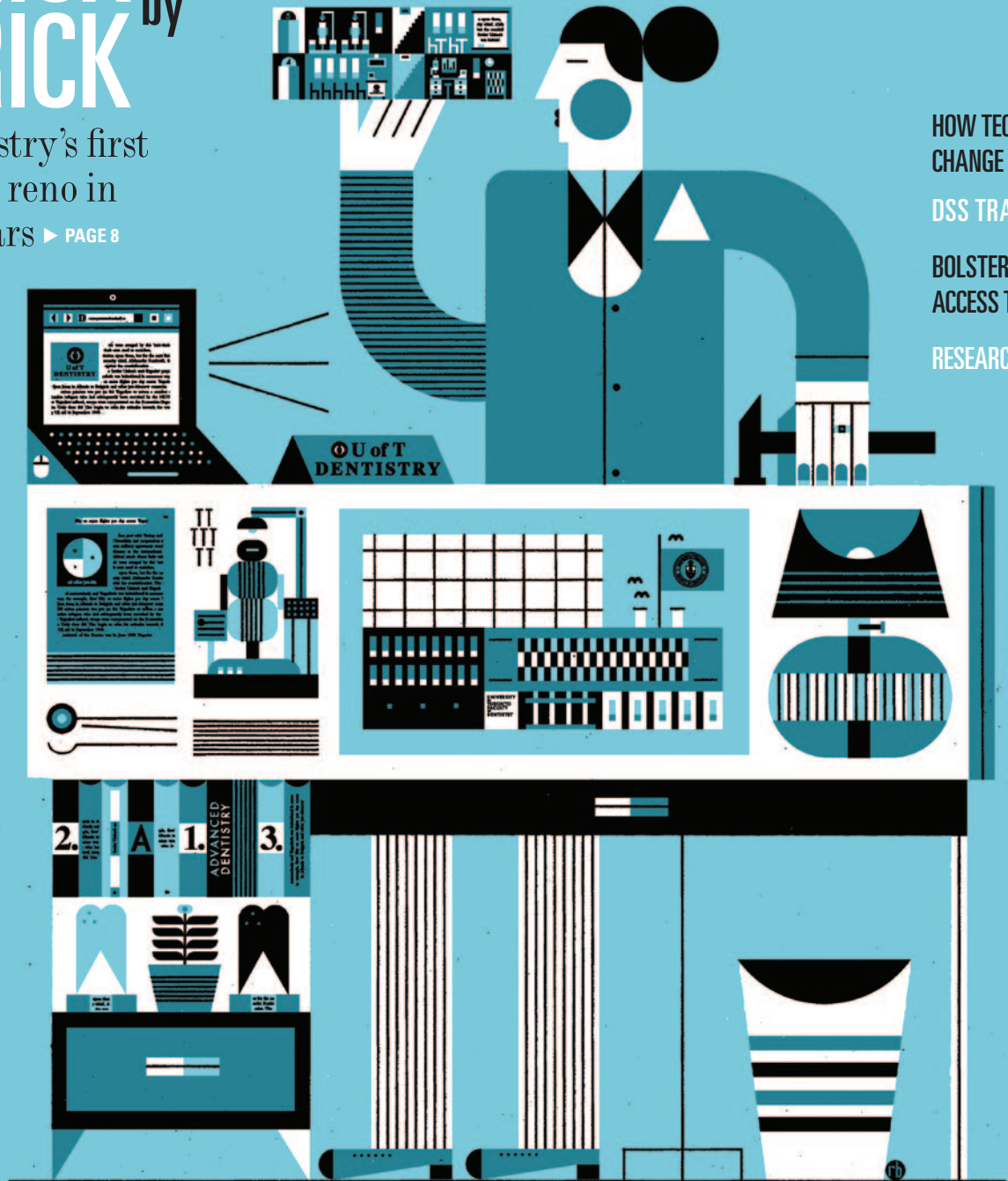


U^{OF}T DENTISTRY

BRICK by BRICK

Dentistry's first major reno in 30 years ► PAGE 8

HOW TECH WILL CHANGE DENTISTRY
DSS TRANSFORMS
BOLSTERING ACCESS TO CARE
RESEARCH GETS \$1M



U^{OF}T DENTISTRY



Rendering: Standec Architecture



Photo: Kevin Nguyen

- 3** MESSAGE FROM THE DEAN
- 4** UP FRONT

COVER STORY

- 8** **BRICK BY BRICK**
Innovation, collaboration inform UofT Dentistry building renovation
- 16** **TOMORROW'S DENTIST**
Tech merges with traditional skills to transform everyday dental care
- 20** **THE NEW DSS**
A reorganized student society makes a difference to dental school
- 24** **AWARDS OF DISTINCTION**
Three extraordinary dentists
- 26** **ACCESS TO CARE**
Grads give back
- 28** **BOUNDLESS INNOVATION**
\$1M research donation sets a new standard
- 30** **GALA 2017**
- 31** **WE REMEMBER**
- 32** **UPCOMING EVENTS**

| | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>EDITORIAL TEAM</p> <p>Editor-in-Chief: ERIN VOLLICK Managing Editor/Writer: DIANE PETERS Photography: JEFF COMBER Art Direction & Production: FRESH ART & DESIGN INC. Cover Illustration: RAYMOND BIESINGER</p> | <p>ADVANCEMENT OFFICE CONTACTS</p> <p>SELINA ESTEVES Director of Advancement selina.esteves@dentistry.utoronto.ca (416) 979-4773</p> <p>MIRIAM STEPHAN Alumni Relations Manager miriam.stephan@dentistry.utoronto.ca (416) 979-4940</p> <p>WARRENA WILKINSON Advancement Coordinator warrena.wilkinson@dentistry.utoronto.ca (416) 979-4775</p> | <p>EDITORIAL ENQUIRIES AND SUBMISSIONS</p> <p>Erin Vollick, Editor-in-Chief University of Toronto Faculty of Dentistry 124 Edward Street, Room 303 Toronto, ON M5G 1G6 (416) 979-4900 x4381 erin.vollick@dentistry.utoronto.ca</p> <p><i>UofT Dentistry</i> is published by the University of Toronto Faculty of Dentistry.</p> <p>Material published does not necessarily represent the official position of the Faculty of Dentistry.</p> <p>The editor reserves the right to edit or refuse, as necessary, all materials submitted.</p> <p>VISIT US ONLINE AT: WWW.DENTISTRY.UTORONTO.CA</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



MESSAGE FROM THE DEAN

INVESTING IN PEOPLE

The Faculty's recent strategic planning process confirmed what we already suspected: our greatest strength is our people. Our Faculty abounds with innovators who have left their footprints on dental education, technology and practice.

Although the University of Toronto's Faculty of Dentistry is ranked as one of the strongest research programs in North America — number one in publications and in citations in Canada — to maintain our position we need to invest further in our team. Our plan is to attract, recruit and retain new faculty members who will add to our already dynamic research and education presence.

We have already begun this process and, over the last two years, have recruited some extremely talented new faculty members. In 2015, we welcomed Dr. Marco Magalhaes and Dr. Iacopo Cioffi to our Faculty as Assistant Professors. A two-time alumnus, Magalhaes oT9 PhD, rT5 MSc OP/OM teaches undergraduate and graduate courses while developing groundbreaking early oral cancer diagnostics. Cioffi's research is expanding our understanding of pain as it relates to patients' expectations and anxiety levels, and he is also teaching in our orthodontics program.

In July 2016, we brought on another three Assistant Professors. Dr. Karina Carneiro has been investigating novel

nanotechnology methods to aid hard-tissue regeneration and teaches biomaterials. As well as teaching, Dr. Massieh Moayedi is working with international and multidisciplinary collaborators to determine how the brain responds to pain to identify target sites for drug development.

Dr. Eszter Somogyi-Ganss rT3 MSc Prosthodontics joins the Faculty in a teaching stream position. She will lend her prosthodontics expertise as an advisor for medically complex cases both at the Faculty and at Sunnybrook Health Sciences Centre's Craniofacial Prosthetics Unit, while also teaching undergraduate prosthodontics.

To better support our new faculty, we recently instituted a junior faculty mentorship program overseen by our new Vice-Dean of Research, Dr. Bernard Ganss, and our new Vice-Dean of Education Jim Lai oTo MSc Periodontology. We have added a new position,

Research and Business Development Manager, occupied by Farah Thong, to help our faculty move their research more quickly from bench to chairside.

I look forward to seeing the results of our investment in the talent and vision of these new faculty members. I anticipate that each will make an important contribution not only to the Faculty of Dentistry, but to health sciences in general. ▀

DEAN DANIEL HAAS rT9, 8T8 PHD

We have come a long way:
in the past year we have piloted
a number of new programs

UP FRONT



Prof. Morris Manolson with researcher

Photo: Jeff Comber

UNDERSTANDING ACID PUMPS

At the cellular level, acids in the body are hugely important. V-ATPases, the body's natural acid pumps, acidify materials in the body and push protons across cellular membranes — an action that impacts health in a myriad of ways.

UofT Dentistry Professor Morris Manolson has been awarded a four-year, \$432,000 grant from the Canadian Institutes of Health Research (CIHR) to study V-ATPases.

