

SERG/GRÉS News

We're looking forward to CSSE 2015!

We have prepared this newsletter as we wait eagerly for our 2015 gathering in Ottawa. The SERG sessions at CSSE this year will bring together scholars from across Canada as well as international visitors. Additional information about the conference and the individual sessions is included on pages 7-9. Please mark your calendars so that you can join us for the Annual General Meeting, Tuesday, June 2nd at 1:15 p.m. (Room 241, Lamoureux Hall) and later that evening for the annual Science Education dinner at **Union 613** (6:30 p.m., 315 Somerset Street West, <http://union613.ca/food-menu/>). We look forward to this year's gathering of friends and colleagues.

See you soon in Ottawa!

Sincerely,

Carol Rees, Carol-Ann Burke, Christine Tippett, Cynthia Zhu, Michel T. Léger, Jerine Pegg, and Dawn Wiseman

SERG Executive 2014-2015

Nous avons hâte de vous retrouver au SCÉE 2015!

Nous avons préparé ce bulletin avec beaucoup d'anticipation en vue de notre rassemblement à Ottawa. Cette année, les sessions de GRÉS à la SCÉE réuniront des chercheurs de partout au Canada et des visiteurs du monde entier. De plus amples informations sur la conférence et les sessions individuelles sont incluses aux pages 7 à 9. Nous espérons que vous puissiez vous joindre à nous pour l'Assemblée générale annuelle, le mardi 2 juin à 13h15, et plus tard pour le dîner annuel du Groupe de recherche en éducation des sciences, à Union 613 (18h30, 315 rue Somerset Ouest, <http://union613.ca/food-menu/>).

À bientôt à Ottawa!

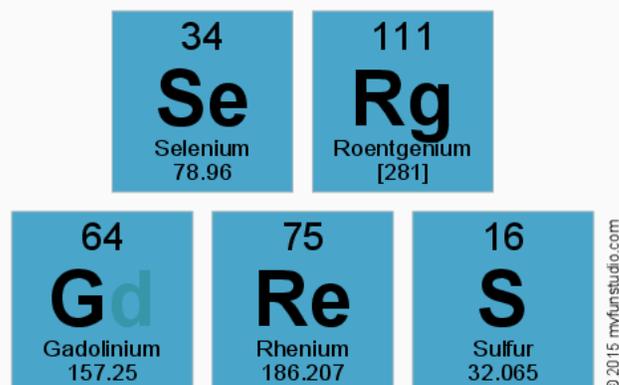
Cordialement,

Carol Rees, Carol-Ann Burke, Christine Tippett, Cynthia Zhu, Michel T. Léger, Jerine Pegg, et Dawn Wiseman

Directeurs 2014-2015 de GRÉS

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SERG President's Message

Dear SERG members,

This has been a very interesting year to be president of SERG. First of all it has been great to have Michel Léger join us at executive meetings and help us improve connections with Francophone colleagues. One crucial step has been the French translation of communications and policy documents that Michel has contributed to and overseen. Because of Michel's help we have already seen an increase in Francophone participation at our 2015 conference and we look forward to this continuing in future years.

It has also been great this year to discuss with John Wallace, David Blades, Dawn Wiseman, Carol-Ann Burke, and others, the ways that we can build closer association between SERG and the *Canadian Journal of Science, Mathematics and Technology Education (CJSMTE)*.

Conversations this year with Tony Bartley, George Zhou, Mike Bowen, and others about the nature and history of SERG have been really informative. We have also started discussions with Mike Bowen and Tony Bartley regarding ways to share successful methods and strategies for science teacher education. We look forward to continuing these conversations at the conference in Ottawa.

This year the SERG executive accepted the kind invitation by Erika Hasebe-Ludt and Rob Nellis of CACS to submit a paper for a panel at AERA entitled *Mobilizing Canadian Curriculum Research as Counterpointed Breakthroughs*. Led by Dawn Wiseman we submitted a paper entitled *Challenges and Innovation in the Canadian Science Education Research Community* and at AERA Carol-Ann Burke and I presented the paper. This was a true SERG executive group effort that strengthened ties with other CACS member groups and we look forward to maintaining these closer ties in the future.

