Speaker Biographies

Paul Agnew is a geologist with more than 25 years of experience in minerals exploration with Rio Tinto Exploration. During his career, he has been involved in the search for gold, copper, lead and zinc, uranium, bauxite, and diamonds. As Chief Geochemist for RTX, he spent more than a decade providing technical support to exploration programs globally as well as developing and implementing best geochemical exploration practices throughout the organization. In 2010 he took on the role of Chief Geologist–Technical Support and Technology Development, leading a team of technical specialists providing support and managing R&D activities globally, focused on the development of innovative exploration technologies to improve the efficiency and effectiveness of mineral exploration.

Murray Allan has been studying the metallogeny of the Yukon and Alaska Cordillera as an MDRU Research Associate since 2010. Previously, he carried out grassroots exploration with Anglo American in Brazil, Quebec, Utah, and Alaska. His Ph.D. research at the University of Leeds focused on the development of fluid inclusion analysis by laser ablation ICP-MS and application of this technique to magmatic-hydrothermal gold deposits. He is currently applying his experience with hydrothermal fluid chemistry to regional metallogenic problems in the Northern Cordillera. Murray is a registered Professional Geoscientist with APEGBC.

Dr. Ravi Anand is a Chief Research Scientist at CSIRO and an Adjunct Professor in regolith geoscience and geochemistry at Curtin University of Technology, Perth, Western Australia. He joined CSIRO in 1987 as a Research Scientist in the Division of Mineralogy, carrying out research into methods of exploring for concealed mineral deposits in Australia’s deeply weathered terrains. He has over 30 years’ research experience in regolith geoscience and exploration geochemistry, mainly in developing procedures for gold, base metals, and uranium exploration in deeply weathered terrains. His current research in collaboration with the industry is focused on understanding metal dispersion processes through transported cover. He led many industry-funded research projects in Australia, and has undertaken consultancies and delivered regolith courses and field workshops to industry, university extension, and government in Australia, Canada, and several countries in South America and Africa. Ravi has authored/co-authored over 300 papers and edited monographs and reports. The outcomes of his research have been major contributors to the discovery of many mineral deposits.

Shaun Barker graduated with his B.Sc.(Hons) degree in geology from the University of Otago in 2004 and completed his Ph.D. in earth sciences at the Australian National University in 2007. He then worked for five years in the Mineral Deposit Research Unit at the University of British Columbia, primarily on identifying vectors toward Carlin-type gold mineralization, as well as
developing new stable isotope techniques and applying them to mineral exploration. Since 2012, Shaun has worked at the University of Waikato in New Zealand, where he teaches a variety of earth science classes and is carrying out research on epithermal gold deposits and active geothermal systems.

Colin Barnett was the Director of Exploration Technology for Newmont Mining Corporation before forming his consulting company, BW Mining. He received a B.A. and an M.A. in Natural Sciences from Cambridge, an M.Sc. in Geophysics from Imperial College London, and a Ph.D. in Geophysics from the Colorado School of Mines. During a nearly 30 year career with Newmont, he was responsible for numerous innovations, including the first digital ground time-domain electromagnetic system, which he took from the instrument design stage to the writing of the software to process and invert the data. This led to the development under his leadership of the first successful helicopter-borne, time-domain EM system known as NEWTEM.

BW Mining is a specialist group that provides a unique consulting service to the mineral industry, using statistical data mining techniques to fully integrate multidisciplinary exploration data sets.

Mark Barton is Professor of Geology and Geochemistry at the University of Arizona and Associate Director of the UA Institute for Mineral Resources. Mark earned B.S. and M.S. degrees from Virginia Tech and then a Ph.D. from the University of Chicago. Following a postdoctoral fellowship at the Geophysical Laboratory (Carnegie Institution of Washington), he taught at the University of California, Los Angeles (UCLA) before joining the faculty at the University of Arizona. His research interests span many aspects of energy and mass transfer in the Earth’s lithosphere and their applications to mineral deposits. Mark is a fellow of and has been active in several professional societies including the Society for Geology Applied to Mineral Deposits, the Society of Economic Geologists, the Geological Society of America, and the Mineralogical Society of America; he has received awards from several of these, including the Waldemar Lindgren Award (SEG) and MSA Award (MSA). After 15 years directing the geology-focused, research-oriented Center for Mineral Resources, he helped found the Lowell Institute for Mineral Resources (IMR), which is a state-, industry-, and privately funded interdisciplinary organization for research and education. He collaborated with his former Ph.D. students David Johnson and Eric Jensen in developing Bronco Creek Exploration (now part of Eurasian Minerals).

