

MESSAGE FROM THE PRESIDENT



THE RNA CANADA ARN TEAM IS GROWING AND SHOWING ITS STRENGTH AT THE 2024 RNA SOCIETY MEETING

Dear Members of RNA Canada ARN,

As we welcome the autumn season, I am thrilled to update you on the substantial progress RNA Canada ARN has made, transforming into a robust structured organization with clear objectives. Our board of directors has delineated our mission into four strategic aims, each designed to foster growth and stability.

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Our Strategic Aims and Accomplishments:

- **Public Recognition:** Our outreach committee has solidified our newsletter's structure and ensured its archival on our website. Publications highlighting our initiatives are set to appear in Biochemistry and Cell Biology and the Hill's Times this month. We're also amplifying our digital footprint through planned press releases and a robust social media campaign, coinciding with our upcoming meeting in Ottawa.
- **Service Offer Development:** Our service development is tailored to support and enhance RNA research capabilities across Canada. Initiatives like advanced training programs in cutting-edge techniques are set to launch in 2025, aiming to empower research labs across academia. The industry liaison committee is also creating vital connections with the industry stakeholders, facilitating collaborations and recognizing significant discoveries.
- **Financial Sustainability:** The vitality of RNA Canada ARN relies on sound financial health. Our organization, driven by the hard work of volunteer researchers, requires professional support to maintain and expand our services. This includes technical expertise for developing online resources, fundraising, and managing communications. To this end, we have initiated an ambitious fundraising strategy that has already yielded \$15,000 from industry contributions. We are also in the process of attaining charitable foundation status to issue tax-exempt receipts and have introduced membership fees. These fees are crucial for covering administrative costs and enhancing member services, from communication tools to access to technical resources. Detailed information on membership categories and fees will be released soon by the Membership and Analytics committee.



- **Government Engagement:** Advocating for RNA research at the governmental level is critical. Our efforts are focused on ensuring that researchers in Canada have a voice in funding decisions. We are engaged in continuous dialogue with government officials and are developing a strategic roadmap for RNA research based on collaborative input from our community.

The Path Forward:

The upcoming RNA Canada 2024 meeting starting September 30th is a significant event that promises to further our objectives and strengthen our community's presence in the scientific landscape. I urge you to participate actively, whether by attending, volunteering, or contributing to discussions.

Your Role and Our Future:

The continued growth and impact of RNA Canada ARN hinge on your active participation and support. The implementation of membership fees is a step towards self-sufficiency, allowing us to offer more to our members and to advocate effectively on their behalf. Your contributions, whether through membership fees, donations, or volunteerism, empower us to make real differences in the RNA field and beyond.

I am eager to meet many of you in Ottawa, to engage directly with our vibrant community and to witness firsthand the enthusiasm and dedication that drive RNA Canada ARN forward.

Warmest regards,

Sherif Abou Elela
President, RNA Canada ARN



Dear RNA Canada ARN Members,

RNA Canada ARN is the first Pan-Canadian organization that brings RNA researchers and trainees in academia and industry together into a unified network to enhance collaboration; to facilitate education and training of the next generation of RNA researchers; to inform government about advances in RNA research and to advocate for a coordinated, national RNA research and funding strategy; and to inform and educate the public about the benefits of RNA technologies.

As summarized in Sherif's 'Message from the President', your Executive Committee, Board of Directors, and Standing Committees have been hard at work bringing the goals of RNA Canada ARN to fruition. My sincere thanks to them for their efforts on behalf of all of us.

Here I will focus on a single topic: The introduction of membership fees and formalization of different membership categories.

The Board voted at its April meeting to approve implementation of membership categories and fees, and at its July meeting it approved the specific fees and timeline for implementation of membership registration. These decisions were not taken lightly and involved a great deal of discussion and consultation within and beyond the Board, including with the Membership & Analytics Committee led by Hosna Jabari and Chris Nelson, and the Equity, Diversity & Inclusion Committee led by Michelle Scott and Samer Hussein.

The bottom line is that the Board now feels that sufficient progress has been made in establishing a formal structure for our not-for-profit organization (to which, as mentioned by Sherif, we are in the process of adding charitable organization status), and that we have also made sufficient progress towards beginning to implement our goals in government advocacy, trainee and public education, and establishing connections to industry, that the time is right to formalize the membership categories described in our bylaws (more on these below).



