College of Medicine Research Themes

The College of Medicine has identified a framework of research themes encompassing four key areas that demonstrate great promise for future growth. Each of the areas is interdisciplinary, and hold vast opportunities for collaborative research between the Academic Pillars: Biomedical Science, Clinical Science, Health Systems & Services, and Population Science. Fostering growth in these essential areas holds potential to transform health research at the U of S, laying the foundation for a vibrant culture of continuing research success.The four areas are purposely broad to be inclusive, but also serve as a way to organize and focus research in the College, allowing us to identify existing strengths, and recognize where there is room to build capacity.

1.

Healthy Living from Conception to Aging

Many conditions that develop later in life have been shown to have been linked to pre-natal and early years health, and a number of common mechanisms can give rise to a broad array of disparate conditions under the influence of genetic, lifestyle, and environmental factors. Therefore, required focus of Healthy Living from Conception to Aging includes committed input of all available resources, from investigation of proteins at the atomic and molecular levels, to the processes that drive disease prevention, development, progress, and therapy.

Recognition of the very early origins of diseases and timely treatments will allow for increased healthy living in our society.

2.

Indigenous Health

Indigenous people are resilient, revitalizing cultures, languages, lands and worldviews that have been suppressed and devalued under the agendas of colonization and globalization. There continues to be a pressing need to collectively redress ongoing health inequities among Indigenous people that are rooted in structural drivers.

The good news: there are abundant opportunities to build innovations in health knowledge attainment and action through engagement with Saskatchewan's Indigenous communities and researchers.

3.

Implementation & Applied Science

Basic, clinical, and population research generates the evidence needed to improve current health care in Canada. Implementation Science is the scientific study of methods to promote uptake of basic science research findings into clinical testing, and evidence-based practices into clinical care, benefitting entire communities.

Implementation Science bridges the gap between evidence, practice, and policy. It calls for inclusion of diversity in variables being measured, allows for application of scientific discoveries into diverse settings, and uses the power of partnerships to implent discoveries into diverse populations.

4.

Digital Health Care & Machine Learning

Some recent challenges faced by medicine are increasing costs, the demographic baby boomer tsunami, and demands for personalized medicine. These factors have led to a generation of "big data", which requires analysis in order to serve Canadian health and populations. Machine Learning uses algorithms to analyze multi-dimensional complex data, and Digital Health will transcend across all areas of medicine, empowering us to better manage and improve our own health.

In a wide-distributed health care system like Saskatchewan, telemedicine offers opportunities for higher quality of care through remote diagnosis and patient management, and improved access to specialists.