UNIVERSITY OF SASKATCHEWAN
College of Medicine
DEPARTMENT OF ONCOLOGY



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2024/2025 REPORT

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Department of Oncology

The Department of Oncology is a clinical department within the College of Medicine that integrates cancer care and serious blood disorders, education, and research in partnership with the Saskatchewan Cancer Agency. This dual academic–clinical structure ensures that discoveries in research and innovations in care are translated quickly into better outcomes for patients.

The department's faculty are based primarily at the Saskatoon Cancer Centre and the Allan Blair Cancer Centre in Regina, providing province-wide coverage and outreach to regional health sites. Faculty hold joint appointments with the Saskatchewan Cancer Agency and the University of Saskatchewan, reflecting a shared commitment to excellence in patient care, academic scholarship, and professional training.

The department's mission is to provide patient-centred, evidence-based care for patients with cancer and serious blood disorders; advance scientific discovery through innovative research; and train future generations of clinicians, researchers, and educators. Collaboration, mentorship, and continuous quality improvement define its culture and ensure its enduring contribution to the people of Saskatchewan.

Main Office

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ON THE COVERS

FRONT COVER PHOTO:
Dr. Habib Khan (MD), Assistant Professor Medical Oncology. *Photography by the Saskatchewan Cancer Agency.*

BACK COVER PHOTO:
Dr. Frederick Vizeacoumar. *Photography by the Saskatchewan Cancer Agency.*

UNIVERSITY OF SASKATCHEWAN

Message from the Dean



Dr. Sarah Forgie
Dean, University of Saskatchewan College of Medicine

This report highlights the important work from the Department of Oncology over the past year, including continued progress in education, research and advancing care for patients living with cancer and blood disorders. A key theme is the department's ongoing commitment to collaboration, working with provincial and national partners to strengthen cancer care.

Through its close partnership with the Saskatchewan Cancer Agency, the department continues to support innovation in clinical care, including work across all stages of clinical trials. Multidisciplinary research also continues to grow, supported by numerous funded research grants and publications. This collaboration helps improve outcomes for cancer patients and their families throughout the province.

The following pages share some of the successes from the past year, including in the areas of leadership and innovation along with contributions to undergraduate and postgraduate medical training. The department is also committed to advancing cancer education through opportunities such as the Saskatchewan Cancer Conference and the oncology continuing education course. These activities reflect how closely education, research and clinical care are linked across the department.

The strength of the College of Medicine lies in its people. Thank you to everyone in the Department of Oncology for your dedication, commitment and innovation. Your contributions continue to strengthen the reputation of the college and improve cancer care across Saskatchewan.

Message from the Sakatchewan Cancer Agency



Dr. Shazia Mahmood
Vice President, Medical Services, Saskatchewan Cancer Agency

On behalf of the Saskatchewan Cancer Agency, I'm pleased to have this opportunity to reflect on the success of our Department of Oncology team has seen this past year, thanks to the great teamwork within the department.

As a whole, the department has a strong commitment to providing high-quality, patient-centred cancer care for all people across Saskatchewan. Specifically, in 2025-26, we are proud of the many efforts throughout the Saskatchewan Cancer Agency to increase access to rural, remote and Indigenous communities throughout the province. Projects in monoclonal gammopathies and gastrointestinal cancers are just two examples of focused work in this area.

We focused to promote training of our own residents for better retention of medical specialists. We saw continued success of the Medical Oncology Residency Program with accreditation a nd the development of the Hematology Residency Program supporting the training of future cancer specialists in the province. We continue to expand the Cellular Therapy Program. Implementing targeted radiation treatments (e.g., spine stereotactic body radiotherapy) and continued improvements in care pathways and precision medicine brings advanced care closer to home.

The department is growing impact in research and clinical trials, is helping to bring new discoveries and treatment options to patients in Saskatchewan.

I will take this opportunity to thank the physicians, nurse practitioners, nurses, researchers, learners, staff and health system partners for their hard work, compassion, and teamwork. The future of Department of Oncology is bright—I look forward to continued progress and better patient experiences in 2026.

Message from the Department Head



Dr. Shahid Ahmed
Interim Head Department of Oncology, College of Medicine

The year 2025 marked a defining chapter in the Department of Oncology's continued evolution as a leader in cancer care, research, and education. Our department, in partnership with the Saskatchewan Cancer Agency, is guided by a shared mission: to provide high-quality, patient-centred cancer care informed by evidence, strengthened by research, and sustained by a culture of learning and collaboration.

This past year, our programs delivered thousands of treatments and consultations to patients across Saskatchewan. The establishment of a fully operational Cellular Therapy Program has been a landmark achievement, bringing innovated immune and gene-modified therapies to patients within the province. Alongside our systemic therapy programs, gynecologic oncology, radiation oncology, and other specialty teams have continued to deliver comprehensive, compassionate, and coordinated care.

Research productivity remains a defining strength. Our faculty have secured competitive national funding, published widely, and participated in multicentre trials that shape global standards of care. The department's integration with the Saskatchewan Cancer Registry and the Cancer Research Cluster continues to enable interdisciplinary work across molecular science, epidemiology, and clinical research. These collective efforts have placed Saskatchewan at the forefront of cancer innovation in Canada.

Education continues to grow at every level. From undergraduate learning and graduate research to postgraduate residencies, our programs provide a robust training environment for the next generation of oncology professionals. The Royal College–accredited Medical Oncology Residency Program continues to demonstrate strength and maturity through its structured curriculum, broad clinical exposure, and strong faculty mentorship. Development of the Hematology Residency Program also continued to progress in 2025, building toward future Royal College approval and participation in CaRMS.

