

University of Waterloo Science Society

Chair's Agenda for 1 June, 2017

Members: 1 S. Velling (Chair), 1 R. Beena Kumary (President), 1 B. Brown (VPFA),

1 C. Mangahas (VPI), 1 S. Chung (VPA), 1 Biochemistry Student Association (BSA), 1 Biomedical Student Association (BMSA), 1 Biology Undergraduate Society (BUGS), 1 Chemistry Club (ChemClub), 1 Physics Club (PhysClub), 1 Materials & Nanoscience Society (MNS), 1 Science and Business Students' Association (SBSA) Waterloo Undergraduate Student Geological Society (WatRox), 1 FEDS Councillors

Absent: R. Beena Kumary

Announcements

The Speaker would like to congratulate FEDS Councillor Elizabeth O'Sullivan for being elected chair of the FEDS Student Council.

Additionally, committee assignments for FEDS have occurred, and you will hear from FEDS Councillors regarding this during reports.

Because the topic was tabled last meeting, the elections for position of Speaker will be held this meeting immediately following Call to Order.

Reminder that we will continue to transition to Slack as the new primary means of communication, if the Board so chooses, this discussion will be had during Old Business.

Call to Order

Motion to call to order- BSA motions to call the order, SBSA seconded

- All in favour, motion carries

Preliminaries

Speaker's Prerogative: the Speaker moves to appoint VP Internal, or in their absence or inability the VP Academic, as the acting speaker pro tempore. Note: this motion cannot be debated.

- Transfer all to VP Internal or in their absence, the VP Academic

Move to bring the Board under voting procedure. Call to nominate new Speaker for Spring 2017.

- All in favour, motion carries

Move to vote on a new Speaker for Spring 2017 to begin effective Monday, 5 June, 2017. Be it resolved that the new Speaker for the Spring 2017 Academic term shall be .

- If nominated, the nominees VP will represent them in the future, the speaker must remain impartial. There are no refusals of nominations allowed however it can be turned down upon winning. If the board cannot agree on someone internally, the VP internal is acting speaker until someone is chosen. External nominations is not usual and will require $\frac{2}{3}$ of the votes as opposed to 51% from an internal nomination.
- VP Academic will be the speaker for this meeting because VP Internal takes the President's place in her absence
- No one was nominated

- BSA motions to move the voting for next meeting, SBSA seconded the motion, all in favour- motion carries

Old Business

1. Move to approve the minutes of the previous meeting (18 May, 2017).
 - All in favour- motion carries
2. Last meeting the CECA's representative Rocco Fondicaro offered an "arrangement to meet with WaterlooWorks people to offer more insight" for an upcoming meeting. Deliberation by the Board.
3. Discussion of the OSSA Conference.
 - Invitation package for OSSA can be found on slack, as of right now the OSSA conference will be July 14-16 in Mohawk College in Hamilton, are currently applying for funding, everyone (except MNS) let Carlene know if they have any changes in who is going from each club
 - Registration period is from now until June 12
4. Move to conclude Old Business.
 - All in favour- motion carries

Public Session

Move to open period for questions from members-at-large. Note: Any Society members can speak during this time, including the Board members.

- All in favour, motion carries

Committee, Clubs, & Societies Reports

Move to close Public Session and proceed to in camera session.

- All in favour, motion carries

University-wide Committees

Co-op Education Council and Co-op Student Council — Briefing by the Vice President Academic and FEDS Councillors.

- VPA went to coop education council meeting on May 24, there were VPAs from other societies as well as Franco from CECA and others.
- Discussed review of Waterloo works and talked about launch, revitalizing, soft-launch in winter
- There was no negative impact of implementing Waterloo Works instead of Jobmine on employment rates
- Want societies to push out the functionalities from website to students, additionally, they were doing a feedback page (not too much info, in progress)
- Coop recalculation information, wanted to investigate employment rates to make more transparent and usable, having meeting for that in middle of June and will report to us during the next CEC meeting
- Rate my work term started recently for students to share their thoughts on the work terms, working to protect student anonymity and rely that towards the employers
- VPA from EngSoc drafted a list at end of last semester, had a survey to rank things on

waterlooworks and comment with suggestions which got good feedback from their society eg.

- High priority: change emails from waterloo works to seeing message instead of logging on to do so, change horizontal scrolling, checking interview times should be available without having to press reschedule
- Low priority: have separate section for ranking instead of just on dashboard
- We now have a CSC meetings with FEDS VPAs and CECA and want to implement into our faculty to put out after matching to get feedback to show to CECA
- If anyone has anything to suggest to the VPA to bring up to the meeting please let her know, there is only one more CEC meeting this term (June 21), and CSC is TBD

FSF Committee & WatSEF — Briefing by the President.

- Emailed them and Sandy (runs those meetings) has not indicated that they need to meet up at this point, there are no updates

FEDS President's Committee (President) — Briefing by the President.

- Since the President is not here, VP Internal will attend the meeting but was not notified about the date, will try to attend the next meeting

FEDS Board Report — Briefing by the President Emeritus, FEDS Director Vaishnavy Gupta.

- Not present

Other, as needed — Speaker's Prerogative: the Speaker moves to a Moderated Caucus for 10 minutes. Any additional items can be brought up during this time.

- All in favour, motion carries
- No additional items

Executive Updates

President & Vice President Internal — Beginning of Term Wellness Wednesdays.

- Will be combining updates for president and VP internal
- Last week held the BOT BBQ, would like to thank everyone for participating, and hopes for everyone to participate in the future
- Hosted wellness wednesday: served around 100 people, having next wellness wednesday next week “pick me up lines” to be posted in sci clubs hallways
- Will start midterm giveaways next week (lemonade, frozen treats) will do a collab with wellness wednesday (salad bar) and CnD giveaway (under B1 link)

Vice President Finance & Administration —

- Update given about CECA earlier in the minutes
- Update about science CnD business model results: (was given in winter 2017 term)
 - Update of bank earnings (revenue increased significantly from june 16 to march 17)
 - Is linearly increasing (as long as we are maintaining what we are doing right now it should be increasing)
 - Update on monthly closing balances from june 16 to march 17 we are increasing closing balance as well (shows revamp was successful): net income of \$2,035.70

