



Report to the IMHR Board Fiscal Year 2025

University of Ottawa
Institute of Mental Health Research
at The Royal



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Letter from the Chair



It's no secret that we live in a difficult time. The conflicts, challenges, and uncertainty of the real world are compounded by news coverage and an information environment that increasingly seems geared to amplify despair.

This climate correlates with Canada's mental health data. Rates of anxiety, depression and bipolar disorder have all climbed dramatically over the past decade. The shadow of suicide continues to grow: 13 people a day lost their lives to suicide in 2022, up 8.6% from the year earlier.

As the need has grown, the mental health care system has struggled to keep pace. Only 1 in 15 people who seek help actually receive effective care. We need more capacity, new treatment options and ways to help people along the care continuum.

We also need to be resourceful. That is what makes the Institute of Mental Health Research (IMHR) so special. By fully integrating its research into The Royal, the IMHR is using research as a pathway to provide access to care. Because, for us, Research is Care.

This mindset is something that our community can be proud of. Over the course of the past decade, the IMHR has put its resources – in the form of a growing team of leading scientists and clinicians engaged in research – to work on behalf of those awaiting access to care by making it easier for people to volunteer to participate in research relevant to their needs.

For those clients who are able to join a research study, that means access to cutting-edge treatments – some that may not be covered by the province or insurance coverage. Participating in research can also mean something even more valuable for those with difficult-to-treat illnesses: the ability to have some agency over their treatment. Our researchers at once explore the science and engage patients in their own journey.

This is only possible because of the outstanding team of researchers at The Royal. The conditions that have been created here under the leadership of IMHR President & CEO Florence Dzierszinski – cutting-edge technology, a culture of teamwork across disciplines, a focus on rapid transfer of learnings into care – have attracted leading scientists to seek out The Royal.

It's no easy time to be a scientist. In Canada, small grant sizes make it difficult to pay salaries and indirect research costs; fewer people see a future in science. In the U.S., many funding sources have dried up entirely, and researchers are feeling pressure to curb certain lines of research. In both countries, those that do pursue careers in science are careful to find the best conditions in which to explore their ideas and make a difference.

All of us on the Board are incredibly proud of the commitment that all of those at The Royal and the IMHR have made to ensure the best possible research environment for mental health and addiction scientists and clinicians, where the focus is on the work. That commitment is paying returns in advancing our understanding of how to best prevent, diagnose and treat mental illness. In the following pages, you will read about what they have learned and how their research is already making lives better.

That momentum has created excitement across communities, leading to more partnerships, more ambitious collaborations, and more interest in providing deeply needed financial support.

The Research is Care message is resonating with philanthropists, communities, corporations, foundations and individuals as well. They are increasingly seeing that we are doing something special at the IMHR and are rallying to support the work that we do. Time and again, they tell us about their personal experience with mental illness – their own or that of a loved one – and how giving to The Royal to support research is a way to have an impact when so much of the world's challenges seem out of their control.

Our work would not be possible without them, nor all the people and partners that support our research. My gratitude to each of you.

A handwritten signature in black ink, appearing to read 'M. von Herff', written in a cursive style.

Michael von Herff
Chair, IMHR Board

Lettre du Président du Conseil d'Administration



Ce n'est un secret pour personne : nous vivons une période difficile. Les conflits, les défis et l'incertitude du monde réel sont exacerbés par la couverture médiatique et un environnement informationnel qui semble de plus en plus propice à amplifier le désespoir.

Ce climat concorde avec les données sur la santé mentale au Canada. Les taux d'anxiété, de dépression et de trouble bipolaire ont tous grimpé en flèche au cours de la dernière décennie. L'ombre du suicide continue de s'amplifier : 13 personnes par jour se sont décédées en 2022, soit une hausse de 8,6 % par rapport à l'année précédente.

Alors que les besoins grandissent, le système de santé mentale peine à suivre le rythme. Une seule personne sur 15 demandant de l'aide reçoit des soins efficaces. Nous avons besoin de plus de capacités, de nouvelles options de traitement et de moyens d'accompagner les personnes tout au long du continuum des soins.

Nous devons également faire preuve d'ingéniosité. C'est ce qui rend l'Institut de recherche en santé mentale si spécial. En intégrant pleinement ses recherches au Royal, l'IRSM utilise la recherche comme une voie d'accès aux soins. Parce que, pour nous, « la recherche, c'est le soin ».

Cet état d'esprit est une fierté pour notre communauté. Au cours de la dernière décennie, l'IRSM a déployé ses ressources – sous la forme d'une équipe croissante de scientifiques et de cliniciens de renom engagés dans la recherche – pour aider les personnes en attente d'accès aux soins, en facilitant la participation volontaire à des recherches adaptées à leurs besoins.

Pour les patients qui peuvent participer à une étude de recherche, cela signifie l'accès à des traitements de pointe, dont certains ne sont peut-être pas couverts par la province ou les assurances. Participer à la recherche peut également avoir un impact encore plus précieux pour les personnes atteintes de maladies difficiles à traiter : la possibilité de prendre en charge leur traitement. Nos chercheurs explorent la science et impliquent les patients dans leur parcours personnel.

Tout cela est possible grâce à l'équipe de chercheurs exceptionnelle du Royal. Les conditions créées ici sous la direction de Florence Dzierszinski, présidente-directrice générale de l'IRSM – technologie de pointe, culture du travail d'équipe interdisciplinaire, priorité au transfert rapide des connaissances vers les soins – ont incité des scientifiques de renom à se tourner vers le Royal. Être un ou une scientifique

n'est pas chose facile. Au Canada, les subventions modiques rendent difficile le paiement des salaires et des coûts indirects de la recherche ; de moins en moins de personnes envisagent un avenir scientifique. Aux États-Unis, de nombreuses sources de financement se sont taries, et les chercheurs subissent des pressions pour restreindre certains axes de recherche. Dans les deux pays, ceux qui poursuivent une carrière scientifique veillent à trouver les meilleures conditions pour explorer leurs idées et faire bouger les choses.

Au sein du conseil d'administration, nous sommes tous extrêmement fiers de l'engagement de tous les membres du Royal et de l'IRSM pour garantir le meilleur environnement de recherche possible aux scientifiques et cliniciens en santé mentale et en dépendance, où l'accent est mis sur le travail à accomplir. Cet engagement porte ses fruits et nous permet de mieux comprendre les meilleures façons de prévenir, de diagnostiquer et de traiter les maladies mentales. Dans les pages qui suivent, vous découvrirez ce qu'ils ont appris et comment leurs recherches améliorent déjà la vie des gens.

Cet élan a suscité l'enthousiasme au sein des communautés, ce qui a donné lieu à davantage de partenariats, de collaborations plus ambitieuses et à un intérêt accru pour un soutien financier indispensable.

Le message « La recherche, c'est le soin » trouve un écho auprès des philanthropes, des communautés, des entreprises, des fondations et des particuliers. Ils constatent de plus en plus que nous accomplissons quelque chose d'unique à l'IRSM et se mobilisent pour soutenir notre travail. Ils nous parlent sans cesse de leur expérience personnelle avec la maladie mentale – la leur ou celle d'un proche – et nous expliquent comment donner au Royal pour soutenir la recherche est un moyen d'avoir un impact alors que tant de défis mondiaux semblent hors de leur contrôle.

Notre travail ne serait pas possible sans eux, ni sans toutes les personnes et tous les partenaires qui soutiennent nos recherches. Je vous remercie tous.

Michael von Herff
Président du Conseil d'Administration, IRSM



Letter from the President & CEO

A study by E. Andrew Balas and Suzanne Austen Boren in 2000 reported that it takes an average of 17 years to translate research findings into clinical practice. While the number is an average, and the study is 25 years old now, I think about that 17-year gap every day.

Because if you are living with a mental illness, or any other health challenge, for that matter, 17 years might as well be 50.

And so, when we developed our strategic research plan in 2023 and 2024, 'hacking that gap' was a core driver. How could we bring research and care closer together? How could we make sure that new findings found their way into care not in 17 years, but at a pace that creates hope?

This year's annual report is the first to report back on the strategic plan that will guide our work in the next five to 10 years.

The plan articulates clear goals, strategic initiatives, and cross-cutting enablers aimed at propelling The Royal's impact, advancing its evolution into a rapid learning health system, reducing the gap between discovery and impact, and achieving global recognition in the field of mental health research and innovation. We will accelerate prevention, diagnosis and treatment through world-class collaborative and interdisciplinary research and innovation, creating equitable, integrated, whole-person, and precision mental health solutions for all.

As The Royal has developed its 2025-2028 strategic plan, 'SPARQ' (Sustainability, People, Access, Research, Quality), based on iCARE shared values (Innovation, Collaboration, Accountability, Respect, Excellence), our strategic research plan – which corresponds to the first research pillar of The Royal's strategy – will create strong synergies. This alignment will drive impactful research and accelerate improvements in access and quality.

The past year has been spectacular, with incredible new talent joining the team, ambitious collaborations with research partners across the ecosystem, and deeper integration of our researchers and clinicians, providing and improving care for our patients. I am so very proud of the progress we have made together, particularly when I see how many of our patients report improvement. Thank you to each and every one of you.

We are well aware that the work we do at The Royal is but a small part of what is needed in Canada to improve the lives of those living with mental illness. A comprehensive national health research strategy would be a game changer.

It's time for leaders to put science at the forefront of our national conversation. In this period of disruption and uncertainty that has reached the research community, we have the opportunity to stimulate innovation and creativity by attracting research talent in a coordinated strategy. One that identifies key areas where we think we can make an outsized impact, just as The Royal/IMHR has done, but on a much larger scale.

We are seeing this kind of ambition in Europe, which has earmarked 500 million euros over three years to make Europe a magnet for researchers. Leaders there saw an incredible opportunity to secure talent from scientists facing uncertain futures in the U.S. and found a way to act quickly. They may not have the full plan, but they have started.

The need for a Canadian science strategy was identified in the 2023 Report of the Advisory Panel on the Federal Research Support System (known as the Bouchard Report.) While money was earmarked to create a Council on Science and Innovation before the last election, other action on the Report's 21 recommendations seems scant. We need much more than a plan to plan.

Each day that passes is a lost opportunity – to attract researchers to Canada, to invite Canadians working abroad to come home, but also a loss for those who benefit from research, because *Research is Care*.

Sincerely,

Florence Dzierszinski, PhD
President & CEO, IMHR / Vice President Research, The Royal



Lettre de la Présidente et cheffe de la direction

Une étude réalisée par E. Andrew Balas et Suzanne Austen Boren en 2000 a révélé qu'il faut en moyenne 17 ans pour traduire les résultats de la recherche en pratique clinique. Bien que ce chiffre soit une moyenne et que l'étude date maintenant de 25 ans, je pense à cet écart de 17 ans chaque jour.

Car si vous vivez avec une maladie mentale, ou tout autre problème de santé, 17 ans pourraient aussi bien correspondre à 50 ans.

Lorsque nous avons élaboré notre plan stratégique de recherche pour 2023 et 2024, « combler cet écart » était donc un objectif essentiel. Comment rapprocher recherche et soins ? Comment faire en sorte que les nouvelles découvertes soient intégrées aux soins non pas en 17 ans, mais à un rythme porteur d'espoir ?

Le rapport annuel de cette année est le premier à rendre compte du plan stratégique qui guidera nos travaux pour les cinq à dix prochaines années.

Ce plan définit des objectifs clairs, des initiatives stratégiques et des leviers transversaux visant à accroître l'impact du Royal, à accélérer son évolution vers un système de santé à apprentissage rapide, à réduire l'écart entre découverte et impact, et à obtenir une reconnaissance mondiale dans le domaine de la recherche et de l'innovation en santé mentale. Nous accélérerons la prévention, le diagnostic et le traitement grâce à une recherche et une innovation collaboratives et interdisciplinaires de classe mondiale, créant ainsi des solutions de santé mentale équitables, intégrées, holistiques et de précision pour tous.

Alors que le Royal a élaboré son plan stratégique 2025-2028, « SPARQ » (Durabilité, Personnes, Accès, Recherche, Qualité), fondé sur les valeurs partagées d'iCARE (Innovation, Collaboration, Responsabilité, Respect, Excellence), notre plan de recherche stratégique, qui correspond au premier pilier de recherche de la stratégie du Royal, créera de fortes synergies. Cette harmonisation favorisera des recherches percutantes et accélérera l'amélioration de l'accès et de la qualité.

L'année 2024-2025 a été exceptionnelle, marquée par l'arrivée de nouveaux talents exceptionnels au sein de l'équipe, des collaborations ambitieuses avec des partenaires de recherche de l'ensemble de l'écosystème et une intégration plus poussée de nos chercheurs et cliniciens, permettant ainsi de fournir et d'améliorer les soins à nos patients. Je suis extrêmement fière des progrès que nous avons réalisés ensemble, surtout lorsque je témoigne que de nombreux patients constatent une amélioration.

Merci à chacun d'entre vous.

Nous sommes bien conscients que le travail que nous accomplissons au Royal ne représente qu'une infime partie de ce qui est nécessaire au Canada pour améliorer la vie des personnes atteintes de maladie mentale. Une stratégie nationale globale de recherche en santé changerait la donne.

Il est temps que les dirigeants placent la science au cœur de notre conversation nationale. En cette période de perturbations et d'incertitude qui frappe le milieu de la recherche, nous avons l'occasion de stimuler l'innovation et la créativité en attirant des chercheurs talentueux dans le cadre d'une stratégie coordonnée. Une stratégie qui identifie les domaines clés où nous pensons pouvoir avoir un impact considérable, tout comme l'ont fait le Royal/l'IRSM, mais à une échelle beaucoup plus grande.

On observe ce type d'ambition en Europe, qui a débloqué 500 millions d'euros sur trois ans pour faire de l'Europe un pôle d'attraction pour les chercheurs. Les dirigeants y voient une occasion incroyable de recruter des scientifiques dont l'avenir est incertain aux États-Unis et ont trouvé le moyen d'agir rapidement. Ils n'ont peut-être pas de plan complet, mais ils ont commencé.

La nécessité d'une stratégie scientifique canadienne a été identifiée dans le rapport 2023 du Comité consultatif sur le système fédéral de soutien à la recherche (connu sous le nom de rapport Bouchard). Bien que des fonds aient été alloués à la création d'un Conseil de la science et de l'innovation avant les dernières élections, les autres mesures prises pour mettre en œuvre les 21 recommandations du rapport semblent rares. Il nous faut bien plus qu'un plan pour planifier.

Chaque jour qui passe est une occasion manquée : attirer des chercheurs au Canada, inviter les Canadiens travaillant à l'étranger à revenir au pays, mais aussi une perte pour ceux qui bénéficient de la recherche, car « La recherche, c'est le soin ».

Florence Dzierzinski, PhD
Présidente et cheffe de la direction / vice-présidente - recherche, Le Royal

A Year of Momentum

Our strategic research plan is an evergreen roadmap towards our four goals. Its first year we both delivered progress and built momentum against these four goals.

Goal 1: Propel The Royal's impact and profile by focusing on distinctive research in specialty areas

We added great researchers (up 21% from a year earlier,) who were drawn to The Royal by our combination of talent, technology, and culture. Together they have amped up the amount of research we are able to conduct within our declared areas of priority, with 200 active grants, a third more than three years ago, and double the number of grants we had 10 years ago. All our research programs are now aligned with the clinical priorities of The Royal.

We have identified the areas of substance use and concurrent disorder as one of the next priority areas for hiring, and clinical trials, PET imaging and brain stimulation as desired methodological and technological expertise.

Goal 2: Advance the evolution of The Royal into a rapid learning health system

For several years, we have set the ground work for people across the hospital to get involved in research – educating colleagues about what we do, putting the architecture of that engagement in place. We've created data platforms, a research registry for participants, some protected time measures, and made sure our guiderails are in place, such as an efficient online platform for submitting and monitoring the progress of research proposals through the Research Ethics Board.

That work is paying off. The number of clinicians leading REB-approved studies rose from 65 to 94 (30%) last year alone. This is 'Research is Care' in action – our clinicians and scientists narrowing the gap between the patients they see and the new treatments we are developing. Clinicians are also getting involved in scientist-led research – inter-professional collaborators went from 30 to 81 (63%) in the past four years. We expect that number to jump with the introduction of three research and evaluation liaison positions established this year, hardwiring research and evaluation into our clinical programs.