He's already been investigating these enzymes for years, and hopes this grant will help him discover new therapeutic targets for a range of diseases such as cancer, osteoporosis and arthritis.

"We want to answer the question I've been asking for fifteen years now. How do V-ATPase acid pumps get sent to their different locations for specific functions?" says Manolson.

While we know little about the essential programming of

these tiny pumps, we do know they are key to basic tasks such as ridding the body of metabolic acid after exercise, pumping acid into bone to help dissolve it as part of bone remodelling and growth, and "recycling" a cell's components into its most basic constituent parts.

And when these body-wide pumps malfunction, there's a proven connection to disease. Poorly functioning V-ATPase mechanisms have been identified in osteoporosis, inflammatory arthritis, and the kidney disease distal acidosis.

When V-ATPases are too active, it's also a problem. In cancer cells, overexpressed V-ATPases can pump acids onto cell surfaces, which breaks down the extra cellular matrix and enables cancer cell metastasis.

Better understanding the signals behind these pumps could mean new treatments that directly impact cells and all-important acid in the body.

THE MOUTH'S QUIET FIRST RESPONDERS

Neutrophils are a type of white blood cell that act as a kind of first responder against infection in the mouth. Third year Periodontology resident Siavash Hassanpour, working with Dr. Noah Fine in Dr. Michael Glogauer's lab, has discovered two neutrophil subtypes active in healthy mouths.

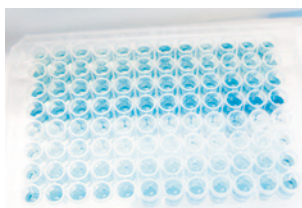


Photo: Jeff Comber

"Neutrophils are a lot more sophisticated than we thought," says Hassanpour, whose discovery earned him first prize in the Basic Science and Clinical Impact categories at the American Academy of Periodontology Annual Meeting last September.

With chronic periodontitis, all oral neutrophils are fully activated and "ready to kill," says Hassanpour. But in a healthy mouth, these newly discovered subtypes are active. Para-inflammatory 1 neutrophils are minimally active, resting tissue neutrophils while para-inflammatory 2s are more aggressive.

"We think the parasites maintain the state of health in the oral cavity. These could be dealing with bacteria by mounting an appropriate inflammatory response," says Hassanpour.

Dr. Glogauer 9T3, 9T9 Dip Perio, 9T9 PhD, says these results "could lead to novel diagnostic and treatment monitoring tools that could change the way we approach periodontal disease."

HOW BACTERIA ATTACK

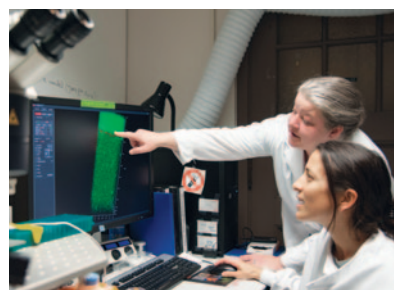


Photo: Jeff Comber

Prof. Tara Moriarty with researcher

Lyme disease invades the joints, brain, heart and other tissues. Using a live-imaging system, UofT researchers tracked the disease's bacteria to understand how they navigate the bloodstream to get to organs.

Using an imaging process filmed in real time, the researchers followed *Borrelia burgdorferi*, a member of the spirochete family, through the flow chambers and blood vessels of live mice. Their results were published last fall in the journal *Cell Reports*.

"It's hard to understand why spirochete bacteria are so highly invasive," says senior author Tara Moriarty, Assistant Professor at the Faculty of Dentistry.

The researchers observed bacterium resisting the force of the bloodstream using catch bonds and tethers, similar to mini anchors, to hook into blood vessels' endothelial cells. They also use propeller-like structures to wriggle out of the bloodstream to get to other parts of the body.

The catch-tether technique is also used by immune system cells. "It's pretty surprising and fascinating that you'd see bacteria [use these methods] too," says Moriarty.

This imaging process could be used to track other bacteria and identify ways to stop them from travelling through the body.


OUR STANDARDS. YOUR RESULTS.

That Doesn't Look Normal... Now What?
A Case-Based Review of What You Need to Know in Oral Medicine, Oral Pathology & Oral Radiology

MAY 12, 2017
CDE CREDITS: 7 (2 COURSES IN 1 DAY!)
CATEGORY 1

COURSE SPEAKERS
Dr. Susanne Perschbacher & Dr. Kristina Perschbacher

10% DISCOUNT FOR ALUMNI. REGISTER EARLY!
Conveniently location at our CDE Centre - 1440 Don Mills

For more info & to register, please visit www.cde.dentistry.utoronto.ca



CAMH CLINIC GETS UPGRADE



Photo: courtesy of Matt Kelly, CAMH

UofT Dentistry's Dean Haas at the clinic launch

The dental clinic at the Centre for Addiction and Mental Health, a popular Dentistry student rotation, has undergone a move and renovation that will see it gain space and natural light.

The CAMH clinic was founded in the late 1800s and for the last 30 years has been housed in a basement at the centre's campus on Queen Street West.

The new main floor space has four rooms — double the old space — to serve more patients and offer additional elbow room for the clinic's senior dentist, Paul Zung, who's also a Clinical Instructor of Prosthodontics at the Faculty of Dentistry. Zung 8T5 helped design the new clinic space and runs it with two other dentists and a hygienist.

“There’s a strong connection between the health of one’s teeth and a person’s mental health.”

The clinic offers a treatment environment for those with sometimes serious mental health issues and entrenched phobias about medical care of any kind. Patients sometimes leave mid treatment.

“In psych hospitals, we always design [treatment rooms] with us facing outside so we know who’s coming, but that way the patient also knows that he or she has a straight line for the door if they want to run out,” says Zung.

The clinic often sees complex cases, as many patients have been through challenging times. “There’s a strong connection between the health of one’s teeth and a person’s mental health because dental health has everything to do with caring for yourself,” says Zung.

NEW CENTRE FOR RESEARCH AND CARE



Photo: courtesy of dentalcorp

dentalcorp announces Mt. Sinai donation

With the aim of becoming a world leader in oral health care, UofT's Faculty of Dentistry and its research partner Sinai Health System have formed the Centre for Advanced Dental Research and Care.

The Centre was launched last fall thanks to a generous donation to Mount Sinai.

It will bring together clinical specialist and researchers to develop new diagnostics, therapeutics and standards of care. The Centre will be chaired by senior UofT faculty member and Dentist-in-Chief at Sinai Health System, Dr. Howard Tenenbaum 7T8, 8T2 Dip Perio, 8T3 PhD, and members will include researchers from the Faculty of Dentistry as well as clinical practitioners from both institutions.

“The Centre for Advanced Dental Research and Care represents an evolutionary leap for dental healthcare, and will make a profound impact on the lives of our patients as well as our students,” says Tenenbaum.

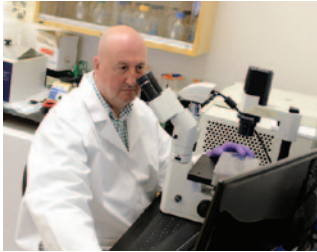
As many as 300 patients are expected to be seen at the Centre during its first year of operation alone.

“With its focus on solving challenging clinical problems and bridging the gap between basic science and clinical research in the delivery of care, this Centre radically advances our mission to improve human health through furthering dental education and research,” says Dr. Daniel Haas, Dean of the Faculty of Dentistry.

GIVING ANTIBODIES STAYING POWER

Vaccines and antibodies effectively fight illness, but their effects can wear off.

UofT Dentistry professor John Davies has found a way to make monoclonal antibodies (mAbs), a treatment that stimulates the immune system to fight unwanted cells or proteins, work longer by deriving them from stem cells.



Prof. John Davies

Photo: courtesy of Luke Ng, IBBME

“Many patients who are receiving mAb treatment for Crohn’s or rheumatoid arthritis have to visit the clinic frequently for new doses due to their limited window of effectiveness,” says Davies, who is cross-appointed with the Institute of Biomaterials & Biomedical Engineering (IBBME). “Our study provides a proof of concept that stem cells can be engineered to deliver this type of antibody over an extended period of time.”

Davies has partnered with researchers Lorena Braid, Wei-Gang Hu and Les Nagata of Defence Research and Development Canada for this study, which was published in the journal *Stem Cells Translational Medicine* last fall. They engineered stem cells from human umbilical cord tissue to produce mAbs to fight a mosquito-born virus in mice and compared their longevity to that of traditionally purified mAbs.

“The results were eye-opening,” reports Hu. “While traditional antibody administration provided protection for two or three days after injection, the engineered stem cells protected the majority of the mice for 10 days, with protective antibody levels up to 38 days.”

“This study has broad implications for a range of mAb therapies,” says Davies. “Extended delivery can have a tremendous impact on many indications, including immune and inflammatory diseases, and in particular the field of immuno-oncology.”

