NUNAVUNMI INIRNIRIT ILIHARVIAT
COLLÈGE DE L'ARCTIQUE DU NUNAVUT

ᓄᓇᕗᑦ ᐃᓂᕐᓂᐊᑦ ᐃᓕᐊᕐᕕᐊᑦ
NUNAVUT ARCTIC COLLEGE

52nd College Chemistry Canada Conference

Chemistry for All

Nunavut Arctic College, Nunatta Campus

Iqaluit, NU 29 May – 01 June 2026

Conference Book

Conference organizers

Martin Sichinga (co-Chair)
Nunatta Campus
Nunavut Arctic College
Iqaluit, NU
Martin.Sichinga@arcticcollege.com

Geoff Rayner-Canham (co-Chair)
Grenfell Campus
Memorial University
Corner Brook, NL
v7grc@mun.ca

Shannon Accettone
Dept. Chem., Dept. Forensic Sci.
Trent University
Peterborough, ON
shannonaccettone@trentu.ca

Erika Merschrod
St. John's Campus
Memorial University
St. John's, NL
erika@mun.ca

Wifi:
SSID: Guest
Password: test1234

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Tunngasugit/ᑐᙵᓱᒋᑦ!

ᑭᒻᒪᖅᑐᖅᓘᒋᑦ ᓄᓇᕗᒻᒥ ᓯᓚᑦᑐᖅᓴᕐᕕᒃ, ᐅᐱᒍᓱᒃᐳᖓ ᑐᙵᓱᒃᑎᑦᑐᓐᓇᕋᒃᑭᑦ ᐃᖃᓗᒃᓄᑦ ᓄᓇᕗᒻᒧᓪᓗ. ᓄᓇᕗᒻᒥ ᓯᓚᑦᑐᖅᓴᕐᕕᒃ ᐅᐱᒍᓱᒃᐳᑦ ᑲᑎᒪᑎᑦᑎᔪᓐᓇᕐᒪᑕ ᑕᒪᑐᒪᓂ ᐊᕐᖀᒍᒥ ᐃᓚᐅᕈᑎᒃᓴᓕᕆᓂᕐᒧᑦ ᑲᓇᑕᒥ ᑲᑎᒪᕐᔪᐊᕐᓂᐅᔪᒥᒃ. ᐃᓕᓴᕆᔪᒪᕙᕋ ᐱᓇᓱᐊᕐᓂᕆᓚᐅᖅᑕᖓ ᒫᑎᓐ ᓯᔫᙵ ᑲᑎᒪᕕᔾᔪᐊᖅᑎᑦᑎᓚᐅᕐᒪᑦ ᐃᖃᓗᓐᓂᑦ, ᐊᒻᒪᓗ ᑕᒪᓐᓇ ᑲᔪᓯᑎᑦᑐᒪᓪᓗᒍ. ᖁᔭᓐᓇᒦᒃ ᒪᕐᑎᓐ!

ᑖᓐᓇ ᑲᑎᒪᕐᔪᐊᕐᓂᖅ, ᐊᒻᒪᓗ ᐃᓚᐅᖃᑕᐅᔪᓕᒫᑦ, ᖁᕕᐊᒋᔭᖅᑐᖅ ᐃᓚᐅᕈᑎᒃᓴᓕᕆᓃᑦ ᐊᕙᑎᑦᑎᓐᓃᑦᑐᓂᒃ. ᐊᐃᑦᑖᕐᒍᓚᓗᐊᖅ, ᐊᒥᓲᑦ, ᐃᓚᐅᕈᑎᒃᓴᓕᕆᓂᖅ ᐊᑐᐃᓐᓇᐅᙱᓪᓚᑦ. ᐱᔾᔪᑎᖃᕋᓗᐊᖅᐸᑦ ᐃᓕᓐᓂᐊᕐᕖᑦ ᐊᔾᔨᒌᙱᑦᑑᑎᓂᒃ ᐱᔭᐅᔭᕆᐊᓕᖕᓂᑦ ᐱᑕᖃᙱᓐᓂᖏᓐᓄᑦ ᐃᑲᔪᖅᑐᐃᓂᐊᕐᓗᓂ ᑕᒪᑐᒥᖓ ᐱᔾᔪᑕᐅᔪᒥᒃ, ᐅᕝᕙᓘᓐᓃᑦ ᑕᒪᓐᓇ ᐱᓕᕆᐊᖑᔪᖅ ᓯᑕ ᐋᖅᑭᒃᓱᖅᑕᐅᓯᒪᙱᓐᓂᖓᓄᑦ ᐱᓂᐊᕐᓗᓂ "ᐊᕙᑖᓃᑦᑐᓂᒃ" ᐃᓄᐃᑦ ᐃᓕᑦᑎᕙᓪᓕᐊᓂᕆᔭᕆᓐᓂᑦ. ᐱᔪᒃᓯᑎᐊᖅᐳᖓ ᑕᒪᑐᒪᓂ ᐊᕐᖀᒍᒥ ᐱᔾᔪᑕᐅᔪᒥᒃ "ᐃᓚᐅᕈᑎᒃᓴᓕᕆᓂᖅ ᑭᒃᑯᓕᒫᓄᑦ", ᑕᐃᒪᑐᖅ ᐃᓚᐅᔪᓕᒫᑦ ᑲᔪᓯᓂᐊᖅᐳᑦ ᐱᒻᒪᕆᐊᓗᖕᒥᒃ ᐅᖃᑎᕇᖕᓂᕐᒥᒃ ᖃᓄᖅ ᐃᓚᐅᑎᑦᑎᒃᑲᓐᓂᕈᓐᓇᕐᒪᖔᑕ ᐃᓄᖕᑦᑕ ᑕᒪᑐᒧᖓ ᑐᙵᕕᒋᔭᐅᔪᒧᑦ ᐱᔾᔪᑕᐅᔪᒧᑦ.

ᐃᖃᓗᖕᓄᐊᖅᓯᒪᑎᓪᓗᑎᑦ, ᐅᐱᕐᖔᖑᓕᖅᐸᑦ, ᖃᐅᔨᔪᓐᓇᕐᓂᐊᖅᐳᑎᑦ ᑲᔾᔮᕐᓇᖅᑐᓂᒃ ᐊᔾᔨᒌᙱᓐᓂᖏᓐᓂᑦ ᑕᒫᓂ ᓄᓇᒥ, ᐊᒻᒪ ᐅᑭᐅᑉ ᐃᓚᖓᓂ, ᒪᓂᒪᑎᑕᖏᓐᓂᑦ. ᑕᐃᒪᑐᖅ ᐃᓕᑦᑎᓂᐊᖅᐳᑎᑦ ᐃᖃᓗᖕᓂ ᐃᓅᓯᕆᔭᐅᔪᐊᒥᒃ, ᐃᓄᐃᓪᓗ ᑕᒫᓂᕐᒥᐅᑕᐅᕙᒃᑐᑦ – ᑕᒫᓂᕐᒥᐅᑕᐅᓕᖅᑐᑦ. ᑕᐃᒪᑐᖅ ᐃᓕᑦᑎᓂᐊᖅᐳᑎᑦ ᐃᓕᓴᐃᔨᐅᓂᕐᒥᒃ ᓄᓇᕗᒻᒥ, ᐱᑕᖃᑦᑎᐊᖅᑐᒥᒡᓗ ᐊᔾᔨᒌᙱᑭᔾᔫᖅᔭᖅᑐᓂᒡᓗ ᐃᓕᖅᑯᓯᕆᔭᐅᕙᒃᑐᓂᒃ ᖃᐅᔨᔭᐅᑲᑦᑕᖅᓯᒪᕙᑦ ᐃᓄᖕᓄᑦ. ᐃᓄᐃᑦ ᐃᓅᓯᖏᑦ ᖁᕕᐊᒋᔭᖃᓪᓚᓇᖕᒪᑕ ᐃᓚᐅᕈᑎᒃᓴᓂᒃ, ᐊᒻᒪᓗ ᑕᒪᒃᑯᐊ ᖃᐅᔨᖃᑦᑕᖅᓯᒪᔭᖏᑦ ᐱᐅᔪᒻᒪᕆᐅᓪᓗᑎᒃ ᐃᓚᐅᑎᑦᑎᔾᔪᑕᐅᓪᓗᑎᒃ ᒪᒃᑯᒃᑐᓕᒫᓂᒃ ᑕᒪᑐᒧᖓ ᐃᓕᓐᓂᐊᕈᑕᐅᔪᒧᑦ. ᑐᑭᓯᐅᒪᒪᒐᓗᐊᖅᐸᑦ ᖃᓄᐃᓪᒪᑦ ᐊᔾᔨᒌᙱᑦᑑᑎᑦ ᐅᖅᓱᐃᑦ ᐃᑯᒪᔾᔪᓯᖃᕐᓂᖏᓐᓂᑦ ᖁᓪᓕᕐᒥ, ᐅᕝᕙᓘᓐᓃᑦ ᖃᓄᖅ ᐃᒍᓇᖅᓯᓲᖑᒻᒪᖔᑕ ᐊᐃᕚᑦ ᓂᕿᖏᓐᓂᑦ, ᐅᕝᕙᓘᓐᓃᑦ ᐊᖅᑯᑎᑦ ᐱᓪᓚᑦᑖᖑᓂᖏᓐᓂᑦ – ᐃᓚᐅᕈᑎᒃᓴᖏᑦ ᐊᖓᔪᐃᑦ ᖃᓄᕐᓗ ᐃᑐᓪᓕᖅᓯᖅᑕᐅᔪᓐᓇᕐᒪᖔᑕ; ᐃᓚᐅᕈᑎᒃᓴᓕᕆᓂᖅ ᐅᕙᑦᑎᓐᓂᓕᒫᖅ ᐃᑲᔪᕈᓐᓇᖅᐳᖅ ᐃᓱᒃᑲᓐᓂᕐᓂᕐᒥᒃ ᖃᐅᔨᒪᓂᕐᓴᑦᑎᓐᓂᒃ ᖃᓄᕐᓗ ᖃᐅᔨᒪᓂᑦᑎᓐᓂᒃ.

ᐳᓛᑦᑎᐊᕐᓂᐊᖅᐳᓯ ᑲᑎᒪᕐᔪᐊᖃᑕᐅᑦᑎᐊᕐᓗᓯᓗ.

ᖁᔭᓐᓇᒦᒃ,

Jackie Price

ᔮᑭ ᐳᕋᐃᔅ, ᐊᖓᔪᖅᑳᖅ
ᓄᓇᕗᑦ ᓯᓚᑦᑐᖅᓴᕐᕕᒃ.

Welcome from NAC President

Tunngasugit, welcome!

On behalf of the Nunavut Arctic College, I am pleased to welcome you to Iqaluit and Nunavut. The Nunavut Arctic College is honoured to host this year's Chemistry Canada Conference. I would like to recognize the efforts of Martin Sichinga in bringing this conference to Iqaluit, and for making all of this happen. Thank you Martin!