Goal 3: Reduce the gap between discovery and impact for clients, patients, families, the community and society at large

The research that we do wouldn't be possible without the patients that participate in our studies. At the same time, we're providing access to care for people who need it and it's working. We currently have 173 studies underway, up 4% in the last year, 22% in five years, 38% in nine years.

The 40 interventional studies we have underway (doubled the level of five years ago), create access to care through research and transfer knowledge to our ecosystem.

Importantly, the treatments that our participants have received are working. Of those who got repetitive transcranial magnetic stimulation (rTMS) treatments, 48% showed improvement in clinical symptoms, 83% of those in the BMO Innovative Clinic for Depression, where we provide integrated esketamine services, cited improvements, and 50% of those in our cognitive clinic cited better cognitive outcomes. Those numbers are particularly encouraging given that those we treat live with very difficult-to-treat conditions.

Goal 4: Become a globally renowned academic health science centre for mental health research and innovation

We aspire to scale our model, creating greater and faster impact in terms of both knowledge and care. To do that, we need to be known. Our momentum in securing external research funding (including several significant grants that have yet to be announced) positions us strongly towards our aspiration to be a global hub for mental health research. We have a proven ability to leverage every dollar into more and are laying groundwork to build our international reputation.

Our increasing reputation means that we are forming bigger partnerships, having greater influence in the community – both in the neighbourhood and the research community. Peer-reviewed articles have climbed 23% in the past five years, translating into more success in partnerships, grants, and commercial opportunities, as well opportunities to join several national and international consortia.

7 Things to Watch for in FY2026



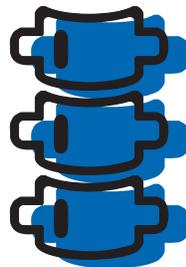
An expansion of the Brain Imaging Centre's capabilities, with simultaneous **tri-modal imaging** (MRI-PET-EEG), representing a step-change in our technological capabilities and leadership in brain imaging.



Grant applications for the 2026 New Frontiers in Research Fund and 2027 CFI Innovation, to fund large-scale ambitious, interdisciplinary and collaborative research.



A return of our innovative talent development initiative, **Early Research Innovators in Mental Health** (eRIMh).



The addition of **Stellate Ganglion Block** to our Interventional Psychiatry Program, an innovative treatment advocated for by a patient.



Ongoing **partnership in the community**, including Canadian Mental Health Association – Ottawa Branch, Wabano and others.



Two new research chairs that will bring with them funding opportunities, interdisciplinary expertise and an expanded network.



Growth in our innovation portfolio through partnership in our ecosystem.



The Clinical Brain Research Centre

A VISION FOR RESEARCH ACROSS THE CONTINUUM OF CARE

A blueprint designed to transform mental health and addiction care, the Clinical Brain Research Centre (CBRC) integrates research, technology, and clinical practice across the full continuum of care – from prevention to diagnosis to treatment.

By bringing innovative research directly to the point of care, the CBRC advances two of The Royal's key priorities: improving access and enhancing quality. Powered by a new integrative data platform with predictive capabilities, the CBRC enables coordinated, evidence-based care that is responsive to individual needs.

Building on the foundation of The Royal's Brain Imaging Centre and existing clinical research programs, the CBRC represents the next phase of growth in translational mental health research. It will provide patients with streamlined access to cutting-edge prevention strategies, diagnostic tools, and therapeutic interventions, some of which being available exclusively through research.

The CBRC will also serve as a central hub for coordinating clinical trials and applied research. Programs such as Interventional Psychiatry – offering esketamine, IV ketamine, rTMS, ECT, and cognitive remediation – are already demonstrating the value of integrated care. A centralized intake and triage process facilitates timely access to these services and smooth transitions back to primary care. Interdisciplinary teams of clinicians and researchers work side-by-side, ensuring care is efficient, personalized, and informed by the latest evidence.

Throughout each patient's journey, standardized clinical and research data will be collected to support continuous evaluation, inform future care models, and advocate for the adoption of proven innovations as part of routine clinical practice.

The Clinical Brain Research Centre is where science and care meet – creating a future in which research accelerates recovery, and every patient benefits from the most advanced approaches in mental health and addiction care.

CLINICAL BRAIN RESEARCH CENTRE

Integrated and coordinated platforms

INTERVENTIONAL PSYCHIATRY PROGRAM

Our umbrella approach that connects all our services for the patient

BRAIN IMAGING CENTRE

Brings together cutting-edge technology including MRI, PET and EEG scanning, powerful tools to investigate brain function, structure, and neuropsychiatric disorders.

PREVENTION

Suicide Prevention
Community
Lifestyle (Exercise, Sleep)
Arts

DIAGNOSIS

PET-MRI (Bic) | Sleep | EEG
Biomarkers | Advanced Scales

INTERVENTION

Brain Stimulation
Esketamine | IV Ketamine | (Psychedelics)
ECT | rTMS-ECT | MRI Guided-rTMS
Cognitive Remediation (VR) | Sleep

CARDIO-NEURO-MIND DATA PLATFORM

Integration of heterogenous data

BRAIN IMAGING CENTRE

The Brain Imaging Centre (BIC) is a leader in neuroimaging, dedicated to advancing mental health research through cutting-edge technology and expertise. We specialize in simultaneous multimodality imaging using magnetic resonance imaging (MRI), positron emission tomography (PET), and electroencephalogram (EEG) scanning, providing researchers with powerful tools to investigate brain function, structure, and neuropsychiatric disorders.

Earlier this year, the BIC proudly celebrated a major milestone: 5,000 research scans completed. Since 2016, the BIC, led by **Katie Dinelle** has firmly established itself as the go-to hub for brain imaging in the Ottawa region. To date, we have supported more than 72 research protocols and collaborated with more than 40 researchers across institutions including the University of Ottawa, Carleton University, The Ottawa Hospital, CHEO, Bruyère Hospital, and many others. Demand for our services continues to grow. We are now conducting well over one thousand scans annually, reflecting the expanding needs of the research and clinical communities we serve.

We expanded our PET tracer library, bringing online four new tracers in the past year. In March, we completed our first pilot study measuring synaptic density using ¹⁸F-SynVesT-1, focusing on individuals with major depressive disorder and bipolar disorder. This tracer provides a quantitative measure of synaptic density that will enable a better understanding of brain development. Only a handful of research sites in North America have this unique capability.

TECHNOLOGICAL MILESTONE IN BRAIN IMAGING: COMBINING PET AND MRI

Rami Hamati, a PhD student under the supervision of **Dr. Lauri Tuominen**, completed a groundbreaking project titled “Aversive learning in first-degree relatives of schizophrenia,” marking a significant technological achievement in brain imaging. This first-of-its-kind study integrated MRI and PET – the dual-modality capability our PET/MRI scanner is designed for but rarely used simultaneously in practice. The project also relied on the synthesis of the raclopride PET tracer, a technical feat that required collaboration across the University of Ottawa Heart Institute and the IMHR.

More than 100 MRI and 58 PET/MR scans were acquired before the study concluded in August 2024, generating a rich dataset that Hamati is now analyzing for his PhD. The team uncovered a surprising and important finding: first-degree relatives of people with schizophrenia released less dopamine during learning, contrary to expectations. This is the first time such a dopamine-dependent learning deficit has been shown in this population, shifting the understanding of how dopamine contributes to psychosis. Rather than only excess dopamine explaining symptoms like delusions, this research suggests that dopamine reductions may also play a role.

EXPANDING COLLABORATIONS

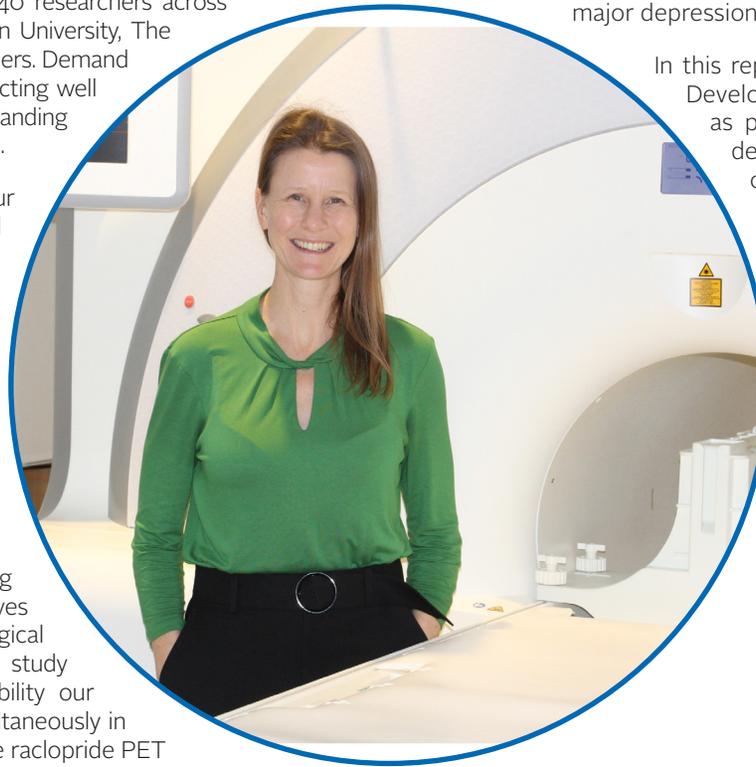
The BIC is a catalyst for interdisciplinary collaboration. This year, our BIC Steering Committee approved 21 new studies, including two exciting projects in partnership with the University of Ottawa Heart Institute, further strengthening the region's brain-heart interconnectome initiative.

Thanks to our PET program, pilot PET/MRI data will be available to all BIC scientists to support grant applications, and as comparator data for other research projects. The research protocol was developed by scientists from the IMHR, The Ottawa Hospital, uOttawa, and Carleton University with each contributing their expertise to make the dataset as cross-functional as possible. Beyond this pilot study, scientists plan to use this tracer to study the interplay between synaptic density and treatments for major depression such as ketamine, rTMS, and exercise.

In this report, you can also read about the Cardio-Neuro-Mind Development Platform, (CNMDP) a sophisticated tool created as part of brain-heart interconnectome initiative, that is designed to store, analyze, and share large amounts of various types of data to facilitate research, and ultimately, unravel the complex connections between the brain and the heart.

The team expanded our collaborations with teams at Carleton and uOttawa. We also launched innovative work in Alzheimer's disease imaging using ¹¹C-PiB, headed by Dr. Reggie Taylor, MRI physicist for the BIC and an IMHR scientist.

Through its work, the BIC continues to expand regional capacity for cutting-edge investigations of brain health allowing our scientists to contribute on the international stage.



INTERVENTIONAL PSYCHIATRY PROGRAM

The Interventional Psychiatry Program (IPP) is a central pillar of our plan to innovate in the delivery of mental health care. This year marked significant progress in its development. After extensive planning, we received formal approval from The Royal's Medical Advisory Committee, the senior leadership team, and the hospital board of trustees, to launch as a new clinical program. In phase one we'll create a coordinated intake process for patients, with a more sophisticated triage procedure. With the scanning resources available to us, we envision using the available information to guide patients towards the interventional treatment best suited to them, currently including repetitive transcranial magnetic stimulation (rTMS), intranasal esketamine, IV ketamine, and electroconvulsive therapy (ECT).

FELLOWSHIP DEVELOPMENT AND RECRUITMENT

We have recruited for our inaugural Interventional Psychiatry Fellowship, a training opportunity now offered through the Postgraduate Medical Education Program at uOttawa. Designed to provide specialized, hands-on training across a spectrum of interventional modalities, the fellowship has secured two candidates for fiscal 2026. The fellowship's integration into our academic and clinical landscape enhances the IPP's prestige and builds a critical workforce pipeline for the future of this emerging field within The Royal, and across our partner institutions in the Ottawa-Gatineau region.

LOOKING AHEAD

The IPP is a significant step in connecting the elements of the Clinical Brain Research Centre from a patient experience. The ability to not just provide a potential patient with a suite of new treatment options, but also with a personalized data-driven rationale for why one treatment is the most promising for them personally represents a significant milestone in the CBRC and for the entire team involved. The IPP also promises improvements in continuity of care. If a given treatment doesn't work, then we can move onto the next, with a smoothness that wasn't available previously. We are currently developing a partnership with the private sector to develop the technology that will support triage, prioritization and personalization – more to come.

NEUROMODULATION RESEARCH CLINIC

The Royal/IMHR's Neuromodulation Research Clinic is dedicated to advancing the treatment of difficult-to-treat depression through innovative neuromodulation therapies, with a primary focus on rTMS. The clinic is assessing the effectiveness of personalized rTMS treatments. By addressing the needs of individuals who do not respond to conventional therapies, the clinic fills a critical gap in mental health care, offering a non-invasive, evidence-based option through research.

One of the most striking findings in the last year emerged from our analysis of physical activity in individuals undergoing rTMS treatment. While the benefits of exercise on brain health are well known, researchers were surprised by the extent to which pre-treatment physical activity predicted and amplified responsiveness to rTMS.



Typically, in our research clinic, 50%-60% of individuals respond positively to a form of rTMS called theta burst stimulation. However, when researchers stratified by activity level, they found that those who engaged in regular exercise routines – including running, cycling, walking, and gym workouts – had significantly better outcomes. In fact, over 80% of active participants showed reduced depressive symptoms following rTMS, compared to about 30% of inactive individuals. These findings were published in the *Journal of Affective Disorders* and laid the foundation for a new clinical trial funded by the University Medical Research Fund (UMRF).

Another important discovery was that female participants demonstrated higher response rates. A review of the existing literature revealed a significant knowledge gap about sex differences in rTMS treatment outcomes, which will be further investigated in the coming year.

Looking ahead, **Dr. Sara Tremblay**, who leads the clinic, is focused on establishing a fully integrated and sustainable rTMS service, supported by a hybrid funding model that combines public health resources, research funding and philanthropic support. We also aim to broaden our clinical trial offerings to include rTMS for obsessive-compulsive disorder and post-traumatic stress disorder, two areas with growing evidence of efficacy. Our long-term strategy is to create a scalable model of care informed by ongoing research – positioning the clinic as a provincial and national leader in innovative treatments for difficult-to-treat mental health conditions.

BMO INNOVATIVE CLINIC FOR DEPRESSION

Thirty percent of people diagnosed with major depressive disorder do not respond to available treatments, which makes what is happening in the BMO Innovative Clinic for Depression so exciting. With a current focus on ketamine, the clinic is seeing results in patients that have the potential to dramatically change the standards for treatment of this challenging condition, including de-escalating suicidal thoughts for patients in crisis.

Ketamine is a novel treatment option that offers a rapid impact on depressive symptoms and suicidality and increased effectiveness compared to traditional antidepressant medication.

Our patients have not responded to standard treatments for depression due to major depressive disorder or bipolar disorder. We provide specialized interventional psychiatry treatment, such as ketamine treatment, to test their real-world clinical effectiveness in eliciting rapid and sustained decrease in depressive symptoms and suicidal ideation. These treatments are offering in the context of a fully integrated clinical service, integrated with other treatment options within The Royal/IMHR and with existing services and treatment options available at The Royal more broadly.

The esketamine services were launched at The Royal in 2021 and received an important funding boost in 2023 thanks to a \$2 million donation from BMO, collecting data on its real-world effectiveness, patient access, and response to treatment. Data from our first three years reveals significant decrease in depressive symptoms in patients who receive treatment with esketamine. Overall, about half of our patients (48%) have had at least partial response to treatment (these are individuals whose depression has not responded to at least two previous trials of antidepressant medication within the current depressive episode. Further, more than three quarters (76%) experienced a decrease in their suicidal thoughts with esketamine treatment.

We've also found a link between physical health and treatment response. Higher pre-treatment body mass index (BMI), larger waist circumference, and higher levels of inflammation are each associated with greater improvement in depressive symptoms with esketamine treatment. These findings may hint at esketamine's underlying mechanisms of action.

These results add to the case for including ketamine as a standard treatment for individuals with difficult-to-treat depression in Canada. We are hopeful that our advocacy efforts with Health Canada will help clarify the complexities surrounding ketamine treatment and ultimately improve access for Canadians facing these challenges. While Health Canada approved esketamine, a specific form of ketamine delivered intranasally,

for treatment-resistant depression in 2020, no such approval exists for sub-anesthetic intravenous (IV) ketamine despite extensive research demonstrating its effectiveness.

