



**2015-16 ACHIEVEMENT REPORT
SCHULICH SCHOOL OF MEDICINE & DENTISTRY
WESTERN UNIVERSITY**



Schulich
MEDICINE & DENTISTRY



**The Schulich School of Medicine & Dentistry
will be a global leader in optimizing
life-long health through innovations in
research, education and active
engagement with our communities.**

**The steadfast commitment
to the School's vision and mission
is translating into tremendous success
in education, research, partnership
development and wellness.**

A woman with curly brown hair and glasses, wearing a blue shirt, looking to the right. The text "CREATING NEW KNOWLEDGE" is overlaid on the image in white, serif font, with each word underlined.

CREATING
NEW
KNOWLEDGE

“With this renewal we can continue to foster the community we’ve brought together and grow initiatives to support educational research and innovation.”—Dr. Lingard

“If everyone was just good at their job, this team would function well together”—it’s a statement that has been repeated time and again. And it’s a myth.

Dr. Lorelei Lingard, Founding Director and Senior Scientist of the Centre for Education Research & Innovation (CERI), is working to dispel such myths. Her research is exposing them for what they are, and helping to design educational practices that will produce competent teams in clinical and academic organizations.

It’s just one area of research that the team at CERI is currently undertaking as they advance the science of health professions education and build the capacity of the School’s own faculty to do that research.

Dr. Lingard, along with Associate Director Dr. Mark Goldszmidt, is working alongside a team that now includes five scientists and seven researchers, as well as a large group of affiliated faculty members, research fellows, graduate students and staff. The summer months also bring with them an increase in numbers with medical and undergraduate students taking part in various research training programs.

CERI predominantly focuses on how learning happens in clinical environments, when trainees are being taught and assessed in the context of doing real clinical work. Its research asks: how can we maximize learning, strengthen teaching

and support assessment in clinical training environments?

CERI’s external funding and research output has grown exponentially since its founding. Now considered one of the leading health professions education research centres in the country, it wasn’t surprising that its official status as a research centre at Western University was renewed for another four-year term in 2015.

For Dr. Lingard, the renewal was an affirmation that the investment of time, energy and resources is making a difference, and that the Centre is achieving its goals. “It’s recognition that we’ve built a community that is identifiable, sustainable and valued,” she said. “With this renewal we can continue to foster the community we’ve brought together and grow initiatives to support educational research and innovation.”

This growth will centre on a number of projects, including research into how experts navigate non-routine clinical challenges, and work to support improved assessment of the senior medical resident role. And with the impending changes of postgraduate medical education moving to a community-based model, CERI is at the early stages of a scholarly partnership with the School’s Postgraduate Medical Education Program that will position the School to implement competency-based medical education in a systematic and scholarly manner.



Dr. Lingard has plans to review and possibly expand CERI’s international collaborations, including the existing Master of Health Professions Education Program that is offered in partnership with the School of Health Professions Education at Maastricht University in the Netherlands.

“In the past year alone, we’ve had visiting trainees from Scotland, Denmark and the United Kingdom, and a visiting professor from Amsterdam, and we continue to receive interest from international researchers to come to CERI,” said Dr. Lingard. “We want to grow our international outreach and establish new collaborative opportunities—we know this will provide us with new opportunities to advance our own research.”

“For me,” said Dr. Lingard, “the best indicator of CERI’s success is to have a clinician come through the door with an idea from their clinical education setting, and for our team to work with them to shape that idea into something that is evidence-based and theoretically sound; to see them get excited and return to advance a new research project.”

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Dr. Lorelei Lingard, Founding Director and Senior Scientist of the Centre for Education Research & Innovation is joined by Centre scientists Drs. Saad Chahine, Sayra Cristancho, Mark Goldszmidt, Chris Watling and a tremendous team of researchers, affiliates, fellows, students and staff in her work.



TRANSLATING
DISCOVERY

Drs. McKenzie and Regnault are strengthening knowledge translation by developing a new technology based on MRI.

The placenta is a powerhouse of an organ. Acting as the “life support” system for fetuses developing in their mother’s womb, it provides nutrients, oxygen, hormones and immune defense, and takes care of removing waste.

External factors such as diet have a significant impact on the health of a placenta’s metabolism. They can impact the way it develops and functions, and potentially how the newborn will develop and grow throughout its life outside the womb.

Despite the role the placenta plays in this crucial time of development, there is currently no method available that allows direct measurement of metabolic processes during the early stages of pregnancy.

Drs. Charles McKenzie and Timothy Regnault want to change this. As part of the National Institute of Health’s Human Placenta Project, they received \$5.7 million in funding in 2015 to strengthen knowledge translation by developing a new technology based on magnetic resonance imaging (MRI) that will, for the first time, allow them to monitor changes in placental metabolism as pregnancy unfolds.

