VISION:

to establish and mobilize a network drawn from academia, industry, and other not-for-profit research enterprises to maintain and improve Canada’s position as a global leader in developing next generation nanomedicines

MISSION:

to develop novel therapeutics to cure high-burden human diseases and new diagnostics to detect disease more precisely; to commercialize these products to bring health and economic benefits to Canadians, and to train the skilled workforce required by the growing nanomedicines industry

GOALS:

• to develop nanomedicines that enhance the therapeutic properties of small molecule drugs
• to develop nanomedicines that enable gene therapy
• to develop new diagnostics based on nanotechnology
• to train scientists in the technology and business of nanomedicines
• to implement a cohesive nanomedicines IP and commercialization strategy
• to translate nanomedicine products and technologies to benefit partners, new companies, the Canadian economy, and patients worldwide

FUNDING:

NMIN was awarded $18,532,000 in funding over 5 years (2019-2024) by the Government of Canada through the Networks of Centres of Excellence (NCE) Program.

RESEARCH THEMES:

Targeted Drug Delivery (Theme I)

Leaders: Dr. Marcel Bally, University of British Columbia
Dr. Shyh-Dar Li, University of British Columbia

Enabling Gene Therapies (Theme II)

Leaders: Dr. Pieter Cullis, University of British Columbia
Dr. Christian Kastrup, University of British Columbia

Diagnostics (Theme III)

Leaders: Dr. Shana Kelley, University of Toronto
Dr. Gilbert Walker, University of Toronto

CORE FACILITIES:

NANOCORE
Nanomedicines Formulation and Characterization Core Facility

Leader: Dr. Pieter Cullis
University of British Columbia

Co-leader: Dr. Christian Kastrup
University of British Columbia

PHARMACORE
Pharmacology/Toxicology and Scale-up Core Facility

Leader: Dr. Marcel Bally
University of British Columbia

Co-leader: Dr. Shyh-Dar Li
University of British Columbia
RESEARCH INVESTMENTS & NETWORK MEMBERS

The 26 projects in NMIN’s current research investment span 7 member institutions across 5 provinces:

- The University of British Columbia (BC)
- University of Alberta (AB)
- University of Saskatchewan (SK)
- University of Toronto, University Health Network & Queen’s University (ON)
- Polytechnique Montréal (Qc)

Distribution of research investments ($) by Theme

Catalyzing the NANOMEDICINE Revolution

LRD 2021

LIPOSOME RESEARCH DAYS 2021 June 13-16 Vancouver, BC

Keep informed about upcoming events:
https://nanomedicines.ca/events/

ABOUT NMIN’s CORE FACILITIES

NANOCORE
Nanomedicines Formulation and Characterization Core Facility

MISSION: To develop high-quality, state-of-the-art lipid nanoparticles encapsulating small molecule or nucleic acid drugs that enable proof-of-concept (POC) animal studies
To standardize the physicochemical characterization in order to identify critical parameters

Formulation: High-quality, state-of-the-art nanoparticle formulations encapsulating small molecule, peptide or nucleic acid drugs that enable proof-of-concept (POC) animal studies.

Physicochemical characterization: Comprehensive portfolio of characterization assays including sizing & structure analyses that guarantee reliable interpretation of in vitro & in vivo studies & further optimization.

No nanoparticle formulation will enter animal studies in NMIN without being rigorously characterized.

PHARMACORE
Pharmacology/Toxicology and Scale-up Core Facility

MISSION: To help research partners develop promising nanomedicines and provide capabilities to advance new treatments from the bench to the clinic.

Capabilities: Pre-clinical in vitro, pre-clinical pharmacology, GLP-guiding safety, manufacturing

Contacts

NanoCore  Dominik Witzigmann | Admin Lead | dominik.witzigmann@ubc.ca
PharmaCore  Nancy Dos Santos | Admin Lead | ndossantos@bcrc.ca

nanomedicines.ca