- Before was functioning to break even instead of profiting
- VP Finance will now approve budgets:
- ChemClub budget:
 - EOT is planning beach trip (rough sketch \$400), student prof night planning to split with BSA and BUGS (contribute \$275), spent \$33 (accounted for \$50) for frozen Fridays: has enough carryovers- budget was approved
- BSA:
 - Thinking of doing merchandise (probably won't), wanted to do fundraising (Krispy Kremes) with projected earnings at \$200 (should go under social events instead), office supplies (sticker for door), marketing (posters), BOT (split with BUGs), EOT should be less than \$300 (beach day), should break even for Bob Ross paint day, lab events (asking for funding from biology department for columns and chemistry for crystallizing lysozymes) has enough carryovers- approved
 - Note that there is no limit for fundraising
- BUGS:
 - In process for making pins/stickers for advertising, need office supplies, marketing for wellness Wednesdays, merchandise (making more pins, need to talk to VP Admin for details), BOT split with BSA, beach trip bus \$500 would like to collab with other groups to cut cost (\$5 tickets), Timbit Tuesday has low turnout so should be lower than projected, wellness Wednesday might be less than projected as well: have large carry over
 - Merchandise should be for shirts for execs etc. can only spend \$10 out of the scisoc funding for that, everything else looks good- budget was approved
- SBSA:
 - Beach day would have to increase but definitely have carry over, picnic estimated to be under than projected, EOT details not ironed out yet; now knowing carry over might put more money towards that:- budget was approved
- WatRox:
 - EOT (\$5/person) is the big event, campfire money on marshmallows etc, camping trip (charge \$10 a person); this term is -\$10.56 (look into increasing ticket prices recommended)
 - Usually keep around \$100 as a blanket in case there are overspends somewhere else
 - Budget was approved
- PhysClub:
 - Build library (office supplies), student prof night was pretty low, Bob Ross night estimated to be lower than projected, was supposed to go to pride with FemPhys but they seem to be backing out, Dark Matter writing session (pizza), BBQ might do a raffle or selling pop for income, beach day is possibly with BSA
 - \$5 for science, \$10 for nonscience- recommended approach
 - Have enough carry over- budget was approved
- MNS:
 - Not too many events planned, (2+2 special is for food and drinks, should be spending less), student prof night was also less than projected, bonfires (food and frisbees), movie night (was big hit, will charge \$2 or \$3 a ticket), XRD lab with biochem collab (rough

estimate)

- High carry over, budget was approved
- SciSoc:
 - Estimate for student fees is an underestimate (in case), FEDS beach trip was not successful on our end, bus trip is for wonderland (open to science and non-science \$25 and \$35 respectively) collab with environment, overestimate the student fee refunds (usually ~9), volunteer appreciation is to thank coords (usually a dinner), external funding is not done in the spring term, social events was overestimated, coop event is new (started with professional headshot), beach trip with FEDS (as a just in case), OSSA (last year did get 100% funding, not sure if it will happen this term as well but are hoping for partial funding), science orientation is not until fall term
 - Have to spend minimum of 75% of the clubs funding
- Note: whenever you are selling tickets, need to bring to Akshay or scisoc office to be put into the bank account as a just in case scisoc has to withdraw for you, so it can be withdrawn

Vice President Academic — Update on meeting externally with CECA, Employment Rate Calculation, Waterloo Works, and a survey for students to review Waterloo Works is in progress.

Executive Coordinators (Administrative Coordinator & Financial Associate) —

- No updates for now

Departmental Clubs/Societies Updates

BSA —

- Have a few events plan, a few haven't worked out because of communication errors
- Movie event with MNS and He for She (looks like they will partially fund) at the end of june: wonderwomen
- Trying for a beach day at the end of July, also working with ChemClub and BUGs to plan student prof night
- Paint night on monday with Bob Ross

BMSA —

BUGS — report on integration of guaranteed Biomedical seat on the BUGS Exec as mandated by Board Resolution W17-31 ("A Resolution to Outline the Nature of Science Society Board Decision for the Removal of Biomedical Student Association (BMSA) and their future relationships")

- Contacted Arita to see if one of their members can be on the BUGs exec team, will be in contact with the co-president soon
- Held trivia event today around campus, got 50 people involved, tonight will figure out who won the prize to be announced on the BUGS facebook page
- Wellness Wednesday meditation next week, collab with chem club and BSA for student prof night, collab with ecology restoration club for butterfly conservatory trip
- Beach trip in works of being planned

ChemClub —

- Student prof night collab

PhysClub —

- Had student prof night last night at bomber with MNS- went well, ended up buying alcohol for profs and they seemed very appreciative
- Coming up: astro fire with space society
- Bob Ross night painter
- First year lab tutorial for physics lab in fall term

MNS —

- Seneca is working on projects and thinks he can run more efficiently still on as speaker

SBSA —

- BOT is later on in the term (next week) picnic will update next meeting
- EOT is rooftop board games chill night
- Collab breakfast with BSA
- Beach day collab
- Looking into fall term communicating with next reps (presentation workshop for first years)

WatRox —

- Camping trip on June 17th and bonfires and movie nights throughout the term
- EOT

FEDS Report

Science Councillors —

- Student council meeting last Sunday to set up who is on committees, Benjamin is on education advisory and internal funding committees
 - Focused on CECA deep dive, internal is giving money to student run initiatives (all in early stages right now)

FEDS Board —

New Business

1. Move to suspend the rules and enter a moderated caucus for 5 minutes to discuss the approval of Financial Associate of the Society. - all in favour motion carries

- Financial Associate will be making sure cheque requests are in and to help with anything Brittani needs help with
- Move to recall the motion to approve the 2017 Spring Term Coordinators appointed by the Executive for the Financial Associate.- all in favour, motion carries

2. Speaker's Prerogative: the Speaker moves to a Moderated Caucus for 10 minutes. Any additional items can be brought up during this time.- all in favour, motion carries

- Seneca said if board does not want to elect new speaker, can he remain on to do duties as temporary speaker but Carlene will be acting speaker until new speaker is chosen- all in favour motion carries

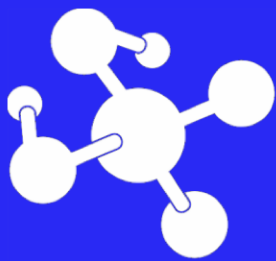
Move to approve the resignation of Speaker Seneca Velling effective 4 June, 2017.

