

President Huston, SGA members and Friends

It is a privilege, and an honour, for me to introduce my good friend Matthew Steele-McInnis to receive the 2022 SGA Young Scientist Award. First, I would like to acknowledge David Banks, Jean Cline, John Hanchar and Chris Heinrich for supporting his nomination, and the SGA council for voting for him among a group several other excellent and highly qualified candidates.

We feel that Matt is one of the best possible candidates for the SGA Young Scientist Award and his career thus far and enthusiasm should be an example for other young geologists interested in obtaining a better understanding of how ore deposits form. Nowadays, many published papers tend to use fancy analytical techniques and develop models without understanding the fundamentals of what is going on. Perhaps, the great merit of Matt is his ability to distance himself from this approach and try to integrate geology, thermodynamics, and geochemistry in a rigorous way; something that can only be done with an excellent background in hydrothermal geochemistry. If you are interested in these topics, you should read his many papers to better understand and appreciate his work.

Matt is a native of Newfoundland and graduated with a B.Sc. (Hons) degree from Memorial University of Newfoundland. Matt then completed his PhD studies at Virginia Tech, supervised by Bob Bodnar. Afterwards, he held a Marie Curie Postdoctoral Fellowship at ETH, Zurich. He then moved to Tucson for a faculty position at the University of Arizona, and later decided to go northwards for a cooler place and is now a tenured Associate Professor at the University of Alberta. He has had a successful group of students from undergraduate to postdocs and has an impressive record of papers oriented to our understanding of Earth's fluids and its relationships with the formation of ore deposits. In just 11 years he has published 75 papers in top international peer-reviewed journals.

As mentioned above, his field of research is dominantly oriented to the geochemistry of ore deposits, including a wide variety of topics such as the basics of fluid and melt inclusions with development of thermodynamic equations for the H₂O-CO₂-NaCl system, solubility of minerals (specially anhydrite and quartz) in hydrothermal fluids, the origin of fluids in VMS systems and, more recently the origin of magnetite-(apatite) systems, where with his student Wyatt Bain and other colleagues have proposed an exciting new model for the origin of these enigmatic rocks the results from which have recently been published in *Nature Geoscience* (2020) and *Geology* (2021).

SGA president, on behalf of the large group that probably agrees with us, I am happy to present Matthew Steele-McInnis as the recipient of the SGA Young Scientist Award.