



March 2021

Despite the challenges presented by the COVID pandemic, NMIN successfully concludes its second year of operations on 31 March 2021.

NMIN investigators working across 29 projects and two legacy platforms—spanning seven member institutions across five provinces and representing an investment of \$6,355,585—are generating new knowledge, publications, presentations, and nascent spin-off companies at a rate exceeding expectations.

NMIN's HQP program has effectively pivoted to achieve its networking, capacity-building and science-sharing objectives by leveraging online technologies to deliver a range of value-added professional development programs over the past year.

In addition, research by NMIN investigators and associated spin-off companies have significantly contributed to global efforts to end the COVID-19 pandemic. NMIN investigators are providing leadership to Canada's response to this pandemic and future Network research investments will contribute to the development of diagnostic and therapeutic technologies to ensure Canada and the world are better prepared for the inevitability of future pandemics.

NMIN's research and capacity building efforts, and its contributions to the development of a scalable, Canadian nanomedicines ecosystem in partnership with organizations like NanoCanada, are proving more relevant and impactful than ever!

Dr. Diana Royce, Ed.D.
Executive Director, NMIN

NMIN Research & KTEE

NMIN's KTEE/Commercialization Support Program offers NMIN researchers up to \$50,000 in Strategic Initiatives funding and access to specialized consulting services to advance their commercialization and/or knowledge mobilization activities stemming from NMIN-funded research projects.

[READ MORE](#)

A Theme III: Diagnostics workshop will be held on 1 April 2021 with the participation of Theme III PIs, their trainees, and NMIN Research Leaders, to discuss research plans and progress. Similar workshops will be held soon with Themes I: Targeted Drug Delivery and II: Gene Therapy.

Theme II Accelerator: Under the supervision of Dr. Christian Kastrup at UBC, Dr. Valentina Francia will work as a Postdoctoral Fellow with Theme II: Gene Therapy researchers to increase the dissemination and accelerate the commercialization potential of research results.

IP disclosure and NMIN attribution: NMIN's Executive Director and Research Manager are meeting with NMIN PIs regarding project results, emerging commercialization opportunities and the Network's IP disclosure and attribution policies and procedures.

If you have IP arising from your NMIN-supported project, please disclose to NMIN's Executive Director at the same time your institution is informed. In addition, see NMIN's [Attribution Guidelines](#) regarding appropriate recognition of NMIN's contributions in project-related publications and presentations.

RESEARCHER NEWS

Scientific Director stepping down: NMIN's founding Scientific Director and CEO, Dr. Pieter Cullis, is stepping down from these roles effective 30 June 2021. He will remain a research co-leader for Theme II: Gene Therapy. A process for identifying a successor to Dr. Cullis is underway.

[READ MORE](#)

NMIN launches new online IP/patenting tools

New interactive tools help researchers navigate the complexities of intellectual property (IP) management.

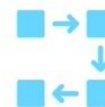
Patenting: what's involved?

Best practices in IP protection

A step-by-step guide

Start here

or view the [timeline](#)



NMIN's three interactive tools take you step-by-step through the processes of deciding if you are in a position to pursue a patent for your IP; determining if you have Freedom to Operate (FTO); and filing a patent—three fundamental components of IP management.

[READ MORE](#)

These tools were developed in collaboration with Wendy Lamson, Partner and Patent Agent, Perley-Robertson, Hill and McDougall.

[Let Wendy tour you through their use:](#)

Best practices in IP management: Introducing NMIN's Step-by-Step Guide

Wendy Lamson
Partner and Patent Agent
Perley-Robertson, Hill & McDougall

More NMIN Researcher News...

NMIN researchers recognized: The [Controlled Release Society \(CRS\)](#) is recognizing Dr. Christine Allen with the 2021 *Women in Science Award* and Dr. Pieter Cullis with the 2021 *Founders Award*. These awards will be presented at the CRS 2021 Annual Meeting.



NMIN researchers publish Op-Ed on research funding policy: On 10 March 2021, NMIN researchers Drs. Shana Kelley and Pieter Cullis published an Op-Ed in the *Hill Times* arguing that increased support is needed for high-risk, high-reward scientific research to safeguard Canada's health security.

