



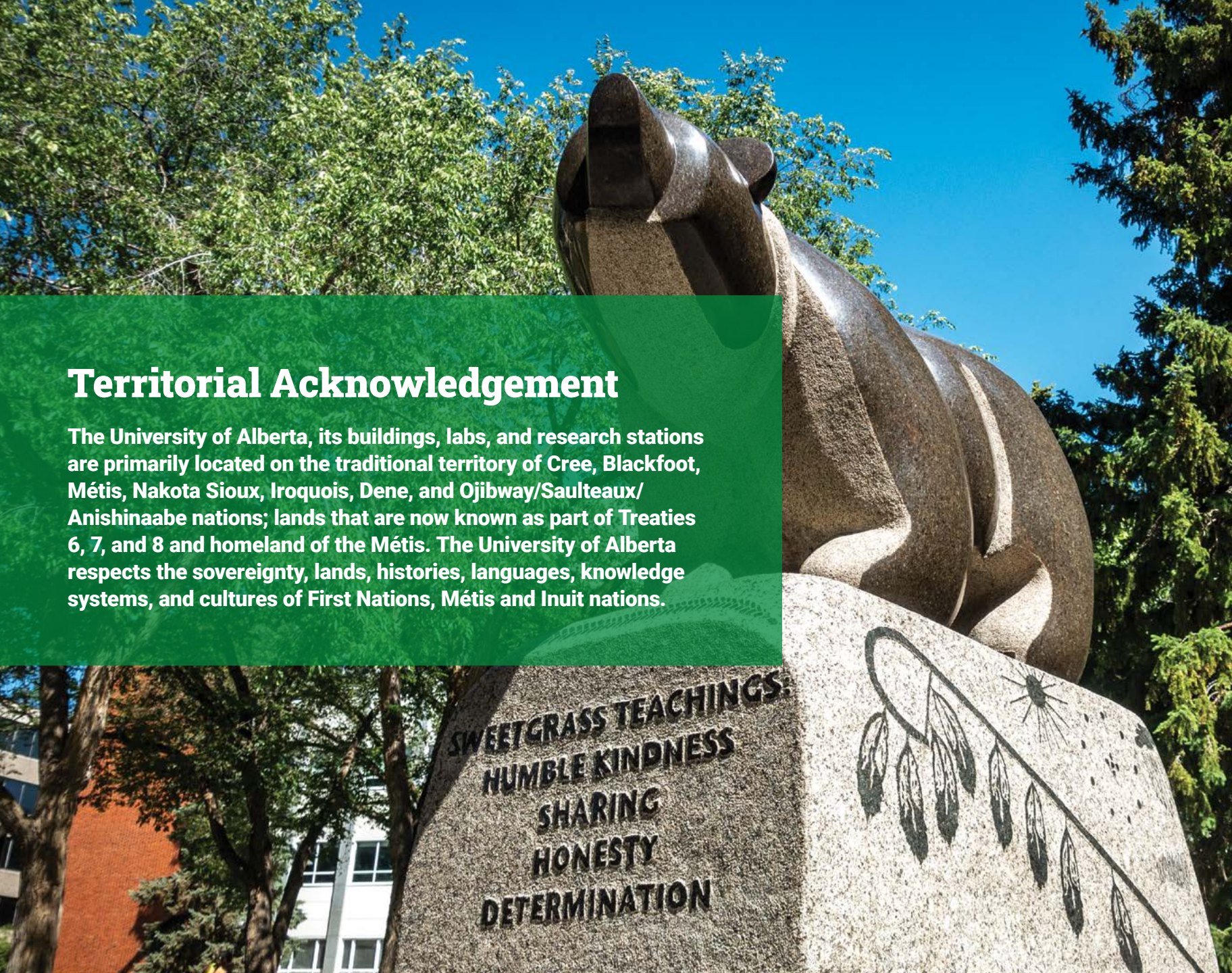
Faculty of Medicine and Dentistry

# IMPACT REPORT 2022-2023

Health & Wellness of All Through  
Excellence in Education, Discovery  
& Clinical Care



UNIVERSITY  
OF ALBERTA



# Territorial Acknowledgement

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A portrait of Brenda Hemmelgarn, a woman with short, wavy brown hair, wearing a blue blazer over a white top. She is smiling and looking towards the camera. The background is a blurred indoor setting with large windows.

# DEAN'S MESSAGE

**As I look back on the past year in the University of Alberta's Faculty of Medicine & Dentistry, I see so much to be proud of and thankful for.**

Our faculty community is strong and resilient, and together we are pursuing creative and collaborative solutions to the most pressing issues facing health care today – from advocating for a more equitable health system where every person receives the absolute best in care, to research contributions that impact health and health outcomes in a broad range of areas, to training programs that continue to advance our education of the next generation of health leaders.

Every person in this community – faculty, staff and learners – has been invaluable in helping the Faculty of Medicine & Dentistry rank as No. 5 among medical faculties across Canada in the 2023 Times Higher Education's World University Rankings.

As we develop new relationships as part of the College of Health Sciences, we are finding exciting new opportunities for collaboration and interdisciplinary work across faculties, with the help of the world-class teams in our college research and education offices. At the same time, within the Faculty of Medicine & Dentistry, we are steadfast in our commitment to our vision and goals. With Vision 2025, our mission is clear – to serve the public with social accountability through partnerships, leadership and innovation in education, research and health care. How do we make this vision a reality?

We focus our education and training on equipping our learners to lead with purpose where it is most needed – in underserved neighbourhoods in inner cities, in rural and remote parts of Alberta and beyond (through the Office of Rural and Regional Health) and in Indigenous communities (through the Wâpanachakos Indigenous Health Program).