“With this technology, we believe we will be able to see early signals of what is going wrong in the placenta that we currently don’t detect or are unable to see,” said Dr. McKenzie. “We hope to be able to identify

where the problems are earlier so clinicians and biomedical researchers can investigate possible treatments they should be using on a patient sooner than they can now.”

Drs. McKenzie and Regnault will focus this interdisciplinary project on life-long maternal consumption of the “Western Diet”—an energy-dense diet that is high in calories from sugars and simple fats. This type of diet has been associated with negative changes in the placenta, setting up a pregnant mother’s children for a predisposition to heart disease, diabetes and obesity.

“The worldwide exposure to this diet may be having a negative impact upon the placental metabolism and later newborn metabolic disease risk that we need to be aware of,” said Dr. Regnault.

Drs. McKenzie and Regnault have been working on this translational research for a few years, for this specific application. They are using hyperpolarized MRI, and this will be the first time anyone has used this technology to work with pregnancy.

The scientists are excited about the resources this grant will allow them to bring into their labs, and translating their research findings into improved technology that will benefit Canadian health care as a whole.

“You can spend a lot of money looking at every woman who is pregnant, but there’s probably no need to do that,” Dr. Regnault said. “You just need to be able to clearly identify the at-risk groups that may need to be looked after in the early stages of pregnancy, which is what we’re trying to do with this technology.”

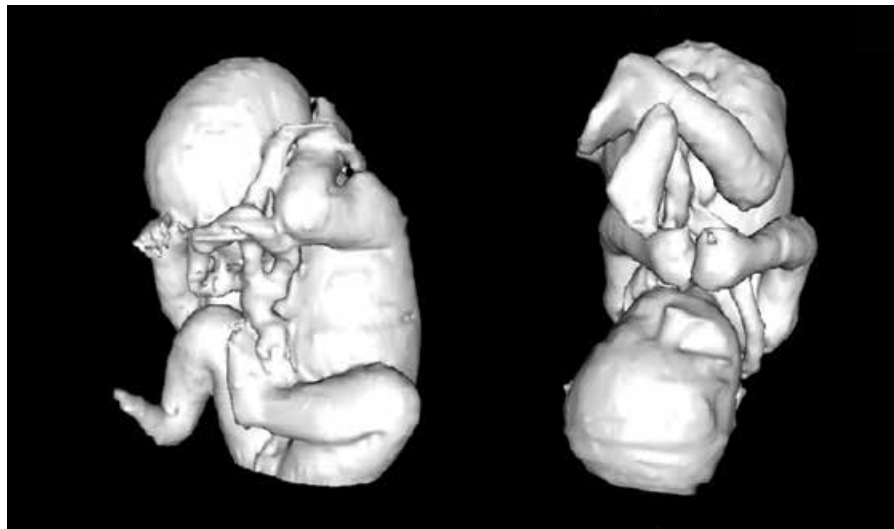
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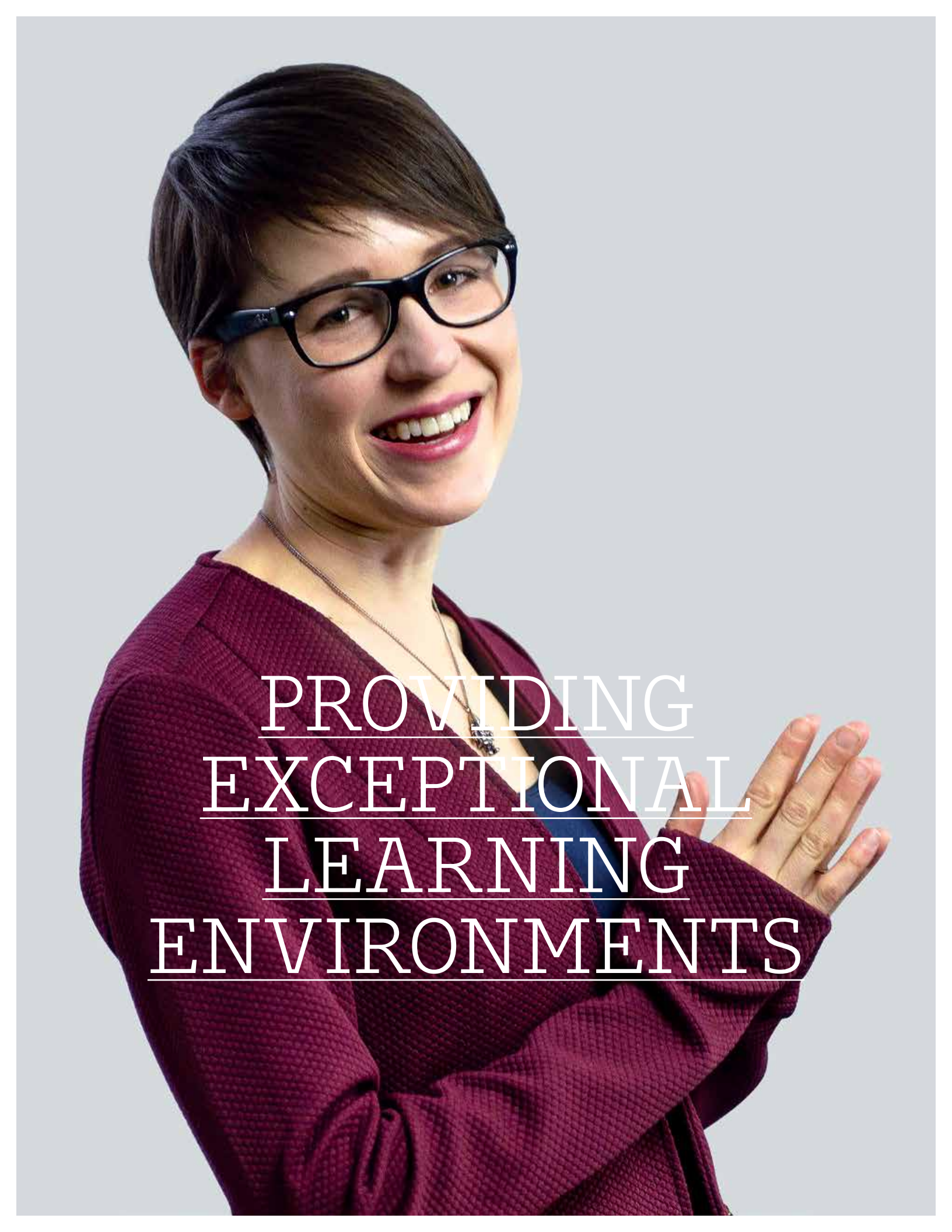
Dr. Charles McKenzie, Associate Professor in the Department of Medical Biophysics.