- Seneca stays as temporary speaker and Carlene is the acting speaker

3. Move to adjourn.

- All in favour- motion carries

Next Meeting: Thursday, June 15, at 5:30pm (17:30).



**SCIENCE
SOCIETY**

Speaker's Report

Seneca J. Velling

Science Society, Board of Directors

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1 FEDERATION OF STUDENTS (FEDS) COUNCIL UPDATES

The Federation of Students' Council is moving forward into the term. The position of Speaker, Deputy Speaker, and Secretary have been filled for the FEDS. I am pleased to inform the Board that the FEDS Science Councillors will be heading off the Council's executive positions –with both Speaker and Deputy Speaker being from the Faculty of Science.

1.1 COUNCIL PRIMUS INTER PARES ELECTIONS

The new Speaker of the FEDS Student Council is Elizabeth O'Sullivan, FEDS Councillor Science and a member of our own Board of Directors. The new Deputy Speaker of the FEDS Student Council is myself, Seneca Velling.

1.2 PERSONAL COMMITTEE ASSIGNMENTS

The Council has elected me to the positions of:

- Policies & Procedures Committee –which sets regulations for the Council, Board, and FEDS Executive and establishes policies at the student level for all Undergraduates.
- President's Advisory Committee –which advises the President on decisions made regarding University representation including student services, undergraduate student issues, and business of the University Senate; makes decisions on behalf of Students' Council relating to the Presidents' portfolio. Make recommendations to the President on Feds governance structures Make recommendations on student appointments to University committees upon request by the President.
- Co-op Students' Council –One of the primary oversight and regulatory bodies of the CECA, the Co-op Students' Council is a body that meets to facilitate regular feedback channels between undergraduate students and the Department of Co-operative Education and Career Action and the Federation of Students on issues relating to co-operative education. It is a forum for students to advise the Vice President Education and CECA staff of current attitudes and opinions towards existing operations and to provide suggestions and advice for improvement. The Council's mandate covers a range of CECA operational issues including: job placement software (e.g. WaterlooWorks), student-staff relationships at CECA, student support through co-op process, progress on CECA projects, employment standards, availability and diversity of jobs, etc.
- FEDS Board of Director's Finance & Budget Commission (pending Board approval) – responsible for budget preparation in accordance with the Council Procedure and Board authorization governing budget preparation; setting fiscal requirements for the FEDS and Societies.

1.3 RECOMMENDATIONS TO SCIENCE SOCIETY (SCISOC)

I wholeheartedly recommend that the Science Society pursue a lobbying campaign to the Federation of Students Executive and Council to change FEDS policy to require ALL FEDS councillors sit on their constituent Faculty Societies governing boards (eg. in the case of Faculty of Science, require that FEDS Science Councillors sit on the SciSoc Board of Directors).

I would also encourage the Board to approve policy requiring the SciSoc executive to lobby the Federation of Students, and recommending the Federation, take steps to implement online voting for general meetings. General Meetings in FEDS have far too much power, but far too few people show up (eg. in the vote to provide coordinators more pay (increasing student fees) for FEDS coordinators, $\frac{1}{3}$ of all attendees were FEDS coordinators who were entitled to vote on the matter and voted to raise student fees to increase their own compensation). Beyond the matter of student fees though, the Federation's archaic General Meeting platform is only open to students on campus in the SLC which disenfranchises everyone unable to attend. FEDS General Meeting set policies for nearly 30,000 undergraduates, but if only 150 show up (or less than that in the most recent case), little to no democratic decisions can be made. Instead less than 150 students dictate the fate of the vast majority. If we move voting online we may still see minority voter turn out, but then students chose not to participated, they were not disenfranchised. As speaker of the Board for SciSoc, and Deputy Speaker for the Federation Council, I think it is a priority to re-evaluate the use of General Meetings and require multi-day online voting for all mattering in General Meeting decisions that are non-procedural. This is the manner nearly every shareholder company, chartered under the Corporations Act of Ontario, deal with voting... it is completely mind-boggling that the Federation reveres General Meetings, when they are the least democratic institution in our student government.

Further, I would encourage the Faculty of Science's student government to petition for the Council to be the highest representative body of students at the University. Many of the concerns listed above regarding General Meetings could easily be resolved if the Council were considered a more powerful Meeting of Delegates, which represented not only the students in each Faculty, but also the Faculty Societies. In fact we are moving this way by reforms aimed at making Faculty Society Presidents sitting Council members. This is just one step in necessary reform for the Federation. I implore you to consider these changes, and in my capacity on SciSoc's Board after my resignation as speaker, I will encourage the Board to pursue these requests further. I will also work to sign a memorandum of understanding between the Science Society and the FEDS Science Councillors to acknowledge that the FEDS Science Councillors represent the Society as well as the students and serve as part of the Society's decision making body, the Board.

2 WATERLOO NANOTECHNOLOGY CONFERENCE

As part of the desire to rekindle relations with the CECA and work towards greater student benefit from the organization, I have helped mediate CECA involvement and support for the student-led Waterloo Nanotechnology Conference organized between Faculty of Science & Faculty of Engineering at Waterloo.

2.1 STANDING PROMOTIONAL ARRANGEMENTS WITH SCISOC

Last term, the SciSoc Board and the Executive agreed to partner with the Waterloo Nanotechnology Conference to promote the conference to students in Science and increase turnout among Science Students. We agreed to participate in advertisement, promotion, and grass-roots efforts aimed to increase the impact for Science. The conference, described below, is funded equally by the Faculty of Science and Faculty of Engineering as well as the Provost's Office, however turnout for the past two years has nearly been 60% or higher engineering. We aim to approach 50-50 turnout with Science Faculty this year and next. We can only do this through continued partnership between the Conference and the Science Society. *Note: We are not funding the conference, we are promoting them and advertising for them as the Board agreed last term, but we are not providing them money.*

2.2 BACKGROUND ON WATERLOO NANOTECHNOLOGY CONFERENCE

The Waterloo Nanotechnology Conference (WNC) is a student-organized conference that connects students and academia, industry, and entrepreneurs in various fields enabled by nanotechnology. It will educate and inspire participants with exciting speakers, an informative industry panel discussion, and other interactive activities. In 2016, the event attracted over 200 attendees –ranging from high-school students to seasoned senior undergraduates to graduate students –who sought an exclusive opportunity to learn about different career paths and the opportunities and resources available to them.

