

Saint Louis Section American Chemical Society Chemical Bond

Vol. 75, No. 3, September, 2024

Alexei Demchenko is the 2024 Midwest Award winner

first published 15 July 2024

Alexei Demchenko was born, raised, and educated in Moscow (Russia, not Idaho). He graduated from the Mendelev University of Chemical Technology with a Diploma (MS) in Chemical Engineering before joining the laboratory of the late Professor Kochetkov at the Zelinsky Institute of Organic Chemistry in Moscow. In 1993, he was awarded a PhD in organic chemistry by the Russian Academy of Sciences for his work on the development of thiocyanate methodology for glycosylation.

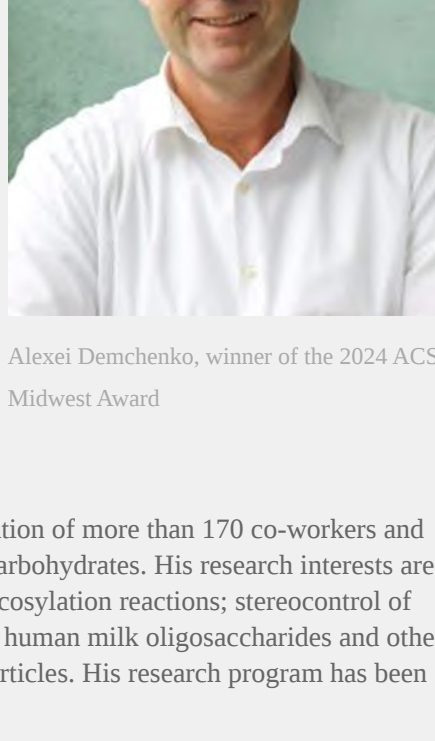
After two post-doctoral years under Kochetkov, he joined Professor Boons' group at the University of Birmingham (UK, not Alabama) as a BBSRC post-doctoral research fellow. In 1998, he moved to the Complex Carbohydrate Research Center, University of Georgia (USA, not Transcaucasia) as a research associate. In 2001, he joined the faculty at the University of Missouri–St Louis as an Assistant Professor. He was promoted to Associate Professor with tenure in 2007 and Professor in 2011. In 2014, Demchenko was appointed Curators' Distinguished Professor of Chemistry and Biochemistry.

In 2021, Demchenko relocated about seven miles southeast, joining the faculty at Saint Louis University as Professor and Chair of the Chemistry Department.

Professor Demchenko has received professional recognitions and awards throughout his professional life, including a CAREER award by the National Science Foundation (2005), the New Investigator Award by the Division of Carbohydrate Chemistry of the American Chemical Society (2007), the UMSL Chancellor's Award for Excellence in Research and Creativity (2013), the ACS–St Louis Award (2014), the UMSL Senior Investigator of the Year Award (2017), Fellows Award by the Academy of Science–St Louis (2020), the UMSL Co-Investigators of the Year Award (with Keith Stine, 2020), the Melville L. Wolf from Award from the Division of Carbohydrate Chemistry and Chemical Glycobiology of the ACS (2024), and now this, the ACS Midwest Award (2024).

Professor Demchenko has co-authored 230 articles and has given more than 180 invited lectures and seminars. With participation of more than 170 co-workers and trainees, the Demchenko laboratory ([Glycoworld](#)) has developed many innovative tools for the synthesis and application of carbohydrates. His research interests are in the area of synthetic carbohydrate chemistry that include: streamlined synthesis of carbohydrate building blocks; novel glycosylation reactions; stereocontrol of glycosidic bond formation; assembly of complex glycans and glycoconjugates; synthetic vaccines and glycopharmaeaceuticals; human milk oligosaccharides and other food additives and ingredients; solid-phase and automated synthesis; conjugation of glycans to proteins, surfaces, and nanoparticles. His research program has been funded by grants totaling \$13M.

Professor Demchenko has served in many editorial roles and organized several international conferences including the 2015 Gordon Research Conference on Carbohydrates. Since 2019, he has served as President of the US Advisory Committee for the International Carbohydrate Symposia. Professor Demchenko was the 2020–2021 Chair of the Division of Carbohydrate Chemistry of the ACS and is the national representative to the International Carbohydrate Organization.