MAKE IT MEMORABLE CALLING ALL REUNION ORGANIZERS

ORGANIZING YOUR CLASS REUNION? Get in touch with the Advancement Office, so we can help you make it a memorable event. Contact warrena.wilkinson@dentistry.utoronto.ca

NEW ORTHO GRAD FUND



(L-R) Timothy Brown, Dr. Brian Hurd, Dean Haas, Selina Esteves and Prof. Sunjay Suri

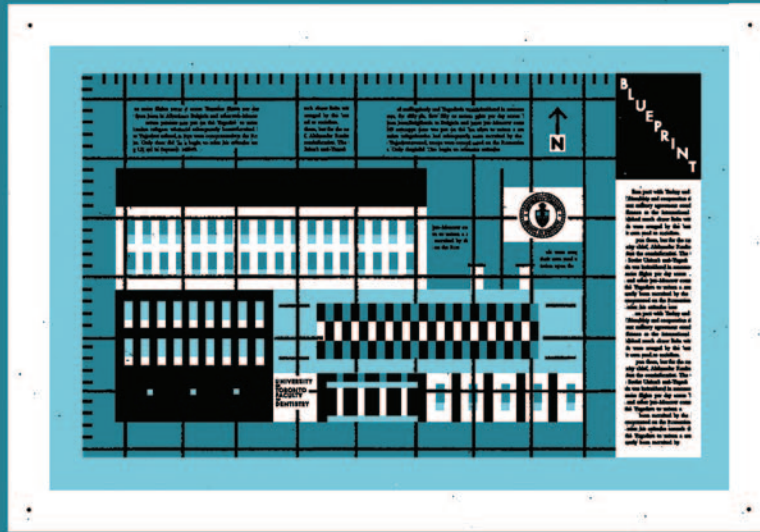
A new graduate orthodontics fund, which will support both academic and research activities, has been established in memory of Dr. John Fasken. For nearly 40 years, Fasken 7T0, 7T7 Dip Ortho treated orthodontic patients in Oakville and served as an associate in dentistry at UofT before passing away in 2015. The fund was created by Dr. Brian Hurd, a longtime friend and clinical co-instructor, as well as Timothy Brown and Jackie Joachim of ROI Corporation, who together donated \$15,000 in honour of Dr. Fasken.

FLUORIDE VARNISH PROJECT GETS FUNDING

UofT Dentistry Professor Carlos Quiñonez’s plan to make fluoride varnish application a part of routine and early care across Ontario has secured \$48,000 in funding. Quiñonez developed the project in partnership with Dr. Andrea Feller, associate medical officer of health for the Niagara region, and secured the funding from the Alliance for a Cavity Free Future.

MESSAGE UNDELIVERABLE?

Don’t miss out! Keep up with the latest alumni news and event invitations by ensuring that we have your current address and email on file. Please update your address with warrena.wilkinson@dentistry.utoronto.ca



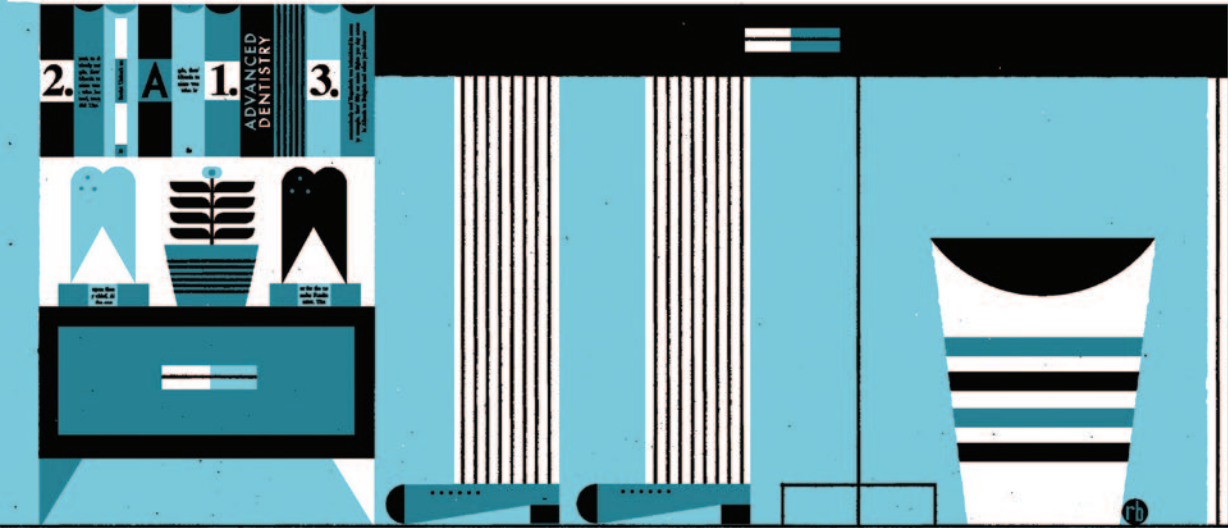
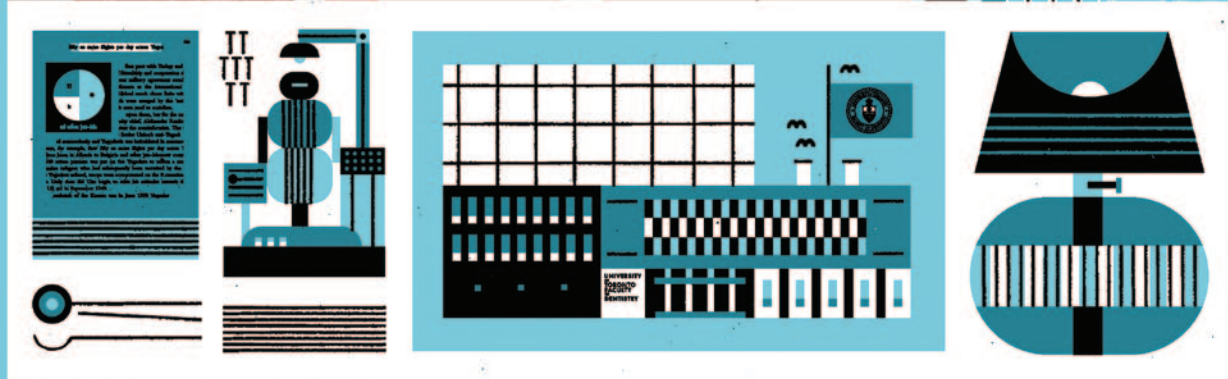
BUILDING

the **FUTURE** *of* **DENTISTRY**

The first major renovation in thirty years will align UofT Dentistry's physical space with its ambitious teaching and research goals

BY ERIN VOLLICK ILLUSTRATION BY RAYMOND BIESINGER





Fresh. Forward thinking. Collaborative.

It wasn't one major factor that pushed UofT's Faculty of Dentistry towards a major renovation, but an accumulation of small problems. A fridge unit was too large for one lab, while another lab had none. An expensive, state-of-the-art piece of imaging equipment couldn't be installed because the 1980s electrical infrastructure in the lab was incapable of supporting it. Increasingly stringent federal biosafety regulations for labs introduced in the last few years finally outstripped the Faculty's ability to meet them.

Meanwhile, space in the Faculty's two downtown Toronto buildings was tight. "Dentistry outgrew its buildings," says Mary Choi, Assistant Dean of UofT Dentistry. With over 100 part-time and full-time professors, and 88 research labs and



124 Edward Street in 1960s

support spaces, Dentistry needed to either find more space or re-envision its existing square footage.

But it was 2014's strategic planning process that ultimately led the Faculty to commit to the costly and often disruptive process of a major renovation. The plan saw UofT Dentistry identify a need to reinvest in its internationally renowned research program. That could only be done in labs that were not merely bandaged to fulfill staff and students' day-to-day needs — they needed to be fundamentally reimaged.

In 2016, the school committed to an extensive transformation of its facilities to upgrade and expand labs and to create new classrooms, office spaces and student areas. The \$30 million project entails renovating the fourth and fifth floors of the old and new buildings or "wings," as well as its adjoining ramps. It will be the school's first major building renovation since 1985,



and promises to dramatically change the appearance and function of the Faculty. More importantly, it will ensure that the physical space at UofT Dentistry keeps up with the industry-changing research, education and clinical care going on here. “It will help our faculty to capitalize on their potential and allow us to sustain excellence. But it will also extend our multi-disciplinary focus to better solve clinical problems,” says Daniel Haas, Professor and Dean of the Faculty.

THE STAKES

Leadership at UofT Dentistry is pushing for physical upgrades because it knows just how much physical space in academia impacts research and education. “Dental academia is at a crossroads,” says Haas, referring to the 1926 Gies Report. “We need to continually reassert our relevance within the university

“It will help our faculty to capitalize on their potential and allow us to sustain excellence. But it will also extend our multidisciplinary focus to better solve clinical problems”

community.” According to the report, which Haas argues maintains its relevance more than ever in today’s academic environment, the learned profession of dentistry must continue to push for excellence in both research and teaching. It was this kind of thinking that went into the Faculty’s Strategic Plan 2014-19, which articulated a clear need to “shape and grow our research enterprise around targeted research foci.”



Archival image of 124 Edward Street

The Faculty has long struggled to find enough space for its needs in its dense downtown neighbourhood

UofT Dentistry has been busy doing just that. Last July, the school officially adopted a newly revised academic model that integrated its plans for research. The new model, decided upon after months of community consultation, called for the creation of a Vice-Dean, Education and a Vice-Dean, Research position, “signalling the equal value of both research and education,” says Haas.