In the past, the conference has hosted senior representatives from companies like Xerox and 3M; UW startups such as H2NanO, Voltera and Nicoya Lifesciences; and academic speakers from the University of British Columbia and Massachusetts Institute of Technology. Vladimir Bulovic, Associate Dean for Innovation, and Professor at MIT's School of Engineering, gave a refreshing talk in 2016 outlining the advances nanotechnology enables today, the opportunities it offers for tomorrow, and how Waterloo and MIT have had a similar global impact in the field.

The conference strives for student engagement –hosting a poster session which sees students' co-op research from Harvard, MIT, University of Cambridge, and more. This event also attracted university students from Calgary, McMaster, and Toronto –some of who also pre-

sented research. This offers an opportunity for undergraduate and graduate students to present research or student design teams to industry and fellow students, with the potential of winning cash prizes.

WNC is supported by the Faculty of Science, alongside the Faculty of Engineering, Waterloo Institute for Nanotechnology (WIN), Office of Research, Faculty of Science Foundation, and Nanotechnology Engineering and Materials and Nanosciences programs. The conference will be taking place on Saturday, November 18, 2016 at the Quantum Nano Center - stay tuned for more updates.

2.3 RECOMMENDATIONS

The Speaker recommends that the SciSoc Board reaffirm its commitment to promotion and engagement by WNC. The Board would benefit from hearing from the WNC representatives again, and learning more about the conference and why it is something students from all walks of Science (Physics, MNS, Biology, Biomedicine, Biochemistry, Chemistry, and Earth Sciences) can benefit from and should attend.

Until such time as the Board overturns last term's decision, the Executive shall continue to work with and promote Science involvement and interest in the Waterloo Nanotechnology Conference.

Conference Package attached.

3 UPDATES: BIOMEDICAL SCIENCES REVIEW

Please find attached a copy of the Resolution on the Removal of Biomedical Student Association (BMSA) and the Future Relationships between the Science Society and BMSA, W17-31

3.1 CONSTITUTIONAL CHANGES FOR BUGS PER SCISOC RESOLUTION W17-31

At the June 1 meeting of the Science Board of Directors, the Speaker directed the Biology Undergraduate Society to report on the integration of a guaranteed Biomedical seat on the BUGS Exec as mandated by Board Resolution W17-31 ("A Resolution to Outline the Nature of Science Society Board Decision for the Removal of Biomedical Student Association (BMSA) and their future relationships").

This resolution urged the "creation of a guaranteed Biomedical representative position on the Biology Undergraduate Society (BUGS) for Fall and Winter terms pursuant to agenda item §1(b) of 23 March, 2017 Board of Directors meeting agenda submitted by BUGS¹. The resolu-

¹The BUGS Winter 2017 Term representative included an agenda item requesting the Board require a BUGS guaranteed Biomedical student seat

tion "requires that BUGS review this motion and if deemed feasible pursue such constitutional changes" and that asserts the Board's "commitment to openness for all Science students, and in the spirit of this notion asserts that departmental clubs shall be welcoming and accepting groups without prejudice" particularly for Biomedical Students in BUGS.

BUGS will update on this matter during their report period.

3.2 RECOMMENDATIONS TO THE EXECUTIVE

The Speaker encourages that the Executive reach out the the BMSA and the FEDS to review their application to become a FEDS club. The Speake also encourages the VP Internal to keep the BMSA appraised of decision of the Board and their rights to vote in proxy. It is paramount that BMSA is ready to continue serving in a non-voting capacity come Fall 2017 when Biomedical Students return to campus.

4 ELECTION OF SPEAKER FOR SCIENCE SOCIETY

Today VP Internal, or VP Academic in their absence or inability, will serve as speaker *pro tempore* until the election of speaker by the Board.

I remind the Board that they may elect anyone internally (by simple majority), or if they so choose may nominate and approve (by super majority) a Society Member to serve as Speaker. Please ensure the speaker is well aware of their duties, is familiar (or can become familiar) with the Science Society Constitution, Policies & Procedures, Board resolutions, standing agenda items, and most importantly, Robert's Rules of Order.

Thank you for having me as your speaker for these past months. It has been my absolute pleasure. *Attached please find my Letter of Resignation*, which shall go into effect immediately after call to order of today's Board meeting.



WNC

WATERLOO NANOTECHNOLOGY CONFERENCE

SATURDAY NOVEMBER 18, 2017

MIKE & OPHELIA LAZARIDIS
QUANTUM-NANO CENTRE

We encourage you to explore possibilities in the nanoscale.

INFORMATION PACKAGE

» Learn about the impact you can have by joining us on this journey.



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**WATERLOO
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**NANOTECHNOLOGY
ENGINEERING**



*Nanotechnology: a small world with **huge** possibilities.*

On November 18, the Waterloo Nanotechnology Conference (WNC) – formerly known as the Waterloo Undergraduate Nanotechnology Conference (WUNC), will enter its third year – bringing together academia, industry, and entrepreneurs. We will discuss the past, present, and future of nanotechnology, with the goal of presenting role models and inspiration to the next wave of nanotechnology innovators.

Join us. See what students are capable of and discover how they are uniquely qualified to contribute towards the success of research, industry, policy, and more. Share your expertise and your story. By supporting us, you have a unique opportunity of showing your dedication and commitment to reassuring students of the bright future ahead of them, and the unique opportunities they have in Waterloo, in Canada, and beyond.

Join us and over 200 students to reveal and celebrate the impact of nanotechnology. Help us share the excitement and inspire everyone to play their part in advancing technology by thinking smaller. Join our vision, and invest in the next generation of innovation.

Sincerely,

Jatin Patil

Chair, WNC 2017

What is WNC?

WNC is a student-organized conference that provides an opportunity for students, employers, and entrepreneurs to learn from one another, strengthening our mutual understanding about how nanotechnology is taught and how it is used in industry, in innovative research, and how it is powering new ventures.

We will educate and inspire our participants with exciting speakers, an informative industry panel discussion, and other interactive activities.

In the past, we have attracted everyone – ranging from high-school students to seasoned senior undergraduates to graduate students – who seeks an exclusive opportunity to learn about different career paths and the opportunities and resources available to them.