Finally, we continue to focus on reconciliation and equitable access to care. The department's ongoing partnerships with Indigenous leaders and community organizations guide the development of culturally safe, inclusive pathways for diagnosis and treatment.

This report reflects the efforts of a vibrant department that is deeply engaged with the health needs of the province. As we look to 2026, our priorities include sustaining recruitment, strengthening translational research, refining care models such as the Rapid Diagnosis and Myeloma Pathway pilots, and deepening our commitment to equity and excellence in all aspects of our work.

Clinical Services and Provincial Role

Cancer services in Saskatchewan are delivered through a coordinated provincial model that integrates the Saskatchewan Cancer Agency and the Saskatchewan Health Authority, with the Department of Oncology providing the academic and educational foundation for this system. This partnership ensures that the delivery of cancer care, education, and research is aligned across all regions of the province.

Clinical programs span medical oncology, radiation oncology, malignant and non-malignant hematology including benign hematologic disorders, and cellular therapy, gynecologic oncology, and supportive care. These services are delivered through multidisciplinary teams at the Saskatoon Cancer Centre, the Allan Blair Cancer Centre in Regina, and community-based oncology sites, working closely with primary-care providers and allied health professionals to ensure timely, equitable access to care for all patients.

In 2025, the department continued to enhance provincial coordination through the development and pilot implementation of integrated care pathways aimed at improving diagnostic coordination and patient experience for selected cancer and hematologic conditions. These initiatives represent early steps toward strengthening system coordination while broader challenges related to access and capacity across oncology and hematology services continue to be addressed at the provincial level. The upper gastrointestinal early-diagnosis pathway and the Myeloma Care Pathway, designed to support timely identification, referral, and management of suspected upper digestive tract cancers and myeloma respectively, continued as pilot programs during 2025. Both pilots are scheduled for formal evaluation in 2026 to assess their impact on diagnostic efficiency, timeliness, and patient outcomes, with a view to broader implementation if successful.

Radiation oncology services achieved major advances this year with the implementation of gynecologic brachytherapy and spinal stereotactic body radiation therapy (SBRT). These advances include the establishment of an interstitial brachytherapy program for gynecologic malignancies and a comprehensive SBRT program. These new technologies and treatment capabilities enhance precision, reduce treatment times, and expand the therapeutic options available to patients in Saskatchewan. Gynecologic brachytherapy provides highly localized radiation for cervical and uterine cancers, including complex cases requiring interstitial techniques, while spine SBRT allows high-dose, image-guided treatment of spinal metastases with submillimeter accuracy. Both programs demonstrate the department's commitment to delivering advanced, evidence-based radiation treatments that improve patient outcomes and expand access to specialized care within the province.

The Cellular Therapy Program became fully operational in 2025, offering autologous and allogeneic stem-cell transplants as well as immune-based therapies, including CAR-T therapy. This milestone reflects years of planning, infrastructure development, and collaboration across disciplines and represents a significant step forward in Saskatchewan's ability to provide comprehensive hematologic cancer care within the province.

The department also continues to contribute to provincial cancer screening and survivorship initiatives and plays a leadership role in national cancer-control and quality-improvement programs. Faculty members serve on provincial and national advisory committees, helping to shape policy, performance standards, and the integration of research findings into everyday clinical practice.As in many jurisdictions across Canada, oncology and hematology services continue to face growing demand and workforce pressures, and addressing timely access to consultation and treatment remains an important provincial priority.

Disease Site Groups

The Department of Oncology's clinical, educational, and research activities are organized through interdisciplinary Disease Site Groups (DSGs). Each group brings together oncologists, surgeons, radiation specialists, hematologists, pathologists, radiologists, pharmacists, nurses, and scientists to deliver coordinated care, ensure consistency in practice, and promote research and innovation. These groups provide the foundation for quality assurance, program development, and continuous improvement across Saskatchewan's cancer system. Across Disease Site Groups, a Biomarker Prioritization Committee was established to support timely access to novel targeted therapies. This committee brings together clinicians, scientists, and laboratory partners to prioritize biomarker testing, streamline collaboration with diagnostic laboratories, and ensure the availability of advanced molecular testing needed to guide precision oncology treatments across Saskatchewan. This initiative strengthens alignment between clinical care, laboratory services, and research innovation.

Across all disease sites, the Department of Oncology works closely with palliative-care physicians, nurses, and the interprofessional palliative-care team to ensure comprehensive supportive care for patients and families. This collaboration integrates symptom management, psychosocial support, advance-care planning, and survivorship services within every disease-site program. The shared approach ensures that comfort, dignity, and quality of life remain central to patient care throughout the entire cancer journey.

Each Disease Site Group meets regularly to review patient cases, develop evidence-based clinical protocols, and align research and education with clinical priorities. Together, these groups ensure that patients across Saskatchewan receive consistent, high-quality, and innovative cancer care supported by collaboration, compassion, and continuous learning.

BREAST CANCER GROUP

The Breast Cancer Group focuses on precision systemic therapy, hormone modulation, genetic counselling, and survivorship care. The team participates in national clinical trials and supports advances in genomic and targeted therapy. Under the leadership of Dr. Manna germline mutation testing was introduced for patients with high-risk breast cancer, expanding access to personalized genetic assessment and treatment planning. The group also collaborates with the Department of Medicine to improve care for patients managing both cancer and diabetes and continues several investigator-initiated studies on therapy optimization and survivorship outcomes.