Dr. Timothy Regnault, Associate Professor in the Departments of Obstetrics & Gynaecology, and Physiology and Pharmacology.

→

3D MRI visualisation of a human fetus inside its mother’s uterus. The metabolic imaging performed in this project is intended to determine metabolism in the placenta. This will make it possible to monitor changes in placental metabolism as pregnancy unfolds and understand how those changes affect the developing fetus.





PROVIDING
EXCEPTIONAL
LEARNING
ENVIRONMENTS

“Our success with accreditation was the result of a collective effort from across the School.”—Dr. Shannon Venance

“I believe education is the foundation from which everything else flows in a medical school—whether it’s research or clinical care,” said Dr. Shannon Venance. “It’s our bedrock, and unless we continually reflect upon and renew our education programs, we won’t be able to grow our successes.”

In April 2015, accreditation of the School’s Undergraduate Medical Education (UME) Program provided that opportunity for renewal, and it did so through the engagement of faculty, staff and students from across the school.

Dani Cadieux, Medicine Class of 2016, was one notable participant.

Not one to cheer from the sidelines, Cadieux was all-in, serving as the Co-Chair of the Student Accreditation Task Force. Along with her classmate, Daniela Kwiatkowski, she designed, administered and analyzed the student survey and wrote the students’ accreditation report. Cadieux also managed more than 40 student volunteers during the accreditation interviews.

As the faculty lead for the independent self-study, Dr. Venance was responsible for overseeing the accreditation process. “I think I could best be described as the lightning rod for the whole process,” she said with a chuckle.

She was tasked with creating the accreditation team and working with them to address

the requirements of the accreditation process and the self-study. She also led communication, continuously generated awareness and served as a liaison with the stakeholders.

It was a role five years in the making for Dr. Venance, who has served as one of 17 Canadian interim accreditation coordinators with the Association of Faculties of Medicine of Canada.

Alongside her Schulich Medicine colleagues, Dr. Venance worked for two years in preparation for the interviews with the external team from the Committee on Accreditation of Canadian Medical Schools in collaboration with the Liaison Committee for Medical Education.

Accreditation is officially defined as a standards-based mandatory process that demonstrates if medical schools possess the essential standards and elements necessary to deliver students a quality medical education program and is meeting the needs of stakeholders. It also guarantees that the UME program is pedagogically sound and aligns with the School’s and University’s plan, missions, visions and values, as well as the accepted standards in Canadian medical education.

In October 2015, Dr. Michael Strong, Dean, proudly announced the School had received full accreditation status for eight years.

It was an outcome that energized Dr. Venance. “On one hand,

successful accreditation is a validation that everything faculty, staff and medical students are doing to improve the School is actually working,” Dr. Venance said. “On the other hand, it provides a wonderful opportunity for renewal and innovation.”

Dr. Venance believes that an eight-year accreditation provides the School with the good fortune to apply pressure on the accelerator and advance change. “We need to take advantage of all the effort that was focused on accreditation, and redirect it into shifting our resources to continual quality improvement processes and outcomes that take into consideration evolving societal health care needs,” she added.