In the coming year, the clinic's team of **Dr. Jennifer Phillips, Dr. Jeanne Talbot, Stefan Trivunovic, Dr. Kelly Mascioli, Dr. Ed Horn** and **Maria da Silva**, will explore whether a novel glutamate-modulating medication that functions similarly to ketamine combined with an antidepressant (dextromethorphan/bupropion) can maintain treatment benefits elicited by IV ketamine. We are also offering opportunities for advanced training in administering ketamine through the aforementioned IPP clinical fellowships. We want to ensure that the expertise in interventional psychiatry being developed at The Royal will be disseminated over time across Canada.



SLEEP RESEARCH CLINIC

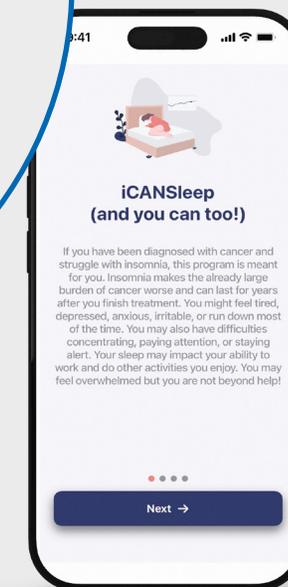
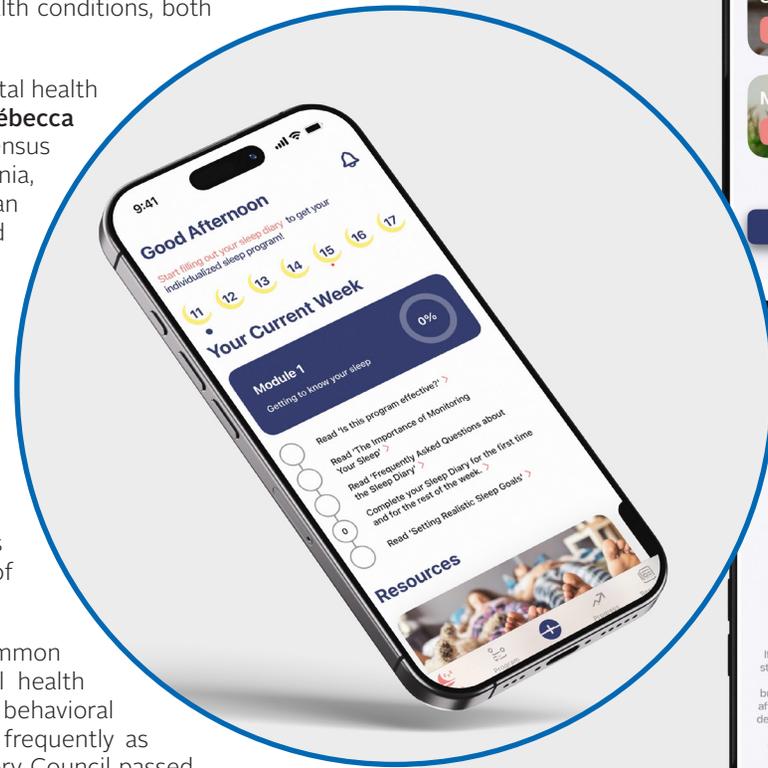
We know that sleep plays a fundamental role in supporting mental health and overall well-being. Disruptions to sleep, such as insomnia, can significantly affect mood, cognitive function, and emotional regulation, often exacerbating conditions like anxiety, depression, and post-traumatic stress disorder (PTSD). Chronic sleep disturbances not only impact mental health but also interfere with brain-heart interactions, influencing physiological processes such as heart rate variability, stress response, and immune function. These complex interactions between the brain and heart are integral to understanding how sleep influences mental health. The Sleep Research Clinic delves into this complex and multifaceted relationship between sleep and mental health, with a transdiagnostic approach, working to identify specific sleep components and patterns that are linked to a wide range of health conditions, both physical and mental, across diverse populations.

The importance of sleep and its relationship to mental health got a big boost in awareness in the past year. **Dr. Rébecca Robillard** co-chaired the creation of national consensus recommendations for the management of insomnia, hosted policy advocacy events and created an international working group on equity, diversity, and inclusion (EDI) to develop guidelines in the field.

In partnership with the National Research Council of Canada, Robillard created a new smartphone application to promote sleep health in an interactive manner, and on behalf of five provincial and national organizations, she drafted a report on the effects of daylight savings time for the Quebec Government during its public consultations. Through a monthly column in *The Globe and Mail*, Robillard now raises the profile of systemic gaps in sleep and mental health care, and awareness of research in the field.

Sleep disorders, particularly insomnia, are common comorbid conditions in people living with mental health disorders. Despite its superior efficacy, cognitive behavioral therapy for insomnia (CBT-I) is not prescribed as frequently as medications. In January, The Royal's Medical Advisory Council passed a motion to support the creation of a CBT-I Clinic that would put The Royal in a national leadership role, and significantly increasing access to care, while reducing wait times.

Looking ahead, Robillard, who leads the Sleep Clinic together with **Dr. Elliott Lee**, has three goals prioritized: scaling access to personalized sleep assessments through digital platforms, embedding sleep science into health system planning and policy, and expanding collaborations to build an equitable sleep health infrastructure.



MUSIC AND MENTAL HEALTH RESEARCH CLINIC

The Music and Mental Health Research Clinic explores the power of music to help prevent or improve health and wellbeing for individuals living with mental illness. Formally launched in 2024, the clinic's programs address the lack of evidence-based research on the psychosocial and mental health benefits of community music programs as interventions. By using standardized research methods and outcome measures, the clinic aims to explore and evaluate the effectiveness of music-based intervention outcomes, including reducing symptoms of anxiety, depression, and social isolation across diverse populations.

The vision of the clinic's leader, **Dr. Gilles Comeau**, is to integrate evidence-based community-centered music programs into mental health care, ensuring they are accessible to diverse populations. Through interdisciplinary collaboration, strong community partnerships, the team is working to identify best practices and demonstrate tangible mental health benefits of music interventions. Rigorous research will provide the foundation of validating the impact of these programs and creating sustainable, scalable models for mental health care and support.

In the last year, the team has focused on increasing its presence in the community and establishing the research component of the program.

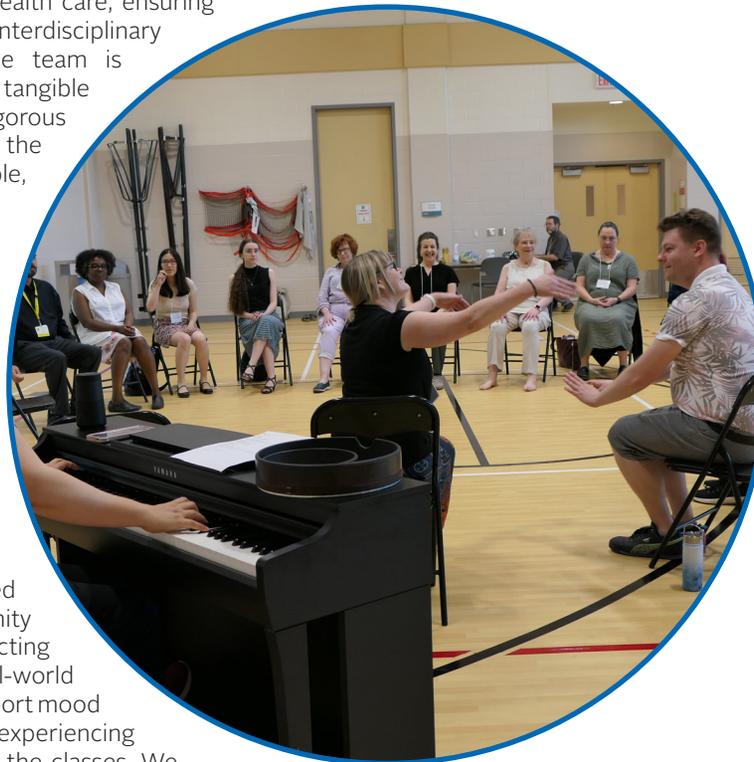
The community has embraced our music and movement programs launched at The Royal, Bruyère, the Dementia Society and the Vanier Community Service Centre. With tireless networking and promotion, we have added programs at health institutions, community organizations and, most recently, retirement homes.

With the music and movement classes established across a variety of mental health and community care settings, the team has now started collecting research data. We are already seeing promising real-world implications. Preliminary findings from weekly self-report mood and wellbeing scales indicate that participants are experiencing positive emotional and mental health benefits from the classes. We will soon have some results for other mental wellbeing parameters such as depression, anxiety and social engagement which, if found to be impacted, will further support the importance of offering these classes more broadly.

For the hundreds of participants, the music programs have helped create community and connection. One participant shared that she loves to move, and this is the only place where she feels free to express herself that way. Another said, "I enjoy physiotherapy, but this (music session) has a different spirit." One patient said the music session is what motivates him to leave the house. While the movement activities can be challenging at times, the shared experience brings joy, warmth, and a strong sense of togetherness that keeps people coming back.

On a policy level, our preliminary results and participant feedback provide evidence that music-based interventions contribute meaningfully to mental healthcare. As we continue refining our measurement tools and gathering longitudinal data, we aim to inform future models and service designs.

Looking ahead, the Music and Mental Health Clinic will be adding more music instructors and community organizations outside of Ottawa, and starting research in other parts of Canada, and internationally through partners. We also are close to launching an online platform for data collection, storage and dashboard, and are exploring additional measurement tools to pilot, including options for physiological and physical function measures, such as ECG, pressure mats for gait analysis, ActiGraph watches, and motion tracking.



COGNITIVE HEALTH RESEARCH CLINIC

Most people with mental health disorders face cognitive difficulties, directly impacting their daily functioning, productivity, and overall well-being. In Ontario alone, almost 5% of people report disabilities related to mental health or addiction. For our communities, that means increased healthcare costs and demand for social services. Yet, available medications and therapeutic options inadequately address cognitive impairments associated with mental health disorders, leaving a critical gap in comprehensive care.

Cognitive remediation therapy is an evidence-based intervention that improves cognition, functioning and quality of life. However, it remains largely inaccessible, leaving many patients without critical care. The Cognitive Health Research Clinic aims to bridge this gap by providing cognitive evaluation and evidence-based interventions. Doing so will reduce the wait times for critical neuropsychological services, while directly addressing the cognitive needs of patients, thereby improving their health outcomes and supporting long-term recovery.

Three trials are underway at the clinic for those living with psychosis or receiving forensic mental health care.

- **Forensic Trial:** a randomized controlled trial examining the efficacy of cognitive remediation on factors imperative for rehabilitation and decreasing recidivism. The forensic trial serves a transdiagnostic population (e.g., psychosis, substance use disorders, PTSD) of those who are not found criminally responsible due to mental disorder.
- **Virtual Reality Trial:** a randomized controlled trial examining the feasibility, acceptability, and efficacy of a virtual reality (VR) cognitive remediation program that was built through a bottom-up approach with individuals with lived experience and healthcare professionals.
- **Remote Delivery Trial:** an open label trial that delivers two virtual cognitively orientated programs, cognitive remediation and metacognitive training, for individuals with schizophrenia and psychosis spectrum disorders.

All three trials are in the data collection phase. Preliminary analyses of the entire sample in the forensic and VR trials indicated promising findings; individuals who received cognitive remediation experienced cognitive and functioning improvements. We also see a superior retention rate in our VR program, showing positive engagement from our patients.

The trials are helping to refine treatment approaches, and results from the VR and remote delivery trials are working to make cognitive remediation more accessible and personalized using innovative means. The forensic trial also provides a nuanced approach on the integration of a structured cognitive rehabilitation intervention, an approach that is only offered in few forensic programs.

The work of the clinic, led by **Dr. Synthia Guimond**, is getting attention in the academic community through local and international conference presentations. Looking forward, Guimond hopes to offer comprehensive cognitive evaluation and cognitive remediation to a wider audience of persons with psychiatric disorders.



PROGRESS AGAINST OUR 4 GOALS

The Royal/IMHR's Strategic Research Plan lays the groundwork for advancing mental health research and integrating these advancements into client care, embodying the mantra "Research is Care." With the collaborative efforts of many, the plan targets the complex challenges of mental illness and substance use disorders in a rapidly evolving world.



Goal 1

Propel The Royal's impact and profile by focusing on distinctive research in specialty areas

Goal 2

Advance the evolution of The Royal into a rapid learning health system

Goal 3

Reduce the gap between discovery and impact for clients, patients, families, the community and society at large

Goal 4

Become a globally renowned academic health science centre for mental health research and innovation

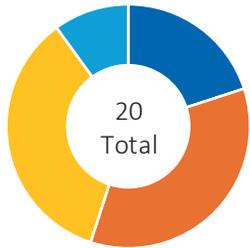
We made significant progress against each of these four goals, supported by our cross-cutting strategic initiatives and enablers (talent, academic culture, operations and infrastructure, partnership and funding and sustainability.) The stories that follow are but a select few from an outstanding year.



Goal 1 | Propel The Royal's impact and profile by focusing on distinctive research in specialty areas

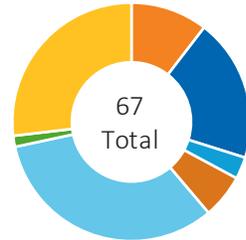
Goal 1 | Propel The Royal's impact and profile by focusing on distinctive research in specialty areas

Scientists by Experience



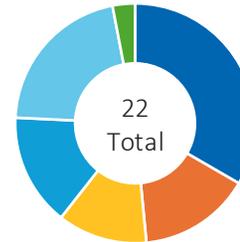
- < 5 years
- 5 - 7 years
- 8 - 15 years
- > 15 years

Researchers by Appointment Category



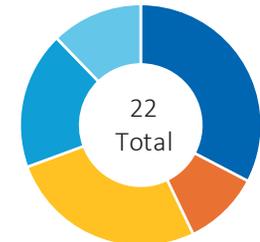
- Senior Scientists (7)
- Scientists (13)
- Assoc. Scientists (2)
- Clinical Investigators
- Adjunct Scientists
- Visiting Scholars
- Staff Investigators

Scientists per Declared Specialty



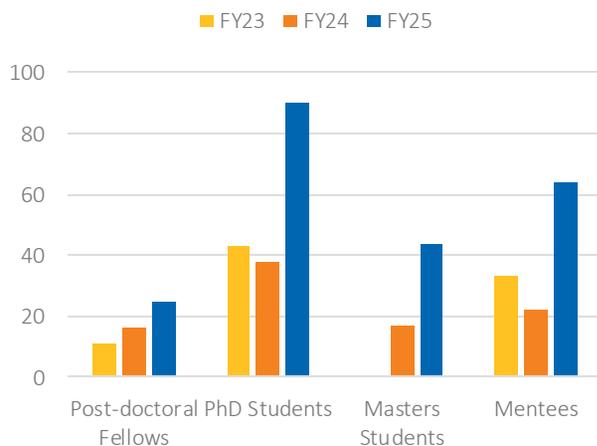
- Depression & Anxiety
- Mental Health in Equity-deserving & At-risk Populations
- Transdiagnostics
- Trauma & Stress-Related Disorders
- Schizophrenia, severe and complex mental illness
- Intersection of Substance Use & Mental Health

Scientists by Program Type



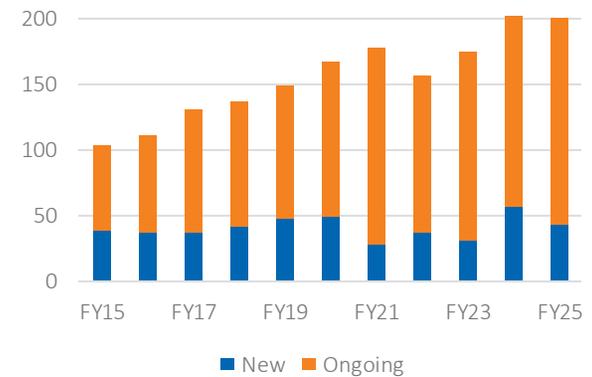
- Key Determinants of Illness
- Person-tailored Care Pathways
- Novel & Integrative Diagnostics & Interventions Approaches
- Health Promotion & Prevention Solutions
- Evidence-based Practice & Policy

Learners by Category



3.15
Ratio of Research Staff/Scientists

Total Active Grants



TALENT

OUR RESEARCH CHAIRS



Pierre Blier, MD, PhD, FRSC,
IMHR Clinical Research Chair
in Mood Disorders



Georg Northoff, MD, PhD,
FRSC, IMHR Clinical Research
Chair in Mind, Brain Imaging
and Neuroethics



Kim Matheson, PhD,
Carleton/Royal Chair in
Culture and Gender Mental
Health Research



Zachary Kaminsky, PhD,
DIFD-Mach-Gaensslen
Chair in Suicide Prevention
Research

TWO MORE RESEARCH CHAIRS COMING SOON

The biggest hindrance to expanding our research team is, of course, funding, and so we are particularly excited that thanks to partnerships, we will add two new research chairs in the coming year.