GASTROINTESTINAL CANCERS GROUP

The Gastrointestinal Cancers Group manages colorectal, gastric, pancreatic, and hepatobiliary cancers through multidisciplinary case review and coordinated treatment planning. In 2025, genomic testing for DPYD variants was introduced to reduce chemotherapy-related toxicity and improve patient safety. Under the leadership of Dr. Vijayananda Kundapur, DPYD testing was implemented through the first formal collaboration between the pharmacogenomics laboratory and the Saskatchewan Cancer Agency, positioning Saskatchewan as the third province in Canada to introduce province-wide DPYD testing. This work highlights the integration of pharmacogenomics into routine gastrointestinal cancer care. The group contributed to the design and implementation of the pilot Rapid Diagnosis Program for suspected upper-gastrointestinal malignancies, which will be evaluated in 2026 to assess improvements in diagnostic efficiency and patient experience. Members are also leading investigator-initiated research in precision oncology and quality-of-life assessment for gastrointestinal cancers.

GENITOURINARY ONCOLOGY GROUP

The Genitourinary Oncology Group manages prostate, bladder, kidney, and testicular cancers. The team participates in national cooperative-group trials evaluating new systemic therapies and contributes to quality-of-life studies and practice-guideline development to support consistent, evidence-based care across provincial sites.

GYNECOLOGIC ONCOLOGY GROUP

The Gynecologic Oncology Group provides comprehensive care for ovarian, uterine, cervical, and vulvar cancers. It leads provincial programs in minimally invasive and robotic surgery, chemotherapy, genetic testing, and cervical screening. The group maintains a national leadership role in ovarian-cancer genomics and hereditary-cancer initiatives. Under Dr. Laura Hopkins's leadership, an ovarian-cancer biobanking program was established in 2025, creating a valuable resource for translational research and biomarker development. The group also supports investigator-led studies in early diagnosis and patient-reported outcomes.

HEMATOLOGY, TRANSPLANT, AND CELLULAR THERAPY GROUP

The Hematology, Transplant, and Cellular Therapy Group oversees the management of malignant and complex non-malignant hematologic disorders including leukemia, lymphoma, and myeloma, as well as benign blood disorders managed by hematologists in Saskatoon and Regina, and advanced therapies such as autologous and allogeneic transplantation and CAR-T therapy. Under the leadership of Dr. Julie Stakiw, the Myeloma Care Pathway pilot was developed to improve timely diagnosis, streamline referral processes, and enhance access to care for patients with suspected myeloma. The group also leads translational and clinical research projects focused on immune-based therapy and graft engineering.

LUNG AND THORACIC ONCOLOGY GROUP

The Lung and Thoracic Oncology Group provides integrated care for lung and mediastinal malignancies, combining systemic therapy, radiation, and advanced diagnostics. The group continues to expand its programs in screening and early detection and, in collaboration with pathology, has established a comprehensive biomarker testing service. Implementation of the lung stereotactic body radiation therapy (SBRT) program has enhanced local treatment options and improved outcomes for patients with early-stage disease, including those who are medically unfit for surgery or for whom SBRT serves as an effective alternative to surgical management.

SKIN, SARCOMA, HEAD AND NECK, CENTRAL NERVOUS SYSTEM AND NEUROENDOCRINE ONCOLOGY GROUPS

The Skin, Sarcoma, Head and Neck, Central Nervous System (CNS), and Neuroendocrine Oncology Groups each provide specialized multidisciplinary care for complex and rare malignancies. These include melanoma and other cutaneous cancers, soft-tissue and bone sarcomas, head and neck cancers, brain and CNS tumours, and neuroendocrine neoplasms. Each group coordinates care involving surgery, radiation therapy, and systemic treatment, emphasizing precision, function preservation, and rehabilitation. Together, these teams contribute to national and international clinical trials and lead the development of provincial referral and treatment pathways for these rare and challenging cancers. Current initiatives include expanding access to advanced radiation techniques, improving molecular and genomic diagnostics, and advancing research focused on long-term survivorship and quality of life.

Models of Care and Quality Improvement

The Department of Oncology and the Saskatchewan Cancer Agency continue to refine and pilot innovative models of care that emphasize coordination, safety, and equity. These models are designed to improve the patient experience and to measure outcomes across the entire continuum of care.

These care models reflect a system in evolution, one that is responsive, data-driven, and focused on patient needs.

Integrated Cancer Pathways

Provincial pathways for lung, breast, gastrointestinal, gynecologic, and hematologic cancers have standardized diagnostic and treatment processes, aimed at improving coordination and supporting more timely care.

Myeloma Care Pathway (Pilot)

The Myeloma Pathway provides structured guidance to primary-care providers on investigating and referring patients with suspected myeloma. The program aims to standardize diagnostic workup, improve access to hematology consultation, and support equitable care across Saskatchewan. It is currently in its pilot phase, with formal evaluation planned for 2026 to inform province-wide implementation.

Navigation and Survivorship Services

Dedicated oncology navigators assist patients and families throughout diagnosis, treatment, and follow-up. Survivorship programs continue to grow, focusing on rehabilitation, fatigue management, and psychosocial support.

Quality and Safety Program

Quality and Safety Program – The department maintains a comprehensive quality-monitoring framework. Morbidity and mortality rounds, safety audits, and quality-improvement projects ensure continuous learning and accountability.

Rapid Diagnosis Program (Pilot)

This initiative was launched as a pilot to expedite diagnosis for patients with suspected cancers. It coordinates imaging, biopsy, and specialist consultation through centralized navigation and scheduling. Formal evaluation of this pilot is scheduled for 2026 to assess its effectiveness and scalability.

Diabetes–Oncology Integration (Pilot)

A new initiative is being developed to better integrate diabetes care into oncology practice, recognizing the high risk of treatment-related hyperglycemia and complications. This model focuses on standardized HbA1c screening prior to systemic therapy, patient education on glucose management, and clinician training to support early identification and coordinated care pathways. The program aims to improve safety, reduce treatment interruptions, and enhance outcomes for patients with cancer and diabetes

Tele-Oncology and Virtual Care

Virtual consultations and follow-ups have become integral to patient management, allowing patients in rural and northern regions to access care without travel. The department also remains committed to improving access to oncology and hematology services for rural, remote, and Indigenous communities through outreach, virtual care, and collaborative partnerships across the province.