The membership tiers will confer a variety of benefits and the fees have been kept to the minimum level required for effective administration and function of RNA Canada ARN. The categories and benefits are described elsewhere in this newsletter. I note that these fees are professional expenses and can be cited as such if charged to grants or listed on tax returns. Once we achieve charitable organization status, hopefully in the first half of 2025, contributions will also be tax deductible.

With the RNA Canada conference in Ottawa at the end of September, we are poised to show government, funding bodies, stakeholders, and the general public that we will lead the way to empower RNA researchers and trainees for the ultimate benefit of all Canadians.

Please register as members as soon as the rollout begins. Remember that, by joining RNA Canada ARN, you're not just gaining access to resources and savings—you're becoming part of a vibrant community that shapes the future of RNA science and innovation in Canada and beyond. Membership provides unique opportunities for scientific advancement, professional growth, and meaningful community interaction. Whether you're starting your career or are an experienced researcher, RNA Canada ARN has something to offer you. We hope that you'll join!

Howard Lipshitz
Chair, Board of Directors
RNA Canada ARN



Dear colleagues,

RNA Canada ARN is excited to announce our new membership tiers, designed to empower RNA researchers across Canada and beyond. Our offerings cater to various career stages and professional types, providing tailored resources and opportunities to enhance your research, innovation, networking, and professional growth.

Individual Membership Tiers are:

Regular Membership

Eligibility: Principal investigators in academia or industry in Canada, or Canadians abroad

Annual Fee: \$200/year (Multi-year discounts available)

Key Benefits:

- Full voting privileges
- Free access to workshops, webinars, and mentorship programs
- Substantial event discounts
- Opportunity to lead large-scale projects

Trainee Membership

Eligibility: Students and postdoctoral fellows in Canada, and Canadian trainees abroad

Annual Fee: \$60/year (Multi-year discounts available)

Key Benefits:

- Tailored mentorship and career development opportunities
- Further discounts on event registration fees
- Free networking opportunities and thesis work promotion

Associate Membership

Eligibility: Research staff and non-researcher members in academia/industry

Annual Fee: \$75/year (Multi-year discounts available)

Key Benefits:

- Free subscription to RNA Canada ARN Newsletter
- Paid access to networking opportunities and job postings



RNA CANADA ARN ANNOUNCES MEMBERSHIP TIERS FOR 2024-2025



Emeritus Membership

Eligibility: Retired Regular Members

Lifetime Fee: \$150 (one-time payment)

Benefits: Lifetime Associate Member privileges

Join RNA Canada ARN today and become part of a thriving community dedicated to advancing RNA research and biotechnology across Canada! For more information or to sign up, please visit our [website](#) or contact our membership office.

Sincerely,
RNA Canada Membership and analytics Committee



RNA Canada ARN Publication Highlight: [TTF1 control of LncRNA synthesis delineates a tumor suppressor pathway directly regulating the ribosomal RNA genes](#), by Dany S. Sibai, Tom Moss and co-workers at Laval University, Quebec City, Quebec

RNA Canada ARN recently spoke with Dany S. Sibai about his recent research article discussing how a long non-coding RNA controls ribosome biogenesis with links to cancer, recently published in the ***Journal of Cellular Physiology***:



Dr. Dany S. Sibai

Could you summarize your paper for us?



Dr Tom Moss

We study the cellular mechanisms by which cellular growth and cancer are linked to ribosome biogenesis. In this paper we focus on the tumour suppressor p14/19ARF, which in turn regulates ribosomal RNA (rRNA) synthesis by controlling the nucleolar localization of Transcription Termination Factor 1 (TTF1). Importantly, the role played by TTF1 in regulating the rRNA genes and controlling cellular growth has remained unclear. We show that TTF1 regulates the cell's ribosome content and hence cell growth by acting as a “roadblock” to the synthesis of a long non-coding RNA (LncRNA) generated from a promoter upstream of the 47S pre-rRNA gene promoter in mouse and human. The endogenous generation of this noncoding RNA does not induce CpG methylation or gene silencing as previously suggested but acts in *cis* to suppress 47S preinitiation complex formation and hence *de novo* rRNA synthesis in a mechanism reminiscent of promoter interference or occlusion. Taken together, our data delineate a pathway from the tumor suppressor p14/19ARF to the suppression of cell growth via LncRNA-regulation of ribosome biogenesis.