Together with uOttawa and the Brain-Heart Interconnectome, we are creating a Canada Research Chair CIHR Tier 2, focused on brain imaging, PET, BHI mechanistic interactions, in partnership with the Faculty of Medicine, the Faculty of Social Sciences and the School of Psychology.

We are also adding a University Research Chair that will enhance the partnership between uOttawa and the six affiliated research institutes. The new chair will support the delivery of the Ottawa Academic Health Network's research goals, including increasing our research and innovation capacity. Results later in FY26.

IMHR AND TELFER SCHOOL OF MANAGEMENT TEAM UP



As with every discipline, artificial intelligence creates promise in mental health research. So, the IMHR was very interested to have **Dr. Christopher Sun** join our research team as an adjunct scientist. Sun, who joined in November 2024, is a uOttawa Telfer School of Management Assistant Professor, and Scientist at uOttawa Heart Institute. He holds the Canada Research Chair in Data Analytics for Health Systems Transformation.

Every scan that is taken of a heart or a brain provides tiny clues that previously would have been very difficult to isolate. AI is a game changer. Sun's impact at the IMHR has been quick, submitting a successful application for a Brain-Heart Interconnectome Ignition grant. The research team, which includes patient and family representatives, will investigate how AI can be used to review ECG records to identify those at risk for certain mental and neurological disorders, before they would typically be diagnosed, using existing data from the University of Ottawa Heart Institute and The Royal.

RESEARCH LEADERSHIP AWARDS INTRODUCED

One element of retaining top talent is recognition of their contributions. With growing competition among research institutions, the implementation of a tailored system that rewards outstanding research and aligns with institutional goals is essential. This year we unveiled four Distinguished Research Leadership Awards, to be first awarded in April 2026. The goal for these awards is to recognize and reward individual and team research achievements that align with the strategic research plan, while encouraging scientists to take on leadership roles in initiatives that support our shared objectives.

COLLABORATION WITH SUPERMINDS FOR SUPERHUMANS LEADS TO TWO SENIOR RECRUITMENTS

Dr. Patrick McGrath joined in October 2024 as a senior scientist. A world-renowned clinical psychologist and Emeritus Professor of Psychiatry at Dalhousie University, his career has included being a clinician, researcher, administrator and social entrepreneur. His expertise includes all forms of anxiety, depression, OCD and PTSD. He works with clients that have health problems such as irritable bowel syndrome, fibromyalgia and headaches. McGrath is the founder of the Strongest Families Institute, a not-for-profit organization focused on providing evidence-based mental health services to children and families.



Dr. David Pedlar joined the IMHR in March 2025 as a senior scientist. A distinguished researcher and thought leader in military and veteran health, Pedlar brings with him a wealth of expertise and an impressive track record in advancing mental health research and policy. A globally recognized leader in military and veteran health research, Pedlar has held key roles at Queen's University, the Canadian Institute for Military and Veteran Health Research, and international collaborations like the Five Eyes Mental Health Research and Innovation Collaborative.

McGrath and Pedlar both came to the IMHR through our collaboration with and support to Superminds for Superhumans, a Canadian-founded humanitarian mental health initiative providing support to Ukrainian soldiers and civilians who have experienced amputation due to war injuries, and to their families and support communities. Both researchers have joined our team preparing for IMHR's 2026 New Frontiers in Research Fund (NFRF) Transformation grant application.

music intervention for depression/anxiety in both mental and heart/cardiac disorders.

Northoff also received a \$215,000 grant from the AHSC AFP Innovation Fund, a collaboration between the Ontario Ministry of Health and the Ontario Medical Association. The fund provides short-term seed funding to support innovative projects that will transform healthcare delivery in Ontario, and Northoff will use the grant to pursue research into 'Personalized Breathing Therapy in Anxiety disorders.'

Dr. Christopher Sun and team (Gordon McGregor (Patient Partner), Nancy Myers (Family Partner), Dr. Peter Liu, **Dr. Florence Dzierszinski**, **Katie Dinelle**, **Dr. Jennifer Phillips**, Dr. Jodi Edwards, Dr. Kelly Cobey) received a second BHI Ignition grant for their research, entitled 'AI-Based ECG Predictions for Early Detection of Mental and Neurological Disorders.' This is one of the eight projects funded in this inaugural BHI program, \$25,000 for one year. This research will use data from the University of Ottawa Heart Institute and The Royal to link ECG records with verified mental health diagnoses. By applying advanced artificial intelligence (AI) methods to these combined datasets, we aim to identify ECG patterns that predict who is at risk for certain mental and neurological disorders, before they would typically be diagnosed.

Dr. Stuart Fogel received a renewal of his NSERC Discovery Grant at the highest level for his research on the neural correlates of eye movements during REM sleep involved in memory reactivation, for \$375,000.



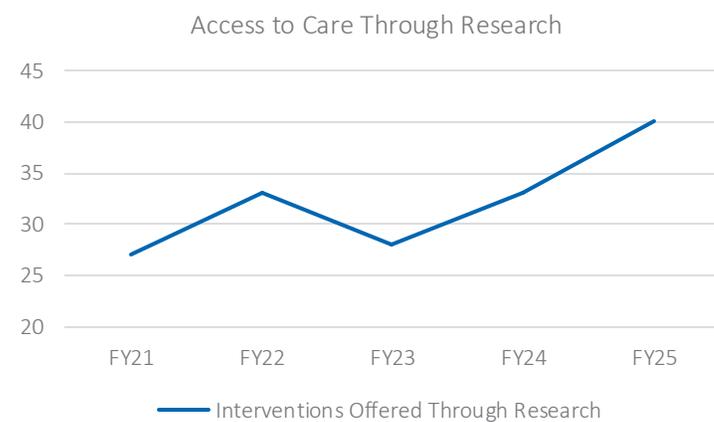
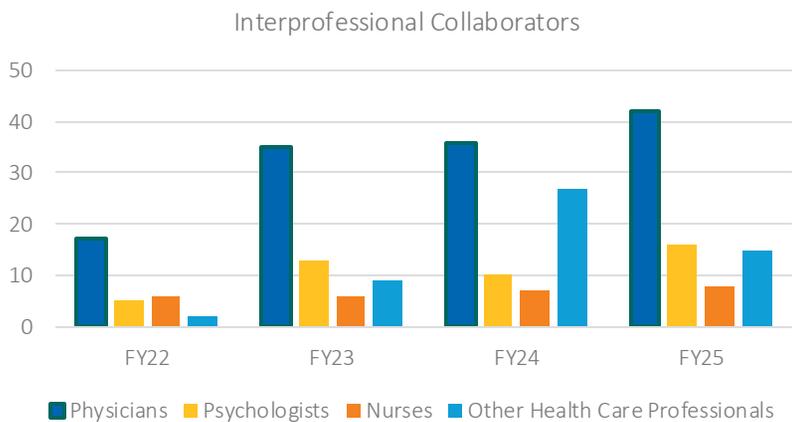
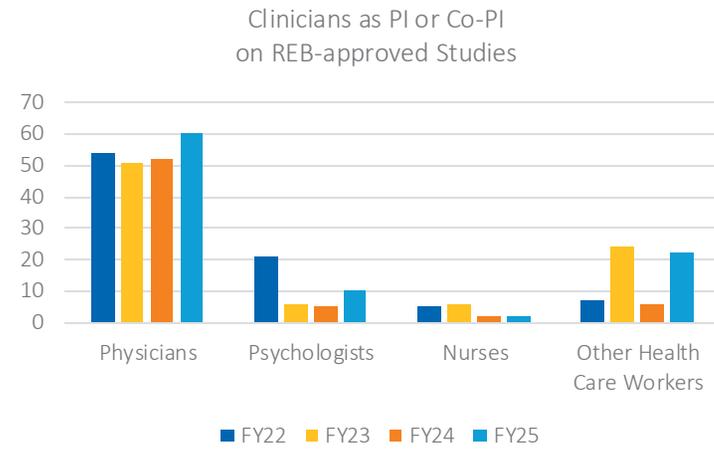
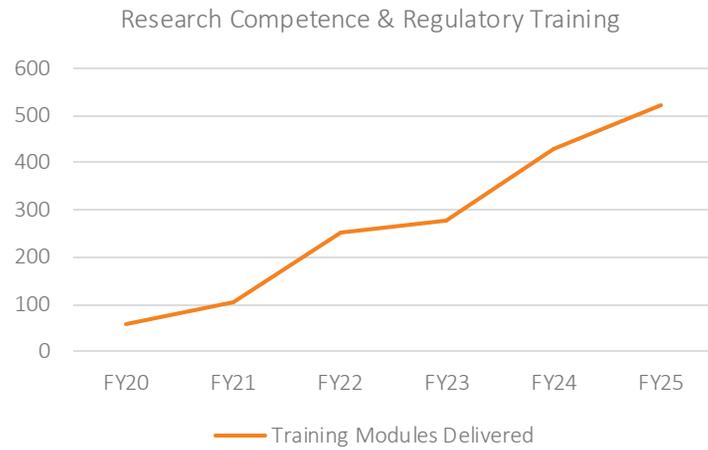
Dr. Jennifer Phillips received an Early Career Innovation Grant from the American Foundation for Suicide Prevention (AFSP) for US\$140,000 to support her research 'Understanding and treating suicidal ideation with ketamine: A diffusion magnetic resonance imaging study.' This is a Health Canada-regulated clinical trial that began enrolment in April 2025.

Phillips will also lead the neuroimaging work for a US\$2.3 million award from the BD2 Integrated Network. The IMHR, The Ottawa Hospital and its Ottawa Hospital Research Institute will partner to be a site in the BD2 Integrated Network. The six currently funded sites are: Mass General Brigham-McLean (Harvard), Johns Hopkins University, Mayo Clinic, UCLA, University of Michigan, and UTHealth Houston. Beyond the funding, the collaboration creates opportunities for future collaborative research across a network of sites.



Goal 2 | Advance the evolution of The Royal into a rapid learning health system

Goal 2 | Advance the evolution of The Royal into a rapid learning health system



INTERNAL CULTURE

RESEARCH AND EVALUATION LIAISONS: INTEGRATING RESEARCH IN CLINICAL CARE

One of our objectives is the further integration of research and care, not just by having our scientists engaging patients as participants, but also by encouraging and supporting colleagues from across The Royal to engage in research. We are working to increase our collective research capability, participation, support and understanding for research amongst front-line, administrative and technical staff at The Royal.

To that end, we have created three new Research & Evaluation Liaison roles. **Dr. Zachary Kaminsky, Shruti Patel, and Dr. Lindsay Healey** will work with the medical and operations leads of three initial clinical clusters (Mood/ Substance Use and Concurrent Disorders/ Access; Schizophrenia and Community Mental Health; Forensics.) These liaisons will help interested clinicians and others make those first steps into research, and act as a crucial bridge between clinical practice and research initiatives. They will work with executive leadership to design, implement, and evaluate integrated research programs that prioritize patient- and family-centered care and enhance the quality of mental health services for diverse populations, building a culture of evidence-based care and measurement-based care, and overall, a learning health system.

RESEARCH WEEK 2025: ACCELERATING CARE THROUGH SCIENTIFIC DISCOVERY

Research Week is a cornerstone event for our scientists, who get a rare opportunity to share their work with the public, talk about big ideas, and showcase our commitment to advancing mental health care through scientific inquiry. Staff across the hospital, patients and families and community members curious about what is happening inside our walls all joined us in January's third edition of the event.

This year's events included a thought-provoking plenary on clinical trials in psychiatry, featuring Dr. David Goldbloom of CAMH, our annual Discovery Fair that offers hands-on experiences with cutting-edge technologies like virtual reality and neuromodulation, and a panel discussion on open science, demonstrating our commitment to transparency and collaboration in research.

PSYCHEDELIC RESEARCH RETREAT

In October we held our first Psychedelic Research Retreat at Invest Ottawa/Bayview Yards. Invited researchers from across Canada heard from subject experts about their experiences and insights in psychedelic research, methodologies and approaches, key learnings and findings and important considerations and components for successful research. This retreat aims to foster a collaborative environment where scientists,

physicians and senior staff can exchange knowledge and strategies to further the field.

Led by **Dr. Jennifer Phillips**, the retreat sparked dynamic conversations and showcased innovative research reinforces our commitment to collaboration and knowledge mobilization, with keynotes from leaders in the field, Drs. Leah Mayo, Joshua Rosenblat and Ishrat Hussain.

Our next step involves Health Canada, to start planning for studies to be developed in a very complex regulatory environment.

NEUROIMAGING SCIENTIFIC RETREAT

Our inaugural Ottawa-wide Neuroimaging Scientific Retreat was held in November, bringing together more than 100 researchers, clinicians, and trainees from the human neuroimaging research community to better understand our unique skills, expertise, and capacity, to learn from each other, and increase opportunities for interdisciplinary collaboration. The Ottawa neuroimaging community has grown significantly thanks to recent investments in infrastructure, equipment, and faculty recruitment at the universities and hospital-based research institutes in the area. While neuroimaging is common to many research groups in the region, networks are traditionally formed around specialties or disease areas.

Together with key stakeholders and partners, including representatives from the University of Ottawa, the Brain and Mind Research Institute, CHEO-RI, University of Ottawa Heart Institute and other hospital-based research institutes, and Invest Ottawa, we held knowledge-sharing oral sessions, organized by application/methodology rather than research focus, and networking opportunities, including a poster session, fireside chats, and social events. The retreat culminated in an Innovation Pitch Competition where teams competed for a cash prize of \$20,000 and 10 hours of free scan time at the Brain Imaging Centre to implement a high-risk high-reward pilot imaging project that could be leveraged to support a future grant application. The competition was so successful and generated such outstanding ideas that we recognized not one, but two winning teams.

The team led by **Dr. Stuart Fogel**, cognitive neuroscientist with our sleep lab will investigate the role of REM sleep in traumatic memory reprocessing using multimodal imaging (EEG-PET-MRI).



MUSIC AND MENTAL HEALTH CLINIC LAUNCH

Music is deeply ingrained in our various cultures – weddings, funerals, ceremonies, road trips, dance parties in the kitchen. We've all had that experience when music can make the sad times feel a little sadder, and, with the right song at the right time, the happy times absolutely brilliant.

And yet, we know little about what is happening in the brain when we sing, dance, play and create music. The lack of convincing *scientific* evidence that music interventions for mental health conditions are effective has thus made it difficult for music-based approaches to enter formal clinical care.

We are changing that.



In November, we launched the Music and Mental Health Research Clinic, led by **Dr. Gilles Comeau**. An incredible and dynamic international leader and federator in the field, Comeau joined The Royal and the IMHR as a Senior Scientist in 2023, through an innovative partnership with the University of Ottawa. The launch event was anchored by the screening of a [new documentary](#) on Comeau's work, and anchored by an address by the Honourable Roméo Dallaire, former senator and lieutenant-general in the Canadian Armed Forces.

Through interdisciplinary approaches and research excellence, Comeau has already partnered with all our clinical programs to deliver music programming to our patients – all funded by external grants for SSHRC, PHAC and other agencies.

Working with colleagues including **Dr. Georg Northoff**, Comeau's work will advance the science on when, how and for whom music can be effective. The magic comes by layering the existing knowledge of music experts like Comeau, with brain imaging to see what parts of the brain are in action, and how that varies between people.

With data on what treatments work for whom and why, music therapy holds the potential to offer non-invasive and more personalized treatments to living with mental illness. This approach has the potential to become an integral part of social prescription, which can bridge the gap between clinical and social care, with low-risk, high-benefit interventions for anxiety and depression, and other mental illnesses.

This work shows potential for supporting our patients waiting for other clinical care, but it also holds the promise to possibly avoid clinical care altogether for some.

