

NEWS RELEASE – July 20, 2023

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Announcing the 2023 SME Academic Grant and Ph.D. Fellowship Recipients

For an eighth year, the Society for Mining, Metallurgy & Exploration (SME) will award grants and fellowships to tenure-track professors and Ph.D. students seeking the financial support needed to earn their Ph.D. to begin a career in academia or assist with securing tenure at their university.

These programs, funded through the SME Foundation, exist to address the long-term challenges that threaten the sustainability of U.S. mining academic degree granting programs, as well as the looming future labor deficiencies associated with retirements over the next two decades. This year's recipients are Jiaqi Jin of the University of Utah, Nathalie Risso of the University of Arizona, and Younes Shekarian of Pennsylvania State University.

"Our 2023 recipients inspire a great deal of confidence in the current and future state of mining and minerals education," said Dave Kanagy, SME CEO and Executive Director. "Through these prestigious programs, SME does its part in cultivating a highly educated talent pipeline by virtue of a robust academia. During the eight years SME has funded more than 25 students and faculty with \$7.1 million to date."

The program allocates to each recipient:

- Freeport-McMoRan, Inc. Academic Career Development Grant - \$100,000 per year for a maximum of three years. The grant provides assistant or associate professors financial support to fulfill requirements for achieving tenure and promotion.

- Ph.D. Fellowship - \$60,000 per year for a maximum of four years. The fellowship provides financial support necessary to acquire a doctoral degree to students with industry experience and a desire to pursue an academic career.

About the recipients:

2023 Freeport-McMoRan, Inc. Career Development Grant



Jiaqi Jin, Ph.D.

Dr. Jin is currently an Assistant Professor of Metallurgical Engineering at the University of Utah. His research interests include mineralogy, mineral processing, hydrometallurgy, petroleum, CO₂/H₂ storage, carbonaceous materials, iron and steel, recycling, and advanced process control. Dr. Jin plans on using this grant to establish studies about the foundations of mineral processing and extractive metallurgy, such as the fundamentals of particle breakage and liberation as well as the molecular behavior of gold adsorption. "This will have significant impacts on further advancing current technologies," he said.



Nathalie Risso, Ph.D.

Dr. Risso is currently an Assistant Professor of Mining and Geological Engineering at the University of Arizona. Her research interests include cyber-physical systems, renewable energy, and machine learning. With this grant, Dr. Risso will conduct research that will use tools from artificial intelligence and cyber-physical systems for the automatic generation of models for automation and control of autonomous systems, such that they can be easily integrated into mining operations to improve safety, productivity, and reduce energy consumption. "I believe the dissemination of this

research will also contribute strongly to student recruitment from diverse backgrounds,” she said.

2023 SME Ph.D. Fellowship



Younes Shekarian

Mr. Shekarian is a Ph.D. student of Energy and Mineral Engineering at Pennsylvania State University. He will apply this fellowship to research including the recovery of critical elements such as cobalt, manganese and aluminum. After obtaining his doctoral degree, Mr. Shekarian endeavors to become a tenured professor at an accredited university. “I believe working in academia provides a flexible environment to enjoy my intellectual freedom, share my knowledge, and train students to become good engineers or researchers in their future careers,” he said.

For more information about the SME Foundation including programs, events and ways to give, please visit www.smefoundation.org/home.

About SME

The Society for Mining, Metallurgy & Exploration (SME) brings together the mining and mineral industry’s brightest and most dedicated professionals. Over 13,000 global members advance their careers with the world-class technical resources, educational programs, networking opportunities and professional development tools from SME. Our members are focused on sharing best practices for safety, environmental stewardship and moving mining forward. SME. *Inspiring mining professionals worldwide.*