VISION:

to establish and mobilize a network drawn from academia, industry, and 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

FUNDING:

NMIN was awarded $18,532,000 in funding over 6 years (2019-2025) by the Government of Canada through the Networks of Centres of Excellence (NCE) Program.

RESEARCH THEMES:

Targeted Drug Delivery (Theme I)

Leaders: Drs. Marcel Bally & Shyh-Dar Li
University of British Columbia

Enabling Gene Therapies (Theme II)

Leaders: Drs. Pieter Cullis & Christian Kastrup
University of British Columbia

Diagnostics (Theme III)

Leaders: Drs. Warren Chan & Gilbert Walker
University of Toronto

CORE FACILITIES:

NANOCORE: Nanomedicines Formulation & Characterization

Leaders: Drs. Pieter Cullis & Christian Kastrup
University of British Columbia

PHARMACORE: Pharmacology/Toxicology & Scale-up

Leaders: Drs. Marcel Bally & Shyh-Dar Li
University of British Columbia

eHTA: An early Health Technology Assessment platform

Leader: Dr. Larry Lynd
University of British Columbia
**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

**eHTA**
**An early Health Technology Assessment platform**

**Mission:** To enhance the value propositions of NMIN-funded technologies to healthcare payers by conducting early evaluations of their cost-effectiveness.

**Capabilities:** Cost-effectiveness analysis; target product profile development; societal impact assessment; bottom-up market sizing for business plans; strengthening reimbursement dossiers