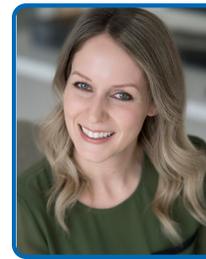
The IMHR is the perfect home for the new research clinic. Thanks to our infrastructure, including our state-of-the-art brain imaging (PET-MRI) scanner – one of the first of its

kind in Canada mostly dedicated to mental health research – our EEG equipment and expertise, we will be able to gather objective evidence during social prescription.

DIVERSIFYING TEAMS, DIVERSIFYING RESEARCH

While equity, diversity and inclusion (EDI) work has come under scrutiny and pressure in U.S. research, we continue to push forward putting an EDI lens on our teams, our research designs and our community engagement.

Sex- and gender-based research is essential for advancing brain health. It recognizes that biological sex and gender identity influence brain development, function, and vulnerability to mental illness. By integrating these dimensions, researchers can uncover critical differences in how conditions manifest, progress, and respond to treatment – paving the way for more effective, equitable, and personalized approaches to care. This research also challenges historical biases in science and ensures that findings truly serve the diversity of the population.



Through her research programs, **Dr. Robyn McQuaid** started to notice that women taking hormone contraceptives have elevated biomarkers associated with stress (e.g., cortisol and inflammatory levels) as well as altered mood. This is an area that is poorly understood but is critically important given that millions of women worldwide use these medications. Her NSERC-funded work examines how women taking hormone contraceptives respond differently to stress compared to women in the follicular and luteal phases of their menstrual cycle. Over 150 young women have completed this study, and data shows that women taking progestin-only hormonal contraceptives display poorer mood than those taking oral contraceptives. This is important information that can inform future medical recommendations for women.

Dr. Andrew Nicholson's lab recently published the first study to examine the effect of sex as a biological variable on neural network connectivity patterns in PTSD. This study revealed unique patterns of neural network connectivity among males and females with PTSD as compared to healthy controls. Furthermore, machine learning models accurately classified PTSD diagnosis and biological sex among novel/unseen participants based on neural network activation patterns. This discovery contributes to further defining neurobiological markers of PTSD among females and males and offer guidance for differential sex-related treatment needs.



And we also aim for systematic changes in research. For instance, Nicholson is the Chair of the LGBTQ2SIA+ Working Group Mental Health Equity Consortium at the University of Ottawa and The Royal, aiming to improve training and practice, support research initiatives, and promote organizational and community level change in service of the LGBTQ2SIA+ community.

PROMOTING MENTAL HEALTH RESEARCH LED BY INDIGENOUS PEOPLES

Creating ethical space for health research led by Indigenous Peoples is essential to

ensure that research respects Indigenous knowledge systems, cultural protocols, and self-determination. It helps to rebuild trust, address historical harms, and support community-led priorities that promote wellness and equity in health outcomes.

Dr. Robyn McQuaid is co-leading a national research initiative with Indigenous organizations, Elders, and researchers, including Dr. Amy Bombay (Rainy River First Nations and Carleton University), to establish a foundation for Indigenous-led biological health research. This work is guided by the Thunderbird Partnership Foundation (TPF) and is rooted in the priorities identified by First Nations communities.

To remove barriers to participation in biological research, the team developed a program paired with a Traditional Indigenous Knowledge curriculum, finalized by TPF and requested internationally. It was piloted in May 2024 with the Union of Nova Scotia Mi'kmaq (NFRF Exploration grant, \$249,993), and again in January 2025 with staff from the First Nations Information Governance Centre (FNIGC) and national partners.

McQuaid also serves as co-principal investigator on a CIHR grant led by FNIGC on First Nations Biobanking. In 2024–2025, the team met quarterly to co-develop toolkits and community resources on genomic research, advancing Indigenous governance and data sovereignty.

Since 2017, **Dr. Kim Matheson** has been the director of a SSHRC Partnership Grant-funded network, Indigenous Youth Futures, with a goal of co-creating and implementing initiatives to enable youth to thrive in First Nations communities in Northwestern Ontario. The strategy is focused on prevention, taking an upstream approach to the high rates of mental illness, including trauma, suicide, and substance use.



The Indigenous Youth Futures Partnership resulted in student-youth co-development of a land-based wellness weekend program that was conducted in Thunder Bay with about 20 youth. Tools to organize such events were made and shared with youth, resulting in at least two youth seeking to replicate programming in their own First Nations community.

CAPABILITIES & CAPACITIES

ADVANCING LIBRARY SERVICES IN SUPPORT OF RESEARCH AND CARE

To further the integration of research into the heart of the hospital we have moved The Royal's Library Services under the research portfolio, and continued to make it available to all staff, patients, and families. The move is in recognition of Library Services' role in advancing both clinical care and research. The team will continue to provide evidence-based resources, support for literature reviews, and data management tools, all aimed at empowering informed decision-making and fostering innovation in mental health care.

SUPPORTING PROTECTED TIME FOR RESEARCH ENGAGEMENT

Physician engagement is essential to advancing our clinical research goals. In a healthcare system where physicians are not hospital employees and are primarily compensated through OHIP billings, the IMHR has developed a process – and secured limited resources – to fairly compensate physicians for their time and expertise when involved in research

retreats, study days, or research-based clinical programs. This approach has enabled the active participation of exceptional contributors to the Interventional Psychiatry Program, including **Drs. Jeanne Talbot, Lisa McMurray, Sandra Antochi, Ram Brender, Ed Horn, Jakov Shlik, and Kelly Mascioli** – helping design clinically-relevant programs and accelerate the translation of research into patient care.

IMPROVING EDUCATED CONSENT APPROACH WITH RESEARCH PARTICIPANTS

As we think about the informatics capabilities and capacities needed and expected of a top-tier research institution, having a robust implied consent model and research participant registry is core.

To that end, the IMHR applied for a grant to support our work. The successful proposal, “Beyond the fine print: Improving the research consent process for clarity, choice and collaboration” was funded (\$16,500) by the Canadian government's Secretariat on Responsible Conduct of Research Education and Training Support (SETS) grant program. The funding will advance our goal to promote research ethics and empower stakeholders to more effectively navigate the consent process by improving the quality of consent and addressing the identified knowledge/skill gap.

The team of **Tammy Beaudoin, Alexis Dorland, Shruti Patel** and REB Chair and scientist **Dr. Michael Seto** will together help potential research participants build practical skills, and the resulting recordings and graphic summaries will be made available to the public for maximize reach.

BUILDING A COLLABORATIVE RESEARCH INFRASTRUCTURE THROUGH THE CARDIO-NEURO-MIND DATA PLATFORM

Research shows a strong interconnection between the brain and the heart. Cardiac patients often show psychiatric symptoms such as anxiety and depression, for example, and people with major depressive disorder, bipolar disorder and anxiety disorders often show abnormalities in heart functions. Understanding these connections is crucial for developing innovative strategies for prevention, diagnosis, and treatment. This is the topic of the large Brain-Heart Interconnectome initiative led by uOttawa and the University of Ottawa Heart Institute (UOHI).

As part of this partnership, we launched the Cardio-Neuro-Mind Data Platform (CNMDP) in partnership with CAMH's Krembil Centre for Neuroinformatics and the UOHI. This year, we made significant progress in bringing together mental health, neurological, and cardiac research through FAIR data principles and open science.

The platform is now host to 13 actively contributing studies, including three Health Canada regulated clinical trials. An additional five studies will soon be added. Together, these studies have already generated a substantial volume of data from 252 research participants, including more than 232 neuroimaging scans and more than 3,000 biospecimens.

To support data standardization and enable downstream harmonization across studies, we're expanding the CNMDP's shared REDCap library, which includes 42 validated mental health and cardiac research scales, as well as standardized forms for capturing demographics, risk factors, and medication use. These tools ensure consistent data collection and lay the groundwork for integrating datasets across projects.

The team is developing an online portal that will serve as a centralized, user-friendly workspace to streamline access to data collection tools. It will support researchers throughout the data lifecycle, enabling users to navigate tools efficiently and centrally, generate curated multi-modal data cuts, as well as exploration of available datasets for secondary use.

The CNMDP team, led by **Katie Dinelle**, will onboard additional studies, expanding platform capacity at The Royal, and continuing to support the evolving research needs of affiliated investigators and collaborators.

GOVERNANCE AND OVERSIGHT

RESEARCH ETHICS BOARD ACTIVITY

Providing access to care through research creates hope for patients for whom other treatments haven't provided the desired support, but we are ever mindful of the ethical considerations of research involving patients with mental illnesses. The Research Ethics Board (REB) at The Royal exists to ensure an ethical lens on all proposed research before that research starts.

Comprising 14 voting members from the community with varied backgrounds including law, pharmacy, social work, nursing and psychiatry, as well as both researchers and patients, the REB is charged with determining the ethical acceptability of all research involving human participants at The Royal or by the investigators/personnel of the institution, as well as reviewing adverse event reports; conducting continuing annual review; and reviewing amendments before they are implemented.

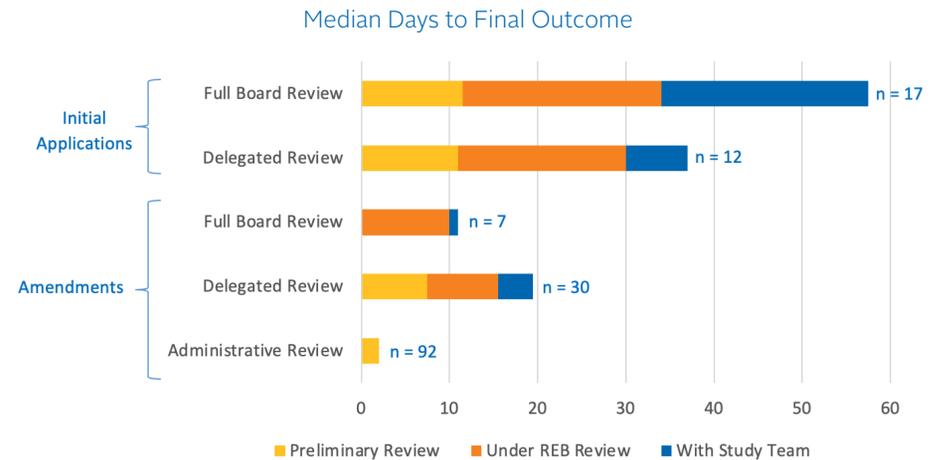
Dr. Michael Seto assumed the role of Chair of the REB, effective August 1, 2024, succeeding outgoing Chair Ann-Marie O'Brien. Seto is a Senior Scientist with the IMHR, and a professor with the Department of Psychiatry at uOttawa. Seto has a long-standing interest in research ethics, with experience coming as a practicing psychologist, researcher, journal editor and member of the REB since June 2023. His clinical experience, research experience, and understanding of the REB mandate will be instrumental in providing leadership and guidance as The Royal further integrates research and clinical care.

Because all research projects must be approved by the REB before beginning, the activity levels of the REB provide an excellent indicator of the overall level of research activity at the IMHR. In FY25, the volume of research activities at IMHR increased by 4% to 173 studies, and has climbed 62% over FY16 activity, demonstrating the enormous growth of the research enterprise in the last decade.

In the last year, the REB worked to improve the process for researchers, with a new application platform that facilitates all REB application and review processes online. Real-time metrics are now available and include an audit trail to show the status of the application.

That new data, has facilitated the REB's ability to track the pace at which it reviews submissions, knowing that a balance needs to be found between careful consideration and undue delays. The chart below illustrates the median number of days from time of initial submission until receiving an outcome. The report includes all new submissions

in the current fiscal year. Naturally, the process is faster for submissions that meet the REB's requirements, and slower when multiple revisions are required. While the REB includes weekends in its measurement, review does not occur on those days. The REB compared these results with peer organizations. Time-until-outcome for initial applications undergoing full board review was shorter at The Royal, while initial applications undergoing delegated review was about the same.



Last year, we worked with The Ottawa Hospital, the Ottawa Hospital Research Institute, and the University of Ottawa Heart Institute to simplify the approval process for research that we collaborate with them on. Previously, research proposals had to be approved by both The Royal/IMHR and our counterpart. This year, we executed and operationalized that agreement, further improving the pace at which studies can be approved.

In July 2024, The Royal's REB came to a similar agreement with its counterpart at Ottawa Health Science Network, further removing unnecessary duplication.

RESEARCH ETHICS BOARD MEMBERS

Michael Seto, PhD CPsych – Chair
 Natalia Jaworska, PhD – Vice Chair
 Nadina Abdullayeva, MD
 Brie Davies, BHSC, MSW
 Rebecca Desnoyers, BScN, RN
 Celia Geck, BA (Hon), MA
 Glenda O'Hara, BComm (Hon)
 Sabrina Paterniti MD, PhD

Nelson Pearce, BSc (Hon), BSc Pharm
 Pierre Robichaud, BAsC, LLB, PEng
 Zeynep Selaman, BSc, MD, FRCPC
 Jennifer Shamess, MSc
 Caitlin Sigg, MA, RP, PhD(c)
 Reggie Taylor, PhD
 Alexis Dorland, MSc, (non-voting)
 Christine Waite (non-voting)

SCIENTIFIC ADVISORY COUNCIL



The IMHR and The Royal are guided by a distinguished Scientific Advisory Council. Composed of leading researchers and clinicians, this group provides strategic scientific counsel, ensuring that our research remains at the forefront of innovation and impact in the field of mental health. Their expertise and insight are essential in shaping our research priorities and advancing our mission to improve mental health outcomes through science. A first meeting of our Scientific Advisory Council took place in the Fall 2024, electing **Dr. Andrew Greenshaw** as Chair, and **Dr. Damian Jankowicz** as Vice-Chair.

We are extremely fortunate to count on Greenshaw's vast expertise, experience, and passion for advancing mental health research. His distinguished career in psychiatry and neuroscience, coupled with his extensive leadership, digital and data experience will undoubtedly help guide and elevate the work of our research enterprise as we continue to push the boundaries of knowledge in psychiatry and addiction.

Likewise, we are extremely grateful for Jankowicz's leadership, vision and expertise. He is the Executive Vice President, Chief Information and Artificial Intelligence Officer at Unity Health Toronto, and is leading Unity's digital transformation efforts aimed at revolutionizing patient care across one of Canada's largest healthcare networks. His deep experience using big data, AI and brain modelling will help guide our work to understand mental illness and brain health.

SCIENTIFIC ADVISORY COUNCIL MEMBER

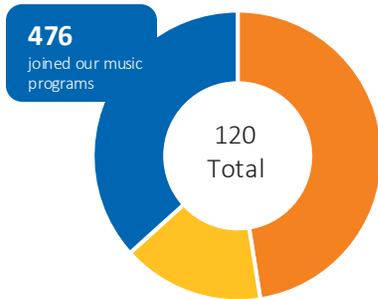
Andrew Greenshaw, PhD – Chair	Bernard Le Foll, MD, PhD
Damian Jankowicz, PhD – Vice Chair	Marco Leyton, PhD
Jocelyn Côté, PhD	Frank MacMaster, PhD
Jeff Daskalakis, MD, PhD	Jennifer Payne, MD
Florence Dzierszynski, PhD	Jennifer Phillips, PhD
Chris Fennell, PhD	Mark Salter, PhD
Rafik Goubran, PhD, Peng	Dawn Stacey, RN, PhD
Ruth Lanius, MD, PhD	



Goal 3 | Reduce the gap between discovery and impact for clients, families, the community and society at large

Goal 3 | Reduce the gap between discovery and impact for clients, families, the community and society at large

Access to Care Through Research (number of patients)



■ Neuromodulation ■ Depression ■ Cognitive Health

Quality of Care Through Research

Improvement in Clinical Outcomes

Neuromodulation Research Clinic (Depression)

Clinical Symptoms 48%

BMO Innovative Clinic for Depression

Quality of Life 80%

Clinical Symptoms 83%

Severity of Episodes 33%

Cognitive Remediation Research Clinic (Schizophrenia)

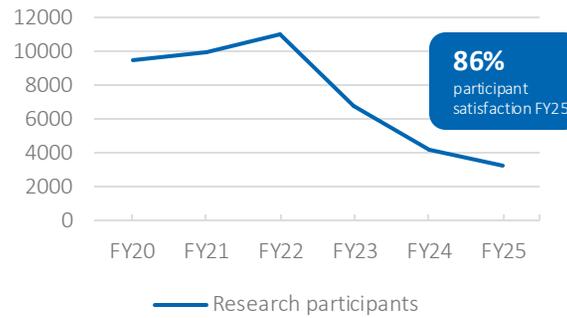
Cognitive Experiences 33%

Cognitive Outcomes 50%

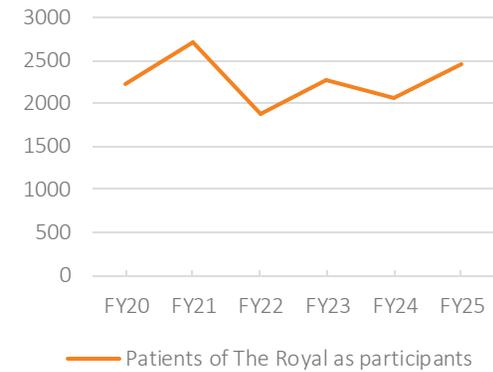
Symptoms Severity 83%

Overall Functioning 83%

Research Participants



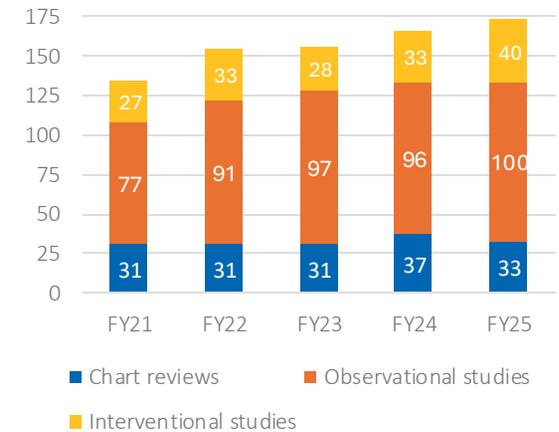
Research Participants



Studies Approved By Research Ethics Board



REB-Approved Studies by Type



11

active studies with patients and families as collaborators or advisors

CLIENT, PATIENT AND FAMILY ENGAGEMENT

MAKING IT EASIER FOR PATIENTS TO ENGAGE MEANINGFULLY IN RESEARCH

It has long been a goal that every patient at The Royal has the opportunity to be considered for research participation, but historically that goal has been hindered by timing, privacy and other matching challenges. One goal in our strategic research plan is to drive a marked increase in the proportion of patients, family and caregivers who engage meaningfully in research studies, as advisors, as collaborators, or as participants. The launch this year of The Royal's Research Recruitment Registry is an exciting step towards this goal.