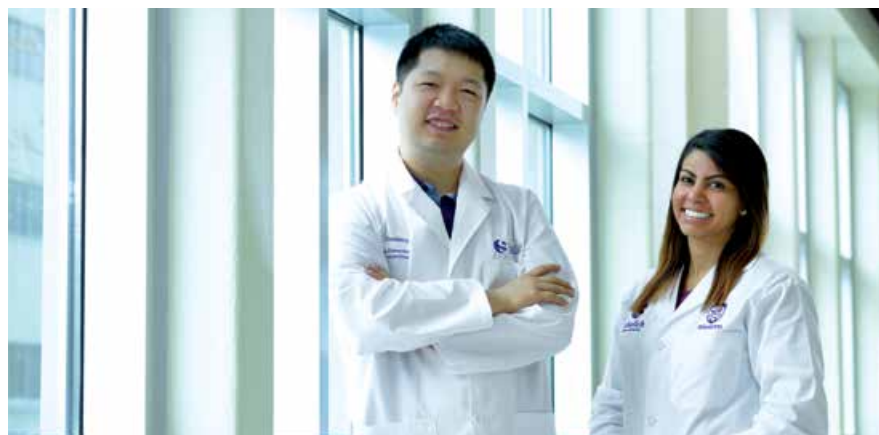
Part of that shift and change will include addressing the standards that were not met during the accreditation review process. Dr. Venance expects that the School will also wisely direct energy into the impending changes related to competency-based education for postgraduate education.

“Our success with accreditation was the result of a collective effort from across the School,” said Dr. Venance. “People became involved, were thoughtful and reflective, and built on an energizing spirit. I look forward to this continuing as we continue to build an UME program that remains a top destination of choice for students.”

A portrait of a man with short dark hair and glasses, wearing a light blue button-down shirt. He is standing with his arms crossed against a plain, light-colored background. The text 'BUILDING TEAMS THROUGH PARTNERSHIP' is overlaid on the image in a white, serif font, with each word on a separate line and underlined.

BUILDING
TEAMS THROUGH
PARTNERSHIP

Schulich Medicine & Dentistry's strong partnership with SWAHN expanded the interdisciplinary scope and opportunity of IPE Day.



Gathered in a small classroom with coloured markers and flip chart paper, students shared professional stereotypes about the very disciplines represented in the room—medicine, dentistry, pharmacy, optometry and speech language pathology.

The scene was a snapshot of the many conversations taking place around Schulich Medicine & Dentistry for the first Interprofessional Education (IPE) Day, hosted by the School in partnership with the University of Waterloo Schools of Pharmacy and Optometry. More than 400 students from a range of health care programs participated.

Ali Enver, Dentistry Class of 2019, took part in the stereotype brainstorm. “I think we all gained a better sense of our own professions, seeing them from other perspectives,” he said. “And we were able to better understand and appreciate what other health disciplines contribute to patient care.”

Addressing stereotypes was just one of the many interprofessional learning exercises designed to engage students in new ways of thinking about health care teams, and to incorporate collaborative decision-making into their training and practice culture.

But IPE is not achieved simply by having different disciplines sit in the same classroom, learning a common subject. The full-day event addressed this challenge by having students solve real-life problems together.

Themes of communication, role clarification and patient-centred care were explored through panel presentations, case discussions and interactive activities.

“So much of IPE is relationship-building,” explained Dr. Krista Helleman, Associate Professor and Faculty Lead for IPE at Schulich Medicine & Dentistry. “We want students to get to know one another, to start making connections that will foster collaboration.”

Dr. Kevin Fung, Associate Professor and Co-Chair of the IPE working group with the South-Western Academic Health Network (SWAHN), emphasized the significance of these connections.

“This is not just teaching doctors and dentists to be nice,” he said. “We’re building emotional intelligence and awareness of the team environment that is essential for patient safety and satisfaction.”

Involving first-year Schulich Medicine & Dentistry students, at the beginning of their professional training, was an important and intentional decision.

“By addressing the issues early-on, we can shape the attitudes of first-year students,” said Dr. Fung.

Schulich Medicine & Dentistry’s strong partnership with SWAHN expanded the interdisciplinary scope and opportunity of IPE Day, connecting Drs. Fung and Helleman with the University of Waterloo.

Elaine Lillie, director of Curriculum Development and Interprofessional Education at the University of Waterloo School of Pharmacy and co-chair of SWAHN’s IPE working group, believes this partnership will lead to continued collaboration.

“We’d like to create opportunities for students from our programs to interact at all levels, consistently throughout their training,” she said.

The focus on IPE also reflects the patient-centered approach at the core of Schulich Medicine & Dentistry’s undergraduate medical and dental curriculums.

“The future of health care is teams,” said Dr. Helleman. “If we don’t work in teams, patient care gets short-changed. It’s essential to recognize that different health needs are met in different places.”

“IPE Day emphasized that we all have roles to play as experts, team members and patient advocates,” added Enver.

A professional portrait of a woman with dark, wavy hair, wearing a brown blazer and a gold earring. She is looking slightly to the right with a gentle smile. The background is a plain, light gray.