**Why is your paper so cool? What are the important implications?**

The ubiquitous presence of upstream promoter duplications has been recognized for well over 40 years. However, their functions have remained a mystery. This mystery has in large part been resolved by our demonstration that these promoter duplications act to suppress rRNA synthesis, ribosome biogenesis and cell proliferation in response to p14/p19ARF accumulation and the ejection of TTF1 from the rRNA genes. Thus, we provide a “raison d’être” for the existence of promoter duplications on the rRNA genes. More importantly we reveal the mechanistic link between a key tumour suppressor that is deleted in 40% of human cancers, and the control of cell growth. The mechanism of LncRNA-driven promoter occlusion and its control by TTF1 almost certainly also has broader implications for the dynamic regulation of rRNA gene activity in cell and tissue biology and disease that await future investigations.

Thank you, Dany!

Dr. Sibai and Dr. Moss’s manuscript can be accessed [here](#). Dany Sibai is a recent graduate from the lab of Dr. Tom Moss in the Department of Molecular Biology, Medical Biochemistry and Pathology, the Cancer Research Centre and the Oncology division of RC-CHUQ at Laval University.

Research Gate: [Dany Sibai](#) / [Tom Moss](#)



RNA CANADA ARN 2024 EDI WORKSHOP: DR. IMOGEN COE

RNA Canada ARN is very proud and excited to announce that Dr. Imogen Coe (Professor, Toronto Metropolitan University) will be giving a workshop on equity, diversity and inclusion (EDI) principles at the upcoming RNA Canada ARN 2024: The Future of RNA Technology conference (October 5th, 2024).

The workshop will include an overview of EDI principles as well as PI and trainee breakout sessions. It will touch on a wide range of topics, from research plans to grant writing and lab management.

About the Speaker: Dr. Imogen Coe is a professor of Chemistry and Biology at Toronto Metropolitan University (TMU) and an affiliate scientist at St. Michael's Hospital in Toronto. She is an active researcher and former academic leader, being the founding dean of the Faculty of Science at TMU. Dr. Coe is also an award-winning scholar-activist in Canada with respect to the integration of principles of inclusion, diversity, equity and accessibility (IDEA) into research cultures in science

RNA CANADA ARN 2024 : RNA-BASED MEDICINE PANEL DISCUSSION; OCTOBER 2ND, 2024

RNA Canada ARN is excited to announce a panel discussion on the “**Promises and Challenges of RNA-based Medicines**” at the upcoming RNA Canada ARN 2024: The Future of RNA Technology conference (October 2nd, 2024 from 8:15 – 10:00).

Following short presentations by Drs. Adrian Krainer and Pieter Cullis (inventors of early RNA drugs and vaccine technologies), panelists will discuss diverse topics on the future of RNA-based medicines.

Panelists include:

- Adrian Krainer (St. Giles Foundation Professor, Cold Spring Harbor)
- Pieter Cullis (Professor, University of British Columbia, Gairdner International Awardee)
- Phil Sharp (Professor, Koch Institute, MIT, Nobel Laureate)
- Jared Davis (President and CTO of Northern RNA)
- Sarit Assouline (Clinician Scientist, McGill Centre for Translational Research in Cancer)



RNA CANADA ARN AT THE 2024 RNA SOCIETY MEETING IN SCOTLAND!

The dust has settled on the 2024 edition of the RNA Society meeting, which took place May 29th to Jun 2nd in Edinburgh, Scotland. The annual meeting, the world's largest dedicated to RNA research, featured more than 700 abstracts from RNA scientists, and nearly 1200 attendees. **RNA Canada ARN** was particularly well represented with 36 participants, including conference co-organizer, **RNA Canada ARN's own Ben Blencowe** from the University of Toronto. The meeting was preceded by a workshop on public engagement in RNA research, co-organized by RNA Canada ARN's Secretary and Board Member, Julie Claycomb, from the University of Toronto.

Of the 23 talk sessions, one on ribosome synthesis and one RNA localization, were chaired by Marlene Oeffinger and Eric Lecuyer, respectively, from the Montreal Institute of Clinical Research (IRCM). Canadian RNA scientists were in the spotlight in many of these sessions, with seven talks coming from Canadian research groups including presentations from; Marlene Oeffinger (IRCM), Daniel Zenklusen (Université de Montréal), Jennifer Porat (York University), Laurence Faucher-Giguère (Université de Sherbrooke), Derrick Gibbins (uOttawa), Sarah Schultz (University of Manitoba) and Steven Dupas (University of Toronto).