Culturally Safe and Equitable Care

The department continues to embed reconciliation and equity principles in its clinical programs, guided by Indigenous leaders and health partners.

Research and Innovation

Research within the Department of Oncology continues to flourish across a broad range of disciplines and supports laboratory, translational, clinical, and population-health studies.

Between 2020 and 2025, investigators secured over twenty million dollars in funding. In 2025 alone, over 1.6 million dollars was awarded for new projects. Major themes include genomics, synthetic-lethality drug development, immunotherapy, clinical trials and real-world evaluation of care models.

Collaborations with national partners have strengthened, and the department's faculty are now represented in multiple Canadian research networks. The Saskatchewan Cancer Registry continues to provide the data infrastructure for population-based research, helping evaluate outcomes and inform policy.

The department's work in 2025 reflects a strong emphasis on translational research, connecting molecular discovery with patient outcomes, and a growing focus on equity, access, and system innovation.

PUBLICATIONS AND SCHOLARLY IMPACT

From 2020 through 2024, faculty produced over four hundred publications with more than twenty-two thousand citations. Publications in 2025 continued to demonstrate the department's range, including basic science and translational research, clincial trials, health service, real-world, outcomes and survivorship research.

Faculty also contributed to national guidelines, consensus papers, and educational resources, reinforcing the department's academic impact both within and beyond the province.

CLINICAL TRIALS

The Department of Oncology and the Saskatchewan Cancer Agency continue to maintain an active portfolio of more than two hundred clinical trials covering all major disease sites. These include early-phase studies of novel agents, multi-centre phase-III trials, and investigator-initiated research on quality of life and survivorship. The faculy members actively participate in intergroup, multinational clinical trials, many of which are practice-changing and standard-setting, helping to guide the direction of cancer treatment internationally.

The Saskatchewan Cancer Agency's Clinical Trials Unit has played a central role in supporting this work and has been credited on more than forty publications arising from intergroup, NIH-led trials, a remarkable contribution for a Canadian institution of this size. Participation in national networks such as the Canadian Cancer Trials Group ensures that patients in Saskatchewan have early access to new therapies. Clinical-trial involvement also enhances the training of residents, fellows, and allied health professionals, embedding research literacy within the clinical workforce.



Education and Training

Education and mentorship remain at the core of the Department of Oncology's mission. The department plays a central role in medical education at all levels, undergraduate, postgraduate, and continuing professional development, while fostering a learning environment that integrates clinical practice, research, and innovation.

At the undergraduate level, faculty contribute extensively to the College of Medicine curriculum through lectures, case-based teaching, clinical electives, and mentorship. Oncology education emphasizes early recognition of cancer, multidisciplinary management, and compassionate care. In 2025, Dr. Rebecca MacKay assumed the role of Undergraduate Hematology Course Director, strengthening teaching in both malignant and non-malignant hematologic disorders within the medical curriculum.

At the postgraduate level, the department offers comprehensive residency training. The Royal College–accredited Medical Oncology Residency Program provides broad clinical experience at both the Saskatoon Cancer Centre and the Allan Blair Cancer Centre in Regina. The program is recognized for its strong mentorship, structured academic curriculum, and opportunities for research and scholarly work. Dr. Dorie-Anna Dueck played a key role in the establishment of the residency program, collaborating closely with faculty and partners, and served as Program Director until March 2025. In 2025, Dr. Vallerie Gordon was appointed Program Director, bringing a renewed focus on resident wellness, academic growth, and provincial program development.

Development of a Hematology Residency Program continues under the leadership of Dr. Kelsey Brose, in collaboration with the College of Medicine and the Saskatchewan Cancer Agency. The program is being designed to address the growing provincial need for hematology specialists and to align with emerging programs in transplant and cellular therapy.

Faculty in the department also supervise a large number of graduate students and postdoctoral fellows engaged in laboratory, translational, and clinical research. These trainees contribute to studies in cancer biology, epidemiology, health services, and outcomes research, often in partnership with the Saskatchewan Cancer Agency's research division.

Continuing professional development remains a priority. The Saskatchewan Oncology Education Online Course continues to expand, offering accredited, case-based modules for healthcare professionals across the province. The Annual Oncology Conference and the bi-annual Saskatchewan Cancer Conference attract participants from across Canada, serving as key forums for professional development, collaboration, and dissemination of new research. In 2025, a planning committee was established to organize the inaugural Department of Oncology Research and Quality Improvement (RQI) Day, aimed at showcasing innovative research and quality-improvement initiatives and fostering collaboration across the oncology community in Saskatchewan.

Through its faculty, learners, and partnerships, the Department of Oncology continues to foster a culture of lifelong learning, professional growth, and the translation of knowledge into improved cancer care for the people of Saskatchewan.

AWARDS AND RECOGNITION

Faculty and trainees continue to earn recognition and awards for excellence in research, teaching, and leadership. These reflect the depth of expertise and the shared dedication of faculty and staff across all programs and sites.

HIGHLIGHTS FROM 2024-2025:



Dr. Kelsey Brose

Canadian Association for Medical Education Certificate of Merit (2025)

The Canadian Association for Medical Education Certificate of Merit recognizes and rewards faculty committed to medical education in Canadian medical schools.