As this conference, and all those participating, appreciates chemistry is all around us. Sadly, to many, chemistry is not accessible. Whether it is because schools do not have the range of needs to support this subject, or because the program is not yet designed to capture the "around" that people are learning from. I am inspired by this year's theme "Chemistry for all", and I hope all participants continue the important conversation of how to engage more people with this foundational subject.

As you enjoy your visit to Iqaluit, during the springtime, you will be able to experience the beautiful contrasts this land, and season, has to offer. I hope you learn about life in Iqaluit, and about Inuit who live here - or have come to live here. I hope you learn about teaching in Nunavut, and about the rich and diverse cultural experience of Inuit. Inuit life is made up of a deep appreciation of chemistry, and these experiences are wonderful ways to engage all youth in this subject. Whether it is understanding why different whale oil burns different in the qulliq, or how fermentation occurs in walrus meat, or speaking to the reality of the streets – the chemistry of potholes and how to fill them; chemistry can help all of us add layers to what we know and how we know.

May you have a great visit and conference.

Thank you,

Jackie Price, President

Nunavut Arctic College.

Mot de bienvenue de la présidente du Collège de l'Arctique du Nunavut

Tunngasugit, bienvenue!

Au nom du Collège de l'Arctique du Nunavut, j'ai le plaisir de vous accueillir à Iqaluit et au Nunavut. Le Collège de l'Arctique du Nunavut a l'honneur d'être l'hôte du congrès de Chimie Collégiale au Canada cette année. J'aimerais particulièrement souligner les efforts de Martin Sichinga pour amener ce congrès à Iqaluit et pour avoir concrétisé le tout. Merci Martin!

Le congrès et ses participant·e·s reconnaissent que la chimie est partout autour de nous. Malheureusement, bien des gens n'ont pas accès à la chimie. Possiblement parce que les écoles n'ont pas la gamme de ressources requises pour soutenir cette matière, ou parce que le programme n'est pas encore conçu de façon à permettre aux personnes de tirer des apprentissages de ce qui les entoure. Le thème de cette année, *Démocratisons la chimie*, m'inspire et j'espère que tous·te·s les participant·e·s poursuivront cette importante conversation pour intéresser davantage de personnes à cette matière de base.

Profitez de votre visite à Iqaluit ce printemps, vous pourrez constater les magnifiques contrastes que cet endroit et cette saison ont à offrir. J'espère que vous en apprendrez plus sur la vie à Iqaluit et sur les Inuits·e·s qui y demeurent, ou qui s'y sont établi·e·s. J'ai bon espoir que vous en saurez plus à propos de l'enseignement au Nunavut, et de l'expérience culturelle riche et diversifiée des Inuit·e·s. La vie inuite accorde une profonde importance à la chimie, et ces expériences sont de bonnes façons d'intéresser tous·te·s les jeunes à cette matière. Qu'il s'agisse de comprendre pourquoi différentes huiles de baleine brûlent différemment dans le qulliq ou le processus de fermentation dans la viande de morse, ou encore de discuter des réalités des rues, de la chimie des nids-de-poule et de la façon de les remplir; la chimie nous permet tous·te·s d'ajouter des couches de connaissances à ce que nous savons et la façon dont nous acquerrons ce savoir.

Je vous souhaite un agréable séjour et un excellent congrès.

Merci,

Jackie Price, présidente
Collège de l'Arctique du Nunavut

ᑐᙵᓱᒃᑎᑦᑎᓂᕐᒧᑦ ᑎᑎᖅᑲᖅ C3 ᐊᖓᔪᖅᑳᖓᓐᓂᑦ

ᐊᐃᖓᐃ ᒪᓕᒐᓕᐅᖅᑎᐅᖃᑎᒃᑲ ᐱᖃᓐᓇᕆᔭᒃᑲᓗ,

ᑐᙵᓱᒋᑦᓯ. Bienvenue. Welcome.

ᖁᕕᐊᓱᒃᐳᖓ ᑲᑎᖃᑎᒋᔪᓐᓇᕋᔅᓯ 52–ᒋᓕᖅᑕᖓᓂ C3 ᑲᑎᒪᕐᔪᐊᖅᑐᓂᑦ. ᐊᐅᓚᑕᐅᓪᓗᓂ ᓄᓇᑦᑕ ᓯᓚᑦᑐᖅᓴᕐᕕᖓᒥ ᓄᓇᕗᒻᒥ ᓯᓚᑦᑐᖅᓴᕐᕕᖓᒥ ᐃᖃᓗᖕᓂ ᐱᓕᕆᐊᒃᓴᖃᖅᑎᓪᓗᒋᑦ ᐃᓚᐅᕈᑎᒃᓴᓂᒃ ᑕᒪᐃᓐᓄᓕᒫᖅ, ᑲᑎᒪᕐᔪᐊᕐᓂᖅ ᐃᓅᓯᓕᒫᒧᑦ ᖃᐅᔨᔾᔪᑕᐅᓂᐊᖅᐳᖅ. ᑲᑎᒪᕐᔪᐊᖅᑐᓂᑦ ᐋᖅᑭᒃᓱᐃᔨᐅᔪᑦ ᐊᒃᓱᕈᕐᓗᑎᒃ ᐱᓕᕆᓯᒪᕗᑦ ᐋᖅᑭᒃᓱᐃᓪᓗᑎᒃ ᐃᓚᐅᑎᑦᑎᔪᓂᒃ ᖃᐅᔨᓴᖅᑎᓄᑦ ᐅᖃᓪᓚᒍᑕᐅᔪᓂᒃ ᐊᒻᒪᓗᑦᑕᐅᖅ ᐊᐅᓚᑦᑎᓪᓗᑎᒃ ᐃᓄᐃᑦ ᐃᓕᖅᑯᓯᖏᓐᓂᑦ ᐱᓕᕆᐊᒃᓴᓂᒃ ᐃᓕᑦᑎᔪᓐᓇᖁᓪᓗᑕ ᐃᓕᖅᑯᓯᑐᖃᒃᑯᑦ ᐊᑐᖅᑕᐅᕙᒃᑐᓂᑦ.

ᓯᕗᓪᓕᖅᐹᒥᑦ ᐊᕐᕌᒍᒥᑦ ᐊᖓᔪᖅᑳᖑᑎᓪᓗᖓ C3–ᑯᓐᓄᑦ, ᖁᔭᓕᕗᖓ C3–ᒧᑦ ᓯᕗᓕᖅᑎᓄᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᓄᓪᓗ ᑐᑭᒧᐊᒃᑎᑦᑎᔨᓄᑦ ᐃᑲᔪᖅᑐᐃᓚᐅᕐᓂᖏᓐᓄᑦ ᖃᐅᔨᒪᔨᑕᐅᓪᓗᑎᒡᓗ. ᑕᕝᕙᓂ ᐱᓕᕆᐊᒃᓴᒥ, ᐅᐱᒍᓱᒃᐳᖓ ᑐᓂᓯᔪᓐᓇᖁᒪ ᓄᓇᓕᖕᓂ ᐃᓕᓴᐃᔨᓄᑦ ᐅᕙᓐᓂᒃ ᐱᔪᒃᓯᑎᑦᑎᓚᐅᖅᑐᓄᑦ ᐃᑲᔪᓚᐅᖅᑐᓄᓪᓗ ᖁᓯᔪᓐᓃᖅᐹᓪᓕᖅᑎᑦᑎᓂᕐᒥᒃ ᐱᕈᖅᐸᓪᓕᐊᑎᓪᓗᖓ ᐃᓕᓴᐃᔨᐅᓂᕐᒥᒃ ᖃᐅᔨᓴᖅᑎᐅᓂᕐᒥᓪᓗ. ᑖᓐᓇ ᓯᕗᓪᓕᖅᐹᕆᒐᓗᐊᕈᕕᐅᒃ C3 ᑲᑎᒪᕕᒃᔪᐊᕐᓂᖅ ᐅᕝᕙᓘᓐᓃᑦ ᐅᑎᕈᒪᑦᑎᐊᓕᕈᕕᑦ ᑐᙵᓇᑦᑎᐊᖅᑐᒥᒃ ᐃᓚᐅᕈᑎᒃᓴᓕᕆᔭᓄᑦ (C3 ᐊᓯᐊᒍᑦ ᐊᑎᖃᖅᓱᓂ), ᐊᓕᐊᓇᐃᒋᓗᒍ ᑲᑎᒪᕕᒃᔪᐊᕐᓂᖅ ᑐᙵᓱᒃᑎᑦᑎᓂᕐᓗ ᐊᔾᔨᐅᙱᑦᑐᒥᒃ ᐃᓂᒥᒃ ᐅᐸᒍᓐᓇᖅᑕᑦᑎᓐᓂᒃ.

ᐃᓚᓐᓇᕆᔭᐃᑦ,

ᒥᐊᓕ ᓴᐳᑦ, ᐊᖓᔪᖅᑳᖅ – C3

Welcome Letter from C3 president

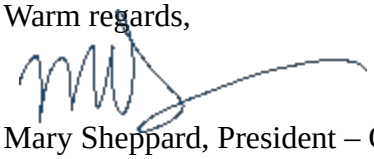
Dear colleagues and friends,

Tunngasugitsi. Bienvenue. Welcome.

I am excited to connect with you at the 52nd C3 Conference. Hosted by the Nunatta Campus of Nunavut Arctic College in Iqaluit with a theme of Chemistry for All, the conference is sure to be an experience of a lifetime. The conference organizers have been hard at work curating an engaging set of scientific talks as well as coordinating Inuit cultural activities so we may learn about traditional practices.

In my first year as president of the C3, I am thankful to the C3 Executive and Regional Directors for their support and guidance. In this role, I am honoured to give back to the community of educators who inspired me and helped build my confidence as I grew as a teacher and researcher. Whether this is your first C3 conference or you are eagerly returning to our cozy chemistry community (C3 by another name), enjoy the conference and hospitality of the unique area we are fortunate to visit.

Warm regards,



Mary Sheppard, President – C3

Lettre de bienvenue de la présidente de C3

Chers collègues et ami·e·s,

Tunngasugitsi. Bienvenue. Bienvenue.

Je suis heureuse de vous rencontrer dans le cadre du 52^{e} congrès de C3. Présenté par le campus Nunatta du Collège de l'Arctique du Nunavut à Iqaluit sous le thème *Démocratisons la chimie*, le congrès sera assurément l'expérience d'une vie. Les organisateur·trice·s ont travaillé fort pour proposer un ensemble d'exposés scientifiques stimulants et pour coordonner des activités culturelles inuites qui nous permettront d'en apprendre plus sur les pratiques traditionnelles.

En cette première année de mon mandat de présidente du C3, j'aimerais remercier le personnel de la direction générale et régionale pour son soutien et ses conseils. À ce titre, c'est un honneur pour moi de redonner à la communauté d'éducateur·trice·s qui m'ont inspiré et qui m'ont aidé à avoir confiance en moi pendant ma croissance en tant qu'enseignante et chercheuse. Qu'il s'agisse de votre premier congrès C3 ou d'un retour au bercail attendu au sein de notre communauté de chimie (aussi appelée C3), profitez du congrès et de l'hospitalité de cet endroit unique que nous avons la chance de visiter.

