

**Professor Jaclyn Stewart (she/her) – University of British Columbia**

Wed, May 10, 10:05-10:45, DRO 214

*A nationwide data-driven approach to equitable course outcomes in science*

Post-secondary science educators have an important role to play in supporting equity and inclusion across our courses, programs, and institutions. The extent to which our courses have equitable outcomes influences which doors are open or closed, and to whom, and ultimately determines if we can address the need for diverse teams of skilled scientists to devise and implement effective solutions to global issues. However, by default, these critical and central STEM courses discourage and under-reward students that do not conform to the norm. The Canadian Consortium of Science Equity Scholars is a group of educators and researchers dedicated to enhancing equity in post-secondary science at the course level. By examining disaggregated course demographic data, we have pinpointed evidence of inequities in course outcomes, perceptions of classroom climate, and sense of belonging. Our combination of quantitative and qualitative research aims to change systemic barriers to student success, uncover ways to foster students' sense of belonging in science, and gather evidence for inclusive teaching practices. This talk will discuss the challenges and opportunities with measuring educational equity and offer ideas relevant to educators from any discipline.



**Biography:** Jaclyn J. Stewart is a Professor of Teaching in the Department of Chemistry and the Associate Dean Academic in the Faculty of Science at the University of British Columbia, Vancouver. She has an honours B.Sc. degree in chemistry, a M.Sc. in wood science, and a Ph.D. in educational psychology. She specializes in teaching general chemistry, organic chemistry, and science communication. Her research interests explore how students learn from feedback and STEM education equity. Her current passion is to grow a nationwide community of science educators and researchers to investigate course-level equity and identify inclusive educational practices. She was recently presented the 2022 CIC Award for Chemistry Education from the Chemical Institute of Canada.

**Professor Danielle Skropeta – University of Wollongong, Australia**

Wed, May 10, 10:50-11:30, DRO 214

*Breaking Barriers and Building Bridges: Lessons Learned from 30 Years in Chemistry*

Join me on a personal journey through three decades in chemistry, where I share my experiences as a woman in science and the obstacles faced along the way. As a STEM professional and mother, I know firsthand the challenges of succeeding in a male-dominated field and overcoming career interruptions. In this talk, I'll discuss my journey from being a student at a time when there were no female professors in chemistry in Australia to becoming a professor in medicinal chemistry. I'll share how I tackled the structural barriers along the way with the help of mentors, colleagues and transformative leadership programs. I'll also share vignettes of my research in drug development working with industry in remote locations such as the deep-sea and my experiences in outreach activities from podcasts to documentaries that promote diversity and inclusion, and my passion for mentoring the next generation of STEM researchers.



Throughout this talk, a key theme is about building bridges outside of academia and partnering with industry, government, and both Indigenous and local communities to make science more accessible and impactful. This talk will be a great opportunity for both men and women in chemistry and broader STEM areas to learn about current gender equity and diversity issues and how we can work together to create a more inclusive and equitable environment in science for everyone to succeed.

**Biography:** Professor Danielle Skropeta is a medicinal chemistry research leader and Associate Dean of Higher Degree Research in the Faculty of Science, Medicine & Health, University of Wollongong, Australia. She is a Fellow and Board Member of the Royal Australian Chemical Institute (RACI), Senior Fellow of the Higher Education Academy UK and National STEM Ambassador for Science and Technology Australia. Prof Skropeta's research interests are in chemical glycobiology and she leads an interdisciplinary research group focused on drug development in cancer, wound healing and bacterial infection, working in collaboration with industry partners to translate discoveries into outcomes that benefit society. In 2020, Danielle received the Margaret Sheil National Leadership award for her advocacy of gender equity in the chemical sciences. (Connect with Danielle Skropeta through LinkedIn or Twitter @DrDanChem).

## Professor Siegbert Schmid — The University of Sydney, Australia

Wed, May 10, 11:40-12:20, DRO 214

### *Chemistry Education Research at the University of Sydney*

In the School of Chemistry at the University of Sydney, Australia, chemistry education & communication research and development play a central role. This has culminated in the establishment of the Chemistry Education and Communication Research theme in 2019, mirroring research themes that encompass traditional research in inorganic, physical and organic chemistry.

In this talk, I will present the range of topics the theme is working on, with particular emphasis on projects investigating the suitability of common assessment regimes to verify students' achievement of threshold learning outcomes, as well as efforts aimed at improving inclusion, e.g. independent laboratory learning for students with blindness or low vision, and diversity in our courses.



**Biography:** Professor Siegbert 'Siggi' Schmid graduated with a PhD in Inorganic Chemistry from the University of Tübingen, Germany, and after post-doctoral research at the Australian National University, Canberra, Australia, completed a Habilitation at his alma mater. He returned to Australia to take up his current position at the University of Sydney. He currently serves as Chair of the Chemistry Education & Communication Research theme at the School of Chemistry of the University of Sydney. His education research investigates changes to teaching practices that enhance the student experience and learning outcomes, with particular emphasis on inclusive teaching. He led a Government-funded national project on *Assessing the Assessments*, investigating the suitability of assessment strategies to verify students' attainment of threshold learning concepts. He received many awards for his teaching and education research and development, including the 2019 Fensham Medal of the Royal Australian Chemical Institute for sustained contributions to chemistry education in Australia. In addition, he leads materials chemistry research, with emphasis on the synthesis and structural characterisation of aperiodic and other materials with potential technological applications, e.g. electrode materials for rechargeable Li-ion batteries.