Dr. Hadi Goubran-Messiha

College of Medicine Research Career Achievement Award (2025)

This award recognizes excellence, leadership and capacity building through their research program as demonstrated by advances in knowledge as well as through research related to patient health, health services, health equity, behaviour, social impacts and/or medical education.

He was recognized for his pioneering work in the development of fibrin sealant technology, his dedication to addressing needs of developing countries, his engagement in mentorship and education, and his commitment to patient health and safety.



Dr. Mita Manna

College of Medicine Excellence in Research Award (2025)

This award recognizes faculty who have exhibited the highest level of excellence and had a significant impact on research over the past year.

Dr. Manna was recognized for her leadership in research-driven implementation of mainstream genetic testing for breast and ovarian cancer, her advocacy for oncology research and engagement in policy-shaping initiatives, her dedication to education and mentorship, and her commitment to knowledge dissemination and continuous learning. She has also received recognition from the College of Medicine for her scholarly work and was promoted from Assistant to Associate Professor in April 2025.



Dr. Laura Hopkins

College of Medicine Excellence in Research Award (2024)

This award recognizes faculty who have exhibited the highest level of excellence and had a significant impact on research over the past year.

She was recognized for her innovative research initiatives aimed at improving outcomes and quality of life for ovarian cancer patients, including the 4PDQ trial which involved prioritizing patient preferences in the decision-making process, representing a shift towards more personalized health care. Nominators noted her pivotal role in establishing Saskatchewan's first ovarian tissue cryopreservation program, addressing a significant gap in care and ensuring young patients have the possibility of maintaining their fertility in the future.



Dr. Ibraheem Othman

College of Medicine Regina Campus Teaching Award and Continuing Medical Education Teaching Excellence Award (2024)

The Regina Campus Teaching Award recognizes excellence in teaching by an individual faculty member at the Regina Campus. Dr. Othman was nominated by several of his undergraduate students, who highlighted how he encouraged inquiry and exploration, provided opportunities for discussion, brought humour and clarity to complex materials, emphasized cross-cultural awareness and sought feedback from students on how to further improve his teaching.

Also notable was that Dr. Othman provides an inspiring, safe, and engaging learning environment and he exemplifies a compassionate and caring medical professional.

The CME community recognized Dr. Othman with the CME Teaching Excellence Award to celebrate his exceptional knowledge of his topics, his superior communication skills, and his ability to create an engaging experience with his learners.



Department of Oncology in the News



The team of USask researchers who contributed to the Cell Genomics article on PLK1 stands for a photo in the USask Health Sciences building. *Photo Submitted*

Identifying and testing new targets for pancreatic cancer

October 3, 2025

Dr. Franco Vizeacoumar, along with Dr. Andrew Freywald and Dr. Frederick Vizeacoumar received $1,105,426 for a five-year project, Telomere-Directed Epigenetic Therapy: A Novel Approach for Treating Pancreatic Ductal Adenocarcinoma, as part of Canadian Institutes of Health Research Spring 2025 Project Grant competition.

The research looks at Pancreatic Ductal Adenocarcinoma (PDAC), a type of pancreatic cancer that has one of the highest mortality rates. PDAC does not have any visible symptoms and is often diagnosed too late for surgery—leaving only chemotherapy and radiotherapy as treatment options.