[Read the Op-Ed](#)

A company established by NMIN researcher Dr. John Lewis has developed a new DNA-based COVID-19 vaccine: Edmonton-based Entos Pharmaceuticals has developed a new DNA-based vaccine for COVID-19 that is expected to enter Phase 1 clinical trials soon.

[READ MORE](#)

NMIN researcher Dr. Shana Kelley hosts Pan-Canadian Showcase of Biomedical Innovation through the University of Toronto-based Precision Medicine initiative (PRiME). The 22 February 2021 event focused on efforts coast-to-coast that are bolstering Canada's national biotech ecosystem.

[View the event videos](#)

NMIN researcher Dr. Shana Kelley and colleagues design molecular pendulum sensors to track and monitor disease: the reagentless format is ideal for the development of simple, low-cost handheld devices, and new wearable and implantable sensors.

[READ MORE](#)

NMIN LECTURE SERIES LAUNCHED

The *NMIN Lecture Series* was launched on 23 February with NMIN Scientific Director Dr. Pieter Cullis delivering the inaugural lecture to 253 attendees. View the lecture [here](#).



NMIN Lecture Series

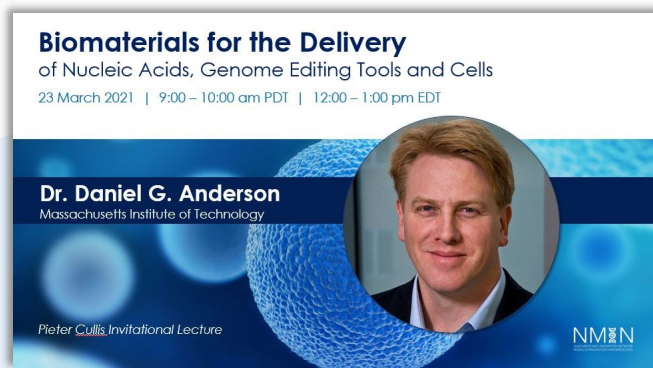
If I Wasn't a Scientific Entrepreneur

We Wouldn't Have Enabled the Pfizer/BioNTech COVID-19 Vaccine

Dr. Pieter Cullis
Scientific Director & CEO, The NanoMedicines Innovation Network
Professor, Department of Biochemistry & Molecular Biology, The University of British Columbia

23 February 2021
9:00 am – 10:00 am PST

The *Pieter Cullis Invitational Lecture Series* was launched on 23 March with Dr. Daniel G. Anderson (MIT) delivering the inaugural lecture to 128 attendees.



Biomaterials for the Delivery
of Nucleic Acids, Genome Editing Tools and Cells

23 March 2021 | 9:00 – 10:00 am PDT | 12:00 – 1:00 pm EDT

Dr. Daniel G. Anderson
Massachusetts Institute of Technology

Pieter Cullis Invitational Lecture

COMING UP

The next *NMIN Lecture* will be held 12 April 2021, featuring NMIN researcher Dr. Warren Chan discussing *The nanoparticle biological identity & protein corona: Challenges, opportunities, & future research directions*.

[More information & registration](#)



NMIN Lecture Series

The nanoparticle biological identity & protein corona

Challenges, opportunities, & future research directions

Dr. Warren Chan
Professor, Canada Research Chair in Nanobiotechnology & Director, Institute of Biomedical Engineering (IBME), University of Toronto

12 April 2021
1:00 – 2:00 pm PDT



Investing in Canada's Nanomedicine Ecosystem

A NanoCanada - NMIN Workshop
March 19, 2021 | 1:30 – 4:00 pm EDT | 10:30 am – 1:00 pm PDT

Pieter Cullis, Marie D'Iorio, Stéphane Gagné, Ronda Gosselin, Lloyd Jeffs, Lakshmi Krishnan, John Lewis, Thomas D. Madden, Trina Racine, Diana Royce, Nuzhat Tam-Zaman

NanoCanada NMIN

On 19 March 2021, NMIN co-organized a workshop in partnership with NanoCanada to explore new market potential in the Canadian nanomedicine ecosystem.

The event featured keynote presentations by NMIN Scientific Director and CEO Dr. Pieter Cullis and NMIN researcher Dr. John Lewis, as well as concluding remarks by NMIN Executive Director Dr. Diana Royce.

