



NANOMEDICINES INNOVATION NETWORK  
RÉSEAU D'INNOVATION NANOMÉDECINES

FAST  
FACTS

**Scientific Director & CEO**

**Dr. Gilbert Walker**  
Professor, Chemistry,  
University of Toronto

**Associate Scientific Director**

**Dr. Afsaneh Lavasanifar**  
Professor, Pharmaceutical  
Sciences, University of Alberta

**Executive Director**

**Dr. Diana Royce**  
Executive Director, NMIN

**VISION:**

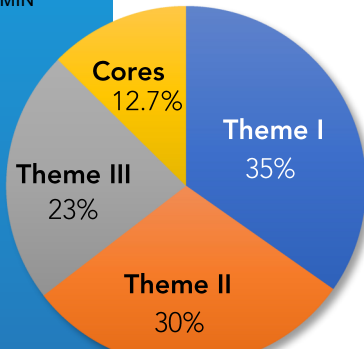
to establish and mobilize a **network** drawn from academia, industry, and not-for-profit research enterprises to maintain and improve Canada's position as a **global leader in developing next generation nanomedicines**

**MISSION:**

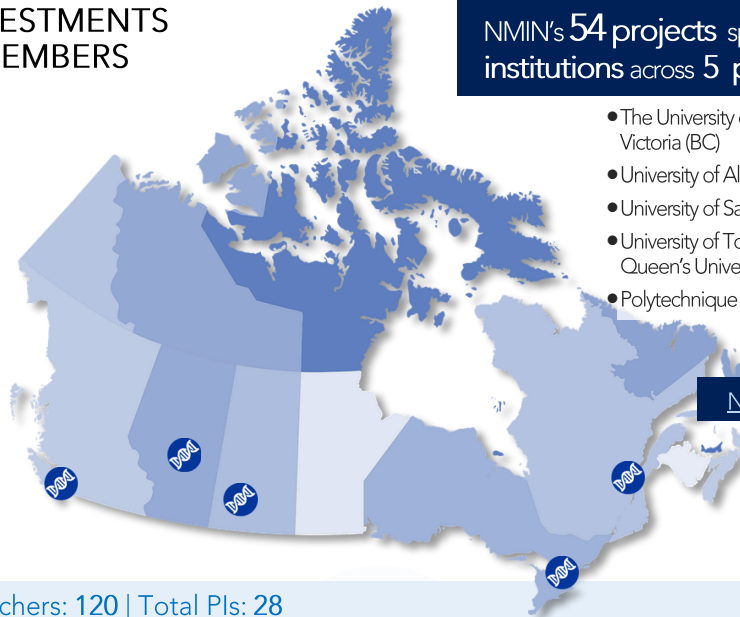
to develop **novel therapeutics** to cure high-burden human diseases and **new diagnostics** to detect disease more precisely; to commercialize these products to **bring health and economic benefits to Canadians**; and to train the skilled workforce required by the growing nanomedicines industry

**FUNDING:** NMIN was awarded **\$19,125,024** in funding over **5 years (2019-2024)** by the Government of Canada through the Networks of Centres of Excellence (NCE) Program.

**RESEARCH INVESTMENTS  
& NETWORK MEMBERS**



Distribution of research investments (\$) by Theme



NMIN's **54** projects span **10** 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; University of Waterloo (ON)
- Polytechnique Montréal; Université Laval (QC)

[NMIN's project database](#)

Total current NMIN research investments

**\$13,730,085**

Total NMIN researchers: 120 | Total PIs: 28  
Total collaborators: 74

**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 & Michel Meunier**  
University of Toronto

**IMPACTS & OUTPUTS (2019-2022):**

**248** trainees engaged  
**76** peer-reviewed publications  
**25** jobs created  
**24** pre-clinical technology dossiers  
**8** IP outputs  
**8** patents filed  
**6** spin-off companies  
**2** invention disclosures

**NMIN**

The University of British  
Columbia  
Vancouver, BC  
Canada

[info@nanomedicines.ca](mailto:info@nanomedicines.ca)

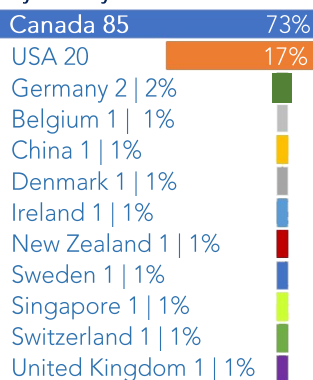
<https://nanomedicines.ca/>

@NMIN\_NCE

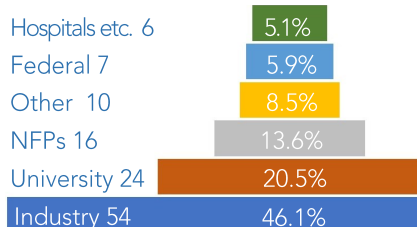
## PARTNERS 2022

Total partner organizations: 117

By country



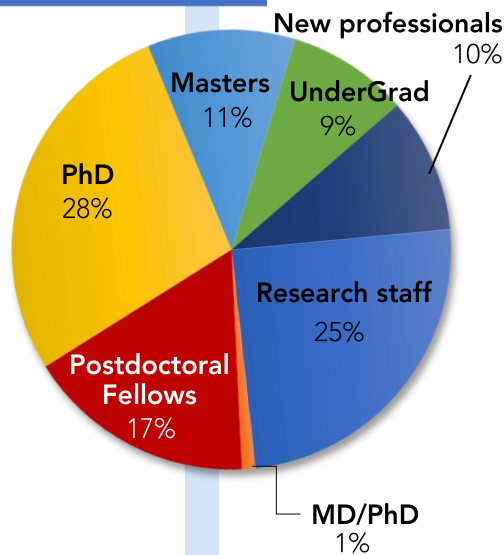
By sector



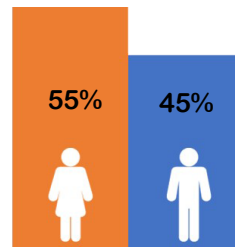
## HQP 2022

Total HQP engaged in NMN research: 212

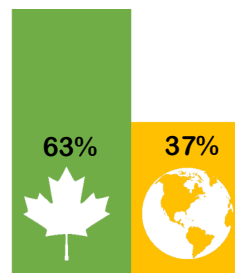
By level



By gender



By nationality



HQP =  
Highly Qualified Personnel

## PUBLICATIONS

from NMN-funded research  
1 April 2019—31 March 2023

Peer-reviewed articles in refereed journals	76
Other published contributions including posters, editorials, commentary, review articles,	355
Specialized publications including scientific meeting presentations, abstracts, academic theses...	255
<b>TOTAL</b>	<b>686</b>

## NMN's CORE FACILITIES

### NANOCORE

*Nanomedicines Formulation and Characterization Core Facility*

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

**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 NMN without being rigorously characterized.*



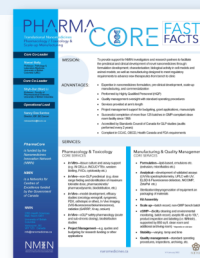
### PHARMACORE

*Pharmacology/Toxicology and Scale-up Core Facility*

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

**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

*early Health Technology Assessment platform*

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

**Mission:** To enhance the value propositions of NMN-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



### Contacts

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#### eHTA

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