The registry works to match interested and eligible research participants with active recruiting studies and will also serve as a platform to support those who are interested in engaging in research as advisors.

Registration is open to all staff, patients, family members, and community members, and once they are registered, the recruitment team reviews their personal information and shares information on suitable studies. The applicant can then decide whether they are interested in further information and screening.

This critical milestone, driven by **Tammy Beaudoin**, **Alexis Dorland** and **Christine Waite**, increases access to our studies for patients and the wider community, and at the same time increases awareness of the role that research plays in the continuum of care.

RESEARCH PARTICIPANTS RECOMMEND THE EXPERIENCE TO OTHERS

For the work that we do to be sustainable, participants in our research need to feel that they are receiving tangible value. They are not under the illusion that a single research study can promise results, but they need to believe that their contributions matter.



The researchers get direct feedback regularly that this is indeed the case. For example, in one study in the BMO Innovative Clinic for Depression all respondents strongly agreed that the research team treated them with courtesy and respect, listened attentively, and that they would recommend participation in the research to family and friends.

From our rTMS clinic, patient Michelle has shared her story openly. She had lived with depression for 15 years before coming to The Royal. Following a suicide attempt in 2023, her mother sought out innovative treatments for the depression and came across

rTMS at The Royal which offered an unexpected breakthrough.

“Coming to The Royal, I was so excited. It felt like for the first time, we’re doing something new. After so much trial and error, and approaching my mental illness in the same way, it felt that finally, this could really be the solution I needed.”

At first, she was skeptical. “Magnets? How could that possibly work?” However, within three weeks of starting treatment, Michelle felt something she had not felt in years: happiness. “By the third week, I remember I thought ‘I think I’m starting to feel better. I think this is really working!’” And the data confirmed that. Read more about Michelle’s experience [here](#).

KNOWLEDGE MOBILIZATION

ACCELERATING ADOPTION OF RESEARCH FINDINGS

It is of course not enough for our researchers to make new discoveries or develop innovative care. If those new models and findings never make their way into clinical practice, their work is lost. The Royal/IMHR has undertaken several strategies to accelerate knowledge mobilization, starting within The Royal itself, and our Clinical Brain Research Centre (CBRC). That is why we are so focused on engaging clinicians directly in the research, creating interdisciplinary teams, providing support for those who are interested in developing their own research.

There is much work to do here over the next few years, but we are already seeing progress through the research clinics themselves, which bring together colleagues from across the hospital. We are working on the best way to track and measure knowledge mobilization within The Royal but are confident that we are starting to see the cultural transformation that is needed to accelerate adoption. The Royal’s strategic plan SPARQ (Sustainability, People, Access, Research, Quality) 2025-2028, for the first time includes a research pillar (as articulated through the strategic research plan.) This inclusion is not a wholesale change of philosophy at The Royal but makes clear to all our stakeholders that research is a key element of The Royal’s identity and future.

SHARING CARE MODELS WITH THE COMMUNITY – OZERDINC GRIMES



Lisa Murata crashed her first research meeting at The Royal, not aware that she had to be part of the committee to attend. She was undeterred, and since that first rebuff in 1988, research has been part of her career, with 15 publications and counting to her name.

And when the opportunity arose to help launch a new specialized clinic, Lisa’s research experience and mindset were invaluable. Together with leaders including **Dr. David Attwood**, **Dr. Alexandra Baines** and **Domenic Ielo**, they embedded data collection and evaluation into the design of the new Ozerdinc Grimes Family Regional Psychosis Clinic – another example of true integration of research into care.

Since opening to the public in 2023, Murata, a Clinical Nurse Specialist, and her team members have provided care to adults living with persistent psychosis related to schizophrenia spectrum disorders – focusing on those that are not in need of inpatient

treatment, but for whom care by family doctors is insufficient. In doing so, the clinic is filling a gap in the region's mental health care spectrum. It provides long-term therapies including early and easy access to long-acting injections and clozapine, cognitive behavioural therapy, family therapy, and recovery and rehabilitation services.

Murata is now one of the project leads, together with research coordinator **Krysta Boutin-Miller**, on a two-year research study to evaluate the efficacy of the care model pioneered by the Ozerdinc Grimes facility, thanks to a \$150,000 research grant from the Ontario Brain Institute.

If the research data show the efficacy of the work that Murata and her colleagues are doing in treating clients, then they can share what they have learned with other communities in Canada and internationally and support long-term government funding requests. The clinic exists today thanks to a generous donation from Kathleen Grimes and Ersin Ozerdinc.

Murata, now in her 37th year at The Royal, recently completed a certificate program in cognitive behavioral therapy at the University of Oxford in teaching and supervising, which reinforced her focus on evaluating outcomes and impact. She is proud of the impact the clinic is providing on both the individuals they see, but also the capacity it has added to the system, as this clinic's existence allows for patients in other programs to transfer to this more appropriate level of care.

COMMUNITY IMPACT

CONTRIBUTING TO MENTAL HEALTH DRUG APPROVAL POLICY

One of the challenges that patients on one side and health researchers on the other face is that even after a new treatment is proven effective, it can be years before government health insurance will cover that treatment, if at all. For example, there are effective psychotropic medications to treat mood disorders, but often they are not reimbursed by the government, thereby putting them out of reach for many patients, prolonging the time to recovery. Moreover, such medications are less often approved than those for other health issues.

In 2024, the Mood Disorder Society of Canada started a campaign (including a media campaign) to raise this major drawback in Canada, resulting in the Canadian Drug Agency finally adding a psychiatrist to their committee when evaluating a psychotropic medication. **Dr. Pierre Blier's** expertise was influential in this change, and he continues to work to ensure equitable public access for medications for mental illnesses in calls to Canadian policymakers.



WORDS MATTER – REMOVING THE STIGMA FROM DRUG NAMES

In psychiatry, there are major stigmas for patients prescribed psychotropic medications because the drugs are named after their first indication when introduced on the market, irrespective of subsequent official indications. For instance, antidepressants are used for pure anxiety disorders and antipsychotics are used in depression without the presence of psychotic symptoms. Such inaccurate denominations also impair compliance and therapeutic action.

For 15 years, **Dr. Pierre Blier** served as one of 10 founding members of the Neuroscience-based nomenclature (NbN). The Task Force has renamed and described succinctly over 150 psychotropic medications based on their main neurotransmitter targets and how they act on various neuronal elements.

It has also produced a searchable free app that provides details on how to prescribe them, approved by the American Psychiatric Association and other major associations, and journals. The app has been downloaded more than 140,000 times. The NbN Task Force has turned its attention to the main reference book, The Kaplan & Saddock Comprehensive Text of Psychiatry.

CO-CREATING PREVENTATIVE STRATEGIES FOR YOUTH MENTAL HEALTH



Dr. Tanya Halsall leads YOUTH Lab (Youth Opportunities in strategy, Upstream Transformation for Health), an initiative dedicated to understanding and addressing the social, environmental, and systemic factors that shape youth mental health outcomes. Focusing on upstream interventions that create lasting change, Halsall's research has prioritized meaningful engagement with youth, families, community partners, and professionals through several collaborative research and implementation efforts.

As part of the Planet Youth Lanark County initiative, she has worked to ensure both adults and youths shaped research directions and implementation strategies.

Halsall's work with Pierre Elliott Trudeau Elementary School in Quebec sparked the development of a successful SSHRC funding application and co-created research design, based on shared interests in outdoor learning. These efforts reflect a consistent practice of co-creation, reciprocity, and cross-sector collaboration, with a strong emphasis on youth engagement and collaborative partnership. Through these relationships, she has been able to produce more relevant, ethical, and community-responsive research.

IDENTIFYING BARRIERS TO ADVOCACY FOR PATIENTS

Bill Dare is a front-line social worker practicing in the community with the Assertive Community Treatment / Flexible Assertive Community Teams (ACT/FACT) model of care. He incorporates practice-based research and evaluation activities to advance care, the recovery model and support to community integration of people living with severe mental illness. Over the past few years, he has worked with Carleton University's School of Social Work to advance an organizational, system-wide, evidence-based advocacy approach to support the recovery of patients with severe mental illness negatively impacted by social determinants of health.

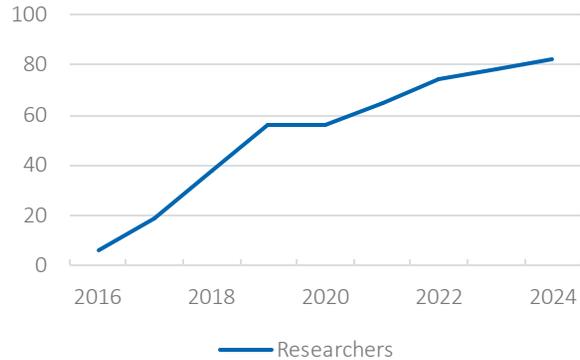
A paper resulting from this work focuses on the barriers hospital mental health social workers face as they advocate against systemic inequity and support recovery for clients with serious mental illness. Their findings highlight that social workers experience barriers to advocacy on several levels, including individual, organizational, and socio-political.



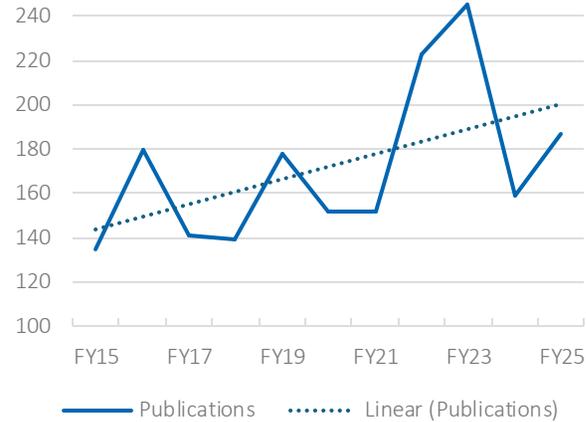
Goal 4 | Become a globally renowned academic health science centre for mental health research and innovation

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Researchers Scanning at Brain Imaging Centre



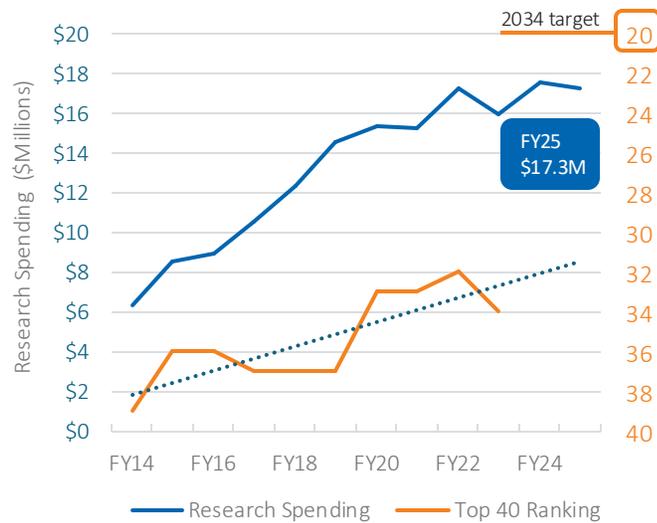
Peer-Reviewed Publications



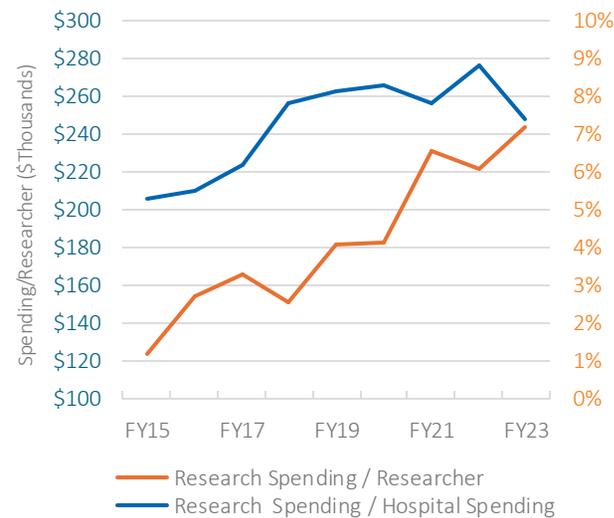
38

media articles & interviews featuring IMHR research

Annual Research Spending



Research Intensity



Innovation

Commercializations	1
Licences	4
Spin-off Companies	2
Disclosures (new)	2
Patents	2

MULTI-INSTITUTIONAL AND MULTI-SECTORAL PARTNERSHIPS

Partnerships are both philosophy and strategy to The Royal/IMHR. Working together with our peers across our region and sector, collaborating with organizations with shared end goals, and lending our expertise in new places serve to make us smarter, mobilize knowledge, and scale our impact.

Because we put that filter on everything we do – who can we work with to make this better – we have a long list of partnerships, both at the organizational and personal level. Some of our deepest ties are naturally with the University of Ottawa.

The Brain-Heart Interconnectome (BHI), for example, is a ground-breaking interdisciplinary research program aimed at accelerating prevention, detection, treatment and care of brain-heart disorders, supported by a \$109 million grant from the Canada First Research Excellence Fund. Under this umbrella, uOttawa brings together close to 50 academic, industry and governmental and non-governmental partners worldwide to explore the connects between the brain and heart. In addition to the two grants that the IMHR received from the BHI this year, **Dr. Florence Dzierszinski**, President and CEO of the IMHR, joined its executive committee.

Dzierszinski is also on the steering committee of the Ottawa Academic Health Network (OAHN), and together with Julie St-Pierre (VP Research and Innovation uOttawa), co-chairs its Research and Innovation subcommittee. The OAHN includes uOttawa, TOH, OHRI, CHEO, CHEO-RI, UOHI, The Royal, IMHR, Montfort, Intitut de Savoir Montfort, Bruyere, and Bruyere-RI.

The OAHN Subcommittee on Research & Innovation is forming working groups to advance our shared priorities. These groups will play a key role in harmonizing practices, fostering collaboration, and aligning our institutions with best practices in research and innovation in the Ottawa region.

These include, but are not limited to:

- Academic Affiliations and Lifecycle & Career Progression, including Chairs
- Trainee Research Experience
- Scientific Platforms, including access to the uOttawa Library
- Contracts and Grants Management
- Research Data Management
- Innovation and Intellectual Property
- Unified AI Strategy Communication in Research
- Fundraising for Research

The OAHN is a perfect example of organizations coming together with shared interests, looking for synergies, and finding ways to be more efficient and effective together.

