

Trinity Western University Strategic Research Plan Objectives

Trinity Western University's Strategic Plan: ["TWU 2030: Every Graduate Equipped"](#) identifies several priority areas that involve the permeation of research and scholarly activity into the activities of students, faculty and staff. Within TWU's previous Strategic Research Plan, one of the goals was to "build a campus research culture" which will continue to be a focus along with several research areas where we aim to expand that will be discussed in the Research themes. Therefore, over the next seven years, TWU will aim to continue to grow its research culture by providing facilities, opportunities, specialized equipment, library resources, research security, data management, celebration and publication of faculty/student research that facilitate an excellent, collaborative, innovative environment to meet the following **Objectives**:

Obj 1. Lead the discussion with students, academics and the general community on faith integrated research and the distinctiveness of research at a Christian University. TWU aims to be a leader in the area of faith integrated research supporting our Mission and Vision by supporting and helping to guide TWU researchers' integration of faith into their research program. Similar to other universities, students will receive training from faculty supervisors in research methods and theories, experimental techniques, quantitative and qualitative research, digital literacy, data management and analysis. However, the additional dimension of research at TWU, being a small Christian liberal arts university, is that students will work directly with their faculty principal investigator to understand the distinctiveness of Christian researchers. As part of this objective TWU will aim to generate additional opportunities for students and faculty to integrate their faith into their research.

Obj 2. Develop orientation/development programs, opportunities and knowledge mobilization for undergraduate/graduate student research. TWU already has robust undergraduate research programs and will aim to create further opportunities for both undergraduate and graduate research through increasing support to faculty extramural grant writing for grant opportunities that fund the hiring of graduate and undergraduate student research assistants. We will also develop programs to stimulate additional involvement of students in classroom research, creation of student peer research networks and research orientation programs aimed at helping incoming undergraduate/ graduate students understand the value of including research experiences as part of their programs.

Obj 3. Increase research collaboration within the University and with other institutions, government, industry and NGOs to raise the profile and reach of research at TWU and to provide applied research experience to faculty and students. Working with external partners grows the professional network, expands the experience, and broadens the impact of academic research, while driving growth and innovation for the external partner. Interdisciplinary collaborative research aiming to address challenges that face local and global communities through the formation of external partnerships is a priority for researchers at TWU. TWU will increase programs for shepherding faculty to develop their research profile and create lasting connections in addition to improving communication with potential industrial partners as a means to develop relationships and provide additional experiential learning opportunities for students. Faculty will be aided in the development of rapport, identifying goals and expectations, adaptation to industrial culture and involving students in applied research projects with external partners.

Obj 4. Continue to grow Research Institutes and Centres into centres of research excellence. TWU has a number of research Institutes and Centres in a diverse array of research areas that reflect our Research Themes in the Strategic Research Plan. One of the strengths of a smaller university such as TWU, is the ability to readily form cross-faculty collaborations. In alignment with our Research Theme in Health and Human Flourishing, we hope to add one additional Centre for Health & Human Performance that reflects our research growth and formation and recent renovation of the CFI funded Integrative Cardiovascular Physiology Laboratory. We will also aim to add another Institute/Centre focused on sustainability and care for our environment which reflects our research theme entitled "The Environment, Sustainability and Spirituality" and our current growth in the research areas of developing a circular economy and planetary health.

Obj 5. Increase inclusive excellence in research and research opportunities. TWU will work to advance responsive research programs on inclusive excellence and to develop an inclusive culture of innovation that engages research trainees and faculty from diverse fields and backgrounds. Inclusive excellence will be integrated into research awards assessment for faculty such as the internal grants competition and into the internal assessment of student awards such as the Undergraduate Student Research awards and the Canadian Graduate Scholarships. Through faculty training in best EDI practices, inclusive excellence will be considered both in building a diverse high performing research team, and at each point in the research process including research plans, research subjects and research impact.