We engage with communities on the health questions and issues that most impact them, working together in areas

involving population health. We are on the forefront of innovative Canadian research focused on pandemic preparedness, the significance of which has been laid bare by COVID-19's far-reaching impacts. We invest in collaborative research that seeks to harness the boundless resources of artificial intelligence and big data for precision health targeted to individual needs.

Wherever our work takes us – in the classroom or the lab, at our desks or at the bedside – we are supported by the partners with whom we work so closely. Our alumni family, our community of donors and the many health organizations are the network that keeps us moving forward, and we are grateful for every one of those relationships.

I hope you will enjoy learning more about our work over the past year, and I look forward to hearing any feedback you may have about this report. Thank you for being a part of our vision.

Sincerely,

A handwritten signature in black ink, appearing to read 'B. Hemmelgarn'.

**Brenda Hemmelgarn**

# CELEBRATING FoMD IMPACT



## OUR VISION

Health and wellness of all through excellence in education, discovery and clinical care.

## OUR MISSION

To serve the public with social accountability through partnerships, leadership and innovation in education, research and health care.

## OUR CORE VALUES ("WE PROCEED")

**Well-being:** Committing to caring for the physical and mental health of each other and the communities we serve.

**Excellence:** Striving for results in research, education and clinical care for the greatest impact.

**Professionalism:** Approaching all aspects of research, education and clinical care with integrity, respect and social accountability.

**Curiosity and Creativity:** Encouraging a culture of discovery and innovation.

**Engagement for Collaboration:** Seeking and integrating meaningful input from each other and our partners in communities.

**Equity, Diversity and Inclusion:** Investing in an inclusive environment that recognizes and respects the dignity and humanity of individuals and communities.

## IN 2022-23

Here are some of our biggest achievements from the past year!

# 1

Based on the input of hundreds of community members, our Faculty Strategic Plan (Vision 2025) reflects the shared vision, mission and values that unite us as we move forward together.

# 2

**Did You Know:** The Faculty of Medicine & Dentistry is a part of the College of Health Sciences, where exciting new opportunities abound for interdisciplinary teaching, research and service to our community.

# 3

Congratulations to Radiation Therapy and the MD Program for their successful accreditations.

## FAST FACTS



# 5

FoMD is ranked No. 5 in Canada (THE)



# 91

U of A is ranked 91<sup>st</sup> in the world, fourth in Canada (ARWU)



# 2,000

FoMD has been featured in more than 2,000 media news articles with a potential reach of 186 million people

# RESEARCH IMPACT

The Faculty of Medicine & Dentistry is recognized as an international leader in innovative research in precision health, AI in health, population health (including Indigenous and rural health) and health-services research for the benefit of all.



**\$193.2M**

total value of research funding from April 1, 2022 - March 31, 2023



**4,264**

peer-reviewed research publications



**32**

Canada Research Chairs (CRC)

- ◆ 13 CRC Tier 1
- ◆ 19 CRC Tier 2



**13**

research centres



**7**

research institutes

- ◆ Alberta Diabetes Institute (ADI)
- ◆ Alberta Transplant Institute (ATI)
- ◆ Cancer Research Institute of Northern Alberta (CRINA)
- ◆ Cardiovascular Research Institute (CVRI)
- ◆ Li Ka Shing Institute of Virology (LKSIV)
- ◆ Neuroscience and Mental Health Institute (NMHI)
- ◆ Women and Children's Health Research Institute (WCHRI)



**10**

research groups



State-of-the-art labs and research facilities



## U of A lab joins 'best of the best' in worldwide effort to prepare for future pandemics

**Virologist Matthias Götte and colleagues in his lab are working with three new centres funded by the U.S. National Institutes of Health to identify drugs to fight viruses that have the potential to cause global pandemics. "They're the best of the best who are working together to develop new antivirals," he says.**

*Words by Gillian Rutherford*

As soon as Chinese scientists identified the Langya henipavirus, a previously unknown virus spreading among Chinese farmers earlier this year, Matthias Götte's lab got to work recreating the virus's polymerase, or replication engine, with a view to stopping it in its tracks.

Since 2015, Götte and his lab colleagues have generated viral polymerase enzymes that are associated with more than 40 viruses with pandemic potential, along with biochemical tests to identify new drugs that can inhibit viral replication.

The U of A lab is now working with three newly created Antiviral Drug Discovery (AViDD) Centers for Pathogens of Pandemic Concern announced by the U.S. National Institutes of Health, backed by nearly \$600 million in funding. Götte, professor and chair of medical microbiology and immunology in the Faculty of Medicine & Dentistry has been named to the AViDD teams at the University of North Carolina, Scripps Research and the University of California, San Francisco, including taking on a leadership role with the University of North Carolina team.

The American research centres will carry out "high throughput screening," testing millions of potential compounds within their chemical libraries using assays developed in the Götte laboratory to identify inhibitors of viral polymerases. The most promising will then be

further developed, tested in clinical trials and manufactured, ready for the next viral pandemic.

"These are large team grants with 40 or 50 scientists from academia and industry involved, all with different expertise – chemistry, medicinal chemistry, manufacturing, pharmacology, toxicology," says Götte.

"They're the best of the best who are working together to develop new antivirals."

The goal is to discover and develop oral antiviral drugs for every single viral family with the potential to cause outbreaks or the next pandemic so the world is ready with an arsenal of effective countermeasures to fight back more quickly than it did with COVID-19.