Chaleureusement,

Mary Sheppard, présidente – C3

Welcome from organizing committee

ᑐᙵᓱᓯᒋᑦᑎ 52−ᒋᓕᖅᑕᖓᓄᑦ ᓯᓚᑦᑐᖅᓴᕐᕕᖕᒥ ᐃᓚᐅᕈᑎᒃᓴᓕᕆᓂᖅ ᑲᓇᑕᒥ (C3) ᑲᑎᒪᕐᔪᐊᕐᓂᕆᔭᖓᓄᑦ ᓄᓇᑦᑕ ᓯᓚᑦᑐᖅᓴᕐᕕᖕᒥ ᓄᓇᕗᒻᒥ ᓯᓚᑦᑐᖅᓴᕐᕕᖕᒥ (NAC)! ᑖᓐᓇ ᐃᖅᑲᐅᒪᓇᕐᓂᐊᖅᑐᖅ: ᓯᕗᓪᓕᖅᐹᑦᑎᐊᒥ C3 ᑲᑎᒪᕕᒡᔪᐊᕐᓂᖅ ᐊᑐᖅᑕᐅᕙᖅ ᑕᒪᐃᓐᓂ ᓄᓇᕗᒻᒥ ᐊᒻᒪᓗ ᐃᓄᐃᑦ ᓄᓇᖓᓂ. ᓴᖅᑭᑎᑦᑎᓂᖅ ᑖᔅᓱᒥᖓ ᐱᕕᒃᓴᒥᑦ ᐃᓚᐅᑎᑦᑎᓂᐊᕐᓗᓂ ᐃᓄᖕᓂᑦ ᓄᓇᕗᒻᒥᐅᓂᒡᓗ ᑲᓇᑕᓕᒫᒥ ᐃᓚᐅᕈᑎᒃᓴᓂᒃ ᐃᓕᓐᓂᐊᖅᑎᑦᑎᖅᑲᑦᑕᖅᑐᑦ ᓄᓇᓕᖕᓂ ᖁᕕᐊᔫᑕᐅᔭᕆᐊᖃᓪᓚᕆᒃᐳᑦ. ᑕᒪᑐᒪᓂ ᐊᕐᕿᒍᒥ ᑲᑎᒪᔾᔪᑕᐅᓂᐊᖅᑐᖅ "ᐃᓚᐅᕈᑎᒃᓴᓕᕆᓂᖅ ᑭᒃᑯᓕᒫᓄᑦ", ᐃᖅᑲᐃᓯᔾᔪᑎᒋᓪᓗᑎᒍᑦ ᐃᓚᐅᕈᑎᒃᓴᓕᕆᓂᖅ ᐊᑐᐃᓐᓇᐅᔭᕆᐊᖃᕐᓂᖓᓂᑦ, ᐊᒃᑐᐊᓂᖃᑦᑎᐊᕐᓗᓂ, ᑐᑭᖃᑦᑎᐊᕐᓗᓂᓗ ᐃᓕᓐᓂᐊᖅᑎᓕᒫᓄᑦ, ᐃᓚᐅᓪᓗᑎᒃ ᐅᑭᐅᖅᑕᖅᑐᒥ ᓄᓇᖅᑲᖅᑳᖅᓯᒪᔪᓪᓗ ᓄᓇᓕᖕᒋᑦ. ᓂᕆᐅᒋᔭᐅᔪᖅ ᑲᑎᑎᔅᓯᓂᖅ ᐃᓕᓴᐃᔩᓂᑦ ᑲᓇᑕᓕᒫᒥᑦ ᐃᖃᓗᖕᓄᑦ ᓴᖅᑭᑎᓂᐊᖅᑐᖅ ᐱᕕᖃᕐᓂᐅᔪᓂᑦ ᐱᓕᕆᖃᑎᒌᖕᒋᓐᓇᕐᓂᕐᒧᑦ ᓄᓇᕗᒻᒥ ᓯᓚᑦᑐᓴᕐᕕᒻᒥᑦ ᐃᑲᔪᖅᑐᕐᓂᕐᒥᓪᓗ ᐱᓇᓱᐊᖕᒋᓐᓇᕐᓂᕐᒥᑦ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᖃᐅᔨᓴᕐᓂᕐᒧᑦ ᐃᓕᓐᓂᐊᕐᓂᕐᒥᑦ ᐅᑭᐅᖅᑕᖅᑐᒥᓪᓗ ᖃᐅᔨᓴᕐᓂᕐᒥᑦ ᐊᑕᖕᒋᕐᓗᒍ.

Welcome to the 52nd College Chemistry Canada (C3) Conference at the Nunatta Campus of Nunavut Arctic College (NAC)! This is a historic moment: the first time that the C3 Conference is held on Inuit lands. It proclaims the inclusion of Arctic peoples within the national chemistry education community. The theme Chemistry for All will emphasize that chemistry education must be accessible, relevant, and meaningful for all learners, including those in Arctic communities. It is anticipated that bringing educators from across Canada to Iqaluit will lead to enduring partnerships with NAC to further develop Arctic science education and Northern research.

Bienvenue au 52e Congrès de Chimie Collégiale au Canada (C3) au campus Nunatta du Collège de l’Arctique du Nunavut (CAN)! Il s’agit d’un moment historique : la première fois que le congrès C3 se tient au Nunavut et dans l’Inuit Nunangat. La création de cet espace pour inclure les Inuits·e·s et les Nunavummiut au sein de la communauté nationale d’enseignement de la chimie mérite certes d’être soulignée. Le thème du congrès de cette année, Démocratisons la chimie, nous rappelle que l’enseignement de la chimie doit être accessible, pertinent et approprié pour tous·te·s les apprenant·e·s, y compris les communautés arctiques et autochtones. Nous prévoyons que ce rassemblement d’éducateur·trice·s provenant de différentes régions du Canada à Iqaluit sera l’occasion d’établir des partenariats durables avec le CAN et permettra de soutenir les initiatives en cours dans le domaine de l’éducation de la science dans l’Arctique et de la recherche dans l’ensemble du Nord.

Program at a glance

Friday, May 29th

12:00 – 6:00 pm
Conference Registration

2:00 – 5:00 pm
Iqaluit Tour
Pre-registration is required

5:00 – 6:00 pm
Executive Meeting - A218

6:00 – 8:00 pm
Qulliq Lighting
Opening Ceremony
Keynote and Q&A - Nunavut Arctic College VP Kaviq Kaluraq
Welcome Dinner

Saturday, May 30th

8:30 – 9:15 am
Breakfast and Registration

9:15 – 9:30 am
Welcome

9:30 – 10:30 am – Plenary Lecture
Jamal Shirley – NRI

10:30 – 10:50 am
Coffee Break & Posters

10:50 – 11:10 am
Svetlana Barkanova

11:10 – 12:30 pm
Session 1

12:30 – 1:30 pm
Lunch

1:30 – 3:10 pm
Session 2

3:10 – 3:30 pm
Coffee Break & Posters

3:30 – 5:10 pm
Session 3

6:30 – 10:00 pm
Banquet

Sunday, May 31st

7:00 am
Fun Run & Walk

8:30 – 9:15 am
Breakfast and Registration

9:15 – 10:15 am – Plenary Lecture
Jennifer Winters

10:15 – 10:40 am
Coffee Break & Posters

10:40 – 11:00 am
Erica Taylor

11:00 – 12:00 pm
Iqaluit Makerspace

12:00 – 1:00 pm
Lunch

1:00 – 2:20 pm
Session 4

2:20 – 2:40 pm
Coffee Break & Posters

2:40-3:20 pm
Session 5

3:20 – 4:20 pm
C3 AGM and Closing Remarks

6:00 pm Start
Dinner & Inuit Games Night

Monday, June 1st

8:30 – 9:15 am
Breakfast

9:30 am – 12:30 pm
Iqaluit Tour
Pre-registration is required

1:30 – 3:30 pm
Cultural Activities
Pre-registration is required

- Fur production and design
- Jewellery Making
- Nunavut Research Institute
- Seal Dissection

Detailed Schedule

All events take place at the Rotunda on the Nunatta campus of NAC unless mentioned otherwise. The Nunatta campus is NAC's campus in Iqaluit, and the Rotunda is visible from the road, as depicted in the photograph on the cover of this booklet. You can't miss it!

Friday, May 29

12:00-6:00 pm	**Registration**
2:00-5:00 pm	**City Tour (pre-registration required)**
	Unikkaarvik Visitor Centre Nunatta Sunakkutaangit Museum St. Jude's Cathedral (Anglican Church) Violet House (512 House) Carvings Nunavut Legislative Assembly Hudson's Bay Company Apex Beach
5:00 – 6:00 pm	**Executive Meeting**
	Room A218
6:00-8:00 pm	**Opening Ceremony**
	Qulliq Lighting – Elder Geela Maniapik and Rosemary Nakashuk
	Welcome from MC – Lucy Qavavauq Welcome from Nunavut Arctic College President – Jackie Price Opening Remarks from Deputy Minister of Education – Rebecca Hainnu
	Keynote and Q&A
	Nunavut Arctic College VP Kaviq Kaluraq
	Welcome Dinner

Saturday, May 30

8:30-9:15 am	**Breakfast and Registration**
9:15-9:30 am	**Welcome**
	Organizing Committee – Martin Sichinga President of C3 – Mary Sheppard
9:30-10:30 am	**Plenary Lecture**
	Jamal Shirley, Nunavut Research Institute

	Training, Testing, and Transformation: Reflections on the Development, Operation, and Sustainability of Community Based Laboratories in Nunavut
10:30-10:50 am	**Coffee Break and Posters**
	Sponsored by Makigiaqta Inuit Training Corporation
10:50-11:10 am	**Invited Lecture**
	Svetlana Barkanova, Memorial University *North Star Pathways: Connecting Remote Classrooms to the Careers of the Future*
11:10-12:30 pm	**Session 1**
11:10-11:30 am	Kris Quinlan *Supporting the First-Year Transition: A Customizable OER Textbook for Equitable Access to Chemistry Learning*
11:30-11:50 am	Jerry Godbout *Using Comics to Portray Chemical Concepts*
11:50-12:10 pm	Summer Xia Li *Embedding Metacognition in First-Year Chemistry: Supporting Diverse Learners Through Integrated Practice*
12:10-12:30 pm	Jess Allingham *Think Like an Expert: Scaffolding Representational Competence in Organic Chemistry*
12:30-1:30 pm	**Lunch**
	Sponsored by Ampere Pinnguaq Association
1:30-3:10 pm	**Session 2**
1:30-1:50 pm	Shannon Accettone *Identifying and Removing Barriers for Service Dog Handlers in STEM Education*
1:50-2:10 pm	Christine Tong *Towards Decentralized Undergraduate Research in Chemistry*
2:10-2:30 pm	Melanie Harvey *A Course-Based Undergraduate Research Experience for a Nonmajors Chemistry Course at a Community College*
2:30-2:50 pm	Jimmy Lowe *Exploring Green Chemistry by RAMPing up & Initiating Free Radicals*
2:50-3:10 pm	Jack Randall *Green Chemistry with Vernier*
3:10-3:30 pm	**Coffee Break and Posters**
	Sponsored by the Department of Chemistry, University of Toronto