Alexei Demchenko, winner of the 2024 ACS Midwest Award

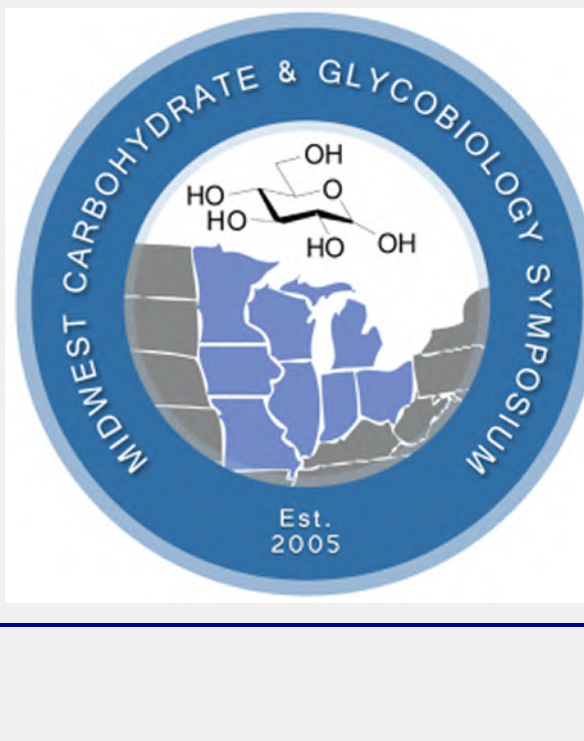
MCGS Here This Year

first published 13 August 2024

The 19th Annual Midwest Carbohydrate & Glycobiology Symposium (MCGS) is being organized and hosted by Jim Janetka from Washington University School of Medicine and Cristina DeMeo from Southern Illinois University–Edwardsville. The symposium will take place on September 20th and 21st at the Washington University School of Medicine in Saint Louis. As with past meetings, registration is free. We encourage interested faculty and industry scientists as well as students and postdocs to attend, as well as present their research.

We have put together an exciting line-up of [speakers and events](#). The meeting will begin late afternoon on Friday, September 20th, followed by an amazing dinner banquet and open bar with live band at the Schlafly Brewery. Saturday will begin with an early breakfast followed by a wonderful day of talks and poster presentations; there will be awards for the best posters. Lunch and coffee breaks will also be served at the meeting. A block of rooms at the Doubletree Hotel on the WUSM campus adjacent to the meeting location has been reserved at a discounted rate. The deadline for [registration and poster abstract submission](#) has been extended to September 6th. For more information, please visit the [meeting website](#).

The registration deadline is September 6, 2024.