FOSTERING
GROWTH
AND SUCCESS

“We are striving to create a culture and develop resources that support our people.”

— Dr. Mithu Sen



As someone who is committed to building healthier working and learning environments, Dr. Mithu Sen, Assistant Dean, Faculty Equity and Wellness, is inspired by the investment in people she sees taking place at Schulich Medicine & Dentistry.

“We are striving to create a culture and develop resources that support our people,” she said. “People are behind the School’s success as an organization.”

Wellness is a key component of this investment in people, as the School aims to lead programs that foster the growth and success of its faculty and staff. Following outcomes from the We Speak survey about the day-to-day work experiences of Western University faculty and staff, wellness was also identified as an area of focus across the campus more broadly.

In the past year, two wellness committees have been established at the School—one for faculty and one for staff—to support the development and delivery of a comprehensive workplace health and wellness promotion program.

From lunchtime yoga and meditation to walking challenges and mental health awareness and information sessions, the staff committee is enthusiastically responding to the needs identified by the We Speak survey.

The group meets on a monthly basis and oversees four sub-

committees: walking, physical fitness, nutrition and mental wellness.

“Our goal is to create and facilitate moments for wellness and mindfulness within staff members’ daily routines,” said Betty Holme, Director, Organizational Effectiveness, and Chair of the Wellness Committee for staff. “We’ve come a long way in the past year, but there’s still more to do. It’s important that people feel good about themselves and what they’re accomplishing at work.”

On the faculty side, the committee led by Dr. Sen has developed a comprehensive wellness framework. This work has been recognized by the Association of American Medical Colleges.

Focusing on mind, body and spirit as guiding principles, this framework looks at wellness in the context of life-long learning. “Many faculty are with us for 20, 30 or more years,” explained Dr. Sen. “We need to provide programming and education opportunities that continue throughout the duration of their careers.”

In collaboration with department chairs, hospital partners, professional bodies and community stakeholders, Dr. Sen is working to operationalize the framework, which includes planning keynote speakers and symposiums, providing easy access to relevant resources and primary care and promoting mentorship through programs, policies and scholarships.

“Great faculty in medicine, dentistry and basic medical sciences provide the backbone of our School,” said Dr. Sen. “To be able to create pathways for them to achieve excellence, receive recognition and attain work-life balance is of paramount importance.”

The work being undertaken by both the faculty and staff wellness committees is positioning the School as a trailblazer in workplace health.

“With this work, we will provide leadership to other schools across the country and internationally,” said Dr. Sen. “Our success speaks to the tremendous strength of our faculty, staff and decanal team.”

SCHULICH SCHOOL OF
MEDICINE & DENTISTRY
BY THE NUMBERS

SCHULICH SCHOLARSHIPS

60

Annual recipients

\$25,000

Total value per student, per year

\$100,000

Total value per student over length of program

\$1,500,000

Total annual value of the scholarship

16

Annual recipients

\$10,000

Total value per student, per year

\$40,000

Total value per student over length of program

\$160,000

Total annual value of the scholarship

50+

Annual recipients

\$15,000

(\$5,000 Schulich scholarships,
\$10,000 OGS/QEII)

\$750,000+

Total annual value of the scholarship

CANADA RESEARCH CHAIRS

DR. ERIC ARTS

HIV Pathogenesis and Viral Control

DR. FRANK BEIER

Musculoskeletal Research

DR. ANN CHAMBERS

Oncology

DR. SEAN CREGAN

Neurodegeneration and Repair

DR. MORRIS KARMAZYN

Experimental Cardiology

DR. DALE W. LAIRD

Gap Junctions and Disease

DR. SHUN-CHENG (SHAWN) LI

Functional Genomics and Cellular Proteomics

DR. STEPHEN LOMBER

Brain Plasticity and Development

DR. PENNY MACDONALD

Cognitive Neuroscience and Neuroimaging

DR. CHARLES MCKENZIE

Translational Magnetic Resonance Imaging

DR. RAVI S. MENON

Functional Magnetic Resonance Imaging

DR. PATRICK O'DONOGHUE

Chemical Biology

DR. ANDREW PRUSZYNSKI

Sensorimotor Neuroscience

DR. GARY S. SHAW

Structural Neurobiology

DR. MOIRA STEWART

Dr. Brian W. Gilbert Canada Research Chair
in Primary Health Care

DR. AMARDEEP THIND

Health Services Research

DR. CHARLES WEIJER

Bioethics

ALUMNI OF DISTINCTION AWARDS

- DR. FRED POSSMAYER, PHD'65** Excellence in Basic Science Research Award
DR. WILLIAM WALL, MD'70 Professional Achievement Award – Medicine
DR. LEN CHUMAK, DDS, MCLD'85 Alumni of Distinction Award – Dentistry
DR. GEORGE KIM, MD'03 Young Alumni Award
DR. JILL BASHUTSKI, DDS'05 Young Alumni Award – Dentistry
DR. BESSIE BORWEIN, PHD'73 Community Service Award
DR. BONNIE SCHMIDT, BSC'86, PHD'93 Dean's Distinguished Lecture Award