Now our conference in Ottawa is just a month away and we are looking forward to getting together with you all especially at the AGM when we have some important business to vote upon including the formal addition of Francophone and student representatives to the SERG executive. We hope that you can make time in your schedule to attend the SERG AGM. As already mentioned, this year we are very fortunate to have a special keynote presentation from Professor David Blades that will run in conjunction with the AGM.

In addition, at the AGM we will be presenting the Annual SERG awards. The winner of the 2015 SERG Dissertation award is Dr. Guopeng Fu from UBC for the dissertation entitled: *Physics Teachers and China's Curriculum Reform: The Interplay between Agency and Structure*. Thank-you to Astrid Steele and Jerine Pegg for joining me on the SERG Dissertation Award adjudication committee this year. It was a pleasure to read all three short-listed dissertations. This year the Graduate student paper award goes to Samuel Blanchard from U. Moncton for his paper entitled *La ludification pédagogique comme outil à la mobilisation d'habiletés reliées au processus d'enquête : une recension des écrits*. The executive adjudicated this award based upon the comments, rankings and criteria of the SERG review process. There were no applications for the student travel bursary this year.

Lastly, I would like to thank all those with whom I have worked over the past year, particularly the members of the executive. First of all, many thanks to our Past-President Dawn Wiseman who has been a great resource and an innovative contributor. Special thanks to Carol-Ann Burke (Vice President) for all of the hours she spent organizing the review process and putting together a wonderful program for the conference. Thank-you to Chris Tippett (Secretary/Treasurer) for taking notes at Skype executive meetings (no easy task) and putting together the newsletters. Thank-you to Cynthia Zhu (Graduate Student Representative) for contributing her perspective to our executive meetings. Thank-you to Jerine Pegg for continuing to be our communications officer and updating our webpage and Facebook page and thanks to Michel Léger for being our acting Francophone representative. Finally thank-you to all of you for your papers for the conference and for contributing to the review process.

We look forward to seeing you all in Ottawa! Please consider also joining us for our annual SERG dinner. Thank-you so much to Chris Tippett for finding a venue that is reasonably priced and flexible.

Carol Rees



CSSE Conference 2015 University of Ottawa, Ottawa, ON 30 May – 3 June 2015

The CSSE Annual Conference is held in conjunction with the Congress of the Humanities and Social Sciences. This bilingual conference provides an opportunity for discussion of educational issues among practitioners and educational scholars from across the nation.

SERG Conference Welcome

Welcome to the 9th annual meeting of the Canadian Science Education Research Group at CSSE! This year we will be meeting in our country's beautiful and historic capital, Ottawa. SERG paper and roundtable sessions will be held on Monday, Tuesday, and Wednesday (June 1, 2, and 3, 2015).

I want to extend a big "Thank you!" to everyone who submitted proposals and to those who volunteered to review papers for the SERG sessions at CSSE 2015. We had a healthy number of proposals (38) and were able to include almost all of the papers in the program this year (36). The range of topics covered in the papers suggests that we are in for a really engaging time as local and international members of the Canadian science education research community congregate at the University of Ottawa. We would love to see you all there; if you haven't submitted a paper to SERG, come along anyway and join us as we discuss our work in a collegial and supportive environment.

An extra feature of our conference program this year is the keynote presentation by Professor David Blades that will be made at the SERG Annual General Meeting on Tuesday June 2, 2015. We are delighted that David has so generously given his time and his talent to initiate a new tradition for SERG. More details of his talk *Recognizing the Beauty: Aesthetics in Science Teacher Education* are provided later in this newsletter.

As usual, we have planned a SERG annual dinner for all SERG members and guests. We've made reservations for Tuesday June 2, 2015 at 6:30 p.m. The location is **Union 613** (315 Somerset Street West, <http://union613.ca/food-menu/>). Serving inauthentic Southern food – yes, you read that right – the restaurant has entrées ranging from \$20 to \$28. Please email me at lburke@ucalgary.ca as soon as possible to reserve your place.