READ MORE

USask scientists identify vulnerability in cancer cells

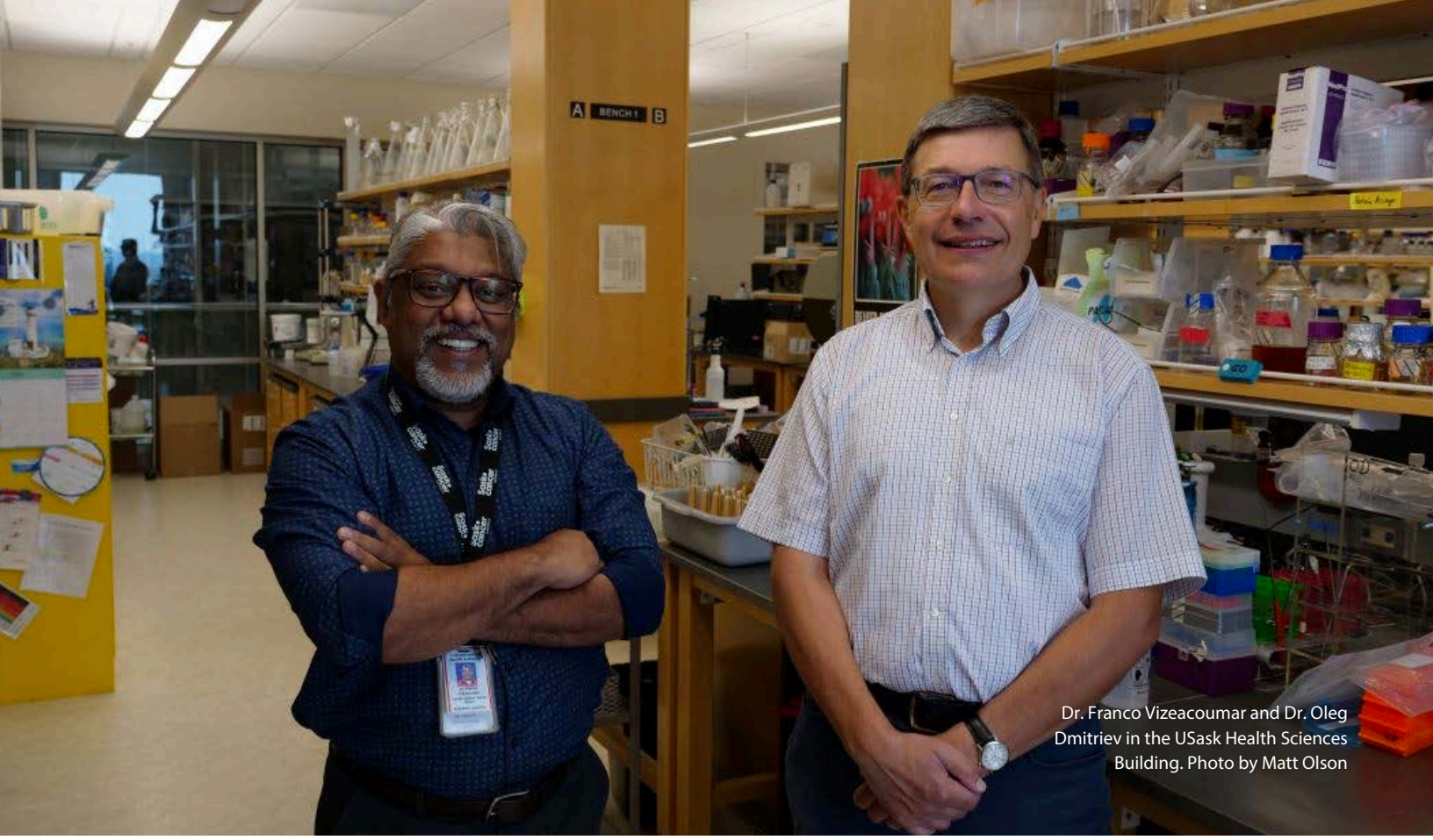
May 15, 2025

A team of USask researchers, using innovative genetic screening, have identified a new target to suppress breast cancer growth.

Dr. Franco Vizeacoumar and Dr. Andrew Freywald with USask and the Saskatchewan Cancer Agency, are leaders of a research team that has identified a potential target for eliminating breast cancer cells. The team focused on an enzyme called polo-like kinase 1 (PLK1), which is found in large amounts in nearly all cancer cells and helps tumours grow.

Published in Cell Genomics, this work marks one of the first successful applications of single-cell CRISPR screening combined with animal model-based CRISPR testing in Canada.

READ MORE



Dr. Franco Vizeacoumar and Dr. Oleg Dmitriev in the USask Health Sciences Building. Photo by Matt Olson

The impact of USask research on the future of breast cancer care

October 3, 2024

If you are among the one in eight Canadian women who confronts a breast cancer diagnosis, you would want Dr. Mita Manna on your care team.

Manna is a medical oncologist and assistant professor at USask, and her days include a combination of medical education, patient care and research. She is a clinician at the Saskatchewan Cancer Centre providing care, teaches at USask's College of Medicine, and is the Saskatoon research site lead for the Canadian Cooperative Trials Group.

"The most exciting thing about being an oncologist," according to Manna, "is the rapid growth of treatment options and novel drugs that are coming through the pipeline; and how that has transformed our landscape in terms of treating patients, having better outcomes, and a better quality of life."

READ MORE

New potential target to kill cancer cells identified by USask researchers

August 20, 2024

A team of USask researchers believe that iron metabolism could be targeted to treat an aggressive form of cancer.

Dr. Oleg Dmitriev, a professor in the department of Biochemistry, Microbiology and Immunology, and oncology professor Dr. Franco Vizeacoumar were two of the authors of a research paper recently published in eLife identifying the function of a less-understood cell protein referred to as MEMO1.

Dr. Oleg Dmitriev, a professor in the department of Biochemistry, Microbiology and Immunology, and oncology professor Dr. Franco Vizeacoumar were two of the authors of a research paper recently published in eLife identifying the function of a less-understood cell protein referred to as MEMO1.

READ MORE

Looking Ahead to 2026

As the department looks to the year ahead, its priorities will continue to centre on integration, innovation, and sustainability. Building on the progress achieved in 2025, the Department of Oncology remains focused on strengthening partnerships, expanding clinical and academic programs, and improving access and outcomes for patients across Saskatchewan. In 2026, work will focus on completing the evaluation of the Rapid Diagnosis and Myeloma Pathway pilots and implementing the resulting recommendations to enhance diagnostic efficiency, coordination, and patient experience. The department will also continue to expand clinical-trial participation and investigator-initiated research, supporting the growth of Saskatchewan's academic oncology capacity.

Education remains a cornerstone of this strategy. The Royal College-accredited Medical Oncology Residency Program continues to advance, with a Royal College external review visit completed in May 2026 to provide feedback and guide ongoing program improvement. The Hematology Residency Program, under the leadership of Dr. Kelsey Brose, received Royal College approval in June 2026, positioning the program for the Canadian Resident Matching Service (CaRMS) 2026/27 match cycle. The department broadens collaboration with other academic units to strengthen postgraduate training and interprofessional education. New initiatives will also include the launch of the Department of Oncology Annual Research and Quality Improvement Day, a dedicated forum for faculty, trainees, and partners to share ongoing research, quality-improvement projects, and innovation in care delivery.

Collaboration with the Department of Medicine will expand through the development of new models of care aimed at improving outcomes for patients who live with both cancer and chronic conditions such as diabetes. This interdisciplinary approach seeks to strengthen coordination between oncology and internal medicine, advance survivorship care, and promote holistic, patient-centred management across the continuum of health.

The department will continue to invest in faculty recruitment, infrastructure renewal, digital health innovation, virtual-care infrastructure, and data systems to sustain growth and innovation. Partnerships with the Cancer Foundation of Saskatchewan will further enhance support for research, education, and patient-centred initiatives. Through collaboration, evidence, and compassion, the Department of Oncology will continue to lead comprehensive, equitable, and research-informed cancer care for the people of Saskatchewan, ensuring that progress in science and education translates into lasting improvements in health and quality of life.