The Team

WNC Student Committee



Jatin Patil, Akshayaa Govindann, Mayuran Saravanapavanantham, Alisha Bhanji, Thomas Storwick, Tabi Salimi, Sahad VasANJI, Seneca Velling

WNC Advisory Committee



Shirley Tang, Jenn Coggan Arthur Carty, Alain Francq, Caroline Brookes

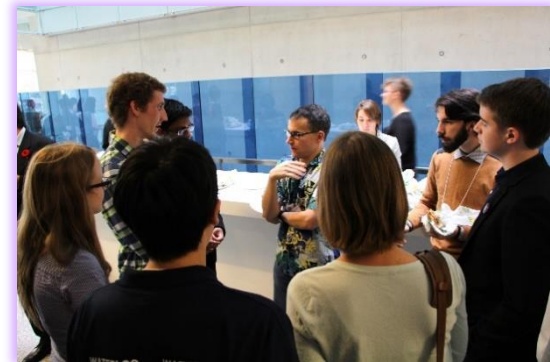
Event Highlights

Keynote speakers



Dr. Vladimir Bulović, Associate Dean for Innovation, and Professor at MIT's School of Engineering, talks to a few of the 220 eager attendees from his keynote presentation. He highlighted and discussed the research, development, and impact of nanotechnology-enabled innovations at both MIT and in Waterloo. (WUNC 2016)

Dr. Mark MacLachlan, Professor at UBC's Department of Chemistry, discusses undergraduate research with conference delegates at the poster session. His keynote talk addressed the presence of nanotechnology in nature, and recent discoveries of harnessing it as nature has for millennia. (WUNC 2015)



Industry panel



Simon Guthrie, Lead Investigator at Christie Digital, shares some honest and relatable advice on working in teams from his experience with Christie. The industry panel is an open and friendly forum for industry representatives to discuss their experiences and give advice to students looking to enter the next stage of their careers. (WUNC 2015)

Dr. Ian Burgess, CEO of Validere Technologies, reflects upon a question posed to the panel. Discussions ranged from starting a company to life in industry. The panel addressed current concerns of entering the job market, the ups and downs of starting a company, and shared some advice for students seeking inspiration. (WUNC 2016)



Poster / networking session



Students flock to the start-up company booths to learn more about recent advances, company culture, and job prospects. Poster sessions also include booths from student design teams and researchers at the University of Waterloo. (WUNC 2016)

Many students, including organizers and volunteers, come together to show their research from previous co-op terms at the poster session. This is a great opportunity to engage other students in an open learning environment. (WUNC 2016)

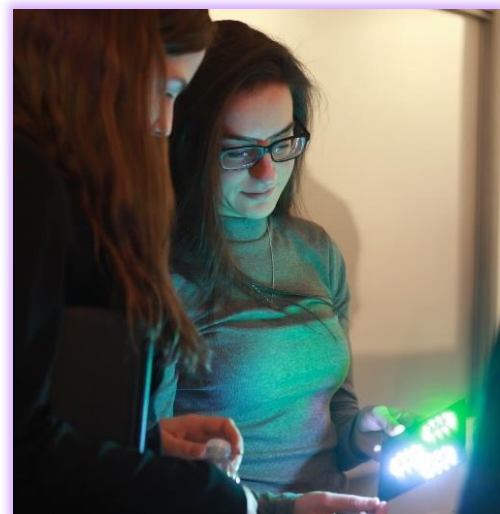


Breakout sessions



Tim Leshuk, Graduate student at the University of Waterloo and Co-founder of H₂nanO, gives a brief talk on his work on water treatment systems. Breakout sessions allow attendees to glimpse new and impactful work enabled by nanotechnology. (WUNC 2015)

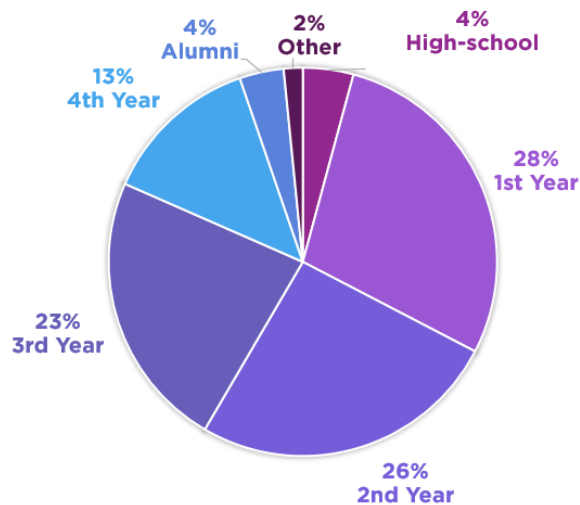
Katarina Ilic, Head of Research and Development at Voltera, shows a printed circuit board with LEDs. She talked about her transition from a nanotechnology research background to starting a company. She gave personal advice and shared the philosophy of Voltera – to show how nanotechnology can make a global impact. (WUNC 2016)



About our Delegates

Who will you find at WNC?

Attendees by year of study



Attendees from other universities



What students say about WNC

"I have learned so much from the conference and [it] has also fortified my passions for nanotechnology. It was a great learning experience that I was so happy to be a part of."

– Nicholas A. S., High school student

"WUNC was the highlight of my fall term last year, and I was incredibly excited by the speakers and activities... I gained so much from this event"

– Sinclair M., 2A Nanotechnology Engineering

"I attended the WUNC 2016 conference as my first WUNC experience and, in brief, I was amazed. What made the experience truly amazing in my eyes was the diverse perspectives from all of the guest speakers."