Looking forward to seeing you all in Ottawa!
Carol-Ann Burke, Vice President and Program Chair

Tuesday, June 2 / mardi 2 juin

1:15 p.m. – 2:45 p.m. / 13h15 – 14h45

Lamoureux 241

Keynote Address: Dr. David Blades (University of Victoria)

Recognizing the Beauty: Aesthetics in Science Teacher Education

and

SERG Annual General Meeting / Assemblée Générale Annuelle du GRÉS

SERG Annual General Meeting / Assemblée Générale Annuelle du GRÉS

Tuesday, June 2 / mardi 2 juin
1:15 p.m. – 2:45 p.m. / 13h15 – 14h45
CACS / ACÉC (SERG/GRÉS)

Agenda (draft)

1. Keynote Presentation: Professor David Blades
2. Approval of the Agenda
3. Approval of the Minutes of 2014 Meeting
4. Business arising from 2014 AGM
 - a) Motion 1, to be voted upon at the 2015 AGM: *The addition of two positions be added to the SERG executive committee, a francophone representative position and a student representative position.*
 - b) Motion 2, to be voted upon at the 2015 AGM: *Revised wording to Articles 1.0 and 6.2*
For full text of the two motions, please see pages 5 and 6 of this newsletter.
5. Reports
 - a) President: Carol Rees
 - Recap of the year
 - Thank-you to the executive
 - Presentation of awards
 - b) VP/Conference Chair: Carol-Ann Burke
 - Conference report
 - c) Secretary-Treasurer: Chris Tippett
 - Budget
 - d) Graduate Student Representative: Cynthia Zhu
 - e) Communications/Website: Jerine Pegg
6. Nominations and Elections
 - President: Carol-Ann Burke
 - Vice President: Chris Tippett
 - Secretary/Treasurer:
 - Francophone Representative: Michel Léger
 - Graduate Student Representative:
 - Communications/Website: Dawn Wiseman
 - Past President: Carol Rees
7. New business
 - Membership list and creating a Google group
 - Discussion of special session for *Methods and Strategies in Science Teacher Education*: (Mike Bowen)
 - Book Proposal: Science Education in Canada (Chris Tippett and Todd Milford)
 - Any other business
8. Motion to Adjourn

Did you know that your SERG dues are primarily used to support graduate student awards and bursaries or that you can contribute to the awards and bursaries fund using an online form?

The current procedure for renewing CSSE memberships has led to a number of active SERG members forgetting to pay their group dues. As a result, we are short of funds to support awards and travel bursaries for graduate students. We are keen to maintain these important avenues for recognizing the critical contributions of graduate students to the Canadian science education research community and ask members to consider making a donation to the SERG awards fund using the form available at <https://www.assocsrv.ca/csse/Donations.asp>.

Notice of Motion A discussion regarding SERG executive membership was held at the AGM in St. Catharines, ON in 2014. Given SERG's commitment to expanding opportunities for Francophone science education researcher participation in SERG, there was agreement among the membership that a new position would be created for a Francophone representative on the SERG executive. When preparing for this change it was noticed by the executive that the addition of the position of student representative, which was instated some years ago, needed also to be officially added to the constitution. Another issue that came to our attention is the need for correction of several small errors in the wording of the constitution that were discussed at the AGM several years ago. The constitution, requires that proposed changes to the constitution that have already been discussed at prior AGMs, can only be voted on at the next AGM. As such, the following motions will be presented at the 2015 AGM on Tuesday, June 2nd (1:15-2:45 p.m.) in Ottawa. Proposed changes in wording are shown in red.

1. Proposed amendment to article 5.1 of the SERG constitution.

Motion

Be it resolved that:

two positions be added to the SERG executive committee; a francophone representative position and a student representative position. The new composition of the SERG executive committee would be amended to the following:

5.0 Members of the executive

5.1 The SERG's executive is comprised of:

- the position of president;
- the position of past-president;
- the position of vice-president;
- the position of secretary/treasurer;
- **the position of Francophone representative;**
- **the position of student representative.**

2. Proposed changes to the wording of two articles – 1.0 and 6.2.

Motion

Be it resolved that:

the following proposed changes to the wording of the SERG constitution be accepted.

