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.

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: 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
PARTNERS
Total partner organizations: 73

By country
- Canada 57 | 78%
- USA 10 | 13.5%
- Germany 2 | 2.5%
- Denmark 1 | 1.5%
- Ireland 1 | 1.5%
- Switzerland 1 | 1.5%
- United Kingdom 1 | 1.5%

By sector
- Federal Agencies 2 | 3%
- Other 6 | 8%
- Hospitals etc. 6 | 8%
- Non-Profits 8 | 11%
- University 16 | 22%
- Industry 35 | 48%

HQP (working on NMIN projects)
Total NMIN HQP: 97

By level
- Research staff 34%
- UnderGrad 3%
- Masters 9%
- PhD 27%

By gender
- 56% Female
- 44% Male

By nationality
- 63% Canadian
- 37% International

HQP = Highly Qualified Personnel

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
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- PharmaCore: Nancy Dos Santos | Admin Lead | ndosantos@bcrc.ca

nanomedicines.ca

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