**"They're the best of the best who are working together to develop new antivirals."**

Matthias Götte

Among the list of target virus families are filoviruses (including Ebola and Marburg), picornaviruses (which cause the common cold) and flaviviruses (which cause yellow fever, dengue fever and other diseases).

## Building an arsenal against the next pandemic

Götte's lab began building its bank of viral polymerases in 2015. When Ebola broke out in the Democratic Republic of Congo in 2018, they used it to test the mechanism of action of the drug remdesivir against that virus.

Next they studied how remdesivir worked against the virus that causes Middle East Respiratory Syndrome. When the drug was redeployed against early infections of SARS-CoV-2, the virus that causes COVID-19, Götte's lab was able to publish on that mechanism quickly when other data were scarce, which supported the drug's approval in Canada, the U.S. and elsewhere.

**"The collective expertise in antiviral drug discovery and development is unprecedented, and that's why I'm convinced that, before the end of the five-year term, there will be several small molecules ready to move into the clinic."**

Matthias Götte

The projects will bring approximately C\$6 million in new research dollars to the U of A over the next five years, allowing for the expansion of the Götte team to approximately 15 from five people pre-COVID. Götte says his newly recruited graduate students will be exposed to top leaders in the field, which provides an outstanding training environment.

He is optimistic the hunt for new antivirals will be successful.

"The collective expertise in antiviral drug discovery and development is unprecedented, and that's why I'm convinced that, before the end of the five-year term, there will be several small molecules ready to move into the clinic," he says.

The new NIH research funds build on last year's announcement by the Government of Alberta of \$55.1 million to support vaccine and antiviral research and development at the U of A.

The Götte lab is also funded by the Canadian Institutes of Health Research, the Canada Foundation for Innovation, Gilead Sciences, Inc., ROME Therapeutics and the Alberta Ministry of Jobs, Economy and Innovation.

## MEET OUR NEW RESEARCH CHAIRS



**SANGITA SHARMA**  
Canada Research Chair  
In Population Health

Indigenous communities in the Canadian Arctic have limited access to health care and face additional health and wellness challenges, including access to affordable foods. This is just one of the reasons Sangita Sharma — professor in Indigenous and global health research in the Faculty of Medicine & Dentistry — has spent close to 20 years partnering with Arctic communities to develop culturally appropriate, community-based health intervention programs.

"It is an honour to be able to partner with communities and learn from community members," says Sharma, who is also a member of WCHRI.



**JESSICA KOLOPENUK**  
Alberta Health Services Chair  
In Indigenous Health

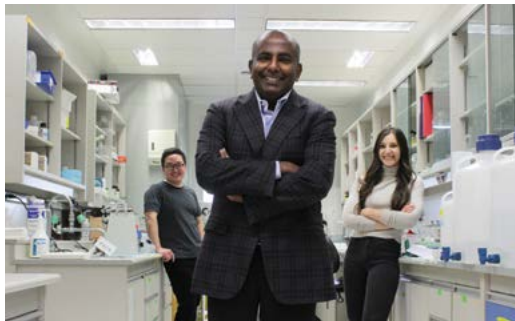
Cree researcher Jessica Kolopenuk understands the importance of bringing Indigenous knowledge and governance to health and research policy.

"It's not only about including our knowledges and perspectives in research and policy," she says.

"It's about having control over the knowledge production that impacts us — knowledge that is about us, our territories, and our communities and relatives."

The purpose of the newly created position, funded by Alberta Health Services, is to promote research and scholarship in Indigenous health and to develop research partnerships, including partnerships with Indigenous communities.

**Cutting-edge discoveries that made headlines this year**



**Researchers pinpoint genetic defects that cause heart failure, pointing the way to more targeted treatments**

U of A cardiology professor Gavin Oudit (centre) and PhD candidates Hao Zhang (left) and Anissa Viveiros were part of an international team that identified individual genetic defects that lead to heart failure, opening the door to more targeted diagnosis, prevention and treatment.

**“For the first time, we were able to map out in great detail the genotype basis for cardiomyopathy and heart failure,”** says lead Canadian investigator Oudit, cardiologist in the Faculty of Medicine & Dentistry and Canada Research Chair in Heart Failure. “We’re really trying to understand how genetic problems can lead to cardiomyopathy and heart failure,” says Oudit. “By understanding it, we can start to think about how we can fix it.”



**Researcher takes another step toward discovering how a brain molecule could halt MS**

Anastassia Voronova’s latest research brings her one step closer to showing the potential of a brain molecule called fractalkine to stop and even reverse the effects of multiple sclerosis.

“If we can replace those lost or damaged oligodendrocytes, then they could make new myelin and it is believed that would halt the disease progression, or maybe even reverse some of the symptoms,” says Voronova, associate professor in the Faculty of Medicine & Dentistry; Canada Research Chair in Neural Stem Cell Biology; Sloan Research Fellow in Neuroscience; and a member of WCHRI, NMHI, and the MS Centre. “That’s **the Holy Grail in the regenerative medicine** field and something that we’re very passionate about.”



**Rapid test for HIV and syphilis approved thanks to U of A research**

Health Canada recently approved a dual HIV-syphilis rapid test after a two-year clinical trial found it was **100 per cent accurate in identifying HIV infections** and 98 per cent accurate for active syphilis.

“These extremely rapid point-of-care tests for the diagnosis of syphilis and HIV are much needed and a game changer for Canada,” says infectious disease specialist and principal investigator Ameeta Singh, who is a clinical professor of medicine and a member of WCHRI.