Dr. Jennifer Porat and Dr. Ute Kothe

Of note, the excellence of RNA science in Canada was highlighted by the attribution of the 2024 Scaringe award to Jennifer Porat, a recent graduate from the Bayfield lab at York University. The Scaringe awards recognizes “achievement of young scientists engaged in RNA research” and is awarded to one graduate student and one postdoctoral fellow every year. Congratulations Jennifer! Canadian RNA science was also honored through the poster prizes with 3 prizes going to trainees at Canadian institutions: Om Mattagajasingh from the Zenklusen lab of Université de Montréal, Gabriel Khelifi from the Hussein lab of Université Laval and Juan Carlos Padilla from the Lécuyer lab at IRCM.

Finally, RNA Canada ARN members were highlighted for their service to the RNA society and their dedication to RNA science worldwide. Ute Kothe from the University of Manitoba was awarded the RNA Society Service Award for her initiative to create the RNA Salon program, helping to spread RNA science throughout the world. Ute succeeds Benoit Chabot from the University of Sherbrooke as the recipient of this important award. Benoit won this award in 2023 for, among many other contributions, his almost 10 years of service as Chair of the Meetings Committee of the RNA Society. As Benoit steps down from this important role in the RNA Society this year, we thank him for his contributions to the RNA Society. We are proud of all our Canadian RNA scientists, who are major contributors to both our Canadian and international RNA communities.



DISCOVER THE MOBILIZING PROJECT TO MAKE QUEBEC A HUB FOR RNA-BASED THERAPIES INNOVATION

On April 30th, the Government of Quebec announced \$20.3 million in funding to support a major Mobilizing Project valued at nearly \$40 million, involving 25 organizations. This initiative aims to establish a new industrial sector dedicated to RNA-based therapies, positioning the province as a global leader in this field. Recognizing the immense potential of RNA therapies, the project addresses critical challenges such as the shortage of skilled labor, the need to stimulate and support innovation, and the lack of bio-manufacturing infrastructure and services. In response, five strategic initiatives will be launched to drive innovation, strengthen skills, and adapt services, ensuring the successful development of this promising sector.

Want to learn more about the initiatives of the Mobilizing Project?

Discover the five key initiatives below:

1. Launching AReNA, Quebec's RNA Hub, to Showcase the Sector

AReNA serves as a showcase for all actors in Quebec's RNA sector; it mobilizes the entire ecosystem to highlight Quebec's expertise in RNA therapies, both provincially and on the national and international stages. AReNA plays a central role in the future of this sector by showcasing the talents and innovations it encompasses.

As researchers or industry professionals working in RNA therapies, you are already an integral part of AReNA! Our [website](#) is dedicated to highlighting your successes and initiatives, helping to elevate the visibility of Quebec's RNA sector.

If you'd like to share a success story, announce news, or simply highlight your work, we invite you to contact us at info@arenapole.ca. Together, let's make Quebec shine on the global stage of RNA therapies.





2. Boosting Promising RNA-Based Technologies

CQDM, in collaboration with Axelys, Fonds de recherche du Québec, Génome Québec, and Médicament Québec, is launching a new approach to support and fund innovative, high-potential RNA technologies. This unique funding and support model aims to accelerate the development of technological solutions capable of overcoming the industrial challenges that are currently hindering the adoption of RNA therapies. Supported projects must align with the industry's identified issues and meet defined performance criteria.

A new call for projects will be launched in Fall 2024.

Follow [AReNA](#) to stay informed!

3. Stimulating Innovation and Entrepreneurship in Quebec

Under the leadership of Axelys and in collaboration with strategic partners, this initiative focuses on two main areas: academic research and scientific entrepreneurship. Axelys will assemble a dedicated team to support Quebec researchers in transforming their high-impact innovations. The ambitious goal is to double the number of patents related to RNA therapies filed in Quebec over the next three years.

In parallel, Axelys will develop a scientific entrepreneurship support program to encourage the creation of new startups specializing in RNA therapies in Quebec.

