**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 $19,125,024 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
### PUBLICATIONS
from NMIN-funded research
1 April 2019—31 March 2021

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<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
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<tbody>
<tr>
<td>Peer-reviewed articles in refereed journals</td>
<td>22</td>
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<tr>
<td>Other published contributions including editorials, commentary, review articles, webinars...</td>
<td>168</td>
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<tr>
<td>Specialized publications including scientific meeting presentations, abstracts, academic theses...</td>
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<td>Posters</td>
<td>35</td>
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<td><strong>TOTAL</strong></td>
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</table>

### 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

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**HQP (working on NMIN projects)**

**Total** NMIN HQP: **168**

- **By level**
  - Research staff: 29%
  - Masters: 11%
  - PhD: 27%
  - Postdoctoral Fellows: 20%
  - New professionals: 5%
  - UnderGrad: 8%
  - MD/PhD: 1%

- **By gender**
  - Female: 56.5%
  - Male: 43.5%

- **By nationality**
  - Canada: 79% (79)
  - USA: 14% (14)
  - Germany: 2% (2)
  - Belgium: 1% (1)
  - Denmark: 1% (1)
  - Ireland: 1% (1)
  - Switzerland: 1% (1)
  - United Kingdom: 1% (1)
  - Other: 12% (12)

**PARTNERS**

**Total partner organizations:** **100**

- **By country**
  - Canada: 79 (79)
  - USA: 14 (14)
  - Germany: 2 (2)
  - Belgium: 1 (1)
  - Denmark: 1 (1)
  - Ireland: 1 (1)
  - Switzerland: 1 (1)
  - United Kingdom: 1 (1)

- **By sector**
  - Federal Agencies: 5% (5)
  - Non-Profits: 8% (8)
  - Hospitals: 9% (9)
  - Other: 12% (12)
  - University: 26% (26)
  - Industry: 40% (40)