**Machine learning programs predict risk of death based on results from routine hospital tests**

(From left) Padma Kaul with research team members Sunil Kalmady Vasu, Nariman Sepehrvand and Weijie Sun. The team developed **a machine learning program that can accurately predict a patient’s risk of death within a month**, a year and five years based on results from routine hospital tests.

The study is a proof-of-concept for using routinely collected data to improve individual care and allow the health-care system to “learn” as it goes, according to principal investigator Padma Kaul, professor of medicine and co-director of the Canadian VIGOUR Centre.



**Machine learning predicts risk of opioid use disorder for individual patients**

Psychiatry professor Bo Cao led new research on a machine learning model that **analyzes administrative health data to predict future individual risk of developing opioid use disorder** – which may assist clinicians with detection and support for patients.

“Most of those people have interacted with the health system before their diagnosis, and that provides us with data that could allow us to predict and potentially prevent some of the cases,” says principal investigator Cao, Canada Research Chair in Computational Psychiatry and member of AI4Society, NMHI, WCHRI, and SMART Networks.



# TEACHING AND LEARNING IMPACT

The Faculty of Medicine & Dentistry is dedicated to providing learner-centred educational programs that meet the health-care needs of our communities. Our goal is to graduate qualified, compassionate and inquisitive practitioners and researchers accomplished in health-care delivery and scholarship.

We are committed to serving patients and populations by providing a rich interdisciplinary environment of learning, practice, research and public service for all our students and faculty.



# FAST FACTS

**5**  
undergraduate degree programs

**1**  
diploma/certificate program

**63**  
medical residency programs

**27**  
PhD programs

**13**  
master's programs

**1,065**  
undergraduate students

**788**  
graduate students

**831**  
medical residents

**74**  
postdoctoral fellows

**3,000+**  
preceptors

**750+**  
faculty

**2,700+**  
clinical academic faculty

**20**  
departments





*(From left) Advanced Education Minister Demetrios Nicolaidis, Interim Dean Greta Cummings of the U of A's College of Health Sciences, Dean Brenda Hemmelgarn of the U of A's Faculty of Medicine & Dentistry, Dean Todd Anderson of the University of Calgary's Cumming School of Medicine, and Health Minister Jason Copping were at the U of A to announce new provincial funding that will help meet a need for new doctors in rural and Indigenous communities throughout the province.*

# Training More New Doctors in Alberta

**New provincial funding will allow U of A to train more medical students and residents who will practise in rural communities, ensuring all Albertans receive top-quality health care.**

*Words by Mifi Purvis*

**"This investment in our medical schools is a direct investment in the health of Albertans"**  
Brenda Hemmelgarn

The University of Alberta's Faculty of Medicine & Dentistry will train more new doctors who will live and work in communities throughout Alberta, thanks to new provincial funding to create 60 new physician seats at the U of A and the University of Calgary over the next three years.

In addition, the Government of Alberta is investing to add residency training spaces for newly graduated doctors, particularly in rural areas and generalist fields, as well as ensure that physicians affiliated with Alberta's faculties of medicine are compensated for providing patient care along with their work related to education, research and administration. These moves respond to a joint proposal from the two institutions.

"This investment in our medical schools is a direct investment in the health of Albertans," says Brenda Hemmelgarn, dean of the Faculty of Medicine & Dentistry. "These dollars will train new physicians, increase opportunities for medical residents and support those who train them, ensuring world-class care in every corner of the province."

The financial boost is a significant step toward increasing access to better health care for people in rural and Indigenous communities, Hemmelgarn says.

"When coupled with the equally important expansion of training opportunities for nurses and other health-care providers, the planned increases over the next three years will be an energizing spark that propels our health system."

## Meet Our Faculty & Graduates

### Meet our Faculty



**ANTHEA SENIOR**

Anthea Senior is a dentist but unlike most dentists who work in dental offices, she spends her time teaching students how to take and interpret dental X-rays. She also leads the clinical curriculum of the Doctor of Dental Surgery (DDS) program at the U of A and ensures that students have the skills and experiences to be ready to graduate.

“The best part of my job is watching how a student develops throughout their four years in the program,” says Senior. “There’s nothing like seeing them walk across the stage at graduation. It’s a privilege to teach and play a small part in contributing to the dental professionals of the future.”



**VIJAY DANIELS**

In most hospital settings “infectious” isn’t considered a good thing. But when it comes to Vijay Daniels’ contagious enthusiasm for teaching, it’s just what the doctor ordered for medical students at the University of Alberta Hospital. Daniels has been recognized as one of the Top 10 post-secondary teachers in Canada, winning a 2022 3M National Teaching Fellowship Award for his work as a professor, assistant dean and clinical educator in the Faculty of Medicine & Dentistry. Daniels is an internal medicine specialist and almost always has at least one learner with him as he sees patients.

“One of the key principles of competency-based medical education is giving learners more autonomy to go after what they need, rather than following the old pattern of the teacher deciding what gets taught,” says Daniels.

### Meet our Graduates



**EMMA KASINYABO**

Emma Kasinyabo’s interest in infectious disease was sparked by the terrible toll of diseases on her family members in Africa. It grew thanks to opportunities to guide younger students and collaborate with lab mates.

“I think community involvement and just being generous... is so rewarding,” says the bachelor of science graduate of the immunology and infection program jointly offered by the Faculty of Science and Faculty of Medicine & Dentistry.



**RACHEL LIVERGANT**

MD graduate Rachel Livergant is looking at patient navigation in pediatric surgery for Indigenous populations and other ways to support families and improve postoperative outcomes.

