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: Dr. Shana Kelley & Gilbert Walker
University of Toronto

CORE FACILITIES:

NANOCORE
Nanomedicines Formulation and Characterization Core Facility
Leaders: Drs. Pieter Cullis & Christian Kastrup
University of British Columbia

PHARMACOCORE
Pharmacology/Toxicology and Scale-up Core Facility
Leaders: Drs. Marcel Bally & Shyh-Dar Li
University of British Columbia

Total NMIN investigators: 46 | Total NMIN-funded PIs: 25
Total collaborators: 48 | Total NMIN researchers: 94

The 32 projects in NMIN’s current research investments span 8 member institutions across 5 provinces.

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

Total current NMIN research investments: $6,545,584
PUBLICATIONS
from NMIN-funded research
1 April 2019—31 March 2021

Peer-reviewed articles in refereed journals 22
Other published contributions including editorials, commentary, review articles, webinars... 168
Specialized publications including scientific meeting presentations, abstracts, academic theses... 133
Posters 35
TOTAL 358

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.

PHARMA CORE
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 Dr. Dominik Witzigmann | Operational Lead | dominik.witzigmann@ubc.ca
PharmaCore Dr. Nancy Dos Santos | Operational Lead | ndossantos@bccrc.ca

HQP (working on NMIN projects)
Total NMIN HQP: 160
By level
Research staff 29%
Postdoctoral Fellows 23%
UnderGrad 7%
Masters 11%
PhD 27.5%
MD/PhD 1%
New professionals 2.5%
By gender
57.5% 42.5%
By nationality
61% 39%