Since being tapped for the role of Vice-Dean, Research in July 2016, Bernhard Ganss, who was formerly the Associate Dean, Research, has been busy: in the past year he’s brought on board Farah Thong as UofT Dentistry’s first Research and Business Development Manager. Thong helps Dentistry’s researchers succeed at winning grants and translating their research into market-ready products. Ganss also helped identify key areas in which the Faculty could invest in new hires, and put in place a much-needed junior faculty mentoring program.

But in order to attract and retain top talent, a school needs more than the right academic infrastructure — it needs sufficient well-designed space for teaching and learning. And it needs labs that can accommodate innovative, technology-driven research.

A TALE OF TWO BUILDINGS

The Faculty has long struggled to find enough space for its needs in its dense downtown neighbourhood. Its current headquarters, known as the old wing, dates back to 1959, when the building at 124 Edward Street was built on the site of famous Italian restaurant Old Angelos — previous to that, the Faculty was located on College Street. In 1985, the new wing was built facing onto Elm Street and the two buildings were joined together by ramps between the top three floors, bringing Dentistry’s combined space total to 24,000 square metres.

As the Faculty grew over the next 20 years, things became

increasingly cramped. In 2006, the faculty’s leadership team developed plans for a new building, and proposed lining up public and private sector funds for its projected budget of upwards of \$300 million. But in 2008, with the economy — and thus the school’s coffers in trouble — the school could not proceed with the plans.

Nearly a decade later, the Faculty’s Strategic Plan revived interest in re-examining space. Now, Faculty leaders had cost-effective ideas for looking at the potential in its existing buildings. Ganss took the lead on this, chairing a working group that conducted a comprehensive audit of the research program and its infrastructure. The June 2015 report, tabled as part of the Strategic Plan Year One Report,

concluded that neither the 30-year-old nor the 58-year-old building had the adequate space, technology infrastructure or biohazard safety features to meet the needs of the current and future research faculty — and a simple retrofit wasn’t enough to fix the problem. Resources were also a significant issue. “In addition to isolation, all these small units triggered duplication of equipment in multiple labs — there was too much of everything, so space was being used inefficiently. The requirements for research space nowadays are very different than they were thirty years ago,” says Ganss.

During 2015 and into the summer of 2016, the working group of six led by Ganss and Building Manager Tina Harvey-Kane spoke extensively with Dentistry researchers, toured research facilities across UofT’s campuses, and conducted exhaustive space audits. The top two floors of both buildings have been traditionally assigned to research space, with a smattering of common lunch rooms, office spaces and a couple of classrooms. “We had ideas as to how we wanted to use the fourth and fifth floors,” Choi says, but plans were not enough. The Faculty needed help to bring its plans to life.

Then, in April 2016, the Federal government announced that it would invest \$2 billion in a research infrastructure program for post-secondary institutions. Dentistry had at the ready a detailed, comprehensive plan to remodel the fourth and fifth floors of its two buildings. UofT rolled Dentistry’s plan into a massive project proposal submitted to the government in May and held their collective breath.

A few months later, the federal and provincial governments, along with UofT, announced that Dentistry would receive \$11 million towards Dentistry’s renovations, with Dentistry responsible for matching the funds.

Dentistry’s research renovation working group immediately began work with main campus to secure demolition experts and architects. In October 2016, Stantec Architecture presented its plans for the renovations at a special Faculty council session. In late December and early January, the old wing’s fourth and fifth floors, and the new wing’s fifth floor, were demolished,

A VIRTUAL TOUR

LAB ZONE

With an emphasis on shared laboratory spaces and resources, the renovations will transform tired lab areas that are over 30 years old. The majority of the renovated space will consist of open wet labs, allowing collaboration and cross-pollination of ideas as well as the sharing of resources.

"The lab space is going to be extremely modern, almost futuristic," says Justin Perdue, architect for the project. The fourth and fifth floors of the new Dentistry building will largely consist of shared biosafety level 2 laboratory spaces along the building's perimeter.

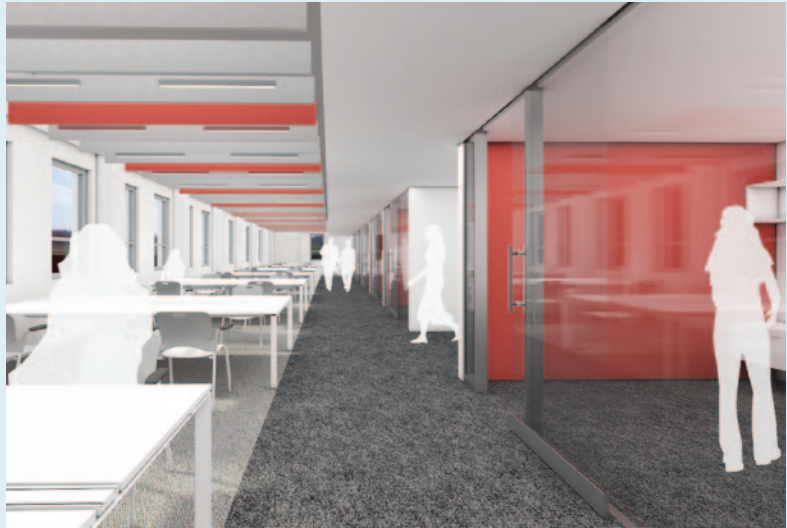
Shared support rooms will be housed in the core of these spaces, next to the labs. These shared support rooms will house microscopy, cell culture or flow cytometry labs, as well as large refrigeration corridors to store cells and tissue cultures.



OFFICE ZONE

In the old wing will be large, open areas composed of shared student, administrative staff and faculty office space.

"The office side is going to have a softer, more fun, more playful environment. They are meant to be very comfortable, styled on the idea of start-up offices where people might work long days," Perdue describes. Student desks and administrative offices will remain open concept, while glass-fronted faculty offices will take advantage of the light trickling in from these areas.



COLLABORATIVE ZONE

The walls between the old and new buildings, where they once met with ramps, will be replaced with glass walls, to visually connect the spaces. Newly designed ramps to link the old and new wings will meet accessibility standards. Just off the ramp areas will be collaborative zones, an extension of the office areas but geared towards having people share space. There will be seating, café areas and benches.

"These are very informal, with lots of places to hang out and choose the way you want to interact," Perdue says. These spaces will encourage different research areas to mingle, and, hopefully, become "place[s] where new ideas are going to be generated," he adds.





with construction beginning this past February. With such a short turnaround — to secure the funding, the projects must be substantially completed by April 2018 — the Faculty is undergoing short term pain to achieve long term progress.

ENABLING COLLABORATION

As researchers across all disciplines are being urged to work together to solve clinically relevant problems, and to consider the real-world value of their work, such ideas impact space. Collaboration is increasingly being pushed by research funding bodies, widely promoted across the University of Toronto and embraced wholeheartedly by UofT Dentistry.

Through its consultation and planning process, the working group looked at a number of models across campus and beyond to determine how space could be used to facilitate research collaboration. It landed on the simple idea that when scientists share bench space, they also share ideas. So the renovated space will feature large, open-concept labs where researchers share space and resources.

Still, there's a careful balance to be struck between privacy, specific research needs and cross pollination. "How do we create a space that will allow people to randomly bump into each other but also allow for spaces that may need to be dark or be protected from certain vibrations?" Ganss asks. Designers are addressing this complexity and ensuring some shared spaces will offer privacy and protection from things such as light and sound to meet specific research needs.

Researchers across all disciplines are being urged to work together to solve clinically relevant problems, and to consider the real-world value of their work, and such an approach impacts space

PATIENT-FOCUSED RESEARCH

At Dentistry, patients are an integral part of daily teaching, learning and discovery. Designs for this recent renovation embraces patients by bringing the bulk of Dentistry's researchers back under one roof, where on a daily basis they can be exposed to Dentistry's patient population and students, hopefully sparking new ideas, collaborations and breakthroughs. For the past few decades, a number of Dentistry's researchers — including some of its most prolific basic scientists — have been housed at the Fitzgerald building on St. George campus, dividing and isolating the researchers, and especially the basic scientists from the more clinical researchers. "Putting an infrastructure in place to break down those barriers [between these communities] is important," says Ganss, who argues that this new, more collaborative and shared-space model has at its roots a "bench to chairside" approach to research.



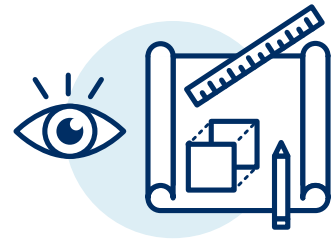
DESIGNED FOR THE FUTURE

Fresh. Forward thinking. Collaborative. Those are three words project architect Justin Perdue uses to describe the Stantec team's plans for the renovations. The new layout will break the fourth and fifth floors of both wings into three distinct user zones: the laboratory, the office and common collaborative zones.

Safety and compliance with ever-evolving biohazard safety regulations were of primary concern for the renovation, as was ensuring that the facilities would be robust and technologically progressive, allowing researchers to grow their programs and evolve over time. Modular space that can be easily re-imagined to fit future needs was likewise built into every aspect of the designs, as were green features: motion sensor lighting, 100 per cent recyclable carpets, the harvesting of natural light and more energy-efficient mechanical systems. Meeting rooms and desk spaces will feature flexible furniture able to respond as Faculty needs "grow and shrink," says Harvey-Kane. "The whole point of this is flexibility, something we haven't had before," she concludes. In fact, the old idea of four walls and a door won't exist any longer.