“We’re looking at a new generation and right now, we’re not seeing the steps being made to show a healthier future for Indigenous populations,” says Livergant, adding that pediatric outcomes are currently similar to that seen in adults. “So it’s really important to look at the health of the children and then, how that translates to longer-term health, wellness, and other social determinants of health later down the line.”



**BILLY WANG**

MSc graduate Billy Wang is proud of his involvement with the COVID-19 biobanking initiative, where they collected biospecimens from more than 700 patients hospitalized with COVID-19 to help advance their understanding of SARS-CoV-2.

“The pandemic has taught me to view each challenge as an opportunity while remaining adaptable and resilient,” says Wang.

## Meet our Staff

Our staff are the backbone of our Faculty and the work they do behind the scenes is critical to our faculty and student successes.

# 2022 CELEBRATION OF SERVICE AND EXCELLENCE AWARD RECIPIENTS

## EXCELLENCE IN LEADERSHIP



### DENISE CAMPBELL-SCHERER

Denise Campbell-Scherer is a professor in the Department of Family Medicine, and the associate dean of the Office of Lifelong Learning and Physician Learning Program at the University of Alberta.

Denise is an admirable leader, she has one of the most important qualities a leader should have – the ability to empower others. She focuses on relationship building, motivation and always shows respect.

## ANNUAL APO RECOGNITION AWARD



### GISELE GAUDET-AMIGO

Gisele Gaudet-Amigo is currently appointed as director of student and academic services in the Department of Dentistry & Dental Hygiene in the Faculty of Medicine & Dentistry.

Gisele is a wonderful and impactful leader, a quality that is very rare. She pushes those around her to be the best they can be, while respecting differing needs and challenges. Her empathic nature and work ethic shine during any interaction with her and she will go to any length to ensure someone is supported.

## COMMUNITY

# IMPACT

**We work with our partners in education, research and health care for the greater good of local, regional and global communities.**

### SOCIAL ACCOUNTABILITY

The Faculty of Medicine & Dentistry recognizes a growing demand for social responsiveness and accountability from academic institutions with a special focus on medical schools and faculties of medicine. Learn about how we are working to continually develop and improve in these important areas.



**Kathryn Dong**  
Social Accountability Lead

The Faculty of Medicine & Dentistry has created a new role at the University of Alberta dedicated to its social accountability mandate, welcoming Kathryn Dong, associate professor, Department of Emergency Medicine; Alberta Health Services Chair in Emergency Medicine Research; Adjunct Member, John Dossetor Health Ethics Centre; and NMHI member, as the social accountability lead. In this role, Dong will develop, implement and evaluate a social accountability framework and support socially accountable activities and programs within the faculty.

Dong is propelled forward with **a bold vision, in which communities see the faculty as a partner** that is open to hearing different perspectives and able to bring the right people together to make progress on an evidence-informed approach to complex issues.

“I am most excited about learning from the different communities that [the faculty] serves,” she says. “To do this requires that we engage with others in a way that is respectful, honest and results in meaningful change.”



**Wâpanachakos**  
Indigenous Health Program

The Indigenous Health Program was founded in 1988 by the Faculty of Medicine & Dentistry to encourage a greater number of First Nations, Inuit and Métis students to gain access to and graduate from all Faculty of Medicine & Dentistry programs. Since the program’s inception, it has been **a leader in the recruitment and retention of Indigenous students**, representing Abenaki, Blackfoot, Cree, Dene, Delaware, Inuit, Iroquois, Métis, Mi’kmaq, Mohawk and Ojibwe communities in health sciences in Canada.

The aim is to collaborate with Indigenous communities, faculty and staff to advance Indigenous health through the support of innovative opportunities for Indigenous students, researchers and communities within Alberta and throughout the world.



## Rural and Regional Health

Access to quality and essential medical services is significant to all Albertans, especially those living in rural or regional areas. The Faculty of Medicine & Dentistry recognizes the **importance of experienced professionals** implementing health-care services **within rural communities**.

To help achieve its vision of a healthy Alberta, the Faculty of Medicine & Dentistry established the Office of Rural & Regional

Health (ORRH) in 2006. The ORRH is designed to coordinate initiatives and support the development of new health-care programs for rural and regional Alberta. The goal is to enlighten each learner with an in-depth understanding of the unique challenges and the sense of fulfillment a physician gains while working in Alberta’s vibrant rural and regional communities.



## Global Health Program

Global health is a concept that focuses attention on inequalities and disparities in health, including health status and access to health services, all with a strong focus on fostering social justice and championing human rights. It embraces the concept of global citizenship.

The Faculty of Medicine & Dentistry established the Global Health Program to **expand and strengthen medical education and research in global health** and to develop bilateral relationships and programs with partner institutions in low- and

middle-income countries (LMICs) that bring value to both partners.

The goals of the Global Health Program include:

- ♦ establishment and stewardship of bidirectional relationships with institutions in LMICs that are mutually beneficial
- ♦ providing educational experiences at home and abroad for students, residents and faculty to explore relevant global and international health topics
- ♦ support for global health research

# Pediatric Dentistry at the University of Alberta is Making a Big Difference in the Lives of Underserved Children and Their Families

Through collaboration and partnerships, Ida Kornerup leads a team of passionate professionals who all want the same thing: to help kids.

Words by Shirley Wilfong-Pritchard



DDS student Gagandeep Dosanjh with a patient from the School Visit Program

It's 2:30 on a bitterly cold winter afternoon in Edmonton and the energy in the gym is palpable, with parents and children crowded into the room and lined up down the halls. A team from Pediatric Dentistry at the University of Alberta's School of Dentistry led by Ida "Tinka" Kornerup visited St. Catherine's Catholic Elementary/Junior High School, where 90 children were screened for free dental services through the School Visit Program.