3:30-5:10 pm	**Session 3**
3:30-3:50 pm	Adolf Diange Eboa *Strengthening Sustainable Health and Science Pathways in Nunavut: A Strategic, Inclusive Framework from Grade 7 to Grade 12*
3:50-4:10 pm	Shannon Baxter *K-10 Science Curriculum Renewal in Manitoba – Preparing for Mandatory Implementation*
4:10-4:30 pm	François Gauvin *Legacy Chemicals and Other School Chemical Safety Issues – A Workshop for Science Teachers and Community Members*
4:30-4:50 pm	Esther Powell *Integrating Inuit Traditional Knowledge and Western Science in Nursing Education: A 20-Year Perspective*
4:50-5:10 pm	Jessica D'eon *Developing Educational Activities for Under-Resourced Communities as Part of a Community-Engaged Student-Led Project*

6:30-10:00 pm	**Banquet - Aqsarniit Hotel**
	MCs – Lucy Qavavauq and Bruno Cinel
	Remarks from President of Makigiaqta Inuit Training Corporation
	Dinner
	Throat Singing – Taiga Las, Miria Quassa, Mia Pitseolak
	C3 Student Awards with Deputy Minister of Education – Rebecca Hainnu
	Drum Dancing and Throat Singing – Tooma Laisa and Kristy Kanayuk
	C3 Awards – Mary Sheppard
	Eastern Nunavut contemporary Drum Dancing – Taiga Las, Miria Quassa, Mia Pitseolak
	Cultural Fusion Band

Sunday, May 31

7:00 am	**Fun Run & Walk (see map on p 47)**
	Running guide: Amy Short Walking guide: Shelley Drover Sweep: Erika Merschrod
8:30-9:15 am	**Breakfast & Registration**

9:15-10:15 am	**Plenary Lecture**
	Jennifer Winters, Amos Comenius Memorial School, Hopedale, NL *Incorporating Inuit Content in Chemistry Courses for Inuit Students*

10:15-10:40 am	**Coffee Break and Posters**
	Sponsored by the Memorial University Conference Fund
10:40-11:00 am	**Invited Lecture**
	Erica Taylor, York Region District School Board, Ontario *Perspectives of Teaching Inuit-Contextualized Chemistry to non-Inuit Students*
11:00-12:00 pm	**Invited Interactive Presentation**
	Victoria Coman and Cynthia Thoms, Ampere Pinnguaq Association *Iqaluit Makerspace*
12:00-1:00 pm	**Lunch**
1:00-2:40 pm	**Session 4**
1:00-1:20 pm	Tamara Freeman *FACEtS of Chemistry: A Grassroots Video Initiative to Showcase the Diversity of Faces and Facets in Chemistry at UBC Okanagan*
1:20-1:40 pm	Lindsay Blackstock *From Residence to Road: A Two Campus Examination of Commuter Status and Belonging in Introductory Chemistry*
1:40-2:00 pm	Andrew Dicks *Elements of Success & Chemists of Influence: EDI @ U of T*
2:00-2:20 pm	Geoff Rayner-Canham *Intersectionality and Allyship: Maria Y. Orosa, Forgotten Pioneer Food Chemist*
2:20-2:40 pm	**Coffee Break and Posters**
	Sponsored by SCI Canada
2:40-3:00 pm	**Session 5**
2:40-3:00 pm	Alexander (Sandy) Briggs *Rainbows, Halos, and Glories: Some Atmospheric Optical Phenomena*
3:00-3:20 pm	John Eng *Retirement and Going Out with a bang!*
3:20-4:20 pm	**Meeting**
	C3 AGM Closing Remarks

6:00 pm start	**Dinner & Inuit Games night**
	Inuit Games led by Andrea Mary
	Sponsored by Makigiaqta Inuit Training Corporation

Monday, June 1

8:30-9:15 am	**Breakfast**

9:30-12:30 pm	**City Tour (pre-registration required)**
	Unikkaarvik Visitor Centre
	Nunatta Sunakkutaangit Museum
	Sea Ice walk and dog team visit
	St. Jude's Cathedral (Anglican Church)
	Violet House (512 House)
	Carvings Nunavut
	Legislative Assembly
	Hudson's Bay Company
	Apex Beach

1:30-3:30 pm	**Cultural Activities (pre-registration required)**
	Fur Production and design – Elder Geela Maniapik and Rosemary Nakashuk
	Jewellery Making * – Andrew Card 619 Queen Elizabeth Way
	Nunavut Research Institute Tour* – Jamal Shirley and River Autut 959 Nunavut Drive
	Seal Dissection - Elder Imoona Karpik and Letia Qiatsuk

* Bus to the event will leave from the Nunatta Campus of NAC

Student Awards

Sponsors

Makigiaqta Inuit Training Corporation

College Chemistry Canada (C3)

SCI Canada

Recipients

Andrea Dialla
Dorcey Kuppaq
Monique Louis
Hope Makpah
Malaiyah Nakoolak
Kierra Pameolik
Laura Pupik-Hughson
Jenny Tongak

Congratulations to the recipients!

Keynote Speaker: VP Kaviq Kaluraq

Nunavut Arctic College

Friday, May 29th, 6:00 pm

How we move forward in science education with embedded Inuit Qaujimajatuqangit (IQ)

Integrating Indigenous knowledge systems into chemistry education offers powerful opportunities to make science learning more relevant, land-connected, and culturally grounded. In Nunavut, Inuit Qaujimajatuqangit (IQ) provides a holistic framework for understanding the natural world, emphasizing relationships, observation, and environmental stewardship. This presentation explores practical approaches for embedding IQ within chemistry and broader science instruction, drawing on over 15 years of experience in Inuit teacher education and land-based learning. Examples focus on how language, land, culture, and values can be used to provide culture-based science education. Positioning Inuit knowledge as a complementary scientific lens demonstrates how culturally grounded chemistry education can strengthen engagement, support language and identity, and advance equity in STEM.

Plenary Speaker: Jamal Shirley

Nunavut Research Institute, jamal.shirley@arcticcollege.com

Saturday, May 30th, 9:30 – 10:30 am

Training, Testing, and Transformation: Reflections on the Development, Operation, and Sustainability of Community Based Laboratories in Nunavut

The talk will discuss previous efforts to develop community based analytical laboratories in Nunavut, more generally, and address lessons learned from NAC's unique experience in operating an environmental research and training laboratory in Nunavut. I will discuss the importance of clear vision and purpose, the need for accessible and relevant diagnostic procedures, and the importance of committed resources, personnel, and partnerships/mentorship to ensure sustainability. The value/potential of new diagnostic technologies in enhancing opportunities for non-scientist Nunavummiut to engage in and lead lab based work will be illustrated and I'll discuss some key challenges in lab management (e.g. health and safety, quality control, documentation, waste management).

Plenary Speaker: Jennifer Winters

Amos Comenius Memorial School, Hopedale, NL, jenniferwinters@nlesd.ca

Sunday, May 31st, 9:15 – 10:15 am

Incorporating Inuit Content in Chemistry Courses for Inuit Students

I have spent my entire teaching career at a predominantly Inuit school in the Inuit self-governing region of Nunatsiavut, Labrador. It has been my experience that Inuit students typically find little connection to traditional chemistry teaching. In my presentation, I will describe how I supplement current high school curricula to incorporate aspects of Inuit Life and Culture. I will be providing comments from my previous and current students regarding the impact of bringing their culture into the classroom. I look forward to collaborating with chemistry teachers of Inuit students from across Inuit Nunangat with the goal of enhancing curriculum relevance by deepening the connection with traditional Inuit knowledge and experiences.

Invited Speaker: Svetlana Barkanova

School of Science and the Environment, Grenfell Campus, Memorial University of Newfoundland, sbarkanova@mun.ca

Saturday, May 30th, 10:50 – 11:10 am

North Star Pathways: Connecting Remote Classrooms to the Careers of the Future

The careers of the future—whether in quantum technologies, energy, health innovation, artificial intelligence, mining, or advanced manufacturing - will increasingly require strong foundations in science and mathematics. Yet students in rural, remote, and Northern communities do not always have access to specialized science teachers and are statistically more likely to disengage from subjects such as chemistry and physics. This early disengagement can narrow academic and career pathways before students have had the opportunity to fully discover their interests and potential. “North Star Pathways” addresses this challenge by connecting scientists, engineers, and STEM professionals from across Canada with students in rural and remote schools - from Atlantic Canada to the North and beyond. Through live, curriculum-aligned online guest presentations, we bring diverse role models directly into Grades 7–12 classrooms, helping students see themselves in STEM. Presenters share their personal journeys - the challenges they faced, the motivations that sustained them, and the unexpected turns along the way- making career pathways feel tangible and attainable rather than distant or abstract. Researchers, graduate students, industry professionals, and educators can participate as guest speakers and curriculum co-developers, strengthening national networks of inclusive engagement. By building sustained connections between Canada’s scientific community and classrooms that are often geographically isolated from major research centers, North Star Pathways helps ensure that talent is nurtured everywhere - not only in urban hubs. Because potential is universal. Opportunity should be too.

Invited Speaker: Erica Taylor

York Region District School Board, Ontario, e_d_taylor@yahoo.ca

Sunday, May 31st, 10:40 – 11:00 am

Perspectives of Teaching Inuit-Contextualized Chemistry to non-Inuit Students

A presentation on my reconciliation learning journey about bringing "Chemistry: An Inuit Perspective" articles from the Chem13 News magazine into your classroom. Helping students make connections and value Indigenous knowledges and perspectives, as well as making connections between themselves and the chemistry curriculum.

Invited Speakers: Victoria Coman and Cynthia Thoms

Ampere Pinnguaq Association, victoria.c@amp.ca

Sunday, May 31st, 11:00 am – 12:00 pm

Iqaluit Makerspace

Learn about the Iqaluit Makerspace and the Ampere Pinnguaq Association, including an activity from our Ocean Conservation Kit.

The Iqaluit Makerspace provides a central hub for creativity, innovation, and knowledge sharing in Nunavut. The space serves as a center for exploration of growth in science, technology, engineering, arts, and math that intersects with everyday living, language, and culture. If it's creative in any shape or form, it has a home at the Iqaluit Makerspace.

Today, Ampere's Iqaluit makerspace is a hub for community learning and connection. Programs range from adult digital skills classes to youth camps, and activities range from robots to Pitsi making, focusing on STEAM education that reinforces and supports traditional knowledge and practices.