RESEARCH GRANTS (ACTIVE/RECIEVED IN 2025)

Funded Research Grants	Organization Funding Received From	Researchers	Award Period	Total Amount Awarded
Enhancing Biomarker Testing Capabilities for colorectal cancer in Rural Saskatchewan	Pfizer	Areej Khatib (principal investigator); Shahid Ahmed and others	2024-2026	$100,000
Repurposing FDA-approved drugs for advanced pancreatic ductal adenocarcinoma	Saskatchewan Cancer Agency	Adnan Zaidi (principal investigator); Franco Vizeacoumar, Shahid Ahmed, John Shaw, Mike Moser, Gary Groot, Mary Kinloch, Nicolas Jette, Rani Kanthan, Chris Gordon.	2025-2027	$200,000
Targeting Neurosignaling for Tackling Brain Metastasis of Breast Cancer	Breast Cancer Canada	Anand Krishnan (principal investigator); Shahid Ahmed; Abhilash Hareendranathan; Botterill,Justin ; Renae Morrison	2025-2028	$75,000
Targeting EphB6 overexpression in pediatric T-ALL	Saskatchewan Health Research Foundation (Impact Grant)	Andrew Freywald (principal investigator); Franco Vizeacoumar (co-principal investigator), Frederick Vizeacoumar, Roona Sinha	2025-2027	$150,000
Targeting EGFR/EphA2 crosstalk in TNBC	CIHR (Bridge Funding)	Andrew Freywald (principal investigator); Franco Vizeacoumar, Nicolas Bisson, Ekaterina Dadachova	2024-2025	$50,000
Deciphering Tumor Heterogeneity: Thorough Necropsy, Imaging, and Transcriptomics in Naturally Occurring Cancers in Dogs	University of Saskatchewan Companion Animal Health Fund	Arata Matsuyama (principal investigator); Jasmine Gu, M. Dean Chamberlain, Michael Zabrodski	2024-2027	$19,600
Patterns of Locoregional Treatment and Clinical Outcomes in Pediatric and Adult Patients with Ewing Sarcoma and Other Undifferentiated Round Blue Cell Sarcomas - A Canadian Multicenter Retrospective CanSaRCC Study	Saskatchewan Cancer Agency	Bilal Marwa (principal investigator)	2025-2027	$100,000
New drugs for metastatic luminal A breast cancer	Saskatchewan Cancer Agency	Deborah Anderson (principal investigator)	2024-2026	$200,000

RESEARCH GRANTS (ACTIVE/RECIEVED IN 2025)

Funded Research Grants	Organization Funding Received From	Researchers	Award Period	Total Amount Awarded
Oral Inflammatory Load as a Predictor of Oral Mucositis Severity and Oral Outcomes in Lung Cancer Patients	Saskatchewan Health Research Foundation (Align Grant)	Ellis Batistella (principal investigator); Sunil Yadav, Lynn Dwernychuk	2025-2026	$10,000
Validating synthetic lethal interactions within the DNA damage and response pathways	Saskatchewan Cancer Agency	Franco Vizeacoumar (principal investigator)	2024-2026	$200,000
Validation of biomarkers for bladder cancer	College of Medicine Research Award, University of Saskatchewan	Franco Vizeacoumar (principal investigator)	2025-2026	$30,000
Telomere-directed epigenetic therapy: A Novel approach for treating pancreatic ductal adenocarcinoma	Canadian Institute of Health Research	Franco Vizeacoumar (principal investigator); Andrew Freywald (co-principal investigator); Frederick Vizeacoumar, Shahid Ahmed, Khalid Barakat	2025-2030	$1,105,426
Identification of therapeutically relevant targets in telomerase overexpressing prostate cancer	Canadian Institute of Health Research	Franco Vizeacoumar (principal investigator); Andrew Freywald, Judy Wong, Wang Youzhou (co-investigators)	2021-2026	$983,026
Functional drug repurposing and validation in patient-derived models of recurrent pediatric rhabdomyosarcoma	Pediatric Caner: Models & Mechanisms Network	Franco Vizeacoumar (principal investigator); Laura Hopkins, Andrew Freywald, Bilal Marwa, Kathleen Felton	2025-2027	$69,986
Western Canadian province experience on comparison of second autologous stem cell transplant (ASCT) versus single ASCT for patient with multiple myeloma (MM): A retrospective population-based cohort study	Saskatchewan Cancer Agency	Ibraheem Othman (principal investigator)	2024-2025	$42,440
Simulated microgravity blocks osteoblastic differentiation and mineralization leading to bone loss via suppressing the FAK/RhoA-regulated Wnt pathway	NSERC Discovery Grants	Jim Xiang (principal investigator)	2019-2025	$216,000

RESEARCH GRANTS (ACTIVE/RECIEVED IN 2025)