Research Themes

Religion, Culture, and Ethics: Religion, culture, and ethics are integral components of human identity and societal organization, influencing individual behaviors, communal practices, and moral reasoning. While religion often serves as a foundational framework for ethical principles, culture frames and shapes the expression of these principles within specific social contexts. Recently, religions' role in shaping society and culture has become an important area of study particularly in the humanities and social sciences. By questioning the premise that healthy human development occurs only with the demise of religion, critics are moving beyond facile oppositions of faith and reason, or religion and secularism, and are instead developing more complex assessments of religions' role in modern societies. Increasingly, an important focus of scholarly inquiry in the academy is the positive role religious belief plays in humans' ability to flourish socially, to develop ethical values, to protect human rights, and to demonstrate solidarity with the marginalized. In light of this renewed recognition that religion remains an integral part of human identity for the majority of the world's population, scholars are examining the potential benefits of religion and religious diversity both in modern secular societies and in more traditional religious communities. At the same time, many religious leaders are trying to rearticulate their faiths for secular societies whose institutions and administrative structures usually operate without reference to religion. On account of its established research record together with strategically developed institutes, Trinity Western University is well positioned to be a leading research centre for religion, culture, and ethics. This research theme is supported by two upcoming endowed chairs in New Testament and Theology as well as multiple centres and institutes such as the Religion in Canada Institute, Gender Studies Institute, the Dead Sea Scrolls Institute, the John William Wevers Institute for Septuagint Studies, the Inklings Institute of Canada, and the Anabaptist-Mennonite Centre for Faith and Learning.

Truth and reconciliation through Indigenous Research: TWU as a Christian university upholds truth, justice and reconciliation. The Institute of Indigenous Issues and Perspectives located at TWU offers the university and surrounding community a distinctive association to assist with community engagement, bridge-building and provides cross-cultural education between Indigenous and non-Indigenous society. Through the Institute and beyond, TWU promotes the holistic nature of research as being cross-disciplinary, practical, and project-based. Facilitating research under this theme involves the development of collaborative, interdisciplinary approaches to Indigenous research, bringing together individuals in a creative manner in dialogue to reconcile settler society with Indigenous peoples. Research is rooted in the principles of self-determination, cultural revitalization, and decolonization. Topics encompass a diverse range of areas including identity, spirituality, health and wellbeing, post-colonialism, Indigenous ways of knowing, being and doing, land rights, education, language revitalization, and economic development. Community-based research methodologies that involve meaningful engagement with Indigenous communities are prioritized throughout the research process. Research protocols and methodologies require cultural sensitive of and respect for Indigenous ways of knowing, being, and doing. Research is catalyzed through collaborative partnerships between researchers, Indigenous communities and other stakeholders to co-design and co-implement research initiatives. Active participation of undergraduate and graduate students in research projects, particularly the involvement and input of Indigenous students as well as Indigenous staff and faculty from the TWU campus and other surrounding educational institutions is highly encouraged and supported. The development of relationships, learning, and mutual understanding is key

to knowledge creation and knowledge mobilization to engage in research that honours Indigenous ways of knowing, being, and doing. As well as the Institute of Indigenous Issues and Perspectives, this theme is supported by the Centre for Equity and Global Engagement and a Michael Smith Scholar in “Responding to the Truth and Reconciliation Calls to Action in Healthcare through the Arts as a Way of Knowing, Disrupting, and Healing”.

Social Justice and Inclusive Excellence: At TWU, research in social justice and inclusive excellence encompasses a broad range of interdisciplinary studies. Social justice and inclusive excellence are interconnected concepts that have recently gained increasing recognition owing to the importance of understanding and addressing systemic inequalities and discrimination across various domains such as education, employment, healthcare, and housing. Areas explored under this theme include racial equity, ageism, indigenous rights, poverty, gender, geographic and economic disparity. Studies examine the role of government policies, laws, and institutional practices in perpetuating or addressing social injustice and inequity. The research under this theme also plays a pivotal role in promoting equitable societal structures and is built upon the foundation of the golden rule of Christ: “So in everything, do to others what you would have them do to you, for this sums up the Law and the Prophets” (Matthew 7:12 NIV). Inclusive excellence is not just about the feeling of belonging by diverse peoples but also the inclusion of diverse ideas which creates an overall stronger society. Similar to all of TWU’s research themes, many of the research challenges to be addressed under this theme are complex and multi-faceted. Therefore, research under this theme requires an inter-disciplinary approach, collaboration and diverse expertise including sociology, psychology, education, healthcare, business, and the arts. The research also utilizes diverse methodology, including community-based research, quantitative research, qualitative research, case studies and participatory action research. This Theme is supported by the Centre for Equity and Global Engagement, the Institute of Indigenous Issues and Perspectives, the Gender Studies Institute, and the TWU Office of the Vice President of Inclusive Excellence. Research under this theme is also supported by a Michael Smith Scholar in “Responding to the Truth and Reconciliation Calls to Action in Healthcare through the Arts as a Way of Knowing, Disrupting, and Healing”, a Tier 2 CRC in “Cardiovascular Adaptation to Exercise” and a Tier 1 CRC in “Equitable People-Centred Health Measurement”.