Paul Bartos is Chief Geologist Americas, Greenfields Exploration for AngloGold Ashanti, the world’s third largest gold mining company. He received his B.S. in geology from Wayne State University in 1979, an M.S. in Applied Earth Science from Stanford University in 1983, and a Ph.D. in Geology from the Colorado School of Mines in 2006. He was involved in the discovery of the San Bartolomé silver mine, Bolivia, one of the world’s largest pure silver mines, with current reserves of 103 million ounces silver, as well as the San Luis bonanza vein deposit, Peru (with reserves of 340,000 ounces gold, 7.2 million ounces silver at an average grade of 20 g/t Au, 453
g/t Ag), and the Cerro Jumil gold skarn, Mexico, with resources of 1.5 million ounces gold and 16 million ounces silver. He also designed the new Geology Museum at the Colorado School of Mines.

Mark Bennett has been the Managing Director and CEO of Sirius Resources since its inception in 2009. He is a geologist with extensive experience in gold and base metals in Australia, West Africa, and Canada with WMC, LionOre, True North Nickel, and Sirius. He is a two-time winner of Australia’s “Prospector of the Year” award for his discoveries, which include the Thunderbox gold mine, the Waterloo nickel mine, and the world-class Nova-Bollinger nickel-copper deposit in Western Australia. Mark also has extensive experience in equity capital markets, transactions, and corporate strategy, having led Sirius to become the best performing ASX stock of 2013. Mark holds both bachelor- and doctorate-level degrees in economic geology and is a Fellow of the Geological Society of London and the Australian Institute of Geoscientists, and a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Company Directors.

Steve Beresford is currently Chief Geologist of First Quantum Minerals and an Adjunct Professor at the Centre for Exploration Targeting, University of Western Australia. Steve’s background includes senior roles in both industry and academia. He was formerly a Professor at UWA, Chief Geologist at MMG and FQM, and non-executive director of Sama Resources, and has held senior technical roles at WMC and BHP Billiton. Steve is the Chair of Geoscience for UNCOVER, a national coordinated government-industry research initiative aimed at a step change in targeting under cover.

Thomas Bissig graduated from the Swiss Federal Institute of Technology (ETH) in 1997, where he carried out his diploma thesis research on the tectonic evolution of the alpine suture zone in the Val Malenco, northern Italy. After working for Barrick Chile, he initiated his Ph.D. research at Queen’s University on the relationship of the Miocene geomorphologic evolution and magmatism to the high sulfidation epithermal deposits in the El Indio belt, Chile-Argentina border. He graduated in 2001. After a two-year postdoc at the Mineral Deposit Research Unit (MDRU), University of British Columbia, Thomas assumed a position as Assistant Professor at Universidad Católica del Norte in Antofagasta, Chile, in 2004, where he stayed until late 2008 before he took his current position as senior Research Associate at MDRU. He has published more than 20 peer-reviewed research papers, largely on Andean metallogeny and epithermal deposits, and was awarded the Brian J. Skinner Award in 2003.

Wouter Bleeker obtained degrees in geology and ore petrology from the Free University of Amsterdam, working on projects in Scandinavia. In collaboration with industry, his M.Sc. degree involved unraveling the structure, stratigraphy, and
mineralogy of silver-bearing phases of an ore horizon in the Bergslagen district, central Sweden. His work contributed to the discovery and production of the Lovisa massive sulfide deposit. He then taught at the University of Botswana before coming to Canada. He obtained his Ph.D. from the University of New Brunswick with a dissertation on the structure and stratigraphy of the Thompson nickel belt and its nickel sulfide deposits. He has worked on the geology of the Abitibi greenstone belt for more than two decades, first as a researcher with Falconbridge Ltd. and later with the Geological Survey of Canada. With the GSC, and through a number of global collaborations, he has worked on numerous Precambrian terrains and cratons around the world, notably the Slave craton.

Jon Blundy is an igneous petrologist. He studied for a bachelor’s degree in geology at the University of Oxford (1983) and for a PhD in granite petrogenesis at the University of Cambridge (1989). Jon is interested in all things magmatic, from magma generation in the crust and mantle to active volcanoes and hydrothermal mineralization. He approaches his research using a combination of field observations, thermodynamics, microbeam analysis, and high pressure-temperature experiments. He has been at the University of Bristol since 1989, where he became Professor of Petrology (2004). He was elected a Fellow of the Royal Society in 2008. Together with colleagues at Bristol, Jon has recently become engaged in research into the origin of porphyry copper deposits from a volcano petrology perspective. This enterprise was made possible through generous research funding from BHP Billiton.