Oral Presentation Abstracts

Saturday, May 30th, 11:10-11:30 am

Supporting the First-Year Transition: A Customizable OER Textbook for Equitable Access to Chemistry Learning

Kris Quinlan

University of Toronto, kristine.quinlan@utoronto.ca

First-year chemistry brings together students with very different backgrounds. Some students come in with a strong foundation, while others have mostly memorized chemistry in high school and can feel overwhelmed by the pace and amount of material. Supporting this transition is critical, as first-year chemistry often serves as a gateway to multiple programs.

Saturday, May 30th, 11:30-11:50 am

Using Comics to Portray Chemical Concepts

Jerry Godbout

University of New Mexico - Valencia Campus, jgodbout@unm.edu

Like many instructors, I have regularly used simple, original stand-alone graphics in my courses. These applications have ranged from sketches announcing and summarizing a new major topic in a class intended for non-science majors to those meant to explain specific thermodynamic principles in physical chemistry courses. These graphics have been particularly useful for the more complex topics in that they demonstrate a concept that may otherwise only be described “by equation,” but never fully understood by the student. Furthermore, the incorporation of comics as formal course materials has been shown to be an effective pedagogical tool. They have been shown to be particularly effective for those learning in a second language, which represents a significant portion of the UNM-Valencia learners. The development of an end-of-semester review activity for a first-semester General Chemistry course based on a 16-panel comic featuring the thermite reaction, and nascent attempts a graphic novel explaining topics in Quantum Chemistry will be discussed.

Saturday, May 30th, 11:50-12:10 pm

Embedding Metacognition in First-Year Chemistry: Supporting Diverse Learners Through Integrated Practice

Summer Xia Li and Charles-Olivier Dufresne-Camaro

UBC Okanagan, xiali.summer@gmail.com

Many first-year university students enter with limited learning strategies, self-regulation, and self-awareness—skills collectively referred to as metacognition. These competencies are strongly associated with improved academic performance and self-confidence. Despite the widespread adoption of active learning and student-centered pedagogies, many first-year chemistry students continue to struggle—not due to a lack of ability or motivation, but because they lack awareness of effective study strategies and resilience-building approaches, with these challenges often more pronounced among first-generation and underrepresented students.

To reduce cognitive load and better align metacognitive skill development with course learning outcomes, we integrated metacognition training directly into the course structure, following the teaching schedule rather than positioning it as a standalone task. We developed a six-part, scaffolded series of metacognitive training activities embedded within scheduled class time and aligned with course content. This year, the study was expanded to two course sections and followed student responses across two semesters. Preliminary findings reveal emerging trends in how first-generation and non–first-generation students engage with and benefit from these interventions.

This presentation will outline the design and implementation of the modules, examine their impact on students' learning experiences, and discuss insights from three rounds of student feedback surveys.

Saturday, May 30th, 12:10-12:30 pm

Think Like an Expert: Scaffolding Representational Competence in Organic Chemistry

Jess Allingham, Dr. Alexis Brown (TRU), Dr. Brett McCollum (University of Central Florida), Krunal Patel (TRU) and Ashlynn Jensen (TRU)

Thompson Rivers University (TRU), jallingham@tru.ca

Nuclear Magnetic Resonance (NMR) spectroscopy is a central tool of chemical practice and a foundational competency for aspiring chemists. Yet for many students, NMR remains one of the most challenging topics in organic chemistry, often a gatekeeper course in undergraduate chemistry curricula. These difficulties arise in part from the cognitive demands of interpreting, translating, and coordinating multiple representations, including spectra, molecular structures, and symbolic conventions. Collectively, these skills are described as representational competence, a hallmark of expert chemical thinking (Kozma & Russell, 2005).

Learning chemistry has been likened to learning a new language: students must become fluent in specialized representational systems and participate meaningfully in chemical discourse (Gee, 1992). This project investigates how experts interpret NMR data and enact disciplinary reasoning through the analysis of think-aloud problem-solving protocols and semi-structured interviews with organic chemistry faculty. Attention is given to how experts coordinate multiple representations, justify interpretive claims, manage ambiguity, and construct chemical meaning from complex spectral data.

Grounded in representational competence theory (Kozma & Russell, 2005) and Vygotsky's concept of scaffolding within the zone of proximal development (Vygotsky, 1978), this study identifies recurring patterns in expert NMR reasoning that have direct instructional relevance. These patterns are translated into targeted scaffolding strategies designed to make expert practices visible, explicit, and learnable for students. The findings contribute to ongoing efforts in chemistry education to support students' development of representational competence in organic chemistry and to design instruction that more effectively apprentices learners into expert-like approaches to NMR interpretation.

References:

Gee, J. P. (1992). Social linguistics and literacies: Ideology in discourses (3rd ed.). Routledge.

Kozma, R. B., & Russell, J. (2005). Multimedia learning of chemistry: The role of representations and dynamic models. Journal of Research in Science Teaching, 42(2), 181–210. https://doi.org/10.1002/tea.20060

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Harvard University Press.

Saturday, May 30th, 1:30-1:50 pm

Identifying and Removing Barriers for Service Dog Handlers in STEM Education

Shannon Accettone

Trent University, shannonaccettone@trentu.ca

Students who require service animals as medical accommodation have been historically underrepresented in STEM-based undergraduate, graduate, and professional programs and thus within the scientific industry as a whole. Barriers for student service dog handlers in STEM, both real and perceived, often revolve around restrictions to core laboratory and practicum courses. This talk will focus on identifying such barriers and providing actionable strategies for their removal to provide a culture of universal design for all built on proactive - not reactive - inclusive policies on accommodating service dogs within STEM laboratory spaces and how these same principles can be applied to professional placements and practica.

Saturday, May 30th, 1:50-2:10 pm

Towards Decentralized Undergraduate Research in Chemistry

Christine Tong, Jesse Wickstrom, Ella Hillbrecht

Vancouver Island University, christine.tong@viu.ca

Undergraduate students who participate in research have a clearer understanding of their academic goals, are more resilient, and are more likely to graduate. Yet, students who are unable to be on campus or work during normal working hours, for example those with disabilities, carer responsibilities, or learn remotely, miss out on research opportunities and the chance to enhance their academic success. Furthermore, the availability of research opportunities is limited by resources including lab space and instrument time. This paper describes work towards a model for flexible, scalable, in-community undergraduate research in air quality monitoring that uses portable particulate matter monitors to measure particulate matter concentration (PM2.5 and PM1.0), that has health impacts. Students collected PM2.5 and PM1.0 data in their communities and learned to analyze and validate their data. They also worked with local K-12 students on doing small scale air quality research projects. Through this community-based research, students gained experience in research design, field work, data handling, data processing and analysis, data validation, teamwork and communication skills. This research model improved access to research experiences by reducing some barriers typical of traditional research models and engaged students who are early in their academic journey.

Saturday, May 30th, 2:10-2:30 pm

A Course-Based Undergraduate Research Experience for a Nonmajors Chemistry Course at a Community College

Melanie Harvey

Johnson County Community College, Overland Park, KS, USA, mharve14@jccc.edu

In a Course-based Undergraduate Research Experience (CURE) students conduct authentic research as part of a regular laboratory course. CUREs have been shown to be a high-impact educational practice and particularly effective in the community college context. Additionally, culturally responsive, place-based STEM education has been found to increase the relevance of learning by linking academic content to students' everyday lives and local environments, including region-specific environmental challenges or traditional agricultural practices.

In a general, organic, and biological chemistry course at Johnson County Community College (JCCC), students collected and tested soil samples from two different restored prairie areas. One area consists primarily of native tallgrass and is on the JCCC campus and the other area is a park near campus with a restored prairie area primarily of native forbes. Students analyzed the total organic carbon of various samples to answer several evolving questions related to these areas and their potential role in carbon sequestration. The methods used to scale this project for a lab of 24 students will be discussed. Additionally, the integration into the curriculum of the course will be presented. Additionally, student data relevant to student success will be discussed.

Saturday, May 30th, 2:30-2:50 pm

Exploring Green Chemistry by RAMPing up & Initiating Free Radicals

Jimmy Lowe

British Columbia Institute of Technology (BCIT), Jimmy_Lowe@bcit.ca

In this presentation, I will emphasis the 'small points' of Green Chemistry for lab safety in conjunction with the students practicing R.A.M.P.[1] This safety framework guides students to Recognize hazards, Assess risks, Minimize risks, and Plan for emergencies.

The autooxidation of benzaldehyde as a demonstration can be used to review concepts including mechanisms, spectroscopy, and extraction. Students gauge their level of understanding through discussions and formative assessments (eg exit tickets, problems of the day).

[1] What is RAMP? ACS Institute. https://institute.acs.org/acs-center/lab-safety/safety-basics-and-ramp/what-is-ramp.html (accessed, Mar. 2026)

Saturday, May 30th, 2:50-3:10 pm

Green Chemistry with Vernier

Jack Randall

Vernier Canada, jetsetchemist14@gmail.com

In this presentation, we will explore the Green Chemistry experiments that have been developed by Vernier Science Education. Vernier has joined the academic effort to design activities that reduce or eliminate the use and generation of hazardous substances, as well as take advantage of commercially available substances.

Saturday, May 30th, 3:30-3:50 pm

Strengthening Sustainable Health and Science Pathways in Nunavut: A Strategic, Inclusive Framework from Grade 7 to Grade 12

Adolf Diange Eboa

Government of Nunavut, Department of Education, aeboa015@uottawa.ca

The educational system in Nunavut remains fast-growing with greater prospects. However, schools seem to face persistent challenges in preparing students for science-related careers. Some challenges include limited resources, diverse learners' needs, linguistic diversity, and gaps in foundational science skills, all of which are sustainable for such a realistic science path. Barriers can restrict students' progression toward sustainable future healthcare, STEM and science/chemistry pathways, limiting their opportunities upon graduation. Notwithstanding, pathways leading to trades and grade 12 job preparation remain very vital and are not in any way undermined; the focus of this discussion is on science/chemistry and health pathways, which lead to high-turnover professions in Nunavut. There is therefore a need for a system that is systematic, culturally responsive, and developmentally aligned, beginning in early middle school grades. The presentation provides a framework for sustainable approaches from grades 7 through 12, and towards suitable career pathways in Nunavut schools. This framework integrates approaches from the differentiation, modification, and accommodation (DMA) principles to support culturally and multiculturally responsive, equitable learning and preparation for postsecondary opportunities in health- and science-related fields. To conclude, this presentation aims to provide a scalable, adaptable pathway that serves as a roadmap towards healthcare and science-related fields.