Those four walls will disappear fast. A stipulation to the government funding is that all of the renovations need to be substantially complete by April 2018 — a scant year away. The construction schedule will be gruelling, but the researchers, lab techs and students who have been temporarily relocated to other floors or rented spaces at 481 University Ave have been good-natured about their displacement. "Everyone is excited," says Choi. With new, state-of-the-art facilities, UofT Dentistry's scientists can produce top-tier research for the foreseeable future. For Ganss, the revitalization project is simply the school doing what it must to remain competitive, inspired and innovative: "This will put UofT Dentistry research back at the top of places where ideas are born." ■

CRITICAL CLINICAL CRUNCH



The infrastructure renovation currently underway at UofT Dentistry will transform its research and learning spaces. But the Faculty's clinics still need some work. For the past two years, as part of the Strategic Plan, a working group led by Dr. James Posluns, Assistant Dean, Clinics, has been developing a long term vision for clinical renewal at the Faculty.

"Our clinical facilities are old and not efficient, and we need to meet new requirements," explains Posluns. Working with the existing space is the primary focus of these plans. "It's turning out that we probably have sufficient space," says Assistant Dean Mary Choi. "It's just a matter of better utilizing and modernizing the spaces."

Revitalized clinic space will likely include the creation of a central sterilization model, plus the development of a wayfinding system for patients. "Part of this plan would be to assist patients in locating clinic entrances, waiting areas and reception areas so they are easily accessible and easy to find for patients," says Building Manager Tina Harvey-Kane.

Some ideas don't involve physical changes at all. Scheduling has been identified as needing improvement. While some clinics are only used a few days a week, others are used every day.

The Faculty is also developing an ambitious dream for an after-hours clinic. "It would be a great thing for the community," says Posluns.

Posluns says clinic renewal is still very much in the idea phase with no set budget or timeline. "This starts as a vision and has to work its way to a final plan." Next, the Faculty will be presenting a draft plan to stakeholders with the hopes of presenting a final plan by late spring 2017.

CLINICS OF TOMORROW

Innovations in hardware, software and biological materials are set to transform the dental office

BY DIANE PETERS

Before Dr. Amr Abou zeid rT4 launched his own practice less than a year ago in Edmonton, he did some market research. Since he himself has traumatic childhood memories of having caries filled without local anaesthetic, he wanted to know what patients dislike the most about the dentist.

It was a long list: pain, needles, noisy drills, bite-wings and gooey dental impression trays.

So he hunted for equipment to solve these problems. “I had to get everything from a different company,” he recalls. Phone calls to suppliers and labs across North America resulted in him investing \$1.2 million in state-of-the-art equipment designed to make dental visits better for patients.

“It’s starting to pay off,” Abou zeid says of the considerable up-front costs to launch his clinic. Marketing his services as pain, goo and gag free, he’s quickly enticed a full roster of patients frustrated with loud, painful and uncomfortable dental experiences. One woman measured for a night guard — no impression tray, just a few minutes with a digital scanner to map her mouth — got up from the chair and hugged him afterwards. “Why isn’t everyone doing this?” she asked.

Soon, everyone will. Technology is on the cusp of transforming the look and function of the average dentist’s office. Some of these gizmos are with us already. Some are coming

down the pipe. Emerging hardware and software promise a better experience for patients and ways to offer more services, more reliably, for dentists.

But the state-of-the-art dental office comes with additional costs and logistical challenges. And while dentists must learn how to use all this new gear, simultaneously the pressure will be on staying sharp with the basics. “The fundamentals of dentistry will still remain,” says Dr. James Posluns, Assistant Dean of Clinics at UofT Dentistry. Fortunately, these changes will bring with them a future that looks healthy for patients and for the profession too.



CROWNS AND BEYOND

Expect the dental office of tomorrow to have as many buttons and lights as the bridge of a sci-fi spaceship. Chairside computers or tablets will be the norm, and they’ll be hooked into digital records and dental equipment that will transform the daily work of dentistry.

Leading the digital revolution will be scanners hooked up to CAD/CAM (computer-aided design/manufacturing) systems. “It’s like a storm, it’s taken over dentistry,” says Dr. Omar El-Mowafy, Professor at UofT Dentistry. A year ago, he brought in a \$150,000 system for the Faculty’s clinics to offer patients one-day crowns. It takes just minutes to scan the mouth, and

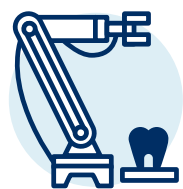
Photo: istock.com



Many technologies are becoming increasingly appealing to the profession. Prices are dropping and functionality is improving. Scanners are getting more accurate and manufacturers keep adding more uses.

a bit more time on the computer to build the virtual crown to be sure it will fit and function perfectly. That image is sent over to a milling machine, which can produce a ceramic crown in about 10 minutes. After 20 minutes of firing in a mini furnace, the crown is ready for the patient.

That CAD/CAM digital scanner, meanwhile, is ushering in a larger revolution that will eventually touch numerous aspects of dental care. These scanners, which sell for as little as \$20,000, can be used to make moulds for Invisalign braces or partial dentures — which a lab can fabricate quickly and reliably using a 3D printer.



SURGERY GETS SMARTER

Technology will increasingly step in to help one of the most challenging aspects of dental work: implant surgery. Static guides with titanium sleeves offer a helpful guide for such work, but they have many flaws.

“You have to blindly trust the guide,” says UofT Dentistry Assistant Professor Dr. Eszter Somogyi-Ganss rT3 MSc Prosthodontics. “If something goes wrong, there’s nothing you can do about it.” Meanwhile, it’s challenging to keep the bone cool when using such a guide.

A surgeon can instead do freehand, precise work with the help of one of the new computer-assisted surgery systems on the market. Somogyi-Ganss helped develop Navident, which uses data from a cone beam computerized tomography scan (CBCT). The surgeon maps out the perfect location for the implant, and the machine guides them through the process. Somogyi-Ganss thinks one of the big benefits of these systems is that they allow for instant correction. “You can stop, re-plan things on the computer, and then start the surgery again,” she says. Computer-assisted surgery both requires and helps build top-notch surgical skills — it can help an excellent surgeon do better work on complex cases and assist a general dentist in doing simpler implant work.

Add these emerging innovations to an ever-growing list of technologies soon to be mainstream in the dental office: computerized injections, needle-free local anaesthetic, cone beam CTs, periodontic lasers and 3D printers for dentures. They share common characteristics: they make dental work quicker

and more comfortable while tapping into the fundamentals every professional learns during their DDS.

And then there is the farther-off addition of robotics to the dental office. For instance, the da Vinci transoral robotic surgery system could perform dental surgery. Since such a system costs millions right now, it will be decades before robots will play a role in the profession — and the cost will likely mean they’ll only be used by specialists and in complex or specialized cases.

Outside of robotics, many technologies are becoming increasingly appealing to the profession. Prices are dropping and functionality is improving. Scanners are getting more accurate and manufacturers keep adding more uses. In-house milled crowns have improved colour — and when paired with a true-colour scanner, they’re bang on. While only labs invest in pricey 3D printers for dentures, general dentists may be able to afford them in future. While Abou zeid had to shop around for his office technology, in a few years those devices, plus many more, will be available from multiple manufacturers through more distributors.



PATIENTS WIN

A teched-up office often means less pain and discomfort for the person in the chair. “Digital innovations make for happier patients,” says Melissa De Lorenzi, field sales consultant with dental distribution company Henry Schein Canada. Procedures are getting faster too. One-day crowns appeal to most people, but particularly to remote and rural residents who have to travel hours to the dentist’s office — one trip is dramatically better than two. And when state-of-the-art technology is behind a new crown or surgery, patients often see better results. For instance, milled crowns are made from a single block of material while the traditional way of making crowns, building them by adding material, means they can break down faster. As well, computer-assisted surgery lets a skilled surgeon do even more accurate work.

For dentists themselves, building a tech-driven practice means moving away from the storage challenges of paper files and dental moulds — that’s a lot of space that gets freed up. When things like crowns can be done right in the office without the use of a lab, that can benefit a practice’s bottom

line. “If you do everything in your office, you don’t have to send anything off, It’s a revenue stream. You are not sharing it with anyone else,” says Somogyi-Ganss.

Dentists such as Abou zeid find equipment can help set a practice apart. “It allows you see more patients, and treat them differently. The market is very competitive, technology lets dentists brand their practices,” says De Lorenzi. Both rural practices and those in cities can entice new patients and retain the old with reassurances of less pain, quicker turnarounds and increasingly accurate procedures.



THE FUTURE HAS ITS CHALLENGES

And while new technologies bring more choices, there are no right answers. Get a crown milled on the spot or wait to get a lab-milled zirconia crown, which is much more durable? Embark on surgery with the aid of technology, or refer out to a specialist?

Those choices extend to the dentist debating what to buy for their clinics. You could invest in a zirconia mill, for instance, but since it takes about four hours to cure this material, maybe not? A practice has to understand its patients and competition to make the right investment — and today’s dentists need to follow the trends enough to know which equipment will be soon considered status quo. “Consumers are exposed to what’s out on the market as well,” says De Lorenzi. If patients expect it, you may need to get it.