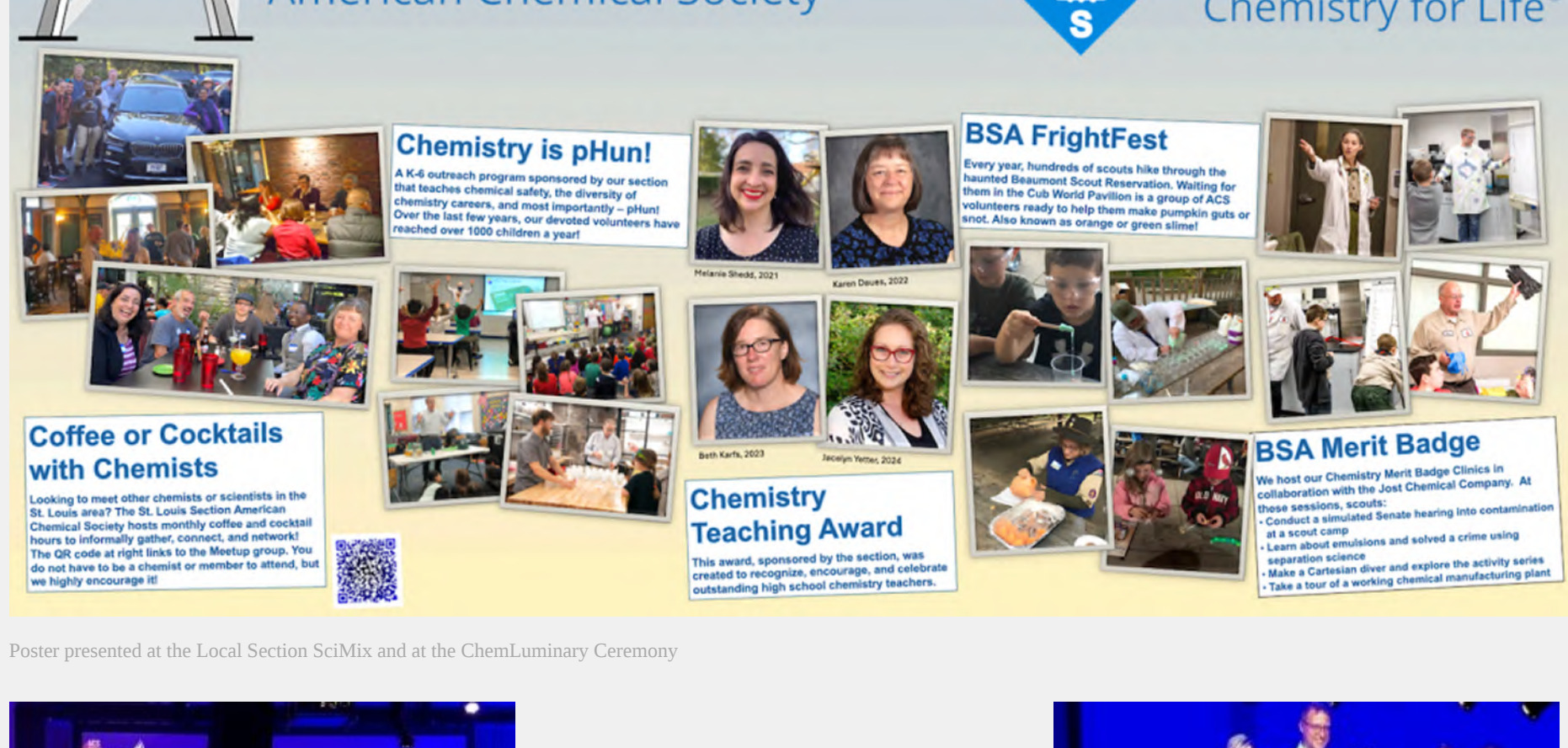
We (You!) Won a ChemLuminary!

first published 21 August 2024

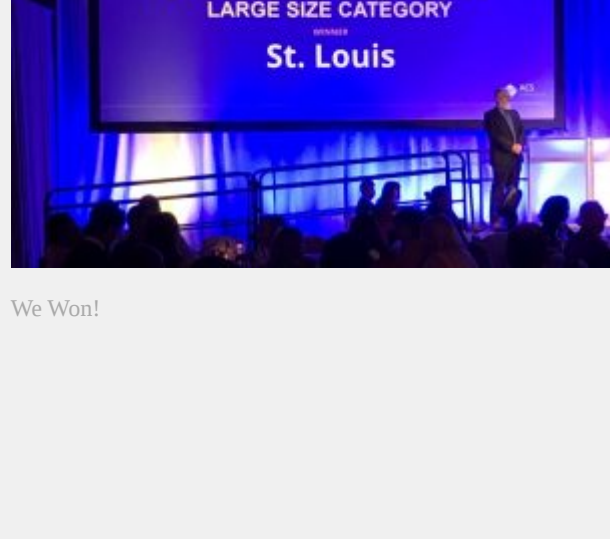
The [ChemLuminary Awards](#) are a yearly celebration of members, sections, and activities focused on public service and outreach to the community. The St. Louis section was awarded the "Outstanding Performance by a Local Section" in the Medium to Large Size Category, sponsored by the Committee on Local Section Activities.

As you can see from the poster we put up, this award is a testament to you, our members, and your commitment to both the chemical sciences and our broader community. I commented many times at the Local Section reception at SciMix, where the poster was also displayed: There are many more activities and volunteers among our 1200 members in the St. Louis area that go unrecognized, if you are one of those people, please reach out to our editorial team at [editor@stlacs.org](#).

Jeramia Ory, Interim Editor



Poster presented at the Local Section SciMix and at the ChemLuminary Ceremony



We Won!



From left to right: LSAC Chair Beth Lorschach; Chair of Professional Activities Committee Brent Znosko; Councilor for the St. Louis Section Donna Friedman; District V Director Lisa Balbes; and President Elect of ACS Dorothy Phillips

New volunteer policy takes effect in September

first published 26 August 2024

In December 2023, the ACS Board of Directors approved the [Volunteer and Participant Code of Conduct Policy](#), effective May 1, 2024. In the policy, item 10 states that a background check may be required for some events.