Saturday, May 30th, 3:50-4:10 pm

K-10 Science Curriculum Renewal in Manitoba – Preparing for Mandatory Implementation

Shannon Baxter

École George-McDowell, Louis Riel School Division, Winnipeg, MB

Manitoba Education started its process to renew the existing Kindergarten to Grade 10 Science Curriculum in 2023. The renewed curriculum was piloted in schools across the Province during the 2024-2025 school year and feedback resulted in continued improvements and changes. During the 2025-2026 school year, schools were encouraged to voluntarily implement the renewed curriculum resulting in a mix of current and renewed being taught across Manitoba. Mandatory implementation is expected across the Province for all schools in the upcoming 2026-2027 school year. This talk will outline the new features and the shift towards explicitly teaching about Indigenous Perspectives, Nature of Science, Practical Science and Science Identity as compared to the previous curriculum. We will discuss how the renewed curriculum is structured around Wynne Harlen's (2015) 10 Big Ideas of Science and how each big idea is taught as a progression from grades K-10. Finally, the talk will speak from a leadership perspective how to support teachers while they prepare to implement the renewed curriculum in the fall as well as some thoughts and ideas on how to weave Indigenous Science into the curriculum and continue climbing the mountain.

Saturday, May 30th, 4:10-4:30 pm

Legacy Chemicals and Other School Chemical Safety Issues – A Workshop for Science Teachers and Community Members

François Gauvin and Shannon Baxter (École George-McDowell, Louis-Riel School Division)

Université de Saint-Boniface (retired), f.gauvin.14@gmail.com

Chemical Inventory, Laboratory Clean-up, Legacy Chemicals (a major concern in many schools), Storage, Emergency Measures, Spills are important issues to discuss with science teachers.

This talk will briefly describe the 75-minute chemical safety workshop we offered to science teachers on October 24th, 2025, during the 52nd French Pedagogical Conference held at Collège Louis-Riel in Winnipeg. This workshop (that counted 12 participants) was specifically addressed to young science teachers of Grade 7-12 levels who are facing various challenges with the management of their chemicals in their laboratories.

An overview of the Canadian Chemical Safety Systems will also be discussed, and management tools proposed as well.

A similar (and improved) workshop shall be offered in English during the Science Teachers' Association of Manitoba (STAM) Professional Development Day on October 23rd, 2026 .

Saturday, May 30th, 4:30-4:50 pm

Integrating Inuit Traditional Knowledge and Western Science in Nursing Education: A 20-Year Perspective

Esther Powell

Nunavut Arctic College, esther.powell@arcticcollege.ca

This presentation reflects on the evolving relationship between Inuit traditional knowledge and Western scientific nursing through the experience of an Inuk nurse educator from Arviat, Nunavut. When the presenter graduated in 2006, Inuit specific research was largely absent from nursing curricula, creating barriers to evidence-based practice in northern and culturally grounded contexts. Lived experience shaped by Arctic climate, traditional diet, and Inuit midwifery practices had little formal recognition within the scientific frameworks guiding care.

Over two decades of practice in community health, corrections, home care, management, and now education, the presenter has witnessed a gradual shift. Inuit knowledge is increasingly acknowledged within nursing science, including its recent inclusion in Potter and Perry. This progress reflects expanding research, community advocacy, and Indigenous leadership that have strengthened the evidence base for Inuit health practices.

Now serving as Acting Chair of Health and Wellness Programs at Nunavut Arctic College, the presenter shares approaches for teaching the science behind Inuit traditional health practices and integrating them into nursing education. The session concludes by emphasizing how incorporating Inuit knowledge strengthens cultural safety, supports truth and reconciliation, and equips future nurses to deliver more inclusive, evidence rich, and culturally grounded care.

Saturday, May 30th, 4:50-5:10 pm

Developing Educational Activities for Under-Resourced Communities as Part of a Community-Engaged Student-Led Project

Jessica D'eon, Mayrose Salvador (Pueblo Science), Emils Zalite (University of Toronto), Sasha Maniaci (University of Toronto)

University of Toronto, jessica.deon@utoronto.ca

In Fall 2025, students enrolled in CHM410 Analytical Environmental Chemistry engaged in community partnered projects designed to connect analytical chemistry education with real-world challenges. One of these collaborations was with Pueblo Science, an educational non-profit dedicated to supporting science learning and innovation in low-resource and remote communities in Canada and internationally. Working closely with Pueblo Science Executive Director Mayrose Salvador, a team of four students developed hands on activities for middle school learners using low-cost pH, turbidity, and temperature Arduino-controlled sensors. The project students calibrated and evaluated the sensors, and designed age-appropriate interactive learning activities, which were consolidated into a browser-based web application titled Chem Sense.

This presentation will highlight key elements of project implementation, including strategies for community partner recruitment, relationship-building, and the scaffolding of student assessment to support meaningful experiential learning. The collaboration with Pueblo Science will be used as a case study to illustrate the benefits and challenges of integrating community-engaged projects into the chemistry curriculum. Finally, we will outline plans for deploying the developed activities in northern Canada, Indonesia, and the Philippines, as well as opportunities for future partnerships involving chemical analyses that respond directly to the needs of educators in these communities.

Sunday, May 31st, 1:00-1:20 pm

FACEtS of Chemistry: A Grassroots Video Initiative to Showcase the Diversity of Faces and Facets in Chemistry at UBC Okanagan

Tamara Freeman, Dr. Robert Godin, Dr. Summer Li, Michele Cannon, Dyuti Raghu

University of British Columbia Okanagan, tamara.freeman@ubc.ca

This project introduces the “Who Are We” video series, a strategic initiative in the Department of Chemistry at the University of British Columbia, Okanagan Campus, designed to improve inclusion and increase the visibility of racially diverse role models. By featuring accessible, grassroots-style interviews with graduate and upper-level undergraduate students, the project highlights the stories of Historically, Persistently, or Systemically Marginalized (HPSM) members to foster a stronger sense of belonging for both current and prospective students.

The videos serve as a relatable forum where student mentors share research enthusiasm, career trajectories, and practical study tips. A primary focus is demystifying undergraduate research opportunities —a high-impact practice known to reduce equity gaps and strengthen science identity.

Aligned with the Strategic Equity and Anti-Racism (StEAR) framework’s pillar of Interactional Change, the project implements strategic actions to bolster equity, inclusion, and anti-racism competencies. Using H5P (HTML5 Package), we plan to create interactive content to increase engagement and collect data that can contribute to ongoing research on sense of belonging and affective learning gains conducted through the Canadian Consortium of Science Equity Scholars (CCSES).

Ultimately, we hope to create an ongoing series of videos that aim to transform departmental culture by reducing perceived barriers, valuing student contributions through honoraria, and ensuring that all students—particularly those from underprivileged backgrounds—see their own diversity reflected in the future of science.

Sunday, May 31st, 1:20-1:40 pm

From Residence to Road: A Two Campus Examination of Commuter Status and Belonging in Introductory Chemistry

Lindsay Blackstock and W. Stephen McNeil (University of British Columbia - UBCO)

Thompson Rivers University, lblackstock@tru.ca

Sense of belonging among university students impacts both academic outcomes and student well-being, with disproportionate effects on students from historically marginalized and underrepresented groups. The two authors are chemistry educators, and members of the Canadian Consortium of Science Equity Scholars, a group of education researchers from across Canada exploring senses of identity and belonging among students in large introductory science courses. One author's institution is primarily a destination campus, with the majority of students moving to university from other regions of the province, country, or from other nations, and who live on or immediately proximal to the campus. The other author's campus serves a primarily local student cohort of students who live off campus and commute to university. In this presentation, the authors will present an analysis of survey data from first-year chemistry students on both campuses, exploring differences among the two student cohorts in their commuter status, commute methods and times, and living arrangements, and correlating these factors against reported senses of self-efficacy, disciplinary belonging, social belonging, and course performance. Attendees will gain insight into how considerations of introductory university student commuter demographics play a role in determining involvement of student and campus community, and will be asked to discuss and reflect upon implications for their own student demographics, and implications for best teaching and learning practices.

Sunday, May 31st, 1:40-2:00 pm

Elements of Success & Chemists of Influence: EDI @ U of T

Andrew Dicks, Anita Hu, Bennett Armstrong, Alyx Dellamonica

University of Toronto, andrew.dicks@utoronto.ca

At the University of Toronto, efforts have made over a number of years to create departmental opportunities for fostering an equitable, diverse, and inclusive teaching & learning environment. Two such initiatives will be described in this presentation.

Firstly, since 2024 Chemistry has conducted a series of online interviews with undergraduate program students called “Elements of Success”: these appear on the departmental homepage and highlight the diversity among the student body in terms of ethnicity, race, gender, place of birth, academic/non-academic interests, program of study and other considerations. These interviews and other items such as research opportunities and social events are advertised each month between September and May through an Associate Chair Undergraduate informational email to all program undergraduates, and to first-year students through course newsletters.

In addition, an upper-year undergraduate and a graduate student have recently designed seven posters to hang outside the high-traffic first-floor undergraduate laboratories as part of a “Chemists of Influence” series. The idea here is to highlight a variety of chemists from diverse backgrounds who have overcome adversities to succeed in their respective fields of chemistry, and who are linked through their research to specific departmental programs: in doing this the programs themselves and U of T faculty conducting research in related areas are advertised to students before they make program choices in March each year. The seven faculty members profiled are Carolyn Bertozzi, Jennifer Petter, Polly Arnold, Paula Hammond, Mostafa El-Sayed, Diana Aga, and Raychelle Burks.

Sunday, May 31st, 2:00-2:20 pm

Intersectionality and Allyship: Maria Y. Orosa, Forgotten Pioneer Food Chemist

Geoff Rayner-Canham and Marelene Rayner-Canham

Grenfell Campus, Memorial University, Corner Brook, NL, geoffraynercanham@hotmail.com

Intersectionality: “the interconnected nature of social categorisations such as race, class, and gender, regarded as creating overlapping and interdependent systems of discrimination or disadvantage.”

Allyship: “the active support for the rights of a minority or marginalized group without being a member of it.”

In the Herstory of women in chemistry, ‘intersectionality’ and ‘allyship’ are both important sociological concepts. We will illustrate the relevance of them in the context of the life and work of Maria Y. Orosa. Orosa, born in Manila, Philippines in 1892, travelled to the University of Washington, U.S. to obtain her university education. She persevered, despite community racial hostility towards Asians. With the encouragement of Charles Johnson, Dean of Pharmacy, Orosa obtained a B.S. (Pharmaceutical Chemistry) and an M.S. (Pharmacy). She returned to the Philippines, where she had an amazing career that we will describe. Sadly, Orosa was killed “in the Line of Duty” during the second battle of Manila in WW2.

Sunday, May 31st, 2:40-3:00 pm

Rainbows, Halos, and Glories: Some Atmospheric Optical Phenomena

Alexander (Sandy) Briggs

University of Victoria (BC), briggsag@uvic.ca

Water droplets and ice crystals in the atmosphere result in a variety of optical phenomena that are impressive and interesting, even awe-inspiring. Residents of the Arctic are particularly fortunate in being able to witness ice crystal displays more often than those of us in the south. This topic is Chemistry only in the sense of its relevance to water and to hydrogen bonding in ice crystals, and neither am I an expert in the field of optics and lenses. However, I have assembled some information and photos, both my own and those of others (of course with credit where possible), to illustrate a variety of such phenomena and to provide at least a first-level explanation of how such displays occur. These should give the casual observer not only a good idea of when (under what conditions) to look for such displays but also some idea of how they occur and some names for what is seen.