New tech requires sometimes considerable investment — and not just up-front money but ongoing support fees, which cover maintenance and software upgrades. With big money and the clinic’s brand on the line, De Lorenzi says dentists have to do considerable research. She recommends looking for equipment with as open a platform as possible, so it can integrate software upgrades and new, future uses that perhaps the designers haven’t even thought of yet.



A PARADIGM SHIFT

When a dentist fills up their office with the latest in tech innovations, it changes the whole office, including its layout. Somogyi-Ganss says today’s equipment often fits awkwardly into clinics, which she hopes will change. “The ergonomics of it all can be a problem. Eventually, things will get smaller. I’m sure everything will be miniaturized and become even more user friendly.”

New equipment and the need for screen time to do design and other work mean more dentists need an expanded in-house lab. And who’s doing this work? Dentists need to offload some of it to technicians or hygienists to make the best use of their time. “You have to keep looking at ways to maintain and grow your productivity,” says De Lorenzi. In future, solo practitioners may find themselves pooling resources with colleagues to run joint labs.

No matter who’s doing the brunt of the work, the dentist of the future has to be comfortable in front of a computer screen. It may soon be a skill large clinics demand in a new hire, and certainly important for those who take up a post at a remote location. “There needs to be a paradigm shift in education,” says Somogyi-Ganss. “Dentists need to be more digitally trained.”

Schools like UofT are catching up by making sure students get exposed to digital dentistry, and are comfortable both with where it is today, and where it’s going. That includes exposing them to the fine balancing act that will make up the future of dentistry: dovetailing high-tech hardware and software with traditional skills.

“Dental disease and teeth break down the same way,” says Posluns. “The materials will improve, and so will the way you go about correcting the problem. But the basics are always there.”

DENTISTRY GETS MEDICAL



While hardware and software innovations will soon alter the look and feel of the dentist’s office, research in dentistry will also impact the materials dentists use. The dentist of tomorrow will prevent and treat dental disease with an increasingly biological approach.

Leading the way is the rise of nanotechnology, where super-small materials can impact health on the molecular level. Dr. Anil Kishen, Professor and Graduate Coordinator in the Faculty of Dentistry, says nanomaterials will soon be made into paint-on products that can help prevent caries. Products are also in the works that will be used during fillings and root canals to aid in healing. “We’ll see more biological-based healing, resulting in regeneration and repair products,” says Kishen.

Meanwhile, so-called smart fillings and other dental materials will come equipped with antibacterial or other medicine-like components to increase their efficacy.

Many of these biologically based innovations won’t replace the surgical tasks of general and specialist dentists, but they will help delay or prevent problems and make traditional dental treatments that much more successful.

STUDENTS RULE

Radical changes at the DSS are transforming the dental school experience

BY DIANE PETERS

It's a warm fall Friday night and the student lounge in the Dentistry building is positively sweltering. That's because it's packed with students, plus the warm, furry bodies of half a dozen pups, wriggling through the crowd.

A terrier, Labradoodle and Shih Tsu flit from the students seated on the floor — half of them in scrubs, the rest in jeans — to those standing around the fringes of the room. Izzy, a golden retriever, shows them how it's done by standing in the centre of the fray with head lifted to receive the pats of, at times, five pairs of hands at once.

"I love this dog," enthuses one student, admiring a cockapoo with honey-coloured fur who stops by for a quick pet, then moves on. He describes himself as a "future dog owner."

The goal of this Dental Students' Society (DSS) event, dubbed Puppy Therapy, is to help dental students de-stress before exams. It's fun, creative and just one example of how this longtime student society is creatively getting it right these days.

The society recently reorganized itself to run more efficiently and host events focused on fun, cooperation and good health, and all in more harmonious collaboration with staff and faculty. Dental school is still tough, but this positive force is helping make these challenging four years fly by.

The old DSS, while functional, did not always connect with students. Jacob Fitzgerald, DDS₄ and current president of the DSS, recalls his first year at UofT Dentistry. "I didn't really know what the DSS did." He became student rep in his first year, so was clued in, but felt there was a distance between the organization and the students. It ran events, but they weren't must-attends. Meanwhile, upper years told him he would not love school, that it was just hard work and no fun. "I really didn't feel that way. I loved my first year. I loved my classmates." He thought even a challenging program like dentistry could be a blast if everyone had a positive attitude and saw classmates as colleagues, not competition.

Internally, the organization itself had become cumbersome. The DSS had grown to have four executives and 32 official positions in total. "In a room with 32 people, oftentimes we found the same point would get brought up over and over again," says Fitzgerald. It got so new ideas would merely bog the system down — so no one welcomed them anymore. "Half our conversations were about whether or not we should give them money for pizza for events," recalls Lindsay Louwagie 1T6, who served as president of the DSS in 2015-16, and class president for the previous two years. She's now graduated and is working as a dentist in downtown Toronto and in Waterloo.

From left: Cameron Goertzen, Jacob Fitzgerald, Nashat Cassim, Tracy Tang, Caroline Conway



Since the society had little impact and meetings were a drag, its ranks drew in the ambitious, not necessarily the passionate. “People were doing it as a resume builder, not because they had the passion to be involved for the sake of being involved,” says Louwagie.

Further behind the scenes, the DSS’s relationship with faculty had grown unproductive. The organizations would bring complaints to faculty. Changes would be made. A few years later, another complaint would undo the change. “The relationship became strained between the two parties,” due to this back-and-forthing, admits Louwagie.

Around the time she started to get involved, change was brewing. It began with the arrival of Dean Daniel Haas in 2012. “He was receptive to a lot of feedback,” says Louwagie. Two years later, Dean Haas brought on board the school’s first Director of Student Life, Dr. Richard Rayman, which Louwagie describes as a “big catalyst” for changing the organization. Rayman has an open-door policy, and students found themselves having more of a voice in the Faculty.

Fitzgerald is proof that interaction works. In spring 2015, Fitzgerald came up with the basics of what’s now known as

The success of the Colour Group Games further cemented the idea that the DSS could be so much more

the Colour Group Games. The six colour groups the dental school assigns students to organize rotations double as larger teams that collect points all year. Fitzgerald is a hockey player and he always found his upper-year teammates would give him support and offer him tips, making dental school more collegial. Why couldn’t everyone benefit from having teammates all over the school? The previous system, DSS Points, saw individuals rack up points for getting involved — DSS execs themselves would get points for their service — but the amount was somewhat arbitrary. Point would determine who would get awards and scholarships. The entire system was somewhat unfair and created a sense of competition among students.

On a whim, Fitzgerald met with Rayman to go over his idea — which was still in a basic form at the time — and he loved the idea and wanted to put it in place right away. Over the summer, Rayman worked with Fitzgerald and the DSS to launch this Hogwarts-style group approach to competition in fall 2015.

Participation in events shot up. “That’s both due to the Colour Group Games, but also because of the great people we have heading up the events,” says Fitzgerald. Trivia nights were



DSS students enjoy puppy therapy



Photos: Kevin Nguyen



One key addition was the creation of a wellness officer. Diana Liu, a DDS4, stepped into the role because of her interest in yoga, nutrition and meditation

packed. Charity events the DSS had always run were suddenly getting great turnouts and making more of a difference. Of huge importance: the AGM, usually a total ghost town, got a crowd.

The success of the Colour Group Games further cemented the idea that the DSS could be so much more. With better liaison between faculty and students, the topic of wellness started coming up, with the Faculty asking the DSS to create a wellness document. That morphed into the society creating its own strategic plan, somewhat in synch with the Faculty's own plan. That entailed a town meeting with DDS students in late 2015 and a report that Louwagie wrote last spring. It stated the group's mission of fostering an "atmosphere of collegiality," and listed the group's values, which include inclusiveness, transparency and promoting life balance for students.

spring during finals, the DSS hosted Exam Jam, which included free coffee and snacks on offer in the cafeteria until 10 pm during peak study days.

This newly reinvigorated organization intends to finish what it started, including finishing up the strategic plan. Fitzgerald wants to see more bridge building between undergrads and grads; with that in mind, the DSS is hoping to run some joint events this year.

But for now, the people who have helped transform this group are pleased to see higher attendance at events, more options to help students keep stress under control and, most importantly, a more collaborative, friendly vibe in the school's hallways. Says Fitzgerald, "I think the mentality here has changed. People really enjoy going to school here now." ■

While the full document is still in draft form and the current DSS executive is working on completing it, the organization was ready to make major changes by spring 2016. Elections that year were for a whole new executive of 11 positions with full voting powers. Additionally, there were 54 members of the DSS that report to their superiors but have no voting power. This approach made it easier to get quorum and run meetings, but executives also have a team at the ready to get things done.

While there are more people in total involved in the DSS, the new system is both more efficient and in keeping with what students need now. "We actually eliminated redundant positions, and there are interesting new ones," says Fitzgerald.

One key addition was the creation of a wellness officer. Diana Liu, a DDS4, stepped into the role because of her interest in yoga, nutrition and meditation.