Our teams of experts also have roles in organizations across the country, the full list is long, but includes the University of Ottawa Brain and Mind Research Institute (Dr.

Jennifer Phillips), CHEO's Precision Medicine initiative (Phillips), Suicide Prevention Ottawa (Dr. Zachary Kaminsky), Canadian Network for Mood and Anxiety Treatments (CANMAT) (Dr. Pierre Blier), Research Impact Canada (Shruti Patel) and the Network of Networks (N2) Rapid Action Response Team (Tammy Beaudoin).

COLLABORATION AT SCALE: 2026 NEW FRONTIERS IN RESEARCH FUND (NFRF) TRANSFORMATION APPLICATION

The New Frontiers in Research Fund (NFRF) is a Canadian federal initiative that supports world-leading interdisciplinary, international, high-risk / high-reward, transformative and rapid-response Canadian-led research. The grant size range of \$2 million to \$4 million per year over 6 years allows researchers to think big in their research aspirations to tackle the issues of our times, and in turn demands a large team to deliver against their vision.

For the 2026 competition, IMHR researchers, led by **Dr. Gilles Comeau** and **Dr. Patrick McGrath**, are building an interdisciplinary team with leading experts from across the country and internationally to apply for an NFRF grant to explore the power of music to transform mental health care. The proposed study, "Harnessing the power of music, data, and a community network to offer mental health care services where and when people need it" aims to deliver scalable, evidence-based music programs to support mental health recovery for vulnerable and marginalized populations. Rooted in a Learning Health System and guided by the RE-AIM framework, the project integrates clinical, technological, and community expertise to co-design and evaluate music-based interventions across diverse populations.

At the heart of this project is a powerful network of community partners who will act as living labs and delivery hubs. These include the Canadian Mental Health Association (CMHA), Wabano Centre for Aboriginal Health, Jewish Family Services, The Ottawa Mission, Matthew Perry Foundation, Centre de services communautaires de Vanier, Echo for Life, Atlas Institute, Bruyère Health, Montfort/Centre de l'Est de l'Ontario, and the Dementia Society of Ottawa and Renfrew County. These organizations serve individuals experiencing homelessness, addiction, poverty, dementia, trauma, and mental illness, including Indigenous peoples, newcomers, veterans, and youth.

By embedding programs in community settings and engaging People with Lived and Living Experience as full research partners, the project aims to break down access barriers and build mental health supports that are inclusive, meaningful, and responsive. With a strong emphasis on co-creation, equity, and long-term sustainability, our partners are coming together to create preventative mental health care by the community, for the community.

NEW PARTNERSHIPS EXPANDING IMHR'S REACH AND DEPTH

Strategic alliances with researchers from other organizations provide us the opportunity to expand our research reach and impact. Naturally they also provide a window in the work being done by other experts in the field, new ideas and techniques. From a funding perspective, they provide access to revenue that has been secured by other researchers, allowing us to scale more efficiently.

The war in Ukraine has resulted in widespread casualties and economic devastation. In response to the war's impact on mental health, particularly on those who have suffered

amputations and require physical rehabilitation, Superminds for Superhumans, with the collaboration of the IMHR, developed a project to provide free, evidence-based mental health support. This program, led by **Dr. Patrick McGrath**, **Dr. David Pedlar**, and Project In-Kind co-founder Tanya Woods focuses on trauma-informed care, leveraging a global network of mental health experts to develop a virtual, person-centered treatment protocol using a biopsychosocial approach. The program includes comprehensive assessments, using validated tools to evaluate symptoms such as PTSD, depression, and anxiety. These assessments inform individualized treatment plans, delivered through online platforms accessible via phones, tablets, or laptops. Modules address a wide range of needs, including managing prosthetics and supporting family members. This research-informed approach integrates clinical and research elements, creating a learning healthcare system designed to refine and measure outcomes continuously. Efforts will also focus on overcoming engagement barriers through public relations campaigns and partnerships.

The collaboration has had direct benefits for research at the IMHR too, with Drs McGrath and Pedlar joining the IMHR research team, and reinforcing one of our declared areas (Stress and Trauma, (PTSD)).

IMHR researchers are also set to begin participant enrolment in two new research collaborations. Led by Jess Fiedorowicz at The Ottawa Hospital/OHRI, the IMHR will be the neuroimaging lead for the Breakthrough Discoveries for thriving with Bipolar Disorder (BD2) Integrative Network. BD2 is a multi-centre research initiative following a longitudinal cohort of individuals with bipolar disorder integrating clinical, behavioural and biological data.

For CALM, a multi-site study funded by the Ontario Brain Institute and led by CAMH, we will participate in a study that will follow a cohort of youth seeking specialized psychiatric care collecting clinical, behavioural, neuroimaging, cognitive, and biological data.

INDUSTRY AND INNOVATION PARTNERSHIPS

COMMERCIAL AND ENTREPRENEURIAL MINDSET

New discoveries in mental health offer scientists the opportunity to translate their findings into care, with the private sector being an avenue that offers both financial gain for the scientist, and future revenue streams for the IMHR.

One such opportunity is the work that **Dr. Zachary Kaminsky** is doing with respect to postpartum depression (PPD), and the search for biomarkers of the condition that affects 10-20% of those giving birth globally. Together with Dionysus Digital Health, Kaminsky received a USD\$4 million U.S. Department of Defense Grant to advance the work Dionysus is doing to get FDA approval of the PPD biomarkers. That work has resulted in a new algorithm for PPD prediction leveraging new biological insights as well as techniques to ensure robust prediction independent of technical variation. These activities set the stage for what Kaminsky hopes will be a commercial launch in the summer of 2025 in partnership with a large perinatal mental health network in the U.S. as a laboratory developed test.

USING MACHINE LEARNING TO PREDICT SUICIDE RISK POST-DISCHARGE

Kaminsky and co-inventor **Dr. Jennifer Phillips** submitted an invention disclosure for

an AI model and algorithm to predict suicide attempt risk in psychiatric inpatients using electronic medical records and machine learning. The algorithm, Facilitated Optimization of Clinical Understanding for Suicide Safety, or 'FOCUS-S', is a machine-learning clinical decision support tool that aims to improve assessment of post-discharge suicide risk and improve outcomes. The algorithm works by harnessing longitudinal electronic health record data to predict how different clinical decisions made during hospitalization affect post-discharge suicide attempt risk. The work has been presented internationally, and the team is working on a submission for JAMA Psychiatry. Next steps for project are to apply for a grant to fund implementation and test the algorithm in a clinical setting.

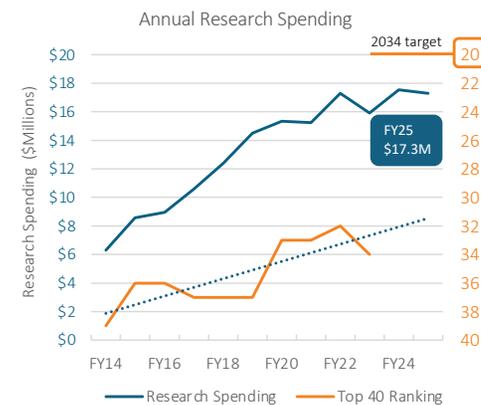
PARTNERING TO USE VIRTUAL REALITY TO IMPROVE COGNITIVE HEALTH

Dr. Synthia Guimond's primary focus has been on cognitive health in schizophrenia and related psychotic disorders, with an emphasis on developing evidence-based interventions to improve functional outcomes. A significant achievement this year, in line with the development of the Cognitive Health Research Clinic, has been the co-development and initial testing of ThinkTactic VR, an immersive virtual reality-based cognitive remediation program, developed in collaboration with clinicians, researchers, and individuals with lived experience, through participatory research and implementation science. The program is designed to enhance cognitive and functional skills through real-life social scenarios, aiming to bridge the gap between clinical research and practice. This work will pave the way for precision interventions in psychosis care, offering personalized treatment options for individuals with varying needs. Through new cross-provincial collaborations, Guimond is evaluating the implementation of ThinkTactic VR across diverse clinical settings, including institutions like McGill, Cervo, UBC, and the University of Toronto.

RECOGNITION

THE ROYAL RANKS AGAIN AS A TOP 40 RESEARCH HOSPITAL

The Royal has once again been named one of Canada's Top 40 Research Hospitals for 2024. The data is for the FY23 – there is a lag of roughly 18 months between the reporting period and the announcement. Our ranking fell two spots to 34, reflecting a drop in research spending to \$15.6 million from \$17.2 million. The reduction is attributable to the end of Frayme's funding from Health Canada and the end of the DND-funded



IDEAS MAPS project. With grants already awarded, we know our spending will return to about \$17 million for the FY25 ranking. Bruyère jumped four spots in the FY24 ranking, with research spending climbing 27% to \$15.7 million. That growth corresponds to a large FedDev grant received two years ago for commercialization and innovation work, in partnership with CHEO-RI. Like the IMHR, Bruyère is finding success in teaming up for bigger projects.

As a leading indicator, our target remains a top 20 ranking by 2034, which in the most recent year required spending of \$45.5 million, achieved by the Montreal Heart Institute. It's an ambitious target but given the growing understanding of the impact of mental health on our collective success, we believe attainable.

RESEARCHERS ATTAINING PUBLICATION SUCCESS

The 174 REB-approved studies ongoing at The Royal have delivered a wealth of new findings, leading to 187 new publications in the latest year. That's a 13% increase from the previous year, and a rise of close to 39% over 10 years, as we've added researchers, technology, and with the benefit of time. (The lead times for publication are notoriously slow, allowing for the great care expected of peer-review.)

We've included a sampling of papers published in high-impact journals from the last year demonstrating the range of research from the team. The importance that the IMHR has placed on interdisciplinary and collaborative research shines through in the authorship sections.

Optimizing antidepressant benefits: Effect of theta burst stimulation treatment in physically active people with treatment-resistant depression.

2024. *J Affect Disord.* Dec 15;367:876-885. Arthur R Chaves, Jennifer Cuda, Stacey Shim, Jessica Drodge, Youssef Nasr, Ram Brender, Ruxandra Antochi, Lisa McMurray, Lara A Pilutti, Sara Tremblay.

Published in an excellent journal, this study provides important new evidence that baseline physical activity enhances the therapeutic effects of theta burst stimulation (TBS rTMS) in individuals with treatment-resistant major depressive disorder (MDD). The findings are clinically relevant, suggesting that physical activity may serve as an accessible, low-cost, and non-invasive adjunct to enhance outcomes of neuromodulation therapies. In a landscape where many individuals with MDD fail to respond to pharmacological or standalone neuromodulation interventions, this study highlights the value of integrated, lifestyle-based approaches. It paves the way for further research on personalized treatment strategies combining physical and neurostimulation therapies to improve outcomes in otherwise treatment-resistant populations.

Temporal imprecision of phase coherence in schizophrenia and psychosis—dynamic mechanisms and diagnostic marker.

2024. *Mol Psychiatry.* 29(2):425-438. Annemarie Wolff, Georg Northoff.

Published in a very high-impact journal, this study shows that in schizophrenia, the brain struggles to keep precise timing when responding to sights and sounds. Normally, brain

waves sync up in response to stimuli, but in schizophrenia, this “phase coherence” is reduced—like instruments falling out of rhythm in an orchestra. By combining past research, new brain scans, and computer models, the researchers found this timing issue is unique to schizophrenia and not seen in depression. They propose a new model suggesting that poor brain timing may be a core feature of psychosis and a promising tool to improve diagnosis.

Machine Learning-Based Suicide Risk Prediction Model for Suicidal Trajectory on Social Media Following Suicidal Mentions: Independent Algorithm Validation.

2024. *J Med Internet Res.* Dec 5;26:e49927. Zachary Kaminsky, Robyn J McQuaid, Kim Gc Hellemans, Zachary R Patterson, Mysa Saad, Robert L Gabrys, Tetyana Kendzerska, Alfonso Abizaid, Rebecca Robillard.

Previous efforts to apply machine learning-based natural language processing to longitudinally collected social media data have shown promise in predicting suicide risk. This study not only validates the association of the Suicide Artificial Intelligence Prediction Heuristic (SAIPH) with perceived stress, suicidal ideation (SI), and changing SI over time but also generates novel methods to evaluate the effects of social media interactions on changing suicidal trajectory.

Canadian Network for Mood and Anxiety Treatments (CANMAT) 2023 Update on Clinical Guidelines for Management of Major Depressive Disorder in Adults.

Can J Psychiatry. 2024 Sep;69(9):641-687. Raymond W Lam, Sidney H Kennedy, Camelia Adams, Anees Bahji, Serge Beaulieu, Venkat Bhat, Pierre Blier, Daniel M Blumberger, Elisa Brietzke, Trisha Chakrabarty, André Do, Benicio N Frey, Peter Jacobbe, David Gratzer, Sophie Grigoriadis, Jeffrey Habert, M Ishrat Husain, Zahinoor Ismail, Alexander McGirr, Roger S McIntyre, Erin E Michalak, Daniel J Müller, Sagar V Parikh, Lena S Quilty, Arun V Ravindran, Nisha Ravindran, Johanne Renaud, Joshua D Rosenblatt, Zainab Samaan, Gayatri Saraf, Kathryn Schade, Ayal Schaffer, Mark Sinyor, Claudio N Soares, Jennifer Swainson, Valerie H Taylor, Smadar V Tourjman, Rudolf Uher, Michael van Ameringen, Gustavo Vazquez, Simone Vigod, Daphne Voineskos, Lakshmi N Yatham 1, Roumen V Milev 7

The CANMAT 2023 updated guidelines (from 2016) provide evidence-informed recommendations for the management of major depressive disorder (MDD), in a clinician-friendly format. These updated guidelines emphasize a collaborative, personalized, and systematic management approach that will help optimize outcomes for adults with MDD.

Using virtual reality to improve verbal episodic memory in schizophrenia: A proof-of-concept trial.

2024. *Schizophr Res Cogn.* Mar 7;36:100305. Bryce J M Bogie, Chelsea Noël, Feng Gu, Sébastien Nadeau, Cecelia Shvetz, Hassan Khan, Marie-Christine Rivard, Stéphane Bouchard, Martin Lepage, Synthia Guimond.

These findings support the use of more ecological approaches for the treatment of cognitive impairments in schizophrenia, such as VR-based cognitive remediation.

Dr. Michael Seto published the second edition of his book “Online sexual offending: Theory, practice, and policy” for the American Psychological Association. Seto’s work is an essential guide for mental health professionals, educators, policymakers, and anyone involved in protecting youth from online sexual exploitation. By combining theoretical frameworks with practical tools, the book offers a roadmap for mitigating risks and promoting the mental health of young individuals in our digital world.

PRESTIGIOUS RECOGNITION ACROSS OUR TEAMS

I. Scientists

Pierre Blier – Arvid Carlsson Medal International College of Neuropsychopharmacology

Patrick McGrath – 2025 CPA Award for Distinguished Contributions to the International Advancement of Psychology

Robyn McQuaid – Faculty of Science Research Excellence Award and Faculty of Science Teaching Excellence Award, Carleton University

Rébecca Robillard – Ontario Minister of Colleges and Universities, Early Researcher Awards Program Round 17

Sara Tremblay – Chercheur boursier Junior 1 Fonds de recherche du Québec – Santé for Research Excellence

II. Learners

Patricia Burhunduli (Pierre Blier / Jennifer Phillips) – Canada’s Top 100 Black Women to Watch Black Pearl Event, Community Involvement Recipient. Also received a Student Encouragement Award at the CINP 2024 World Congress in Tokyo.

Joëlle Choueiry (Natalia Jaworska) – Mitacs Elevate Postdoctoral Fellowship

Dana Crack (Natalia Jaworska) – Queen Elizabeth II Graduate Scholarship in Science and Technology

Jessica Drodge and **Zacharie Saint-Georges** – Award from Otsuka-Lundbeck and a CIHR planning and dissemination grant to support the 2024 NeuMe Conference.

Marie Huc (Natalia Jaworska) – Queen Elizabeth II Graduate Scholarship in Science and Technology

Yuhan Ma (Avery Berman) – Summa Cum Laude Merit Award at the 2024 Annual Meeting of the ISMRM in Singapore

Chelsea Montgomery (Robyn McQuaid, Jennifer Phillips)– Mach-Gaensslen Award

Shruti Patel – Accepted into 2025 Young Executive Leaders Programme.