Sunday, May 31st, 3:00-3:20 pm
Retirement and Going Out with a bang!

John Eng and Wayne Lippa

University of Lethbridge. engj@uleth.ca

Let's talk about some everyday pHun with chemical demonstrations and the Chem Guys Final Performance.

Poster Abstracts

Relating to Role Models: An Interactive Collaborative Poster on Belonging in Chemistry

Lindsay Blackstock, Jessica Allingham, Sharon Brewer

Thompson Rivers University, lblackstock@tru.ca

Fostering a sense of belonging is central to student success in first-year chemistry, yet many chemistry learners struggle to see themselves reflected in dominant narratives of who belongs in the discipline. This poster builds on our previously presented work, 'Relating to Role Models', a reflective assignment developed for first-year chemistry courses at Thompson Rivers University that supports UN Sustainable Development Goal 4: Quality Education by helping students connect personal identity, values, and aspirations to chemistry through role models. Rather than focusing solely on technical achievement, the activity invites learners to reflect on diverse pathways and experiences in science.

In this interactive non-traditional poster, conference participants will actively engage in a modified version of the Relating to Role Models assignment to embody the spirit and learning goals of the activity. Participants will identify and reflect on role models who have shaped their chemistry journeys and consider themselves as potential role models within the community. These reflections will be shared through a collaborative "Role Models Board," modelling a low-barrier, inclusive practice that can be readily adapted to a variety of settings.

https://drive.google.com/open?id=14MyuKQGJyHhoyTwTBG6s1tmhrBlcLFkX

Committing To Undergraduate Education in Green Chemistry

Andrew Dicks

University of Toronto, andrew.dicks@utoronto.ca

For more than two decades individual faculty from various colleges and universities have brought green chemistry, emphasizing materials and methods that are inherently safer for human health and the environment, to their students and research programs. As global calls for sustainability in the chemical enterprise ramp upward, the need to more widely integrate green chemistry into the background of all our students becomes imperative, preparing students to be competitive in the workplace and to solve important problems that they will encounter.

The Green Chemistry Commitment (GCC) is a consortium project that seeks to encourage colleges and universities to commit to changing the education of tomorrow's chemists. Currently almost 250 colleges and universities are participating: from research-intensive universities to primarily undergraduate institutions to community colleges, nationally and internationally. They include the University of Toronto (who were the first Canadian (and non-US) institution to sign the Commitment in 2016) and 19 others in Canada. The flexible framework allows all to participate in ways that best fit the local needs of the institution: the program is distinctive but not exclusive.

This poster presents how to adapt the GCC framework to a wide range of colleges and universities, with the goal of encouraging broadened participation.

Building a Sustainable Community College Course-Based Undergraduate Research Experience Program

Melanie Harvey and Heather M. Seitz

Johnson County Community College, Overland Park, KS USA, mharve14@jccc.edu

A Course-based Undergraduate Research Experience (CURE) is an authentic research experience embedded into a course as part of the regular requirements for a program of study. CUREs provide an opportunity for students to engage in authentic research without having to solicit a mentored research experience, and spend uncompensated time in research labs. Prior to this work we had CUREs in two courses at our community college and we sought ways to expand these offerings to all of our science courses to provide more opportunities for students to engage in authentic scientific research experiences. Our strategic project funded by the National Science Foundation created a sustainable CURE program through a learning community approach with a focus on institutional change. This project addressed barriers by creating a research "culture" and providing support to faculty. Goals of the program were to increase the number of science courses using CUREs and to increase the number and diversity of students engaged in scientific research at our community college. Within in the chemistry department, we have 6 faculty now offering CUREs in their courses, which include: general chemistry, organic chemistry, biochemistry, principles of chemistry, and principles of organic and biological chemistry. Data presented will include surveys from faculty participants, student survey data, interview data, and institutional data.

Online Oral Quizzes in General Chemistry

Lawton Shaw

Athabasca University, lawtons@athabascau.ca

AI has caused an upheaval in how educators assess whether students have met learning objectives. More than ever, verifiable assessments are critical to the recognition of learning. Oral exams are an option for meaningful, verifiable assessment. This poster describes the pedagogical and practical aspects of using oral quizzes to assess students' conceptual understanding in large enrolment, online, general chemistry courses.