Revised wording to 1.0 of the English version:

At present it reads as follows:

1.0 Title

The official name of our association is the Science Education Group, also known as the SERG.

The proposed amendment is to change this to the following:

1.0 Title

The official name of our association is the Science Education **Research** Group, also known as SERG.

Revised Wording of 6.2 of the English Version.

At present it reads as follows:

6.2 The vice-president agrees to work collaboratively with the president to ensure the smooth running of the SERG's business organize, the contribution to the annual meeting. This will include coordination of the proposal reviews and contact with authors.

The proposed amendment is to change this to the following:

6.2 The vice-president agrees to work collaboratively with the president to ensure the smooth running of the SERG's business, **including taking primary responsibility as Program Chair for organizing the contributions to the annual meeting.** This will include coordination of the proposal reviews, contact with authors, **and preparation of the SERG program.**

Avis de Motion Une discussion entre les administrateurs du GRÉS a été tenue lors de l'AGA de St. Catharines en 2014. Comme le GRÉS s'engage à élargir la participation des chercheurs francophones dans le domaine de l'enseignement des sciences, il a été entendu qu'un nouveau poste de représentant francophone soit créé au sein du comité exécutif du GRÉS. Lors de la préparation à ce changement, les administrateurs ont noté que la création d'un poste de représentant étudiant, instauré il y a quelques années, devait également être officiellement ajoutée à la constitution. Il a aussi été porté à l'attention de l'exécutif que plusieurs petites erreurs repérées il y a plusieurs années lors d'une AGA demeuraient au texte de la constitution et devaient être corrigées. Celle-ci stipule que les changements proposés à son endroit déjà été discutés lors d'une assemblée précédente peuvent seulement faire l'objet d'un vote lors de l'assemblée suivante. Ainsi, les propositions suivantes seront présentées à l'AGA de 2015, le 2 juin (13h15-14h45) à Ottawa. Des corrections proposées sont en rouge.

1. Un amendement à l'article 5.1 de la constitution du GRÉS.

Proposition

Qu'il soit résolu que :

deux postes seront ajoutés au comité exécutif du GRÉS : un poste de représentant francophone et un poste de représentant étudiant. La nouvelle composition du comité exécutif du GRÉS sera modifiée selon les points suivants :

5.0 Membres du comité exécutif

5.1 Les administrateurs du GRÉS sont :

- le président;
- le président sortant;
- le vice-président;
- le secrétaire/trésorier;
- le représentant francophone;
- le représentant étudiant.

2. La correction d'erreurs retrouvées dans le texte même de la constitution, notamment dans les articles 1.0 et 6.2.

Proposition

Qu'il soit résolu que :

les corrections à la constitution du GRÉS, proposées ci-dessous, soient acceptées.

Formulation révisée de l'article 1.0 de la version française :

Le texte se lit comme suit :

1.0 Nom

Le nom officiel de notre association est le Groupe de sciences de l'éducation (Science Education Group), aussi connu sous le nom de SERG.

L'amendement proposé est d'apporter la correction suivante :

1.0 Nom

Le nom officiel de notre association est le Groupe de recherche en éducation des sciences (The Science Education Research Group), aussi connu sous le nom de GRÉS.

Formulation révisée de l'article 1.0 de la version française :

Le texte se lit comme suit :

6.2 Le vice-président s'engage à travailler en collaboration avec le président afin d'assurer le déroulement optimal des activités du SERG organiser, la contribution à l'assemblée annuelle. Il lui faudra coordonner la révision des soumissions et contacter les auteurs.

L'amendement proposé est d'apporter la correction suivante :

6.2 Le vice-président s'engage à travailler en collaboration avec le président afin d'assurer le déroulement optimal des activités du GRÉS. Il assume aussi la fonction de responsable du programme et organise les contributions de l'assemblée annuelle. Notamment, il coordonne la révision des soumissions et communique avec les auteurs et préparer le programme du GRÉS.