No one stopped for dinner; there was no time. By 8:30 p.m. the group had examined 90 children, viewed 90 medical charts on five computers, talked to dozens of parents, often through a translator, and triaged which children — based on the most urgent dental needs — would be offered free pediatric dentistry services, performed by supervised students from the School of Dentistry.

## How it works

The School Visit Program's success is due to the collaboration between the School of Dentistry, Alberta Health Services (AHS), and the Edmonton public and Catholic school boards, all of whom have the same goal: to create equitable access to oral health care for children from underserved areas.

Each year, AHS identifies five or six schools in Edmonton where children have the greatest oral-health needs.

The AHS Public Health team first visits each school to teach children in kindergarten and grades 1 and 2 about nutrition and oral health; the team also performs sealant procedures and screens the children for other dental issues and diseases. AHS then liaises with the Pediatric Dentistry program.

Pediatric Dentistry provides the schools with a letter for each child describing the School Visit Program. Interested families are invited to register their child and attend the parent information session at their child's school, where the team makes sure the parents have a solid understanding of their child's dental issues and possible treatment. Accompanied by a teacher, the children are bussed to and from the Oral Health Clinic. The first of four or five visits consists of a complete dental examination, including x-rays, and a personalized treatment plan. Parental consent is obtained throughout every step of the process.

More than 200 children will be referred to Pediatric Dentistry through the School Visit Program each year, amounting to 450-plus appointments and close to 2,000 procedures. And that number is growing. The clinic also sees more than 200 pediatric dental patients from the Métis Nation of Alberta Partnership and at least another 140 are referred from the U of A student-led Shine Dentistry clinic.

## Impacts on families and the community

Many of the children served by this program come from low-income, Indigenous and new-immigrant families, often with limited or no access to oral health care due to financial, geographic, language and other barriers. The School Visit Program is critical to getting these kids the care they need. Some parents are so grateful that they will choose not to move so their children can remain at a school where they can access this care.

Being in constant pain from dental caries, abscesses or infection can make it hard to focus on learning. It can also prevent a child from socializing if their breath smells bad or they have discoloured teeth. With treatment, teachers are seeing improvements in their students' learning and play patterns. Removing infection prevents disease and illness, and treating issues before they become emergencies means less families presenting at local hospital emergency rooms.

**"I'm so proud of Canadians and the University of Alberta for doing this work."**

Ida Kornerup

Sometimes parents don't understand their child's pain. They may think that because it's "only baby teeth"

they can wait a few years until they fall out. But to the child with dental issues, being in pain for a few years is untenable. This is where the program really makes a big difference in the life of the child. "I'm so proud of Canadians and the University of Alberta for doing this work," says Kornerup. "Teachers can see that their students are in pain, and are so thankful to have this program to refer them to."

## Benefits to School of Dentistry students

Students who work in the program are trained in state-of-the-art dental procedures and their work lives on in the mouths of their patients. Kornerup recalls running into a mom whose two boys had received treatment a couple of years ago. They were still taking good care of their teeth and the root canal and crown work they received from U of A students was of such a high quality, that Kornerup thought at first that they must have seen a specialist. "It was a proud moment!" she says.

Amazingly, in a room with 70 young children all there to receive dental treatment, it is very rare to hear any crying. Dental and dental hygiene students working in the program are taught to recognize the signs of a nervous child and implement behaviour-modification techniques to distract them or make them more

comfortable, sometimes using nitrous oxide to help them relax. The children arrive every Wednesday at 9:30 a.m. and leave by 11:30, so students also learn how to work quickly.

**"Now, in each class I have at least five students who want to be a pediatric dentist."**

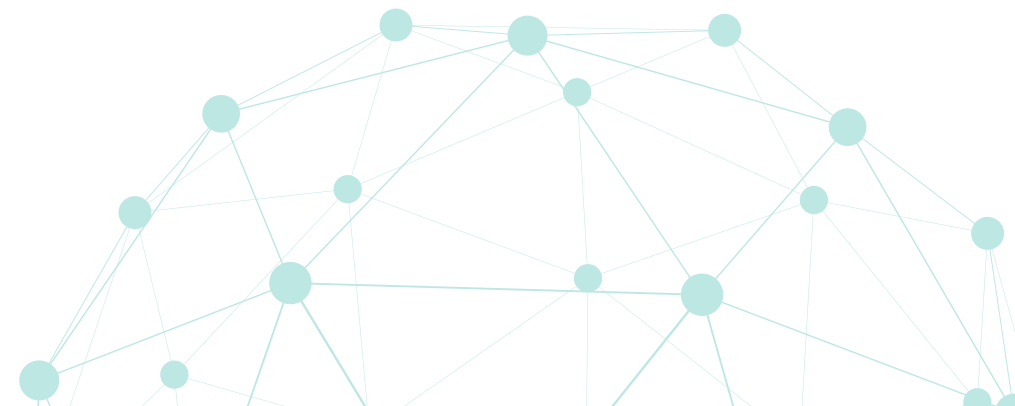
Ida Kornerup

Many students choose to enter pediatric dentistry after their experience in the School Visit Program. "When I started working here, around 15 years ago, almost no one wanted to be a pediatric dentist," says Kornerup. "Now, in each class I have at least five students who want to be a pediatric dentist." And the future is bright for those students. In fact, three of Kornerup's current students have recently been accepted into prestigious universities in the U.S. for postgraduate work in pediatric dentistry.