LOCAL, PROVINCIAL AND NATIONAL HONOURS

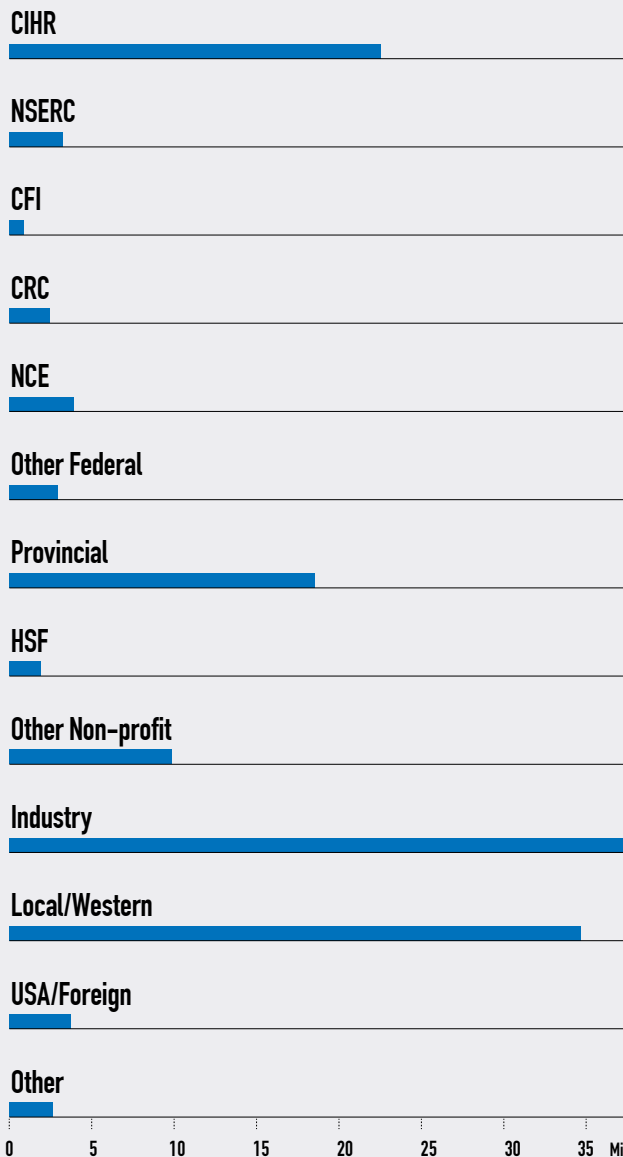
- DR. WILLIAM WALL** Royal College of Physicians and Surgeons of Canada James H. Graham Award of Merit
DR. LISA FISCHER YMCA Women of Excellence Award – Sports, Fitness and Recreation
DR. GILLIAN KERNAGHAN YMCA Women of Excellence Award – Health, Science and Technology
DR. RAVI S. MENON Canadian Academy of Health Sciences
DR. DALE ZITER Regional Family Physician of the Year Award – Ontario College of Family Physicians
DR. MATTHEW TEETER John Charles Polanyi Prize
DR. HEATHER EMMERTON-COUGHLINE Dr. John D. Brown Memorial Resident Award
DR. KENNETH WRIGHT Governor General's Caring Canadian Award
DR. AARON WARD Prostate Cancer Canada Rising Star in Prostate Cancer Research Award 2015
DR. ANTHONY JEVNIKAR Canadian Society of Transplantation Lifetime Achievement Award
DRS. STEWART HARRIS & BONNIE SCHMIDT Members, Order of Canada
DRS. DAVID DIXON, FAISAL REHMAN & WASSIM SAAD CAME Certificate of Merit Award
DRS. CHARLES LIN & OLAF PLOTZKE Ontario Dental Association Award of Merit
DR. RICHARD MCLACHLAN Canadian League Against Epilepsy's Wilder Penfield Award

AWARDS FROM WESTERN UNIVERSITY

- DR. JEFFREY DIXON** Distinguished University Professorship Award
DR. CHARLES TRICK Edward G. Pleva Award for Excellence in Teaching
DR. LINA DAGNINO Western University Faculty Scholar
DR. DAVID EDGELL Western University Faculty Scholar
DR. DAVID HEINRICHS Western University Faculty Scholar