SERG Sessions at CSSE: June 1 - June 3, 2015

<p>Monday, June 1 lundi 1 juin</p> <p>TIMESLOT 7 PÉRIODE 7</p> <p>8:30 – 9:45 a.m. 8h30 – 9h45</p> <p>SERG/GRÉS Multi-paper Plusieurs communications</p>	<p>Session/Séance 7.18 Science, reading, and literacy</p> <p>Integrating Science and Literacy in Classrooms: Challenges and Opportunities <i>Xavier Fazio (Brock University), Tiffany Gallagher (Brock University)</i></p> <p>Three-Level Reading Guides in Science: Effects of Task, Participatory Structure and Comprehension Level <i>Léonard Rivard (Université de Saint-Boniface), Ndeye Gueye (Université de Saint-Boniface), Margaux Roch-Gagné (Université de Moncton)</i></p> <p>Food Discourse in Science Read-Alouds <i>Alandeom Oliveira (State University of New York at Albany), Ingrid Weiland (Metropolitan State University), Ting-Fang Tsu (Indiana University Bloomington)</i></p>
<p>Monday, June 1 lundi 1 juin</p> <p>TIMESLOT 8 PÉRIODE 8</p> <p>10:00 – 11:15 a.m. 10h – 11h15</p> <p>CCGSE/CCÉDÉ Roundtables</p>	<p>Session/Séance 8.01 Graduate Student Roundtables</p> <p>Revitalising Indigenous [square] roots through Ethnomathematics Education <i>Kori Czuy (University of Calgary)</i></p> <p>Interviewing the science classroom: Using hermeneutic phenomenology and actor-network-theory to better understand the relationship between architectural space and curriculum enactment <i>Dan Grassick (University of Alberta)</i></p> <p>The calling of an engineer: High school students' perceptions of engineering <i>Scott Compeau (Queen's University)</i></p> <p>Using discourse as a lens to examine biology teachers' identities who incorporate the outdoors: A cross-case analysis <i>Julieta Delos Santos (University of Alberta)</i></p>
<p>Monday, June 1 lundi 1 juin</p> <p>TIMESLOT 9 PÉRIODE 9</p> <p>11:30 a.m. – 1:00 p.m. 11h30 – 13h</p> <p>SERG/GRÉS Multi-paper Plusieurs communications</p>	<p>Session/Séance 9.21 STS(E) and inquiry</p> <p>Constructing science curriculum that integrates STSE education and issues of social justice <i>Katherine Bellomo (OISE-UT)</i></p> <p>Moving between 'figured worlds': Examining student-teachers' self-efficacy beliefs about research-informed activism on STSE issues <i>Sarah Halwany (OISE-UT), Majd Zouda (University of Toronto-Ontario Institute for Studies in Education (OISE)), Chantal Pouliot (Université Laval), Larry Bencze (University of Toronto-Ontario Institute for Studies in Education (OISE))</i></p> <p>Framing scientific inquiry around big idea: Cases of wolves and their ecosystems <i>Tony Bartley (Lakehead University), Sanya Sidhu (Lakehead University), Douglas Jones (Lakehead Schools)</i></p>
<p>Monday, June 1 lundi 1 juin</p> <p>TIMESLOT 10 PÉRIODE 10</p> <p>1:15 – 2:45 p.m. 13h15 – 14h45</p> <p>SERG/GRÉS Multi-paper Plusieurs communications</p>	<p>Session/Séance 10.18 The cultural context of science teaching and learning</p> <p>Teacher change and science teaching in Kenya: Transformative attributes in student learning <i>Samson Nashon (UBC), David Anderson (UBC), Elizabeth Namazzi (UBC)</i></p> <p>Teaching and learning mathematics in a refugee context <i>Jane Gichuru (Western University), Isha DeCoito (The University of Western Ontario), Lorraine Otoide (York University), Samson Nashon (UBC)</i></p> <p>Rethinking Traditional Ecological Knowledge: Using traveling theory to (re)conceptualize TEK in science education <i>Eun-Ji Kim (McGill University)</i></p> <p>Science pedagogy through a critical lens, urban youths perspectives <i>Monica Chahal (University of Alberta)</i></p>