[View the event video](#)

NMIN INVESTS IN STRENGTHENING COMMUNICATION SKILLS NETWORK-WIDE

Connect & Communicate with Confidence: Four workshops, conducted January through March 2021, offered tips for delivering more effective presentations and graphic design techniques to increase the impact of visual communication tools.

Resources, including C3 workshop slides, handouts and webinar recordings, are available through NMIN's HQP and Events Coordinator. For access, contact: leahgraystone@nanomedicines.ca

HQP Research Presentation Series gives HQP the opportunity to present their NMIN research projects and develop their presentation skills.

Participants who present a poster are eligible for a Travel Award and earn four credits towards NMIN [Advanced Training Certification \(ATC\)](#).

[More information](#)

NanoMedicines Translated program engages NMIN HQP in hands-on learning to produce clear-language summaries of their NMIN-supported, peer-reviewed research publications.

[More information](#)

Join us 31 March 2021 for a related webinar: [Preparing Clear-language Research Summaries](#)

NMIN's Highly Qualified Personnel (HQP) Program

Advanced Training Certification (ATC)

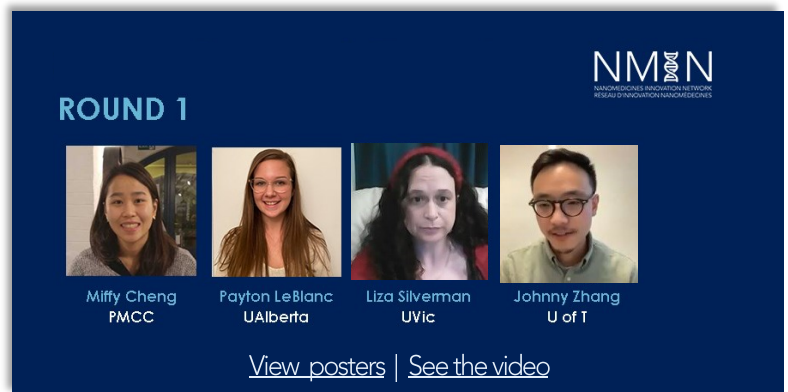
NMIN Advanced Training Certification (ATC) recognizes trainees' engagement in diverse capacity-building activities organized by NMIN, its partners, and/or other recognized organizations, where the learning goes "above and beyond" training conventionally provided in an academic program and supports the formation of a well-rounded professional.

As a qualification on one's CV, NMIN ATC provides a competitive advantage by formally recognizing national-level network experience as well as training and experiential learning across a range of professional and interpersonal skills.

[More information](#)

HQP Research Presentation Series launched

The first round of this series highlighting NMIN research and the presentation skills of NMIN HQP took place on 25 March 2021.



HQP AWARDS



Congratulations to NMIN HQP

- Valentina Francia and Qurrat UI Ain (both of The University of British Columbia) on receiving 2021 *Controlled Release Society - Canadian Chapter Trainee Travel Awards*.
- Amy Wong Strilchuk (PhD Candidate, Kastrup Lab) and Dr. Hashem Etayash (Postdoctoral Fellow, Hancock Lab) on receiving 2021 *Centre for Blood Research (CBR) Travel Awards*.



GROWTH THROUGH COLLABORATION

NMIN is pleased to share the following testimonial by one of its inaugural PostDoctoral Fellowship awardees.

"NMIN introduced me not only to the diverse research going on in other universities in Canada but also research being conducted in pharma/biotech industries.

"Being an NMIN HQP has exposed me to unmatched recognition in the field of nanomedicine drug delivery and vastly influenced my professional network.

"I received the Inaugural NMIN Postdoctoral Fellowship Award which gave me the exceptional opportunity to add momentum to my research and develop professional partnerships with other organizations.

"Due to NMIN, I am able get in touch with other professionals not only in a collaborative capacity but also to resolve any technical difficulties that I face during my research activities.

"The collaborative nature of NMIN has facilitated my communication with our collaborators at Vido-Intervac and enabled me to take advantage of their research expertise into various areas of my research.

"I was especially able to acquire practical hand-on training in the labs at Vido and improve my technical proficiency."

Noorjahan Aibani
NMIN PDF in
Targeted Drug Delivery