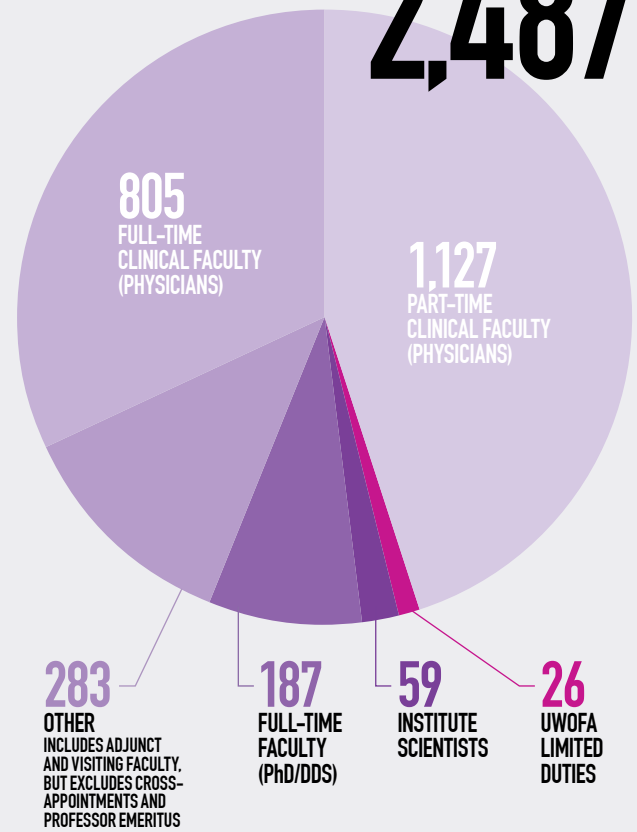
RESEARCH FUNDING 2014 – 2015

144.3M



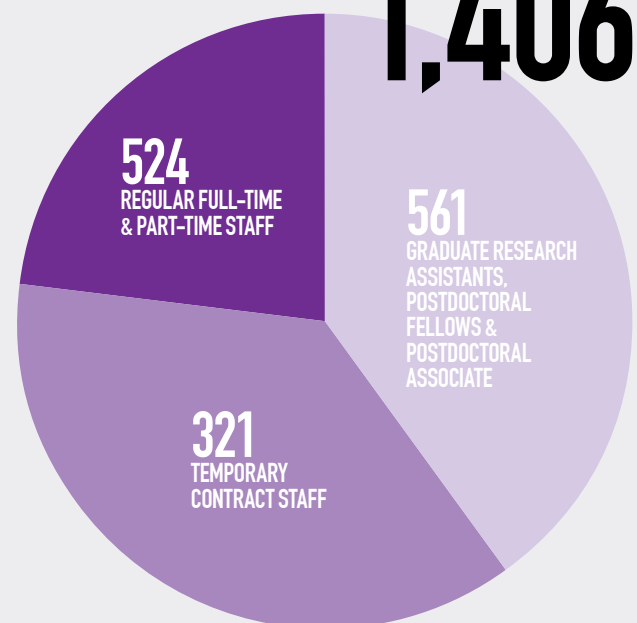
HUMAN RESOURCES FACULTY

2,487

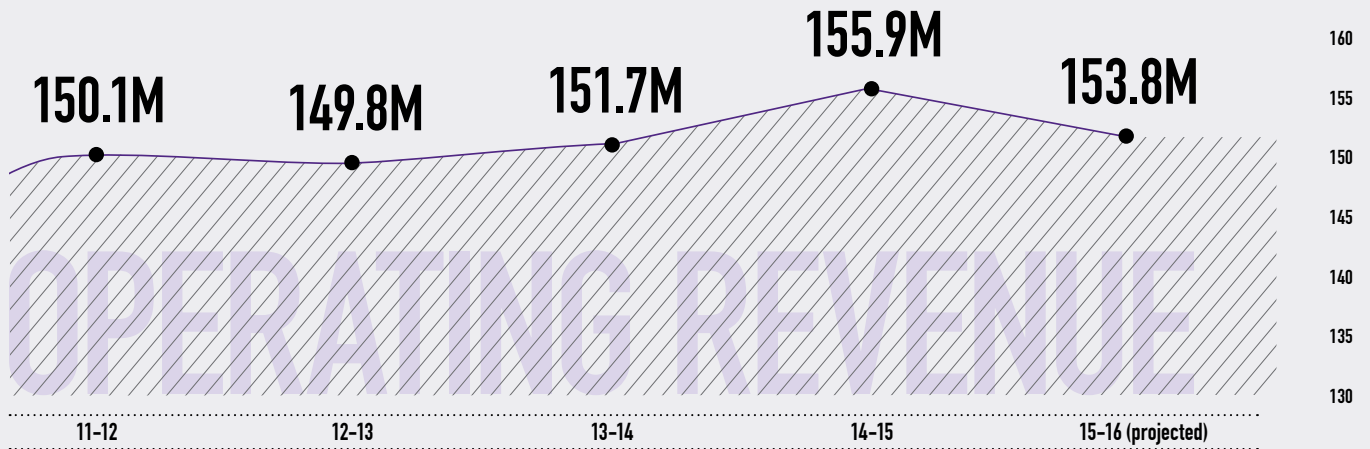


HUMAN RESOURCES STAFF

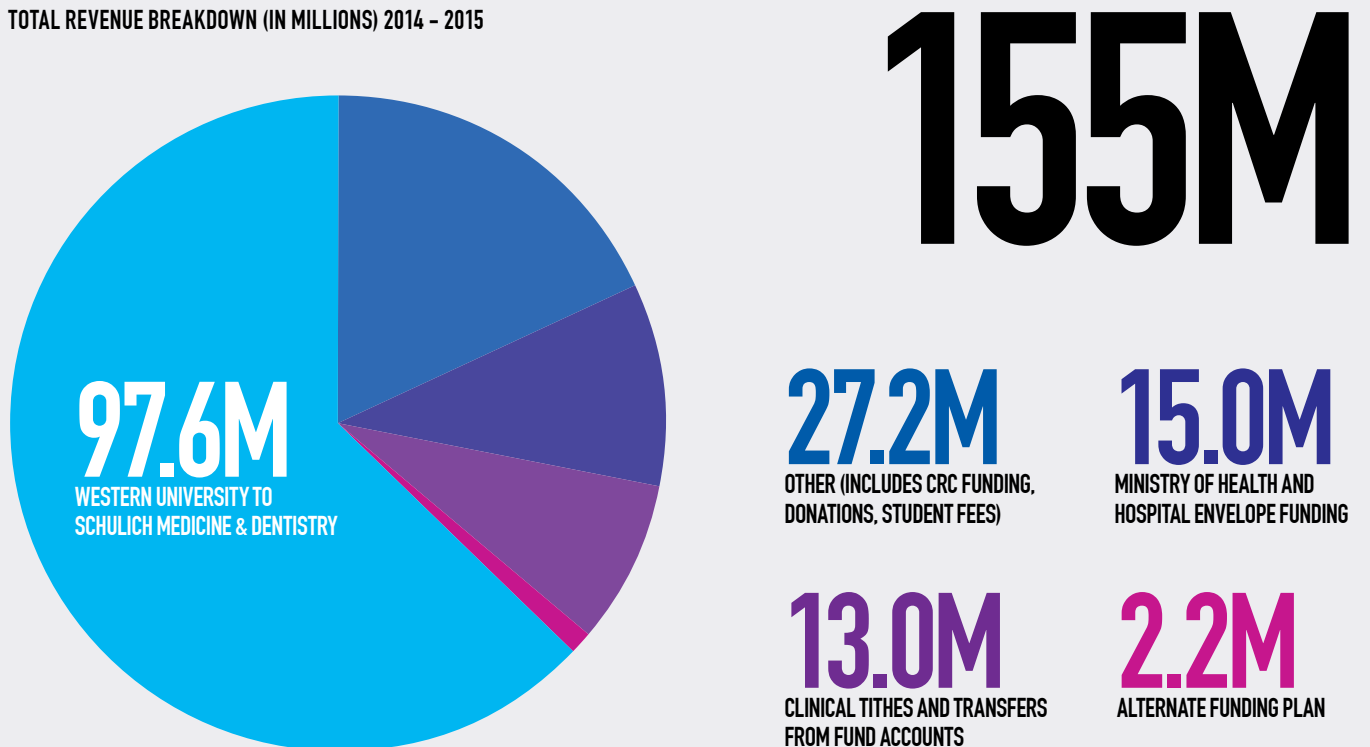
1,406



TOTAL OPERATING REVENUE (IN MILLIONS) 2011 - 2015



TOTAL REVENUE BREAKDOWN (IN MILLIONS) 2014 - 2015



683

**DOCTOR OF MEDICINE (MD)
PROGRAM STUDENTS,
INCLUDING 148 IN THE
WINDSOR PROGRAM**

**DOCTOR OF DENTAL SURGERY (DDS)
PROGRAM STUDENTS**

225

**HOSPITAL-BASED POSTGRADUATE
DENTAL RESIDENTS**

5

**UNDERGRADUATE PROGRAM IN
NEUROSCIENCE (BSc) STUDENTS**

75

**STUDENTS IN YEAR 3 & 4
OF THE BACHELOR OF MEDICAL
SCIENCES PROGRAM**

861

9

**STUDENTS TRAINING
IN SPECIALIZED
POSTGRADUATE
DENTISTRY PROGRAM**

**GRADUATE STUDENTS WORKING TOWARD
MSc OR PhD DEGREES**

681

POSTDOCTORAL SCHOLARS

111

**GRADUATE STUDENTS TRAINING IN ORAL
& MAXILLOFACIAL SURGERY PROGRAM**

6

984

**POSTGRADUATE
MEDICAL TRAINEES
(RESIDENTS & FELLOWS)**

40

**STUDENTS IN THE
INTERNATIONALLY
TRAINED DENTISTS
(ITD) PROGRAM**

Schulich School of Medicine & Dentistry
Western University
Clinical Skills Building
London, Ontario, Canada N6A 5C1
Tel: 519.661.3459