Branden Pervais (Kim Matheson) – Indigenous Graduate Student Award from the IMHR and Carleton.

Yasaman Shafae (Avery Berman) – VAST Graduate Scholarship (PhD).

III. Winner and Runners-up for IMHR Trainee Awards, Research Week 2024

Master’s Award: 1. Favour Olaoluwa (Jennifer Phillips), 2. SueEllen MacGowan (Andrew Nicholson)

PhD Award: 1. Bryce Bogie (Synthia Guimond), 2. Marie Huc (Natalia Jaworska)

Postdoctoral Award: 1. Arthur Chaves (Sara Tremblay), 2. Joelle Choueiry (Natalia Jaworska)

RESEARCH INFORMING HEALTH POLICY

It is heartening to see our research is increasingly being communicated, featured and used in advocacy, which plays an important role in shortening the lag in translating research findings into care.

Dr. Rébecca Robillard and the CIHR-funded Canadian Sleep Research Consortium held a sleep awareness event at The Senate, hosted by Senator Mohamed Ravalia and Ottawa Centre Member of Parliament and Parliamentary Secretary to the Minister of Health Yasir Naqvi.

Robillard also coordinated the ‘Week for Better Sleep’ interactive national awareness campaigns focused on sleep health. On behalf of five provincial and national organizations, she drafted a report on the effects of daylight savings time for the Quebec government during their public consultations. Since then, she has been contributing a monthly column to The Globe and Mail, disseminating research to the public and shining a spotlight on systemic gaps in sleep and mental health care.

Our research has also driven policy change related to rTMS treatment. The very high rate of positive patient outcomes in the rTMS clinic, led by **Dr. Sara Tremblay**, has played an important role in working with the Ontario government to implement a clinical pathway for rTMS for individuals with treatment-resistant unipolar depression in Eastern Ontario.

While it has been approved and available privately for many years, access was limited to those who could pay privately or were part of a research program like those underway at the IMHR. Funding of this treatment would be a huge milestone in the acceptance of rTMS treatment, and allow us to begin offering rTMS more broadly, including to individuals who are not eligible for clinical trials.

It also provides a unique opportunity to integrate research and clinical care – creating a real-world setting where we can refine treatment strategies and translate discoveries into practice more rapidly.

Our plan entails partnering with The Ottawa Hospital to expand capacity across our region. The Royal’s delivery of clinical rTMS services is essential for promoting equitable access to care. Anesthesia shortages are affecting the availability of ECT, making the access to rTMS increasingly important for those with treatment-resistant depression.

Research publications also play a role in disseminating our learnings. Several important papers in the last year will have a meaningful impact on future research, strengthened by the support of the Brain Imaging Centre.

- **Dr. Stuart Fogel** and his team uncovered novel sleep-based biomarkers of cognitive aging, providing new insights into how sleep patterns relate to cognitive decline.
- **Dr. Natalia Jaworska** and her team's study that shed light on the neural mechanisms underlying resilience and rumination in individuals with remitted depression, advancing our understanding of mental health recovery processes.
- A series of publications from Dr. Andrée-Anne Ledoux (CHEO) and her team exploring brain network changes during pediatric concussion recovery, contributing important knowledge to the field of brain injury and resilience in youth.



Our People

Scientists at the IMHR



Sandra Antochi, MD, FRCPC
Physician Neuromodulation, Operational Stress
Injury Clinic



Avery Berman, PhD
MRI Physics



Pierre Blier, MD, PhD, FRSC
Mood Disorders



Ram Brender, MD
Interventional Psychiatry Program



Gilles Comeau, PhD, FRSC
Music & Mental Health



Stuart Fogel, PhD
Sleep & Mental Health



Synthia Guimond, PhD
Schizophrenia, Cognitive Health



Tanya Halsall, PhD
Youth Mental Health



Natalia Jaworska, PhD
Clinical EEG & Neuroimaging



Zachary Kaminsky, PhD
Suicide Prevention



Kim Matheson, PhD
Culture & Gender Mental Health



Patrick McGrath, OC, PhD, FRSC, FCAH
Clinical Psychology



Lisa McMurray, MD
Interventional Psychiatry Program



Robyn McQuaid, PhD
Culture & Gender, Mental Health



Andrew Nicholson, PhD
Neuroimaging in PTSD and trauma-related disorders
Director of Clinical Research, Atlas



Georg Northoff, MD, PhD, FRCPC
Mind, Brain Imaging & Neuroethics



David Pedlar, PhD
Military & Veterans Mental Health



Jennifer Phillips, PhD
Suicide Prevention



Rébecca Robillard, PhD
Sleep & Mental Health



Michael Seto, PhD
Forensic Mental Health

Scientists at the IMHR (continued)



Jakov Shlik, MD, PhD
Physician Lead of Research



Jeanne Talbot, MD, PhD
IMHR Physician Scientist,
Depression, Suicidal Ideation, Fast-acting anti-depressants, Neuro-psychology



Reggie Taylor, PhD
PET/MRI Physicist
Schizophrenia



Sara Tremblay, PhD
Neuromodulation



Lauri Tuominen, MD, PhD
Schizophrenia. PET Imaging
Military Mental Health

Affiliate & Adjunct Scientists



Marie-Claude Audet, PhD, BA, MSc, BSc
Adjunct Scientist at IMHR
Primary: uOttawa
Nutrition Sciences, Cellular and
Molecular Medicine, Neuroscience



Carissa Augustyn, PhD
Forensics



Kelly Babchishin, PhD
Forensics



Michael Bodnar, PhD, C.Psych
Schizophrenia



John Bradford, MBChB, DPM, FFPsych,
MRCPsych, DABFP, FRCPC, CM
Visiting Senior Scientist at IMHR
Psychological Medicine, Forensic Psychiatry



Clifford Cassidy, PhD
Stony Brook
Military Mental Health
Schizophrenia



Jean-Laurent Domingue, IA | RN, PhD
Nursing



Jess Fiedorowicz, MD, PhD
The Ottawa Hospital



Stephanie Houle, PhD
PTSD



Martin Lalumière, PhD
Visiting Senior Scientist at IMHR
Primary: uOttawa
Forensic Mental Health

Affiliate and Adjunct Scientists (continued)



Michael Lisanti, MD, PhD, FRSA, FRSB, FRSC
Lunella Biotech



Verner Knott, PhD
Visiting Senior Scientist at IMHR
Clinical EEG & Neuroimaging



Cary Kogan, M.A., PhD, M.Sc, B.Sc
Visiting Scientist at IMHR
Primary: uOttawa
Mental Health and Society, Community Health /
Public Health



Patrizia Pezzoli, PhD
Adjunct Scientist at IMHR
Primary: UCL
Interpersonal violence and its relation to Mental
Health, elucidating factors and mechanisms
that contribute to individual differences in
victimization and offending



Gayatri Saraf, MD
Associate Scientist at IMHR
Primary: TOH
Bipolar disorder, PET



Michael Schlossmacher, MD
Adjunct Scientist at IMHR
Primary: OHRI
Parkinson's, Neuroscience



Andra Smith, PhD



Marco Solmi, MD, PhD
Associate Scientist at IMHR
Primary: TOH
Epidemiology, Early intervention, Medical
intervention, Medical comorbidities,
Psychopharmacology, Meta-research



Christopher Sun, PhD, B.A.Sc.EngSc



JianLi Wang, PhD
Senior Adjunct Scientist at IMHR
Primary: Dalhousie (CRC Tier 1)
Workplace Mental Health

Clinical Research Administration & Development Team



Christie Aguiar
Project Manager, CNMDP



Alexander Barton
Research Data Systems, CNMDP



Hussein Bdair, PhD
PET Development and Production Radiochemist



Tammy Beaudoin
Director, Clinical Research Administration



Susan Bottiglia
Library Technician

Clinical Research Administration & Development Team (continued)



Owen Clarkin
Lead, Research IT



Fatema Damji
Senior PET/MRI Technologist



Maria da Silva
Administrative Assistant



Sascha Davis
Manager, Library Services



Katie Dinelle, MSc
Administrative Director, CBRC



Alexis Dorland
Research Ethics Board Facilitator



Jessica Drodge
Research Coordinator



Lydia Fang, PhD
MRI Analyst



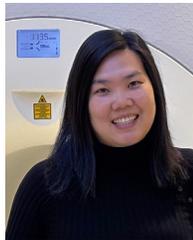
Anvita Gupta, MSc
Research Assistant



Rami Hamati
Systems Specialist, CNMDP



Annie Luu
Research Assistant



Tram Nguyen, PhD
Manager, BIC



Shruti Patel
Director, Inter-Professional Research and
Knowledge Mobilization



Garnet Rodger
Manager, Research Operations



Ahmad Sibahi
Systems Support, Research IT



Lisa Stockton
Senior Research Development Specialist



Arno Turk
Senior MRI Technologist



Christine Waite
Secretary, Clinical Research Administration



Sue Walton, Executive Assistant to the
President & CEO/VP-Research and
Board Liaison, Board of Directors

Cross-Functional Team Members



Beth Robertson, PhD
Equity, Diversity and Inclusion Specialist



Jennifer Hayes
Human Resources Coordinator



Elizabeth Kozyra
Director of Pharmacy



Florence Wilson
Finance and Grant Administrator

Community Investigators



Tammy Beaudoin
Director, Clinical Research Administration



Cynthia Clark



Lisa MacLeod



Glenda O'Hara



Christine Taylor



Cory Taylor



Tanya Woods

Board of Directors



Geneviève Bonin



Kevin Brosseau
Vice Chair, IMHR Board



Florence Dzierzinski, PhD
President & CEO, IMHR /
Vice President Research, The Royal



Martine Lagacé, PhD



Lewis Leikin, PhD



Frances McRae



Susan Richards
Chair, Finance and Audit Committee



Sonya Shorey
Chair, Integrative Research Committee



Sharon Squire
Chair, ROHCG Board



Duncan Stewart, MD



Arun Thangaraj



Cara Vaccarino
CEO, ROHCG



Michael von Herff
Chair, IMHR Board



Steve West
Past Chair, IMHR Board



Stephanie White
Chair, Board Governance
Committee



Donna Wong

Board Committee Members



Steve Adams



Kevin Fitzgibbons



Susie Gignac



Brian Ludlow



Glenda O'Hara



Diana Sarakbi, PhD



Appendix

IMHR Board & Committees (Research Oversight and Planning)

Michael von Herff (Chair, IMHR Board)
Geneviève Bonin
Kevin Brosseau (Vice Chair, IMHR Board)
Florence Dzierszinski (Secretary, CEO, IMHR)
Martine Lagacé

Lewis Leikin (cross-appointed, Board of Trustees)
Frances McRae
Susan Richards (Chair, F&A)
Sonya Shorey (Chair, IRC)
Sharon Squire (Chair, ROHCG Board of Trustees)

Duncan Stewart
Arun Thangaraj
Cara Vaccarino (CEO, ROHCG)
Steve West (Past Chair, IMHR Board)
Stephanie White (Chair, BGC)
Donna Wong

The IMHR board of directors has three committees that oversee the work of the IMHR, with the Chair of the Board, Michael von Herff, and Florence Dzierszinski (non-voting) serving on each of the committees.

Finance & Audit
(legislated)

Governance
(legislated)

Integrative Research
(non-legislated)

The Integrative Research committee oversees the development and execution of the strategic research plan. While this is an IMHR board committee, it includes additional members, including voting representatives from our Client and Family advisory councils, and non-voting representatives of the Foundation, the hospital, IMHR, and the community.

IMHR Board Committees

IMHR Board committees include additional voting members from stakeholder groups, as well as non-voting participants as noted below.

GOVERNANCE

Chair: Stephanie White

Cara Vaccarino

Michael von Herff

Geneviève Bonin

Steve West

Frances McRae

Florence Dzierszinski (Non-Voting)

FINANCE & AUDIT

Chair: Susan Richards

NON-VOTING PARTICIPANTS

Steve West

IMHR

The Royal

Kevin Brosseau

Florence Dzierszinski

Carolyn Jodouin

Suzie Gignac (Public member)

Donna Wong

Arun Thangaraj

INTEGRATIVE RESEARCH

Chair: Sonya Shorey

NON-VOTING PARTICIPANTS

Lewis Leikin

Brian Ludlow (Family Advisory Council)

Jakov Shlik

Florence Dzierszinski

Steve West

Steve Adams (Public member)

Tracy Donahue

Jennifer Phillips

Martine Lagacé

Kevin Fitzgibbons (Public member)

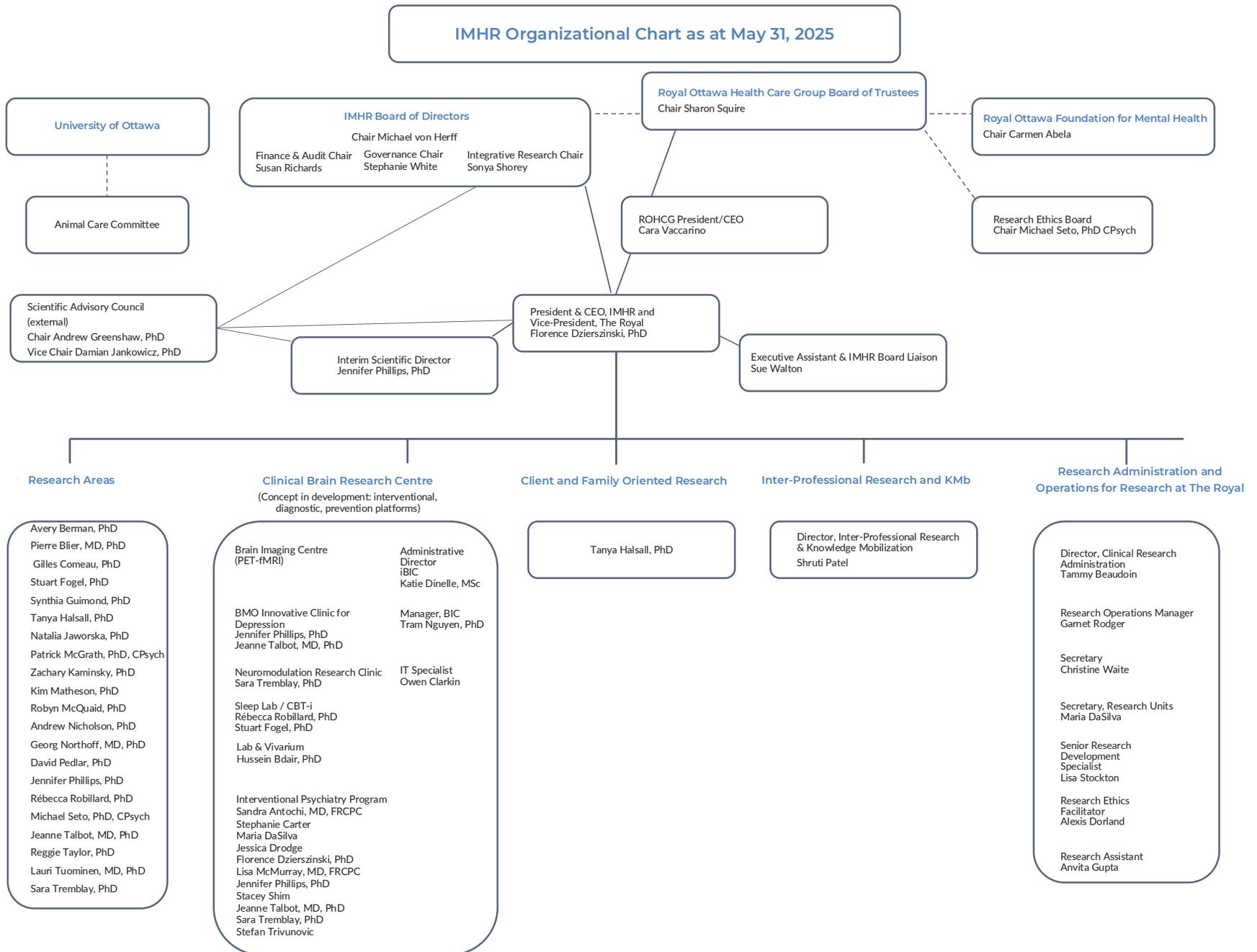
Chris Ide

Cara Vaccarino

Diana Sarakbi (Public member)

Glenda O'Hara (Client Advisory Council)

IMHR Org Chart





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