– Austin B., 3B Nanotechnology Engineering

Past Supporters

Academic speakers



THE UNIVERSITY
OF BRITISH COLUMBIA

Industry panelists



Other speakers and posters



WNC 2017

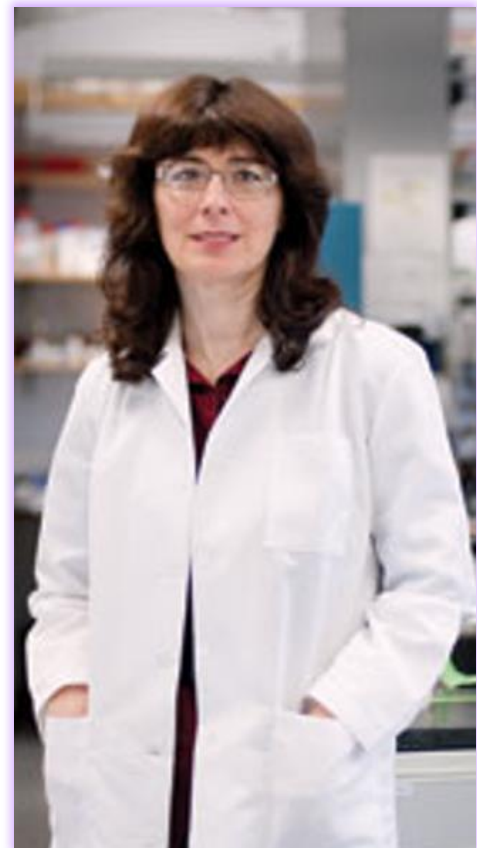
Keynote Speaker

Joanna Aizenberg

- Amy Smith Berylson **Professor of Materials Science** at the School of Engineering, *Harvard University*
- **Co-Director** of the *Kavli Institute for Bionano Science and Technology*
- **Core Faculty** at the *Wyss Institute for Biologically Inspired Engineering*

Joanna Aizenberg teaches chemistry and chemical biology at Harvard University. Her research is inspired by nature's ability to solve complex problems and self-assemble functional materials. She uses biological principles as guidance in developing new fabrication strategies that would lead to advanced materials and devices.

Professor Aizenberg has already engaged significantly with the Waterloo community. Over the past 9 years, she has hired **over 40 co-op students** and **4 graduate students** from the University of Waterloo.



Breakout Session Speakers

Alex Chortos, Postdoctoral Researcher, Harvard University: Alex was a graduate of the nanotechnology engineering program at Waterloo, completed his Ph.D. in Materials Science and Engineering at Stanford University, where he worked on electronic skin and flexible sensors.

Farnaz Niroui, Ph.D. Candidate, Massachusetts Institute of Technology: Farnaz graduated from the Nanotechnology Engineering program, and is completing her Ph.D. in Electrical Engineering and Computer Science at MIT. Her work focuses on developing techniques to build and tune devices at the nanoscale for applications in optics and energy-efficient electronics.

Matthew Mulvale, Research Scientist, Opalux: Matthew graduated from the Nanotechnology Engineering class of 2015 and then went on to join Opalux, a company that specializes in photonic crystal-based anti-counterfeit technology.

Madelaine Liddy, Ph.D. Candidate, University of Waterloo: Madelaine graduated from the Nanotechnology Engineering class of 2014, and currently works on creating diamond-based quantum sensors in the Institute for Quantum Computing with Professor David Cory.



WNC

Thank you.

We hope you were inspired by our story - and we invite you to be a part of it. Your contribution is as crucial as ever to our success. Join our quest to inspire the next generation of nanotechnology innovators.



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**UNIVERSITY OF
WATERLOO**

A Resolution to Outline the Nature of Science Society Board Decision for the Removal of Biomedical Student Association (BMSA) and their future relationships:

The Science Society Board of Directors,

Referencing the minutes and Science Society Constitutional Amendments Article XI. Amendment ____, Section §h based on Science Society Board of Directors 16 March, 2017 General Meeting and *in camera* session,

Calling to attention the decision of the Science Society Board of Directors 16 March, 2017 decision “to dissolve the membership of Biomedical Student Association (BMSA, ‘the Association’) and remove their voting seat from the Science Society Board of Directors”,

Noting the Board has encouraged “the Association to become a Federation of Students club, to request a non-voting seat on the Board in the future, and to apply for external funding from the Science Society Board in the future terms”,

Emphasizing the nature of the decision as described in the letter on behalf of the Board and Executive via the Speaker (see attached),

Noting that BMSA maintains \$____ in their account unspent of their Winter 2017 budget,

Determined to clarify the procedure of withdrawal/removal of BMSA as a voting departmental club on the Board, the UW Science Society Board of Directors hereby:

1. Offers the Association a non-voting seat on the Board of Directors of Science Society so that they shall be better able to represent the Biomedical Science student cohort, but will no longer over-represent the Life Sciences;
2. Recommends that the Association become a Federations of Students (FEDS) incorporated club effective Spring 2017;
3. Recommends that the Association apply for external funding in future terms to further their ability to provide services for Biomedical Science students at Waterloo;
4. Emphasizes that the Board would look favourably upon an external funding request from BMSA;
5. Encourages the Board to offer preferential external funding approval for BMSA in Spring (or Fall) 2017, the term(s) after their removal from the Science Society, contingent on concrete plans they present to engage Science students meriting external funding investment;
6. Recognizes that Biomedical Students are typically not enrolled students during the Spring term;

7. Mandates that the *Vice President of Finance and Administration* in conjunction with the FEDS Accountant transfer the remaining end-of-term Biomedical Student Association Winter 2017 balance to BMSA once they are an incorporated FEDS club:
 - a. *Viz.* Allow BMSA to inherit the remainder of their account balance from Winter 2017 when they cease being a Science Society departmental club,
 - b. This can be construed as an external funding decision after liquidation of BMSA's account this Winter 2017 term;
8. Urges the creation of a guaranteed *Biomedical representative position* on the Biology Undergraduate Society (BUGS) for Fall and Winter terms pursuant to agenda item §1(b) of 23 March, 2017 Board of Directors meeting agenda submitted by BUGS; and,
 - a. Requires that BUGS review this motion and if deemed feasible pursue such constitutional changes as they see fit,
 - b. Reaffirms the Boards commitment to openness for all Science students, and in the spirit of this notion asserts that departmental clubs shall be welcoming and accepting groups without prejudice;
9. Notes that this resolution shall not constitute precedent for future decisions and that actions taken by the Board with regards to BMSA (ie. provision of a non-voting board seat, and inheritance of account balance as effective external funding) are specific to this decision and shall not be rendered arguments for future removal procedures;
10. Decides to remain actively seized on the matter.