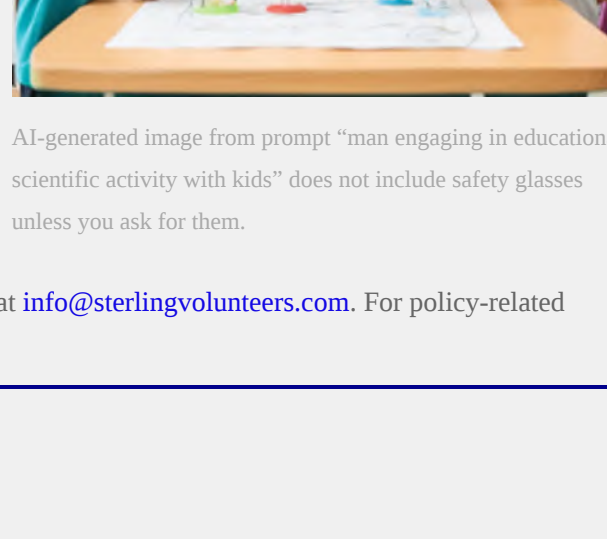
On September 1, 2024, the [Youth Protection Policy](#) will take effect. The policy details the expectations for volunteers at ACS Youth Events. In particular, all adults volunteering at ACS Youth Events will be required to submit to a background check prior to participation. ACS has partnered with Sterling Volunteers to conduct all background checks. This policy applies to all adults volunteering at ACS Youth Events in the U.S.

Background checks conducted by Sterling Volunteers are at no cost to the volunteer. If you are participating in any Youth Events sponsored in whole or in part by the St. Louis Section ACS, you can [request a background check here](#). Background checks conducted by other organizations are *not* accepted.

Events scheduled before the end of September have a grace period and are exempt from the new policy. However, it is imperative that volunteers familiarize themselves with the process and request a background check soon. All volunteers for ACS Youth Events after October 1 must comply with the Youth Protection Policy. There are no exceptions.

Background checks are not required for all volunteer roles; only volunteer roles at ACS Youth Events require a background check.

For more information, please visit the [Youth Protection Policy](#) webpage, where you will find a tutorial video, procedural details, and FAQs. For questions about the background check process, contact Sterling Volunteers at [info@sterlingvolunteers.com](#). For policy-related inquiries, email [VolunteerPolicy@acs.org](#).



AI-generated image from prompt "man engaging in educational scientific activity with kids" does not include safety glasses unless you ask for them.

Councilor Talking Points, Fall, 2024

first published 31 August 2024

The national ACS Council publishes their "Councilor Talking Points" after every national meeting, intended to help Councilors inform the members of their Section or Division.

The Fall 2024 meeting in Denver (August 18 – 22) just concluded, Councilor Donna Friedman has provided the document for our edification. In no particular order, and using entirely subjective criteria, here are the highlights. If you want to see the whole thing, it's [here \(pdf, 296 kB\)](#).

- Attendance at the fall 2024 meeting was: 10,245 in-person and 1,324 online.
- Selfsame Donna Friedman was elected to the Council Policy Committee. Of the ten candidates, Donna received the greatest number of votes. Yay, Donna! (or sorry, Donna, ... depending).
- A petition was approved allowing for the creation of Global Electoral Zones for the election of Councilors by ACS members living outside the territory of existing Local Sections. This wasn't the highlight. The highlight was a provision (not yet finalized) for determining the number of Councilors allocated to Divisions. The math works this way: add up the number of Councilors for all the Local Sections and Global Electoral Zones. Multiply that total by 0.25. That is the number of Councilors to be elected by the Divisions. One wonders why it wasn't done by number of members, like for the Local Sections and (presumably) the Zones. But one wasn't privy to the heated debate, so one expects there was a very good reason.
- The Committee on Younger Chemists (YCC), in celebration of their 50th anniversary, encourages early-career chemists to join ACS. Through September, new members can join ACS for a 50% discount off their first year of annual dues by using discount code YCC24 when joining online. The wording seems to suggest that you don't have to be a Younger Chemist to avail yourself of this deal. Because, after all, younger than what? or whom?
- The Board of Directors approved a new post-doctoral fellowship in organic chemistry, to be supported by the Arthur C. Cope Fund. The award provides up to \$85,000 per year for two years.
- Council approved the updated [Chemical Professional's Code of Conduct](#) as well as amendments to the [Academic Professional Guidelines](#).