4. Strengthening Quebec's Expertise with Bio-Manufacturing Services

The Montreal Clinical Research Institute (IRCM), McGill University, and Sherbrooke University are launching the **Network for the development and production of RNA therapies**. This network will offer a range of services, from RNA therapies design to preclinical production, including formulation and delivery. Researchers and companies will benefit from cutting-edge expertise to develop next-generation RNA therapies. This network will accelerate the progression of RNA therapies to clinical trials, ultimately benefiting patients.



5. Addressing Industry Needs by Developing Specialized Training

The Canadian Alliance for Skills and Training in Life Sciences (CASTL), in partnership with several educational institutions, will launch the Factory School. This innovative program will offer practical training aligned with industry needs and equipped with state-of-the-art technology. The training will provide the knowledge and skills specific to RNA therapies and their production environment, ensuring a highly qualified workforce to support the sector's growth.

For more information, visit our website: <https://arenapole.ca> and follow us on [LinkedIn](#).



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WINNER OF THE RNA CANADA ARN DESIGN CONTEST!



Congratulations goes to Jessica Semmelrock, a recent M.Sc. graduate from the University of Lethbridge, for creating the winning design for the RNA Canada ARN design contest! The design will appear on merchandise for sale at the RNA Canada ARN 2024 conference this fall in Ottawa, and Jessica will receive a \$100 cash prize.

Ms. Semmelrock has also donated the original, framed painting of this design for silent auction at the RNA Canada ARN 2024 conference. Attendees will be able to bid on this piece of art, with proceeds going to RNA Canada ARN!

Great work and thank you, Jessica!



THE RNA CANADA ARN STORE IS NOW OPEN!



Exciting news!!! Have you always wanted an RNA Canada ARN branded T-shirt? Coffee mug? Yoga mat? The RNA Canada ARN online store is NOW OPEN! Visit the [RNA Canada ARN webpage](https://rnacanadaarn.com) and select “Store”, or go directly to: <https://rnacanadaarn.creator-spring.com>

But yoga mats and T-shirts are just the tip of the iceberg, so why not go visit the store and see what we have to offer? Imagine rocking your next RNA conference decked out from head to toe in RNA Canada ARN gear. Bedazzle your phone with an RNA Canada ARN phone case. Carry all that junk you can't live without in an RNA Canada ARN tote bag. Style your littlest RNA enthusiast with an RNA Canada ARN onesie (you know the other daycare kids will be jelly!).

But WAIT, there's more: There will also be T-shirts for sale at the RNA Canada ARN 2024 conference in Ottawa! These T-shirts are high quality and come in two main flavours: one with the RNA Canada ARN logo or and a second displaying the winning design from our recent contest. We'll also have fun RNA-themed decals/stickers and pins! Quantities are limited, so be sure to visit the Outreach table and pick up your swag at the conference before it's gone!! Don't be left out of the RNAvolution! (Accepting only credit card payment via Square.)



DR. BENOIT CHABOT



Dr. Benoit Chabot,
Université de Sherbrooke

RNA Canada ARN congratulates Dr. Benoit Chabot on his recent spotlight by the RNA Society!

One of Canada's leading researchers on RNA splicing, alternative splicing and associated RNA therapies, Dr. Benoit Chabot (U. de Sherbrooke), has been recently [profiled by the RNA Society](#).

Benoit trained in Joan Steitz's lab at Yale before starting at the Université de Sherbrooke where he became one of the founding members of the [RiboClub](#). In addition to his pioneering work on RNA splicing and associated translational research, he has had a major leadership role in the RNA Society, chairing the Meetings Committee and receiving the [RNA Society Lifetime Achievement in Service Award in 2023](#).

Benoit's profile by the RNA Society can be accessed [here](#).

Congratulations Benoit!

**RiboClub**

<https://home.riboclub.org/schedule/>

12pm EST first or second Monday or Tuesday of each month.

Montreal RNA Salon

<https://www.mtlrna.org/>

4pm, first Thursday of each month

Toronto RNA Club

<https://torontornaclub.com/>

4pm, first Wednesday of each month

ARRTI at ULeithbridge (Alberta RNA Research and Training Institute)

<https://www.ulethbridge.ca/research/centres-institutes/alberta-rna-research-and-training-institute>

Vancouver RNA Club

<https://www.vanrnaclub.com/>

RNA Collaborative Seminars Series (RNA society)

<https://www.rnasociety.org/rna-collaborative-seminar-series>

[Youtube channel](#)

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