Liu introduced Wellness Wednesdays, a monthly, one-hour event offering rotating sessions of yoga, colour therapy (colouring with music in the background) or massage therapy (lottery winners got 15 minute massages for free).

The wellness portfolio keeps expanding for the DSS with now regular monthly yoga classes — taught by Liu, who just got certified — and the debut of craft therapy last fall, during which students made origami. Liu and her team are also putting more information on the DSS web site, including facts about nutrition, healthy recipes and pictures from events.

Not everyone attends events, but everyone must study. To that end, the DSS tries to make working at the dentistry building more comfortable. It bought a coffee pod machine for the student lounge that's free to use. Last



2017
AWARDS OF
DISTINCTION
GALA

PROUDLY HONOURING:

Grace Bradley

Dr. Grace Bradley 7T9 MSc OP/OM 8T4 has been a key member of the UofT community for more than four decades. In 1973, Bradley — then Grace Chau — began her studies at Trinity College. Scholarships supported her through two years of general science, the DDS program and a Master's of Science in Oral Pathology. She joined the Dentistry faculty in 1986, with a cross appointment as staff dentist at Sunnybrook Health Sciences Centre. Bradley taught oral pathology, played an increasingly important role at the Toronto Oral Pathology Service at the Faculty, and conducted cancer research at the Ontario Cancer Institute.

In 2007, Bradley took on her first administrative role as Associate Dean, Biological and Diagnostic Sciences. In 2016, she took on the newly created position of Associate Dean, Undergraduate Education. “Administration makes me come out of my hiding place in oral pathology and interact with a lot of people within



the Faculty, the University and other institutions,” she says. She finds that mutual respect between faculty and students leads to everyone discovering their strengths.

Bradley continues to find fresh insights and challenges in her work. “UofT is such a big university, I don't feel I've limited my learning and working in any way by staying here; there's so much inquiry, innovation and progress.”

Bradley, who's been awarded fellowships by the Medical Research Council of Canada and the American College of Dentists, acknowledges the school's role in her success. “I have

never doubted that I would give back.” She and her husband, Dr. Douglas Bradley, a professor of medicine at UofT, created a nursing scholarship and now she's given directly to Dentistry with a new oral pathology graduate research fund. These gifts are meant to help the next generation of learners discover as much as she has, and still does, at UofT.

Photos: Jeff Comber

Larry Levin

The incoming president of the Canadian Dental Association remembers what it's like to be on the outside, with a dissenting voice. In the 1990s, Dr. Larry Levin 6T9 served on his first committee for the Ontario Dental Association. He'd already held numerous positions, including president, with organizations such as the Ontario Society of Preventive Dentistry and the Hamilton Academy of Dentistry. But at the prestigious ODA he and his fellow committee members had unpopular ideas.

"They saw us as a subversive group. And we vented our views, but it fell on deaf ears," he recalls. Eventually, after countless meetings, his committee's message got through.

Levin soon became more involved with the association. "If you want to effect change on a broader scale, you can't do that from the outside," he says. He served as ODA president in 2008 and started working with the CDA in 2010. He balanced



those commitments with his community work in Hamilton. He still stays busy with his solo practice in Hamilton and up until 2000 was on the dental staff of the McMaster University Hospital.

Now, in preparation for his presidential term, Levin keeps his days as an outsider top of mind. "I recognize the importance of listening to the dissenting view. It will help to shape a better outcome."

This view of leadership has earned Levin praise. "Larry had the unique ability not only to lead by example but by encouraging everyone

around him to contribute their own ideas to a common cause," writes Dr. Harry Hoediono, past president of the ODA, in a testimonial. Levin has received numerous awards, including the Service Award and Award of Merit by the ODA, President's Award by the Hamilton Academy of Dentistry and the Hamilton Police Community Service Award, among others.

NOMINATIONS WELCOME: 2018 AWARDS OF DISTINCTION. Recognize colleagues who are making a difference for the Faculty, research, the dental profession or society as a whole. Nominations due June 1, 2017. For Nomination details and forms, visit www.dentistry.utoronto.ca/alumni or contact miriam.stephan@dentistry.utoronto.ca

Elizabeth MacSween

"My mother always used to stay 'Charity begins at home,'" says Dr. Elizabeth MacSween 8To. In keeping with this advice, she provides free dental care once a month for residents of a homeless mission, a project created by former UofT classmate and 2015 Award of Distinction recipient Dr. Tom Harle. "Working at this clinic smashes your preconceived ideas of the homeless and how they got there," she says. "These patients are so appreciative, polite and cooperative." In her Ottawa-based clinic, she keeps at least one pro bono client on the roster at all times.

Away from home, she went on a group mission to the Dominican Republic in 2002 and two years later she and her son organized their own excursion to Senegal. She mainly performed extractions, with her son assisting. "It's about filling a very tiny need, but what I hope was a big need for those few that I was able to treat." MacSween has also visited



Ethiopia and Uganda with the clean water nonprofit WaterAid Canada.

MacSween also gives back via organized dentistry. She started with the Ottawa Dental Society and the Canadian Dental Association and then served on the steering committee for oral health promotion with Health and Welfare Canada, and was president of the Faculty of Dentistry Alumni Association.

She broke through some glass ceilings, serving as the first female president of the Ontario Dental Association in 1996, the first female vice-president of the Royal College

of Dental Surgeons of Ontario and the first female director of the Canadian Dental Services Plan Inc. "I'm a person who happens to enjoy being involved and gets tremendous personal satisfaction from doing so." MacSween received the Barnabas Day Award from the ODA in 2014, and remains passionate about advocating for better access to care.

EXPANDING ACCESS TO CARE

A generous \$250,000 donation means more people can afford life-changing dental work at UofT

BY ERIN VOLLICK

Dan Kmiecik 8T1 vividly recalls his first full denture patient at the Faculty, a young woman of just 20 years old who had been without teeth for four years. When she put in the dentures for the first time and looked at herself in the mirror she cried with joy.

It was a lesson Kmiecik would never forget. Dentistry could change people's lives. Sometimes, as was the case with this patient, profoundly. Today, the best treatment possible for such a patient would be the permanent solution of dental implants — something so many patients could never afford.

That's why Kmiecik and his wife and practice partner, Lynn Tomkins 8T1, are doing their part to ensure the ideal treatment truly is available to everybody, no matter what the cost. They've given \$250,000 to UofT Dentistry earmarked for the Faculty's Access to Care Fund.

The Access to Care Fund offers grants to patients who struggle to meet the already-reduced cost of treatment at the Faculty. Established in 2010, the special fund has, over the years, granted hundreds of patients the opportunity to meet some of their oral health goals and achieve better overall health. But for every patient who gets funding through Access to Care, there are hundreds more who are not — UofT is always seeking gifts to help the fund grow.

“As an instructor in Oral Diagnosis I see great areas of need, and patients whose ideal treatment is completely beyond their reach,” says Tomkins, 2015 Faculty of Dentistry Award of Distinction honouree, former President of the ODA, and UofT Associate in Dentistry.

The duo, who have been in private practice in Toronto for thirty years, first considered donating to the Faculty through their will. But Tomkins and Kmiecik decided instead to organize the gift now. “We thought we'd rather see the money in action,” Tomkins says.

Tomkins says the couple liked the fact that the fund has an educational dimension. As every DDS graduate knows, it's not just the Faculty's patients who benefit from the treatments received.

“Students need to learn how to do the more complex types of treatments — sometimes the only thing blocking the student from that experience is the ability of the patient to pay,” says Tomkins.

The couple stresses that this donation puts them merely on par with their colleagues in the dental community, who give back in innumerable ways — from pro bono treatment for patients both at home and abroad, to teaching in the Faculty's clinics.

The Faculty wishes to thank Kmiecik and Tomkins for their extraordinary gift, as well as all of our donors over the years to the Access to Care Fund.

The generosity from our community means that even more lives can be transformed. ■

Photo: Jeff Comber

“As an instructor in Oral Diagnosis
I see great areas of need, and
patients whose ideal treatment
is completely beyond their reach”

– *Dr. Lynn Tompkins*



Dan Kmiecik and Lynn Tompkins

BOUNDLESSGRATITUDE

**“RESEARCH PUT US ON THE MAP
— WE WANT TO ENCOURAGE THAT,
AND SUPPORT THAT MISSION AS
MUCH AS POSSIBLE.”**





HISTORIC \$1M GIFT

ANONYMOUS DONORS GIVES MAJOR BOOST TO RESEARCH

BY ERIN VOLLIK

Two donors who recently gave a joint \$1 million gift for research at the Faculty want the entire community to hear one simple message: UofT Dentistry is changing.

“The Faculty has a new zeitgeist,” explains one donor. “The school is undergoing a dramatic culture shift, and it’s really inspiring not only us, but other people.”

From the reorganization of the academic structure that equally emphasizes teaching and research, to the Faculty’s investment in revitalizing its research infrastructure, the donors — faculty members who wish to remain anonymous — are excited about the future.

Moved by the changes they’ve witnessed, the donors want to encourage their fellow community members. “I hope [this gift] creates an inspiration for giving,” says the other donor. The donors specifically earmarked their gift in recognition of the depth and richness of the school’s research program.

“The University of Toronto Faculty of Dentistry is the preeminent research institute in Canada, and one of the strongest in the world,” argues one donor. “Research puts us on the map. We want to encourage that, and support that mission as much as possible.”