Health and Human Flourishing: Recognizing the interconnectedness of physical, spiritual, mental, and social well-being in fostering overall human flourishing, this theme seeks to promote interdisciplinary biological, social, historical, psychological, and cultural research on all aspects of personal and public health. Through this research, we aspire to enhance personal and population health and improve health care services and policies to better address the needs of patients, families, historically marginalized groups, and society as a whole. This theme amalgamates a range of research activities informed by health sciences and related disciplines, including biomedicine, social sciences, psychology, and education. While traditional medicine focuses primarily on physical health, the concept of human flourishing encompasses a broader spectrum, holistic view of well-being, including psychological, social, and existential dimensions. TWU seeks to contribute to innovations that prevent and treat disease, promote patient-centred health care, enhance coping skills, and lead to greater inclusion and well-being for persons with disabilities. We endeavor to develop and integrate knowledge about broader historical and structural factors such as class (income and education), gender, ethnicity, and spirituality in relation to health and human flourishing. An integral focus of the research is to actively engage the public and service providers (including health care professionals) through the co-creation of knowledge translation and education strategies. This Theme is supported by the Centre for Equity and Global Engagement and upcoming Centre for Health & Human Performance. Research under this theme is also supported by a Michael Smith Scholar in “Responding to the Truth and Reconciliation Calls to Action in Healthcare through the Arts as a Way of Knowing, Disrupting, and Healing”, a Tier 2 CRC in “Cardiovascular Adaptation to Exercise” and a Tier 1 CRC in “Equitable People-Centred Health Measurement”.

Arts-Driven Innovation, Expression, and Interpretation: This theme encompasses a rich and multifaceted domain that intersects creativity, culture, and societal dynamics. The arts have always been linked to human

flourishing by questioning, expressing, seeking and interpreting what it means to be human. This research theme affirms that the ways human beings come to insight are multiple and that knowledge is not always reducible to discursive language. This theme examines how artistic expression serves as a medium for knowledge creation/mobilization, self-expression, and cultural representation. Collaborative projects between artists and scientists explore scientific concepts through artistic mediums. Use of arts-based methodologies such as storytelling, visual arts and design thinking principles combine to generate innovative knowledge generation and mobilization in various areas including sustainability, indigenization, healthcare and integration of Arts with biblical scripture. Research under this theme also examines the moral and ethical implications of arts, media, and culture such as the moral decision-making by video game players. Through inquiry-based, critical creative practices, insight and understanding arise through visual, auditory, haptic, sensory-perceptual, and textual means. This new knowledge is often marked by methodological complexity, multi-disciplinarity, and collaboration, intertwining the ontological (who we are) and situational (where we are) with the epistemological (what we know). The artists and scholars in this research theme have longstanding performative, practice-led, research-creation, and text-based scholarly practices that are located in the intersections between the arts, media, and society. This Theme is supported by the activities of the School of Arts Media and Culture (SAMC) including the SAMC Gallery and multiple productions as well as the Institute of Indigenous Issues and Perspectives and the proposed Centre for Sustainability. Research under this theme is also supported by a Michael Smith Scholar in “Responding to the Truth and Reconciliation Calls to Action in Healthcare through the Arts as a Way of Knowing, Disrupting, and Healing”.

Ethics, Data Analytics, and Information Technology: In today's rapidly evolving technological landscape, data, analytics, and mathematics form the cornerstone of innovation across various domains, from business and healthcare to education and human kinetics. Research in data analytics, computer sciences and information technology at TWU under this theme aims to address pressing challenges in diverse fields such as healthcare, climate /environmental science, biology, human kinetics, finance and consumer behavior and methodologies aimed at understanding, developing, and applying advanced technologies for collecting, processing, analyzing, and interpreting data to generate insights and support ethical decision-making. Similar to many of TWU's research themes, interdisciplinary linkages are critical such as those between the computer sciences, statistics, mathematics, business and health. This theme is also key for developing interactions between academia and industry. Information is drawn from machine-learning, statistics, mathematics, data mining, digital communication, visualization and mathematical modelling with the goal of informing evidence-based policymaking, understanding complex biological and physical systems, tackling social disparities, and promoting social justice in areas such as consumer protection and emerging workplace cultures, finance, marketing, supply chain management, cybersecurity, smart cities, and environmental monitoring. Research Data Management research focuses on the development of processes that are applied throughout the lifecycle of a research project and beyond. including, data collection, archiving, sharing, preservation, governance, and quality management. Researchers work on exploring the application of predictive analytics and machine-learning algorithms to extract insights from data and make predictions or recommendations as well exploring the impact of technology on society from the perspective of biblical principles. Emerging research areas include artificial intelligence, edge computing, quantum computing, metaverse and augmented reality. This theme is supported by the activities of several researchers such as those in TWU's Computing Science and Mathematics Programs and the Schools of Business and Human Kinetics. Research under this theme is also supported by a Tier 2 CRC in “Cardiovascular Adaptation to Exercise” in the School of Human Kinetics and a Tier 1 CRC in “Equitable People-Centred Health Measurement” in the School of Nursing.