## What lies ahead

The biggest threat to the School Visit Program is a lack of funding. With former U of A grants no longer available, sustainability of the program is in question. But everyone involved in Pediatric Dentistry has become so passionate about its mission, they want to help ensure it continues its important work. For example, the U of A Dental Students' Association holds an annual spring carnival in support of the University of Alberta Pediatric Dentistry Campaign. Additionally, the Edmonton Community Foundation has recently come forward offering their support. This act of generosity will help fund activities for the foreseeable future.

Asked about the most rewarding part of running the program, Kornerup replies, "Seeing those kids coming in, knowing that they're going to be OK because they got there. And my students are going to learn more and more and they really want to help those kids. It's like the best of the world for me. I don't know if people realize how many programs fail. But in this program, everything and everyone comes together — the parents, the teachers, AHS, U of A support staff, U of A academics, the students, even the guy who drives the bus. There are a lot of people involved. But we all get together for the kids. And it's working!"





### U of A dental students host Shared Smiles event for people with disabilities

University of Alberta dental students held a special event aimed at helping people with disabilities get the dental care they need. The **free event included oral health-care tips** and techniques, **as well as free checkups** for anyone with a disability or special needs.

Dental hygiene students partnered with dental students to host the event, which also aimed to teach students to become inclusive in their practices once they head out into the workforce.



### U of A Indigenous researchers lead process to create new guidelines for including Indigenous people in Canadian clinical trials

Inuk health researcher **Wayne Clark**, executive director of the U of A's Wápanachakos Indigenous Health Program, was **named Indigenous Peoples Champion** and is a member of the operating committee of the Accelerating Clinical Trials (ACT) Canada Consortium, a \$39-million plan announced in January by the Canadian Institutes of Health Research to expand clinical trial research in Canada.

Clark is taking a lead role in ensuring that First Nations, Métis and Inuit communities and individuals have equitable access to participate in clinical trials — and benefit from them.



### Community support key to building individual resiliency: U of A Community Leader Award winner

Monty Ghosh, an assistant professor in the Department of Medicine and a member of NMHI, helped establish Calgary's Rapid Access Addiction Medicine program, **Alberta's largest and first comprehensive outpatient addiction treatment program**, soon to be expanded across the province. He worked with marginalized communities to launch a nationwide overdose prevention hotline, which also led to the development of a provincewide app-based version. He helped establish peer recovery coaches and system navigators at the clinic and is now working to implement a respite program for houseless individuals so they can recover after a hospital stay and connect with social services.

"You have to work with community partners and stakeholders including funders, not-for-profits and most importantly, people with lived experience to launch these services," he says. "That's the gist of community connection."



### Celebrating a passionate advocate for people living on the margins of society

Jessica Kirkwood, family physician and assistant professor in the Department of Family Medicine, received the Canadian Women in Medicine **award for her commitment to the health of Edmonton's inner-city population**.

Kirkwood has been working at the Boyle McCauley Health Centre for the past 10 years. She acknowledges that not everyone can work with the inner-city population and their unique struggles, but her fierce passion for equality led her to this role, in which her favourite part of the work is her patients. "I love my patients!" she says. "I couldn't imagine a population more deserving of resources and care. It really infuriates me that there are still people in our society who don't want to reach out a hand and help someone up."

# FoMD IN ACTION





# LEADING WITH PURPOSE

## Through Partnerships

### U of A to lead new Prairie research hub for pandemic preparedness

The PRAIRIE Hub for pandemic preparedness brings together experts, research facilities and training programs from the U of A as the lead institution with major partners at the University of Calgary, University of Saskatchewan and its Vaccine and Infectious Disease Organization, and the University of Manitoba. The University of Lethbridge, University of Regina and other post-secondary institutions, Canada's National Microbiology Laboratory, and industry partners are also involved – all in **a co-ordinated effort to accelerate the development, biomanufacturing and commercialization of vaccines, antivirals and diagnostics.**

“Knowing what we know from past pandemics and outbreaks including SARS, MERS and SARS-CoV-2, there's a big push to be prepared for the next pandemic,” says hub executive scientific director M. Joanne Lemieux, professor in the Faculty of Medicine & Dentistry and a member of the Li Ka Shing Institute of Virology.

### An Rx against racist behaviour in Alberta emergency departments

U of A researchers are collaborating with eight First Nations organizations to **create an anti-racism intervention** that will ensure patients in Alberta emergency departments are treated equitably and with dignity. The Alberta First Nations Information Governance Centre, Blackfoot Confederacy Tribal Council, Stoney Nakoda Tsuut'ina Tribal Council, Bigstone Health Commission, Maskwacis Health Services, Paul First Nation Health Services, Yellowhead Tribal Council and Kee Tas Kee Now Tribal Council are supporting the work.



### Canadian Critical Drug Initiative will commercialize new preventive medicines and prevent future shortages by producing homegrown supply

Canadian Critical Drug Initiative (CCDI) – a partnership between the not-for-profit Applied Pharmaceutical Innovation (API) and the University of Alberta's Li Ka Shing Applied Virology Institute (LKSIVI) – is creating an integrated research, development and manufacturing cluster in Edmonton. D. Lorne Tyrrell (left; Order of Canada recipient and director, Li Ka Shing Institute of Virology) and Sir Michael Houghton (right, Nobel Laureate and director, Li Ka Shing Applied Virology Institute), two of the world's foremost virologists and key U of A collaborators in the Canadian Critical Drug Initiative, say the **initiative will enhance Canada's biomedicine development and biomanufacturing capacities.** API also provides key research and discovery services to numerous commercial Biotech and academic organizations throughout Canada.