Arctic Science: Knowledge today, stronger tomorrow

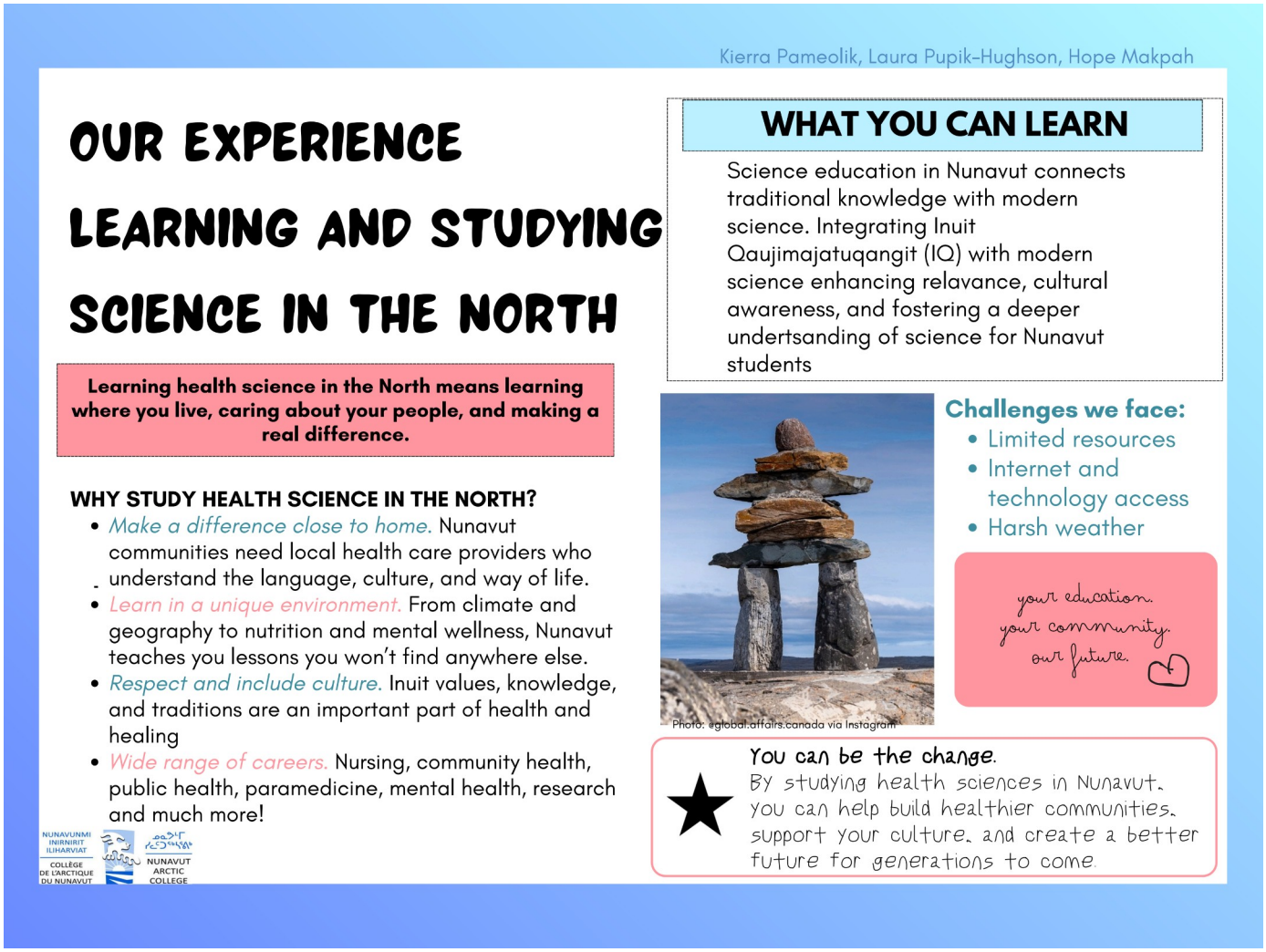
Andrea Dialla

Nunatta Campus, Nunavut Arctic College

Our Experience Learning and Studying Science in the North

Kierra Pameolik, Laura Pupik-Hughson, Hope Makpah

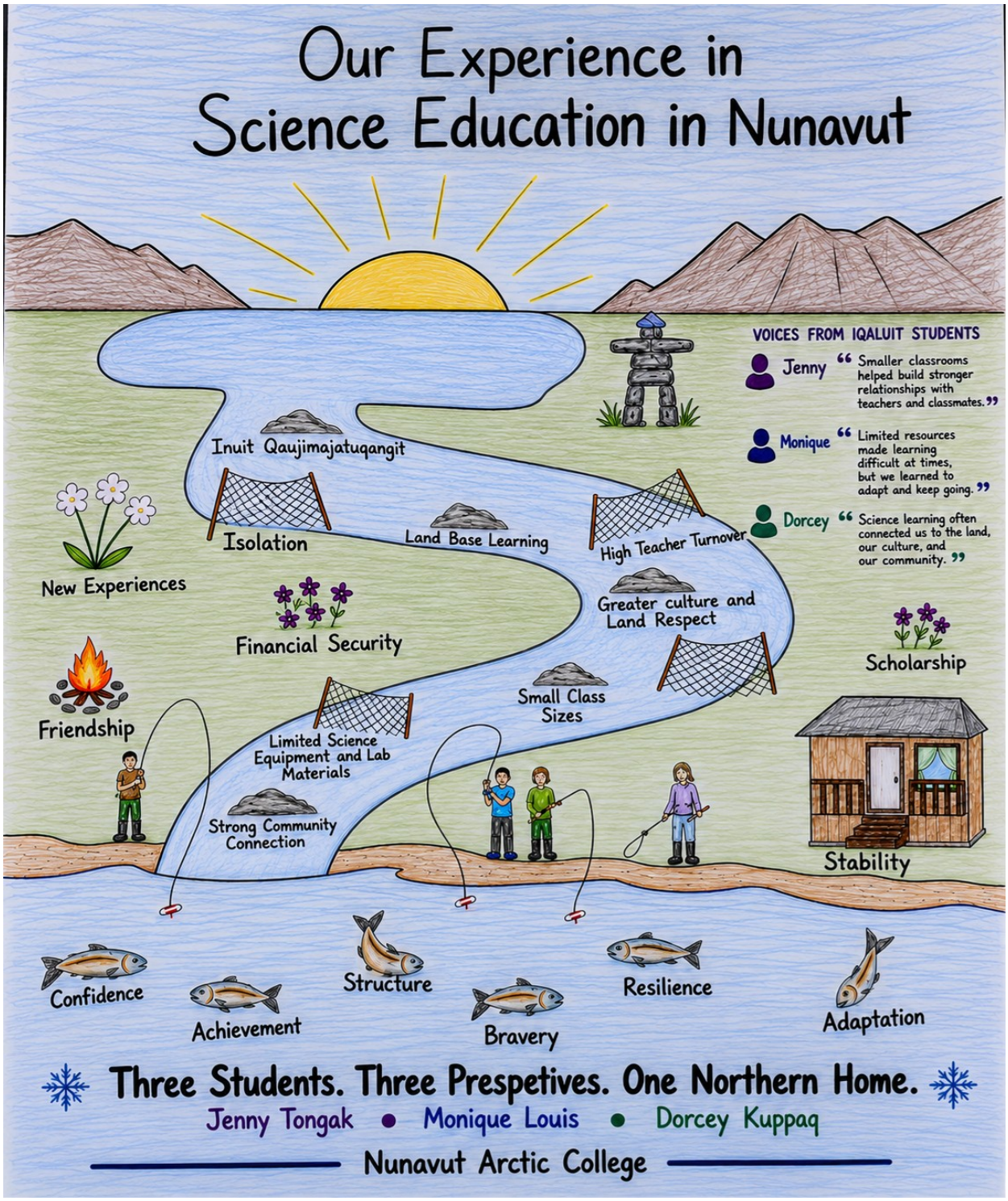
Rankin Campus, Nunavut Arctic College



Our Experience in Science Education in Nunavut

Jenny Tongak, Monique Louis, Dorcey Kuppaq

Nunatta Campus, Nunavut Arctic College



Cultural Activities

Fur Production and Design

This hands-on activity will teach attendees about traditional Inuit fur productions methods. The activity leaders are part of the Fur Design and Production program at Nunavut Arctic College, which focuses on traditional Inuit methods and technologies to prepare skins, design, and sew garments, as well as on commercial and contemporary methods for fur design and production.

Inuit Jewellery Making

This hands-on activity will teach attendees about traditional Inuit jewellery making using materials such as metal and bone. The activity leader is part of the Jewellery and Metalwork program at Nunavut Arctic College, which allows students to develop their knowledge and skills of jewellery and metalwork production in a professional studio atmosphere. The program stresses high standards of craftsmanship and creativity, all the time encouraging and exposing students to a wide range of materials, techniques and concepts.

Nunavut Research Institute (NRI) Tours and Demonstration

Part of the college, NRI is responsible for administering the Scientists Act across Nunavut, requiring any persons conducting research in health, social sciences, or natural/physical sciences to obtain a license from NRI. As part of their work, NRI performs vital laboratory testing for country food to ensure its safe consumption by the community. The NRI tour will show attendees the NRI facility in Iqaluit as well as demonstrate the methods used for country food analysis. This activity will occur in two waves of attendees.

Seal Dissection (Real-Time)

This real-time seal dissection pays tribute to the no-waste approach of Northern communities. The activity will show how the seal dissections are used as part of the NAC curriculum to teach concepts in human anatomy for pre-health science students.

CRC Press
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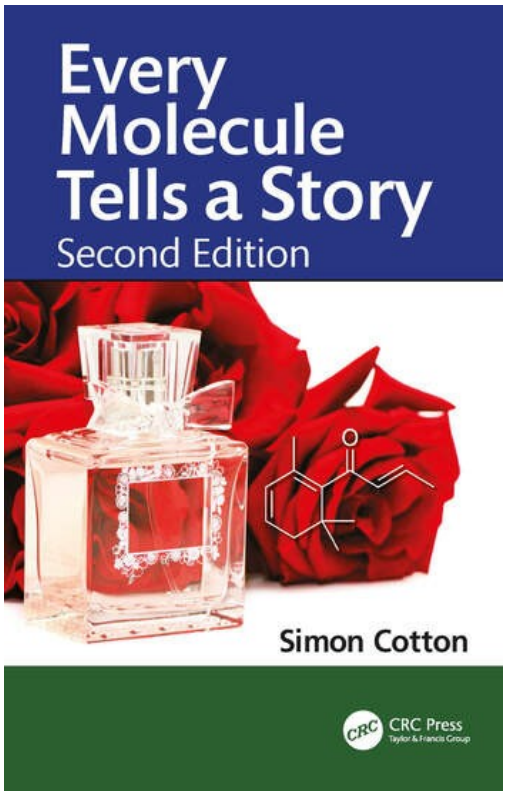
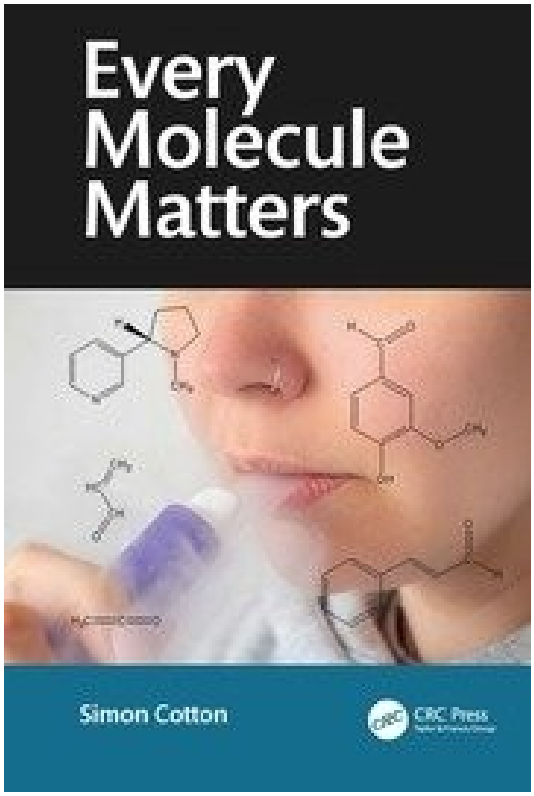
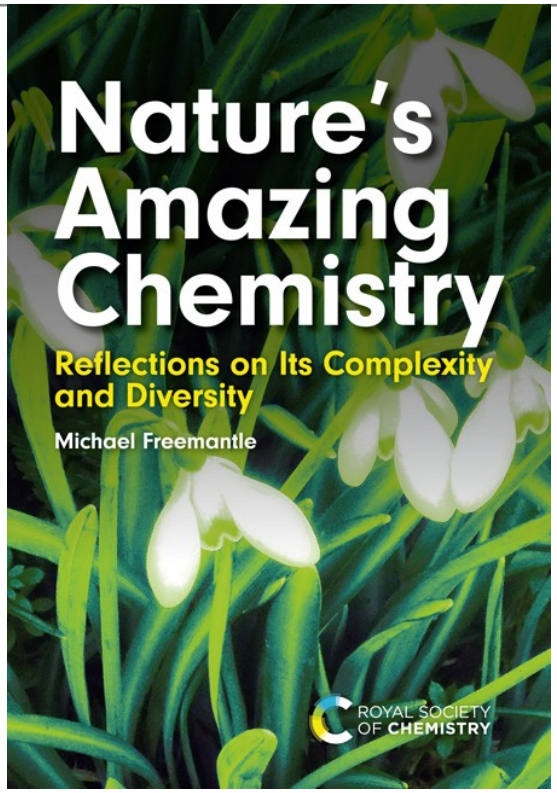
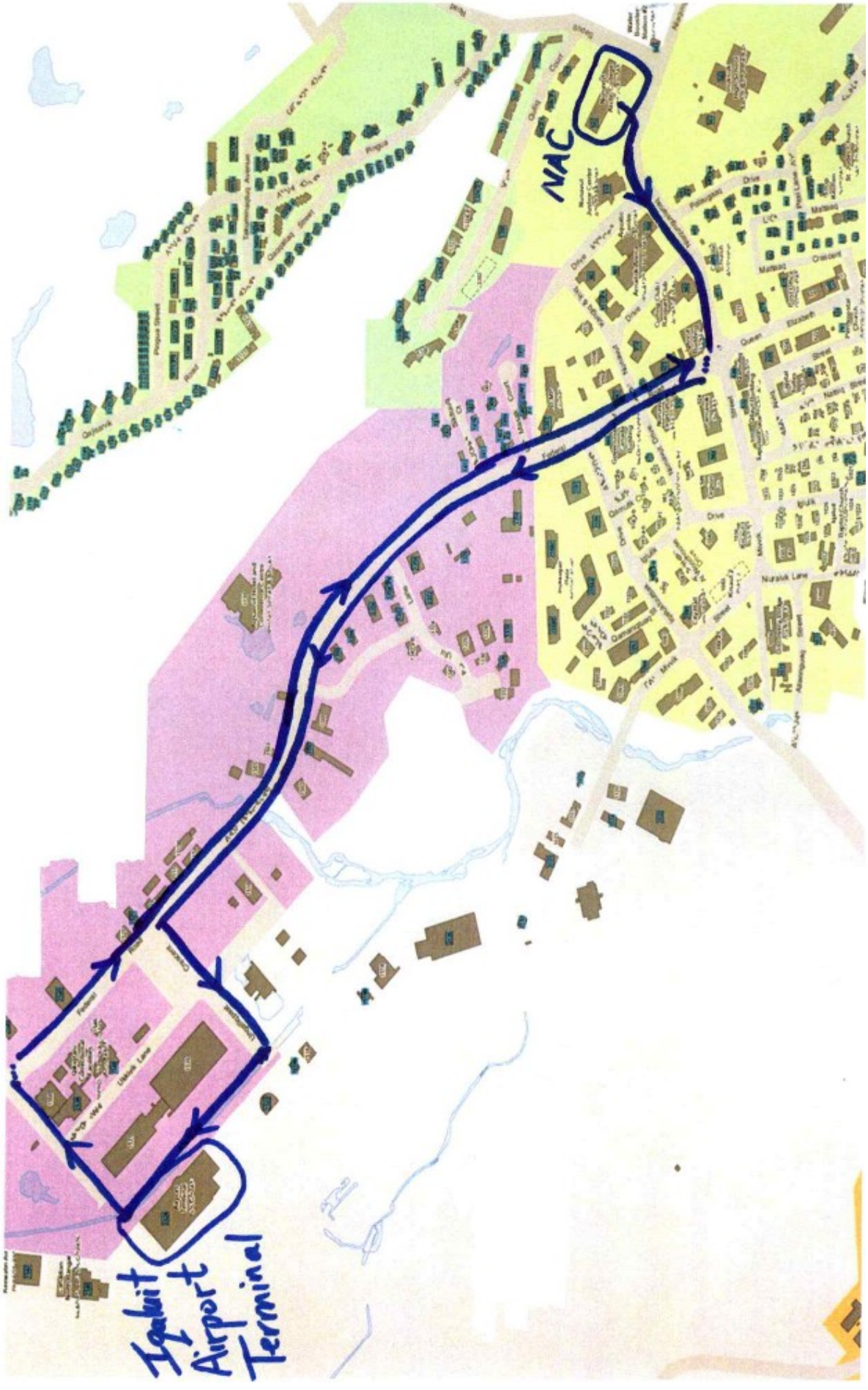






ROYAL SOCIETY OF CHEMISTRY

Fun Run Map



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