models for virtual, hybrid, and in-person learning

Objective 4

Work to embed the basics of LMP knowledge into the broader medical/health science education across the Faculty to strengthen the awareness of lab diagnostics’ contributions to health outcomes.

We will do this by....

- Inserting faculty into medical school education and creating an Associate Chair in Undergraduate Clinical Education
- Developing opportunities to educate the greater community on the importance of laboratory medicine in clinical practice and healthcare

Email LMP.STRATEGY@UTORONTO.CA to get involved in this pillar

NEXT STEPS

HOW TO GET INVOLVED

We have developed the framework for our strategic plan, but now need to put it into action.

Under each strategic pillar, we will form taskforces which will tackle individual objectives or projects. Some of these taskforces may be active for short periods of time, others for longer, depending on the needs of the individual project.

If you are a member of LMP and have a passion for a particular area or have some ideas to contribute – contact the lead(s) of that pillar to find out how you can get involved.

Once we have taskforces and defined action plans in place, we will outline how we will measure our success.

Watch for updates in the LMP monthly newsletter and on our website.

Contact any lead in this plan or email LMP.STRATEGY@UTORONTO.CA to get involved or ask questions.