### The power of our partnerships fuels capacity and shared determination to make a positive impact on women's and children's lives and futures

The innovative, cutting-edge research supported by the Women and Children's Health Research Institute (WCHRI) would not be possible without the generous funding from the Stollery Children's Hospital Foundation (SCHF) and the Alberta Women's Health Foundation (AWHF). Since 2006, the SCHF has given **over \$83.5 million in support of children's health research and the AWHF has given \$27 million in support of women's health research.**

This unique partnership structure has enabled WCHRI to focus on children's and women's health, and their intersection with perinatal and maternal health. This dual focus promotes a collaborative, cohesive approach to addressing women's and children's health needs through research. As the research arm for the Stollery Children's Hospital and the Lois Hole Hospital for Women (at the Royal Alexandra Hospital), WCHRI ensures that both hospitals can offer the best evidence-based treatment and care for their patients and families. WCHRI's additional partners, the University of Alberta and Alberta Health Services, provide other invaluable supports, particularly the high-quality personnel that includes our researchers, clinicians and clinician-scientists.

### Did you know?

WCHRI membership consists of more than 400 leading researchers, 300 of whom are from FoMD.

# THANK YOU!

## CELEBRATING OUR ALUMNI & DONORS

Your generosity makes all the difference

When you invest in the Faculty of Medicine & Dentistry you invest in better health. You support health-sciences learning and propel discoveries beyond the labs so people can live fuller, healthier lives.



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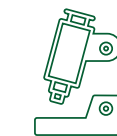


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## DONOR SPOTLIGHT



### Making an Impact Begins at Home For Gerry and Barb Sinn

Longtime supporters of the University of Alberta donated \$300,000 to the Indigenous Health Program, creating the program's first endowment.

Words by Tarwinder Rai

Gerry and Barb Sinn made a gift to create the first endowment for the Faculty of Medicine & Dentistry's Indigenous Health Program (IHP). The program's mandate is to recruit and support future Indigenous health professionals throughout the faculty's undergraduate programs.

The Sinns' gift will provide ongoing support of the important work

of the program in the training of medical students with a focus on environmental, systemic and cultural contexts. It will support Indigenous students while they are in medical school and residency, along with building deeper relationships in Indigenous communities — allowing for more inclusive research and health practices.

The Sinns are not first-time donors to the U of A. They have been giving for the past 40 years. This time, however, the impact their donation makes resonates on many levels.

"We wanted to help the faculty break down some of the barriers Indigenous communities face," says Gerry. "People from all communities should have trust in the health-care professionals they are coming to see. We thought we could play a small part in helping move that mandate forward."

Both Gerry and Barb say through this process they've learned that it's important to train more Indigenous health-care workers. At the same time, training non-Indigenous health-care workers to understand Indigenous culture is also vital.

# MEET OUR AWARD RECIPIENTS

## DISTINGUISHED ALUMNI AWARD



**R. BRIAN HAYNES**  
'69 BSC, '71 MD

A pioneer of health information science and a founding advocate of evidence-based medicine, R. Brian Haynes created tools over a five-decade career that use digital technology to put vital information from medical literature at a doctor's fingertips.

## DR. PETER B. R. ALLEN LIFETIME ACHIEVEMENT AWARD IN HEALTH



**KEITH ARONYK**  
'77 MD

Keith Aronyk, the first specialty-trained pediatric neurosurgeon in northern Alberta, advanced neurological care for Albertans of all ages, especially at the University of Alberta Hospital.

# TOP 40 UNDER 40



**Nicholas Avdimiretz**  
'13 MD, '16 PGME



**Hollis Lai**  
'13 PhD, '18 MBA



**Grace Lam**  
'19 PGME



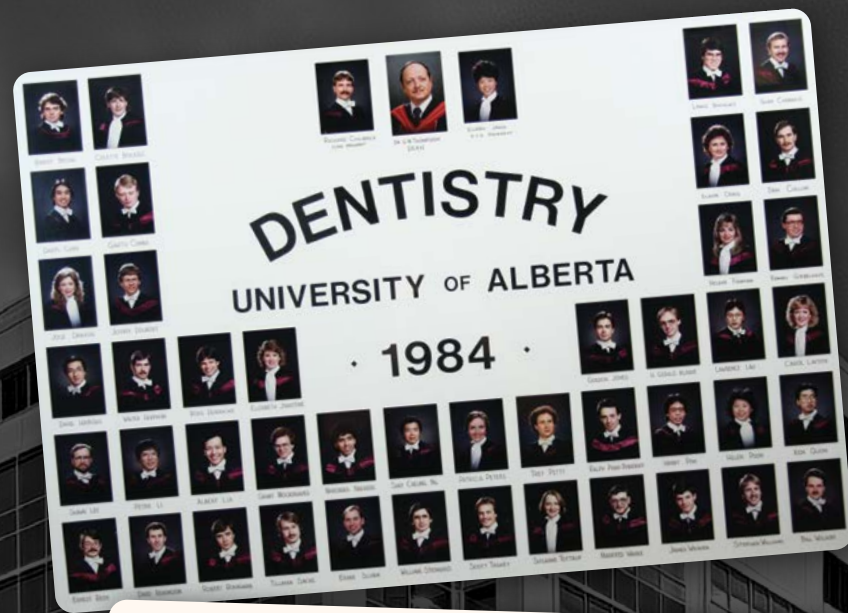
**Shazma Mithani**  
'14 PGME

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