The Science Society

Board of Directors

200 University Ave, Waterloo ON, N2L 3G1 | 519-888-4567 ext. 32325 | scisoc@uwaterloo.ca

22 March, 2017

RE: Board Decision on Biomedical Student Association temporary membership

To those whom it may concern:

Perhaps one of the most contentious decisions in Faculty of Science student government was made recently, which involved the dissolution of a temporary member society of the Science Society *Board of Directors*. On March 16th, 2017, by a vote of the six Yay to zero Nay to three abstentions, the Board resolved to “dissolve the membership of Biomedical Student Association (BMSA, 'the Association') and remove their voting seat from the Science Society Board of Directors”. Further the Board “encouraged the Association to become a Federation of Students club”, and “to request a non-voting seat on the Board in the future” in addition to “applying for external funding from the Science Society Board in the future terms.” This decision was not made lightly. Due to the impassioned nature of this matter, the Executive in conjunction with the Board has resolved to clarify the nature of the decision, the arguments that predicated its motion, and foremost to highlight the structure of the Board for those unclear.

To begin, it is necessary to understand the structure of the Science Society and its Board of Directors (BoD, 'Board'). The Board serves as the legislative tool and student government for UWaterloo Science Students from all backgrounds. It is tasked with oversight of the popularly elected Science Society executives who represent science on faculty and university boards as well as in the Federation of Students (FEDS). The Board is structured as an analogue to the Faculty of Science: Board seats are held by those representing each of the departments and the interdepartmental Faculty level initiatives. In this manner, the departments are each represented by a departmental society – eg. *Biology Undergraduate Society* (BUGS) representing the Department of Biology or *Physics Club* representing the Department of Physics – the Faculty or interdepartmental initiatives – eg. Science and Business Student Association (SBSA) or Biochemistry Student Association (BSA)– represent their constituents which do not fall into a department of their own. Hence, programs like Science and Business, Materials & Nanosciences, or Biochemistry which are interdepartmental in structure are able to provide representation for students to SciSoc.

The Biomedical Student Association (BMSA) was given temporary membership in the Fall 2016 term conditional on a performance evaluation at the end of their first term of operation (Winter 2017). On March 16th, the Science Society Executive under agreement with BMSA executives instructed the Board to evaluate the performance of the Association and provided their recommendations to the Board of Directors. The Board decided to remove BMSA as a voting Board member, effective Spring 2017, at the behest of the Executive. While many arguments were made in favour of and in opposition to the removal, major reasoning reaffirmed the standing observations of the Science Society over the past term: there is an overwhelming overlap with Biology's departmental society, BUGS, and the Faculty-level interdepartmental Biochemistry club, BSA. This prevents BMSA from truly distinguishing themselves and offering something beyond what exists for students already. After much deliberation, the Board resolved that BMSA over-represented life sciences on the board, yielding an unfair excess in spending on Biology Students (technically the Biomedical program falls solely under the Department of Biology) and set an unreasonable precedent for specific programs, rather than the departments and the faculty groups only, to have Board representation. It is especially noteworthy that while the primary argument for maintaining BMSA (and creating it in the first place) was the under-representation of Biomedical students and Honours Science students, this was simply inconsistent with observation. Case in point, *three of*

The Science Society

Board of Directors

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the Executives on Science Society and *two* Board members (5/11 seats) are held by *Biomedical Science* students. The Board further recommended that BMSA as a separate program club incorporate under FEDS as a registered club and seek Science Society external funding in the future. This proposal was well received by the other Board members, and indicates the drive of the Board to fund groups that benefit Science students – particularly a subset so large as Biomedical Science. Perhaps a fundamental mistake of the Board originated in allowing BMSA to exist in the first place on the condition that they distinguish themselves. It was noted by a few board members that their existence as representative of a program on the Board would be akin to Mathematical Physics or Materials Chemistry programs receiving a voting board seat and thereby a distribution of funds.

Other arguments were presented including a reproach of the claims that BMSA could and was representing/targetting Honours Science students. This was asserted, but little to no actionable evidence exists to substantiate this claim. The Science Society Executive noted that events planning lacked originality, and were either events of other societies' BMSA joined with or borrowed. The Executive contended that there was an expectation by BMSA of event management by SciSoc. Based on turn out results from events, the Association predominantly failed to involve their own students with lower end turnout at ~30 students, and upper end not past 70 students with significant overlap with BUGS students. The Board also called attention to the fact that Biomedical Science is only operating as a program between Fall and Winter, and thus theoretically has no students in Spring terms, meaning that they their major operating time frame is only 2/3 of a year. This would mean Biology (via BMSA and BUGS) received extra voting and funding, whilst having fewer students to accommodate in that term. A significant and potentially salient feature of this decision is that Biomedical students involved in this student government voted in favour of the dissolution, this speaks to value of the Board's structure and the validity of the arguments presented.

Independent of these measures, the Board is considering offering Honours Science students an elected voting Board seat so they, as the largest proportion of individual science students, get greater say beyond simply departmental societies. The Board's recommendation that the Biomedical Student Association affiliate instead with FEDS is predicated on their niche role as a student organization for a their program and affiliation with a select group, whereas the Science Society strives for total open access of all events and all materials for all students within the Faculty. Under the Federation of Students, BMSA can flourish more from the increased flexibility, allowing greater opportunity for success as they move into a new chapter. The Board would look very favourably upon the Association returning in the future for external funding, so that they may provide Biomedical Science students with the resources they need to succeed without impinging the efficacy of the Board or the Science Society. The Board also resolved that BMSA should hold a nonvoting observer seat going forward so they can give input and voice for what they believe to be under-represented groups at the University of Waterloo.


Please feel free to contact the Science Society Executive at 519-888-4567 ext. 32325 for further information or questions, or by email at SciSoc@uwaterloo.ca. Thank you for your attention to this matter, the Board of Directors hopes your questions and concerns have been addressed.

Sincerely,



(Speaker of the Board)

3 April, 2017



(President of the Board)

3 April, 2017

University of Waterloo Science Society

Chair's Agenda for 1 June, 2017

Members: S. Velling (Chair), R. Beena Kumary (President), B. Brown (VPFA),
 C. Mangahas (VPI), S. Chung (VPA), Biochemistry Student Association
(BSA), Biomedical Student Association (BMSA), Biology Undergraduate Society
(BUGS), Chemistry Club (ChemClub), Physics Club (PhysClub), Materials &
Nanoscience Society (MNS), Science and Business Students' Association (SBSA)
Waterloo Undergraduate Student Geological Society (WatRox), FEDS Councillors

Announcements

The Speaker would like to congratulate FEDS Councillor Elizabeth O'Sullivan for being elected chair of the FEDS Student Council.

Additionally, committee assignments for FEDS have occurred, and you will hear from FEDS Councillors regarding this during reports.