<p>Monday, June 1 lundi 1 juin</p> <p>TIMESLOT 11 PÉRIODE 11</p> <p>3:00 – 4:15 p.m. 15h – 16h15</p> <p>SERG/GRÉS Multi-paper Plusieurs communications</p>	<p>Session/Séance 11.16 Canadian perspectives on science education</p> <p>We are mostly related: Co-authoring in Canadian science education research <i>Jerine Pegg (University of Alberta), Dawn Wiseman (University of Alberta)</i></p> <p>Searching for a Canadian science education: Responding to the challenge of developing a national resource (or textbook) for science educators <i>Erminia Pedretti (OISE/UT), Katherine Bellomo (OISE-UT)</i></p> <p>La ludification pédagogique comme outil à la mobilization d'habiletés reliées au processus d'enquête : une recension des écrits <i>Samuel Blanchard (Université de Moncton)</i></p>
<p>Monday, June 1 lundi 1 juin</p> <p>TIMESLOT 12 PÉRIODE 12</p> <p>4:30 – 5:45 p.m. 16h30 – 17h45</p> <p>SERG/GRÉS Multi-paper Plusieurs communications</p>	<p>Session/Séance 12.10 Issues in STEM education</p> <p>STEM: Framework for or artifact of teaching and learning? <i>Dawn Wiseman (University of Alberta), Lisa Lunney Borden (St. Francis Xavier University)</i></p> <p>Teaching and learning science, technology, engineering, and mathematics (STEM) though inquiry: Through the eyes of K-6 teachers <i>Karen Goodnough (Memorial University of Newfoundland), Keith Power (Memorial University)</i></p> <p>What parents think about science, technology, engineering, and mathematics (STEM) in early childhood education: Results of an online questionnaire <i>Todd Milford (University of Victoria), Christine Tippett (University of Ottawa)</i></p>
<p>Tuesday, June 2 mardi 2 juin</p> <p>TIMESLOT 13 PÉRIODE 13</p> <p>8:30 – 9:45 a.m. 8h30 – 9h45</p> <p>SERG/GRÉS Multi-paper Plusieurs communications</p>	<p>Session/Séance 13.15 A contemporary focus on science student learning</p> <p>L'apprentissage expérientiel en action: une étude sur les effets d'un enseignement expérientiel sur l'apprentissage chez des élèves de la 7e année <i>Michel Léger (Université de Moncton), Manon Leblanc (Université de Moncton), Mathieu Lang (Université de Moncton), Nicole Lirette-Pitre (Université de Moncton)</i></p> <p>Self-assessment and science students <i>Pam Kalas (UBC), Sylvia McLellan (UBC)</i></p> <p>Enhancing 21st century learning skills through science, technology, engineering and mathematics (STEM) workshops <i>Alexandra MacDonald (UBC (alumni)), Isha DeCoito (Western University), Stephanie Florence (York University)</i></p>
<p>Tuesday, June 2 mardi 2 juin</p> <p>TIMESLOT 14 PÉRIODE 14</p> <p>10:00 – 11:15 a.m. 10h – 11h15</p> <p>SERG/GRÉS Multi-paper Plusieurs communications</p>	<p>Session/Séance 14.18 Technology in/for science teaching</p> <p>Designing effective technology-enhanced science instruction: Applying the TPACK design framework <i>Kamini Jaipal-Jamani (Brock University), Candace Figg (Brock University)</i></p> <p>Teachers' online searching in science <i>Carol Brown (University of Alberta)</i></p> <p>Perceptions d'enseignants des effets de la formation continue sur leur sentiment d'efficacité en sciences et technologie au primaire <i>Natacha Louis (Université d'Ottawa)</i></p>

Sustainability Tips for Congress 2015

- Minimize paper by viewing documents online
- Bring your own reusable water bottles, coffee mugs, and plastic name tags
- Use the recycling bins available in all buildings [mixed paper, bottles, cans, plastic, metal]
- Turn off the lights when you leave a classroom or lecture theatre