The Environment, Sustainability, and Spirituality: As a Christian university committed to academic excellence and service, our institution recognizes the profound importance of sustainability and creation care within the framework of our faith. Guided by Christian principles of stewardship, justice, and compassion, this research theme is aimed at advancing research broadly in the area of sustainability. More specifically, focusing on research that is generally guided by the United Nations Sustainable Development Goals. The research under this

theme aims to advance knowledge by conducting innovative research that enhances our understanding of environmental challenges and contributes towards global sustainability solutions, while exploring the intersections of faith, ethics, and environmental sustainability. General areas of focus include climate change mitigation, biodiversity conservation, sustainable ecosystems, renewable energy and materials, planetary health, equitable access to resources, and the promotion of policies, practices, and behaviors that support environmental sustainability. Christian perspectives and compassion for those that are most vulnerable to the effects of climate change will be integrated into research exploring the theological, ethical, and spiritual dimensions of environmental stewardship. Understanding the multi-disciplinary approaches that are required to address the research goals described in this theme, TWU will foster interdisciplinary collaboration among researchers, local communities, Indigenous peoples, government, and grassroots organizations to co-create research projects, initiatives, and interventions that address community-specific environmental challenges and priorities. The research informs and supports the assimilation of sustainability and creation care themes into academic curricula across disciplines to educate and equip faculty and students by the provision of training and resources that empower individuals and communities to integrate principles of sustainability into their lives. This Theme is supported by the activities of the Institute of Indigenous Issues and Perspectives, the proposed Centre for Sustainability as well as faculty research activity across multiple disciplines throughout TWU. TWU's commitment starts locally with ecological restoration and conservation projects on our own field study sites in Langley (Ecosystem Study Area and the Blaauw Eco Forest) and Salt Spring Island (Crow's Nest Ecological Research Area).

Allocation of Canada Research Chairs

We successfully nominated for a CRC (Tier 1) in October 2022 and submitted a renewal application for a second term of a CRC (Tier 2) In October 2023. We hope to have at least one more CRC in place during the term of this plan – 1 nomination in Fall 2025 with additional applications if we have growth in our allocation. Where applicable, we will pair CRC nominations with CFI applications to increase our research infrastructure. As new CRC opportunities are allocated to TWU, areas for CRC nomination will be developed through consultation with the President, Provost, Associate Provost Research and Graduate Studies, Deans and the Canada Research Chairs Steering Committee according to our [CRC Reduction and Reallocation Policy](#) and in full alignment with this Strategic Research Plan and [EDI Action Plan](#).

<u>AREA</u>	<u>TIER</u>	<u>DISCIPLINE</u>	<u>AGENCY</u>	<u>THEME</u>	<u>DATES</u>
Equitable People-Centred Health Measurement	1	Nursing	CIHR	Health and Human Flourishing; Social Justice and Inclusive Excellence; Ethics, Data Analytics and Information Technology	2023-2030
Cardiovascular Adaptation to Exercise	2	Physiology	CIHR	Health and Human Flourishing; Social Justice and Inclusive Excellence	2018-2024

Measuring success

We will undertake and assessment of this plan in 5-year cycles employing an analysis of multiple research metrics appropriate to various disciplines. These metrics include publications, grants, honours and numbers of student research trainees. Our assessment will also include creative works and performances, public speaking engagements, hosting and/or charring conferences, presentations at professional meetings and colloquia, patents, licenses, industry and government engagement, commercial start-ups, as well as other indications of public and professional interest. The assessment process will be led by the Office of Research in collaboration with the Academic Research Council and under the direction of Senate, and the Research and Academic Support Subcommittee of Senate (RAS) which will culminate with a report presented to Senate. This report will include a general performance appraisal and recommendations that will be used to aid in writing the next Strategic Research Plan.