Because the topic was tabled last meeting, the elections for position of Speaker will be held this meeting immediately following *Call to Order*.

Reminder that we will continue to transition to Slack as the new primary means of communication, if the Board so chooses, this discussion will be had during Old Business.

Call to Order

Move to begin the orders of the day.

Preliminaries

Speaker's Prerogative: the Speaker *moves* to appoint VP Internal, or in their absence or inability the VP Academic, as the acting speaker *pro tempore*. *Note: this motion cannot be debated.*

Move to bring the Board under voting procedure.

Call to nominate new Speaker for Spring 2017.

Move to vote on a new Speaker for Spring 2017 to begin effective Monday, 5 June, 2017.

Be it resolved that the new Speaker for the Spring 2017 Academic term shall be _____.

Old Business

1. *Move* to approve the minutes of the previous meeting (18 May, 2017).
2. Last meeting the CECA's representative Rocco Fondicaro offered an "arrangement to meet with WaterlooWorks people to offer more insight" for an upcoming meeting. Deliberation by the Board.
3. Discussion of the OSSA Conference.
4. *Move* to conclude Old Business.

Public Session

Move to open period for questions from members-at-large. *Note: Any Society members can speak during this time, including the Board members.*

Committee, Clubs, & Societies Reports

Move to close Public Session and proceed to *in camera* session.

University-wide Committees

Co-op Education Council and Co-op Student Council — Briefing by the Vice President Academic and FEDS Councillors.

FSF Committee & WatSEF — Briefing by the President.

FEDS President's Committee (President) — Briefing by the President.

FEDS Board Report — Briefing by the President Emeritus, FEDS Director Vaishnavy Gupta.

Other, as needed — *Speaker's Prerogative*: the Speaker *moves* to a Moderated Caucus for 10 minutes. Any additional items can be brought up during this time.

Executive Updates

President —

Vice President Finance & Administration —

Vice President Internal — Beginning of Term Wellness Wednesdays.

Vice President Academic — Update on meeting externally with CECA, Employment Rate Calculation, Waterloo Works, and a survey for students to review Waterloo Works is in progress.

Executive Coordinators (Administrative Coordinator & Financial Associate) —

Departmental Clubs/Societies Updates

BSA —

BMSA —

BUGS — report on integration of guaranteed Biomedical seat on the BUGS Exec as mandated by Board Resolution W17-31 ("A Resolution to Outline the Nature of Science Society Board Decision for the Removal of Biomedical Student Association (BMSA) and their future relationships")

ChemClub —

PhysClub —

MNS —

SBSA —

WatRox —

FEDS Report*Science Councillors* —*FEDS Board* —**New Business**

1. ***Move*** to suspend the rules and enter a moderated caucus for 5 minutes to discuss the approval of Financial Associate of the Society. ***Move*** to recall the motion to approve the 2017 Spring Term Coordinators appointed by the Executive for the Financial Associate.
2. *Speaker's Prerogative*: the Speaker ***moves*** to a Moderated Caucus for 10 minutes. Any additional items can be brought up during this time.
Move to approve the resignation of Speaker Seneca Velling effective 4 June, 2017.
3. ***Move*** to adjourn.

Next Meeting: Thursday, June 15, at 5:30pm (17:30).

Board of Directors,
Science Society
University of Waterloo



1 June, 2017

EFFECTIVE 5:30pm, 1 June, 2017.

To those whom it may concern on the Science Society Board of Directors & Executive:

I am writing to inform you that I will be resigning from my post as Speaker of the Board, pursuant to the election of an on-campus Speaker for the Spring 2017 Term. My last day of work will be 1 June, 2017, this resignation shall be effective as soon as the *Call to Order* for the business of Board commences.

I would like to thank the Board for the privilege it has been to serve you and represent you in University matters; we fought tough battles regarding the Biomedical seat and the CECA censure, but it is my opinion that we came out better than we went in. I truly believe we improved the condition of students at the University, whether they are aware of all our feats (like CECA) or not (like transparency and voting reforms). I am proud to have worked for the Board, and I appreciate the time and patience you have shown in developing policies and constitutional changes for the Society to strengthen our position for future terms. I have learned a lot in my time, and I hope you have learned from me as well, I am sure some of these skills will serve me well as I move on to FEDS Council and return to my position as a regular member of the Board.

Please acknowledge this letter as my official notice of resignation. I will do my best to ensure that all of my projects are completed and ensure a smooth transition. I have been fortunate to have been a part of the Science Society Board, and I look forward to continuing on without the constraints of impartiality on my role as Speaker.

Sincerely,

Seneca Jackson Velling

*Speaker of the Board,
Science Society*

Mon Jun 12th

- 1) Guest Presentation: Co-op 2.0 Update – (*Co-op 2.0 Project Team, 20 mins*)
- 2) Discussion: Strengthening Understanding of Student Societies – (*Solimano, 15mins*)
Recently, Feds' Education Department and UW CECA have become more aware that faculty student societies can play a strong role in providing feedback and direction for UW's co-op program. We want to consider what this role might look like for each society.
- 3) Discussion: Waterloo Works Student Feedback
At the most recent Co-op Education Council meeting, the VPs Academic/Education from a few societies indicated their interest in running a Waterloo Works survey this term. We can try to coordinate this through CSC, so that the data collect can be more useful.
 - a) EngSoc Waterloo Works survey report – (*Duong, 5 mins*)
 - b) Societies Survey for Spring 2017 – (*Clubine, 15 mins*)
- 4) Staff Updates – (*Solimano, 15min*)
 - a) Employment Updates
 - b) Major Projects
 - c) Other
- 5) Other business

Mon Jun 19th

- 1) Guest Presentation: WatPD Update – (*WatPD Staff, 20 mins*)
- 2) Staff Updates – (*Solimano, 15min*)
 - a) Employment Updates
 - b) Major Projects
 - c) Other
- 3) Other business

Mon Jun 26th

- 1) Guest Presentation: Waterloo Works Update – (*Waterloo Works Team, 20 mins*)
- 2) Discussion: Strengthening Understanding of Student Societies – (*Solimano, 15mins*)
We will return to our conversation from June 12th to identify next steps in the development of society-CECA relations.
- 3) Staff Updates – (*Solimano, 15min*)
 - a) Employment Updates
 - b) Major Projects
 - c) Other

4) Other business