<p>Tuesday, June 2 mardi 2 juin</p> <p>TIMESLOT 15 PÉRIODE 15</p> <p>11:30 a.m.–1:00 p.m. 11h30 – 13h</p> <p>SERG/GRÉS Multi-paper Plusieurs communications</p>	<p>Session/Séance 15.19 Perceptions and participation in science</p> <p>Elementary students talk: Identifying with the role of a good science student <i>Marie-Claire Shanahan (University of Calgary), Lydia E Carol-Ann Burke (University of Calgary)</i></p> <p>Why not major in physics? A qualitative exploration at a mid-size Atlantic Canadian university <i>Laura Stiles Clarke (Saint Mary's University), Katarin MacLeod (St. Francis Xavier University)</i></p> <p>Insights into the public's thoughts on women in science: Examining a New York Times discussion thread on a related article <i>G. Michael Bowen (Mount Saint Vincent University), Alan Brown (Mount Saint Vincent University), Fred Vallance-Jones (University of King's College), Anthony Bartley (Lakehead University)</i></p> <p>Physics teachers and China's curriculum reform: The interplay between agency and structure <i>Guopeng Fu (University of British Columbia)</i></p>
<p>Tuesday, June 2 mardi 2 juin</p> <p>TIMESLOT 16 PÉRIODE 16</p> <p>1:15 – 2:45 p.m. 13h15 – 14h45</p>	<p>Session/Séance 16.21 Keynote Address</p> <p>Recognizing the Beauty: Aesthetics in Science Teacher Education <i>David Blades (Professor of Science Education and Curriculum Studies, University of Victoria)</i></p> <p>and</p> <p>Annual General Meeting</p>
<p>Tuesday, June 2 mardi 2 juin</p> <p>TIMESLOT 17 PÉRIODE 17</p> <p>3:00 – 4:15 p.m. 15h – 16h15</p> <p>SERG/GRÉS Multi-paper Plusieurs communications</p>	<p>Session/Séance 17.17 Using surveys to inform science education</p> <p>Development and validation of a social media and science learning survey <i>Rachel Moll (Vancouver Island University), Wendy Nielsen (University of Wollongong)</i></p> <p>Busting myths: Does a high-school option course focusing on the nature of science (NOS) alter students' attitudes and perceptions of science? <i>Kerry Rose (University of Alberta)</i></p> <p>Examining Ontario's science teachers' self-efficacy perceptions and preparedness to teach in diverse classrooms <i>Mithila Vidwans (Western University)</i></p>
<p>6:30 p.m. / 18h30</p>	<p>Dinner at Union 613 (315 Somerset Street W, http://union613.ca/food-menu/)</p>
<p>Wednesday, June 3 mercredi 3 juin</p> <p>TIMESLOT 21 PÉRIODE 21</p> <p>11:30 a.m.–1:00 p.m. 11h30 – 13h</p> <p>SERG/GRÉS Multi-paper Plusieurs communications</p>	<p>Session/Séance 21.22 Inquiry/project-based science classrooms</p> <p>Best practices in elementary science: teachers' roles and actions for implementing inquiry-based science education (IBSE) <i>Liliane Dionne (Faculté d'éducation Université d'Ottawa), Christine Couture (Université du Québec à Chicoutimi), Lorraine Savoie-Zajc (Université du Québec en Outaouais)</i></p> <p>Recourir à des projets pour enseigner des savoirs en sciences et technologies au secondaire au Québec : potentiels, défis et derives <i>Fatima Bousadra (Université de Sherbrooke)</i></p> <p>Investigating science inquiry in classrooms - learning from problems that arise <i>Sarah Stenzel (Thompson Rivers University), Melissa Lindsay (Thompson Rivers University), Carol Rees (Thompson Rivers University)</i></p> <p>Time passes, will you? Exploring the complex experience of time as chronos and kairos in the biology classroom <i>Sharon Pelech (University of Lethbridge)</i></p>