Their \$1 million gift will be directed to funding projects in the connective connective tissue and wound healing research theme, which is already a strong program at the Faculty.

These donors hope their gift boosts the translational capacity of current research projects. More funding can help researchers ensure their findings impact the health of Canadians, and the way dentistry is practiced.

“This gift will allow us to accelerate the pace of discovery,” said Professor Bernhard Ganss, Vice-Dean, Research, adding, “This is a direct investment in our capacity to translate research into real change.”

“I want to thank our donors for their leadership and the serious commitment they have made to the Faculty’s plan to build on our strengths. As a leading institution, our task is to make what is already good about our school great, and to set new standards for excellence,” said Professor Daniel Haas, Dean of the Faculty of Dentistry.

The donors say that recent structural and organizational improvements at UofT Dentistry have inspired their gift. The Faculty has spent the past two years implementing strategic changes that emphasize the importance both teaching and research play in success of dental schools. The Faculty has worked to develop key research themes, created a new Vice-Dean, Research role and committed to hiring promising new faculty members.

These initiatives, the donors feel, have had a substantial impact on the Faculty. “I’ve never been more excited about the environment and culture of the school. The change of direction, the positive outlook, the amazing and dynamic leaders. I would even say that the education the students receive has never been better,” says one of the donors. “When you put all these things together this is something that I personally want to invest in, and I encourage others to follow our example.” ■

Photo: Jeff Comber



UNIVERSITY OF TORONTO
FACULTY OF DENTISTRY



2017
AWARDS OF
DISTINCTION
GALA

SATURDAY, APRIL 29, 2017

Grand Ballroom, Sheraton Centre Toronto, 123 Queen Street West, Toronto

Proudly honouring: Dr. Grace Bradley, Dr. Larry Levin, Dr. Elizabeth MacSween

6:00 p.m. Cocktails • 7:00 p.m. Dinner
Silent Auction, trip raffle, entertainment & dancing
\$295 per person
Black tie preferred

**TO MAKE A DONATION OR
ASK ABOUT SPONSORSHIP, CONTACT:**

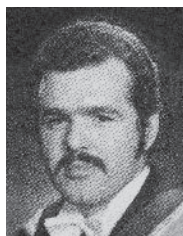
Miriam Stephan, Manager of Alumni Relations
University of Toronto Faculty of Dentistry at 416-979-4940
or miriam.stephan@dentistry.utoronto.ca

Supporting the *Access to Care* Fund and the *Teaching Clinics* Fund – we provide an essential health service for an entire community in need of access to care. At the Faculty of Dentistry we help change lives.

ORDER TICKETS ONLINE: www.alumni.utoronto.ca/gala2017

WE REMEMBER...

DR. ALDO BOCCIA 7T4



Dr. Aldo Boccia began volunteering as a Clinical Instructor in Prosthodontics just a semester after graduating. For over 30 years, he was on staff in the surgery department at St. Joseph's Health Centre. He fundraised for the university, served as president of the Alumni Association and organized class reunions. Boccia volunteered with the Toronto Academy of Dentistry, and the editorial board of Oral Health and the Dentistry Canada Fund. He served as president of the West Toronto Dental Society, the Toronto Academy of Dentistry, the American College of Dentists (Ontario Section) and the American Society of Geriatric Dentistry — the second Canadian to hold that position. UofT awarded him the Arbor Award in 2007 and Faculty of Dentistry honoured him with the Award of Distinction in 2010.

Photos: courtesy Faculty of Dentistry archives

DR. HAROLD BUDER 4T5



Dr. Harold Buder passed away last September, just two months before his 94th birthday. He graduated during WWII and was commissioned as a captain in the Canadian Army Dental Corps. He soon moved to Kitchener, where he set up a dental practice he ran for over 40 years. Dr. Buder worked for several years as a part-time Clinical Associate at UofT Dentistry.

DR. RALPH BURGESS 5T7



Right from his graduation from the DDS program, when he went to work as a dental officer for the City of Toronto's Department of Health, Dr. Ralph Burgess showed a commitment to the UofT community. He returned to the Faculty as a

full-time Research Associate in 1962, and in 1964 became an Assistant Professor in the Department of Preventive Dentistry and Division of Dental Research. In 1973 he became a full Professor and head of Preventive Dentistry. As chair of the User Committee, Burgess was instrumental in the planning and execution of the Faculty's new wing in 1983-84, as well as renovations to the clinics and lecture halls.

DR. GEORGE SWEETNAM 7T1



Dr. George Sweetnam, who died last July, balanced a career in practice with service. The native of New Liskeard enrolled in UofT Dentistry after working as a microbiologist. After graduation, he opened a private practice in Lindsay and ran it for 43 years. He served as chair of the Peterborough Dental Society then joined the Ontario Dental Association, serving as president in 1993 — later receiving that organization's Barnabas Day Distinguished

Service Award — then the Canadian Dental Association, serving as president in 2001. In his community, he served as board member of the Cambridge St. United Church, chairman of the Lindsay Airport and chief of dental staff at Ross Memorial Hospital. ☐

WE MOURN THE LOSS

John Anders 5T6
 James Bell 6T5
 Robert Brown 4T0 4T8 Dip Perio
 Nina Cernavskis 5T4 6T2 BSc D
 6T4 MSc D
 Susan Crack 7T0 Dip DH
 Arnold Crawford 5T1
 Gordon Esilman 6T4
 Joshua Fedder 5T6
 Arthur Godfrey 6T5
 Hamilton Harcus 3T9
 Christopher Huffman 5T0
 Kenneth Kucher 6T5
 Moira Loucks 8T2
 Henry Mathias 5T2
 Robert McCarten 4T4
 Wilfred Gaston Primeau 7T3
 Gerald Roberts 4T7
 Gus Servinis 7T8
 Barbara Shaw 5T1 Dip DN
 Robert Shaw 5T0
 Margaret Shenfeld 5T3
 Marilyn Speck 4T9 Dip DN
 Daniel St-Aubin 5T5
 Eleanore Stanley-Paul 4T9 Dip DN
 Roger Vachon 7T6
 Stanley Watson 5T0

Listings are as accurate as possible as of press time.

UPCOMING EVENTS

THURSDAY, MARCH 9 VANCOUVER ALUMNI RECEPTION

6 p.m. – 8 p.m.
Pan Pacific
Vancouver Hotel
300-399 Canada Place
Vancouver

Dean Daniel Haas invites you to join him and your fellow alumni for a cocktail reception. Whether you live on the west coast or you're in town for the Pacific Dental Conference, we look forward to seeing you. RSVP by March 2 to miriam.stephan@dentistry.utoronto.ca

MARCH 16 – 17 DENTANTICS 2017

6:30 p.m. *Doors Open*
7 p.m. *Curtain*
Isabel Bader Theatre
93 Charles St. W.
Toronto

Enjoy the 97th annual Dentantics with classmates or your entire practice. Proceeds from the production support the Faculty's Access to Care Fund. Tickets \$20. To order contact warrena.wilkinson@dentistry.utoronto.ca

SATURDAY, MARCH 25 ODA PRESIDENT'S HOCKEY CUP GAME

UofT Varsity Centre
Toronto

Students invite alumni to cheer on the UofT Dents versus the Western Mighty Dents

TUESDAY, MARCH 28 WORD OF MOUTH NETWORKING EVENT

6 p.m. – 8 p.m.
Location TBA
Toronto

Connecting our graduating DDS students with UofT alumni and clinical instructors, who are able to facilitate job placements. To participate or for information contact miriam.stephan@dentistry.utoronto.ca

SATURDAY, APRIL 29 2017 AWARDS OF DISTINCTION GALA

6 p.m. *Cocktails*
7 p.m. *Dinner*
Sheraton Centre
Toronto Hotel
Grand Ballroom
123 Queen St. W.
Toronto

IDAPP White Coat Ceremony 2017



Photo: courtesy of Jeff Comber

Proudly honouring the 2017 award recipients Dr. Grace Bradley, Dr. Larry Levin and Dr. Elizabeth MacSween. Raising funds in support of the Access to Care Fund and the Teaching Clinics Fund. For sponsorship or ticket information contact miriam.stephan@dentistry.utoronto.ca

MAY 4-6 ODA ANNUAL SPRING MEETING

Metro Toronto
Convention Centre
South Building
222 Bremner Blvd.
Toronto

Stop by the UofT Dentistry booth and chat with Dean Daniel Haas 12 – 2 p.m. on Thursday

MAY 2017 CLASS REUNIONS

If you graduated in a year ending in a 2 or a 7, don't miss your class reunion! For information, or if you are interested in

organizing your reunion, contact warrena.wilkinson@dentistry.utoronto.ca

utoronto.ca or
(416) 979-4775

GOT NEWS?

Share your alumni news! Send in professional and personal news, questions and comments, along with photos to: UofT Dentistry, 124 Edward St., Toronto, On M5G 1G6, or email erin.vollick@dentistry.utoronto.ca

QUESTIONS OR SPONSORSHIP INQUIRES?

Contact Miriam Stephan, Manager of Alumni Relations, at miriam.stephan@dentistry.utoronto.ca or (416) 979-4940.