Meeting & Seminars

Board of Directors

St Louis Section–ACS Board of Directors meets the second Thursday of each month, usually over Zoom. E-mail [chair@stlacs.org](#) for the Zoom link to the next meeting.

Date: Sept 12th

Join internet meeting at 6:00 pm for social/chit-chat

Business meeting begins at 6:30 pm

Future meetings: October 10th, November 14th

Maryville University

Seminars are approximately once a month on Thursdays, 4–5 pm. Details are available on the university's [seminar page](#). All seminars are free and open to the public. Contact [Jason Telford](#) for more information.

Saint Louis University

Seminars are generally on Fridays at 12 noon in Carlo Auditorium, Tegeler Hall, unless noted otherwise. Refreshments follow. For the most up-to-date information, refer to the department's [home page](#) and follow the link to the Seminar Schedule.

University of Health Sciences & Pharmacy in St. Louis

The Center for Clinical Pharmacology hosts a monthly seminar series in ARB 212 unless otherwise noted. For the most up to date information refer to the center's [seminar page](#) or contact [Jodi Maslin](#).

University of Missouri–St Louis

Mondays at 4 pm in 451 Benton Hall, unless otherwise specified. Refreshments 15 minutes prior to seminar time. For timely information on visiting seminars, contact the Chemistry Department, 314.516.5311, or visit the [seminar schedule](#). The department has additional seminar series which are also accessible from this page.

Washington University

Seminars are in McMillen 311 at 4 pm unless otherwise noted. For information, consult the departmental [events page](#). Related seminars, including endowed seminar series and the WU med school biochemistry series, are linked here as well.

UMSL Department of Chemistry and Biochemistry

M.S. Program in Chemistry M.S. Program in Biochemistry and Biotechnology

- ✓ All classes offered in the evening
- ✓ Affordable
- ✓ Research opportunities for credit available
- ✓ Professional Science Masters available in both programs – interfacing chemistry, biochemistry and business

[www.umsi.edu/chemistry](#)

UMSL Microscopy Imaging and Spectroscopy Technology Lab (MIST Lab)

University of Missouri–St Louis

Contact
Prof. Keith J. Stine
Chair, Department of Chemistry and Biochemistry
Email: [kstine@umsi.edu](#)

Dr. Bishal Nepal
Lab Manager, MIST Lab
Email: [bnf18@mail.umsi.edu](#)

Facilities Available

- **Electron Microscopy**
ThermoFisher Scientific Apreo 2 Field Emission Scanning Electron Microscope (FE-SEM)
- **Atomic Force Microscopy**
Bruker Bioscope Resolve Bio AFM with Nanoscope V controller
Digital Instruments Multimode AFM with Nanoscope III controller
- **Confocal Microscopy**
Zeiss LSM 900 system equipped with Axio Observer 7 inverted microscope
- **Thermal Analysis**
TA Instruments TGA Q500 for Thermogravimetric Analysis
TA Instruments DSC Q2000 for Differential Scanning Calorimetry
- **Surface Area and Pore Size Analysis**
Coulter SA3100 Surface Area and Pore Size Analyzer
- **Elemental Analysis**
ICP-AES, Vista Inductively Coupled Plasma Atomic Emission Spectrometer
EDS, Energy-Dispersive X-ray Spectroscopy using 30mm² detector in Apreo 2 SEM
- **Liquid Chromatography–Mass Spectrometry**
ThermoFisher Scientific TSQ Altis Triple Quad Mass Spectrometer equipped with Vanquish binary pump and Triplus autosampler

About the Chemical Bond

The *Chemical Bond* is published at [www.stlacs.org](#) January through May and September through December by the St Louis Section–American Chemical Society. If you would like to receive email notification when each issue is posted, you can subscribe to our email list and join the "Chemical Bond reminders" group.

Correspondence, letters to the editor, etc., should be emailed to [editor@stlacs.org](#) or mailed % St Louis Section–ACS, PO Box 410192, Saint Louis, MO 63141-0192.

Copyright © 2020 American Chemical Society and the St Louis Section–ACS

Editor	Jeramia Ory	314.446.8169 editor@stlacs.org
Associate Editor	Eric Ressler	314.962.6415 editor@stlacs.org
Assistant Editor & Advertising Manager	Keith Stine	314.516.5346 advmgr@stlacs.org
Business Manager	Donna Friedman	314.513.4388 bizmgr@stlacs.org