Funded Research Grants	Organization Funding Received From	Researchers	Award Period	Total Amount Awarded
Targeting immunotolerant tumor microenvironment to augment therapeutic effect of IRE+Combo for pancreatic cancer	Cancer Research Society	Jim Xiang (principal investigator)	2023-2025	$125,000
Circulating Tumour DNA Analysis Informing Adjuvant Chemotherapy in Stage III Colorectal Cancer: A Multicenter Phase II/III Randomized Controlled Trial (DYNAMIC-III)	Canadian Institute of Health Research	Jonathan Loree (principal investigator); Chris O'Callaghan (co-principal investigator), Shahid Ahmed (co-investigator) and others	2021-2027	$1,426,724
Evaluating the epidemiology of smoldering multiple myeloma among Indigenous patients in Saskatchewan	Saskatchewan Cancer Agency	Julie Stakiw (principal investigator)	2024-2025	$87,052
South Asian Older Adults' Experiences with Blood Cancer	The Lymphoma and Leukemia Society of Canada	Kristen Haase (principal investigator), Shahid Ahmed and others (co-investigators)	2024-2026	148,673
A mixed methods study of cancer care in Canada.	Canadian Institute of Health Research	Kristen Haase (principal investigator); Puts, M., McConnell, K., Sattar, S (co-principal investigator), Shahid Ahmed, Cosco, T., Dawe, D., Dennis, K., Faour,E., Hsu,T., Mariano, C., Newton, L., Drury, A., Mohile, S., Earle, C., Sirois,A., Lee, K., Connell, M., Li, L., Alibhai, S., Chase, A., Rudolf, M., & Madden, K.,	2025-2028	$344,251
Proof of Precision at the time of need	Ovarian Cancer Canada's Ovarian Cancer Research in Saskatchewan	Laura Hopkins, Franco Vizeacoumar, Andrew Freywald, Dean Chamberlain (principal investigators)	2025-2026	$219,000
Manufacturing of Microtissues for In vitro Applications	University of Saskatchewan President's NSERC	M. Dean Chamberlain (principal investigator)	2024-2026	$10,000

RESEARCH GRANTS (ACTIVE/RECIEVED IN 2025)

Funded Research Grants	Organization Funding Received From	Researchers	Award Period	Total Amount Awarded
Advancing precision medicine for Breast and Ovarian Cancer patients through mainstream genetic testing: A pilot program in Saskatchewan	RUH foundation Women leading Philanthropy grant	Mita Manna (principal investigator); Gary Groot, Pamela Miers, Nick Antonyshyn, Laura Hopkins, Lynn Dwernychuk and others	2024-2026	$100,000 plus $76,000 donor fund
Understanding the biological drives of poor prognosis of triple-negative breast cancer patients with abnormal MRI findings.	College of Medicine Research Awards	Mita Manna (principal investigator); Hui Wang and M. Dean Chamberlain	2025-2026	$30,000
Effect of adjunct dexamethasone on insulin resistance and its correlation with outcomes in women with early stage breast cancer	Saskatchewan Cancer Agency	Osama Ahmed (principal investigator), Rabia.K.Shahid (co-principal investigator), Shahid Ahmed, Haji Chalchal, Lynn Dwernychuk, Nassrein Hussein, DucLe, Prosonta Mondal	2022-2026	$113,126
Adolescent and Young Adult Oncofertility Screening in the Cancer System	CPAC Grant	Paul D'Alessandro (principal investigator); Mita Manna	2024-2025	$100,000
Empower breast cancer patients with diabetes by understanding their needs and creating a pathway that improves their care, treatment experience and diabetes management during cancer treatment	Women Leading Philanthropy Grant, Royal University Hospital Foundation	Rabia Shahid (principal investigator); Shahid Ahmed and others	2024-2026	$100,000
Investigation of New-Onset Hyperglycemia, Glucose Variability, and Their Association with Hemoglobin A1c and Serum Fructosamine in Breast Cancer Patients Undergoing Treatment	College of Medicine Research Award, University of Saskatchewan	Rabia Shahid (principal investigator), Shahid Ahmed (co-principal investigator), Osama Ahmed, Mita Manna	2025-2026	$29,815
Systemic Therapy with a Loco-regional Treatment in Patients with Locally Advanced Pancreatic Cancer: The SMART Study	Saskatchewan Cancer Agency	Shahid Ahmed (principal investigator), Michael Moser (co-principal investigator), Deborah Anderson, Haji Chalchal, Lynn Dwernychuk, Josh Gitlin, Austin Hammond, Mussawar Iqbal, June Lim, Nazmi Sari, John Shaw, Osama Souied, Christopher Wall and Adnan Zaidi (co-applicants)	2020-2026	$199,570

RESEARCH GRANTS (ACTIVE/RECIEVED IN 2025)

Funded Research Grants	Organization Funding Received From	Researchers	Award Period	Total Amount Awarded
Patient Navigation Model for Rapid Diagnosis of Upper Gastrointestinal Cancer	CPAC	Shahid Ahmed (principal investigator), Groot, G. Irvine, J., Shaw, J., Laxdal, E., Bharadwaj, S., Gitlin, J., Moore, J., Haimanot, S., Shahid, R., Zaidi, A	2024-2026	$562,379
Conversion From Unresectable To Resectable Liver Metastases In Patients With Liver-Only Metastatic Colorectal Cancer Treated With FOLFOXIRI Plus Bevacizumab. The Conversion Trial.	Canadian Institute of Health Research	Shahid Ahmed (principal investigator); Raj Rakheja, Lynn Dwernychuk, Franco Vizeacoumar, June Lim, Adnan Zaidi, Haji Chalchal and others	2019-2026	$100,000
Enhancing the Quality of CLL patient Care Using Optical Genomic Mapping and Minimal Residual Disease Monitoring	Saskatchewan Cancer Agency	Shruthi Ganeshappa Kodad (principal investigator); John DeCoteau, Mark Bosch, Mohamed Elemary	2023-2026	$102,852
Investigating minibeam radiation therapy for hepatocellular carcinoma	Saskatchewan Cancer Agency	Vijayananda Kundapur (principal investigator)	2024-2026	$137,534
Exploring DDX41 synthetic lethality in MDS / AML	Cancer Research Society / The Leukemia & Lymphoma Society of Canada	Yuliang Wu (principal investigator), Franco Vizeacoumar, Mark Bosch	2023-2025	$100,000

While every effort has been made to ensure completeness, some grants may be missing.

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While every effort has been made to ensure completeness, some publications may be missing.



Dr. Kimberly Hagel (MD), Assistant Professor Medical Oncology.
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