George Brimhall is an Emeritus Professor of Geology and Material Science at the University of California, Berkeley, and now engages in mapping and exploration geology in Montana. Before UC Berkeley, he was an Assistant Professor at the Johns Hopkins University for two years following a career in industry with the Anaconda Company in Butte, Montana, where he was an underground mine geologist and project geologist in charge of exploration of the deep porphyry copper mineralization. His research interests focus on intrusion-related ore-forming systems and their exposure and supergene enrichment history. His field work has been in the United States, Africa, Australia, New Guinea, South America, and Russia. He was a recipient of the SEG Lindgren Award in 1980, fellowship in the GSA and MSA, and the Noyce Prize for excellence in undergraduate teaching in physical sciences at UC Berkeley. He was elected to the National Academy of Engineering in 2001.

Graham Brown was educated in Glasgow, earning his B.Sc. in 1980. He received his M.Sc. from James Cook University (JCU), Australia, in 1984. He has been a Fellow of the SEG since 1999 and participated in both the Colombia and Duke Business Leaders Programs in 2004 and 2007. In 2011 he was the co-recipient of the PDAC Thayer Lindsley Award and from 2013 attained both Chartered and European Geologist professional status. Graham has 35 years’ experience in the mining and exploration business, having been employed as an independent consultant, chief geologist, senior executive, and leader of a highly successful award-winning
discovery team. He has lived and worked on four continents and completed more than 100 technical assignments, covering a range of commodities in over 25 countries. He is currently an SEG councilor, BGS industry representative, and NHM honorary research fellow. Industry awards, recognition, and world-class exploration discoveries credited to his team during the last decade include Los Sulfatos (PDAC), Sakatti (FEM), and a ranking as the most successful major base metals explorer (MEG).

Douglas Bryman holds the J.B. Warren Chair and is a Professor in the Department of Physics and Astronomy at the University of British Columbia. Dr. Bryman’s research focuses on the study of rare particle decays. He has been a spokesman for experiments at TRIUMF and Brookhaven National Laboratory. He has also been involved in advanced radiation detector instrumentation development for high energy physics and applied physics, for which he has received several patents. In 2011, Bryman was co-recipient of the W.K.H. Panofsky Prize in Experimental Particle Physics from the American Physical Society. He is a Fellow of the American Physical Society (APS) and was a Fellow of the Japanese Society for the Promotion of Science. He is currently on the editorial board of Physical Review (D) and has served as Divisional Associate Editor at Physical Review Letters (2004-10). He has also served on numerous international advisory boards including BNL, Fermilab, the Paul Sherrer Institut (Switzerland), NSERC, and the Nuclear Science Advisory Committee (United States).

Michelle Burke graduated with a B.S. in geology in 2013 and is currently in her second year as a graduate assistant pursuing an M.S. at Miami University in Ohio under the direction of Dr. Mark Krekeler. Her thesis is an investigation of the naturally occurring quartz-gold interface from gold deposits in Nevada at the atomic scale. Broader research interests include mineral exploration, mineralogy of native metals, and electron microscopy. Her undergraduate work includes an electron microscopy investigation of native copper and associated native silver from the Keweenaw Peninsula in northern Michigan. Her background also includes a number of other research projects including analysis of spent battery cathode material for recycling battery waste, water and sediment sampling in Kentucky, and mineral exploration in Kentucky. She hopes to continue working on applied and fundamental problems in economic geology and broaden instrumentation skills.

Vertrees M. “Mac” Canby received his B.Sc. degree in geological engineering from New Mexico Institute of Mining and Technology in 1987 and M.Sc. in geology from the University of Nevada/Reno in 1992. He is currently Vice President of Eurasian Exploration for Freeport-McMoRan Exploration and has worked for Freeport and Phelps Dodge (acquired by Freeport in 2007) for 27 years, where he has participated in copper and gold discovery teams in Asia, Europe, and the Americas. He is a Fellow and former Vice President/Europe of the Society of Economic Geology, a Fellow of the London Geological Society, and a Member of the Colorado
Scientific Society, the Geological Society of Nevada, and the Denver Regional Explorationist’s Society. He and his family are currently based in Denver, Colorado, United States.

Massimo Chiaradia graduated from the University of Padova (Italy) and obtained his Ph.D. at the University of Fribourg (Switzerland). M. Chiaradia is currently Senior Lecturer at the Department of Earth Sciences of the University of Geneva (Switzerland), where he is responsible for the radiogenic and heavy stable isotope laboratory. His current research directions, including his own investigations and supervision of M.Sc. and Ph.D. students, are (1) the petrogenesis of arc magmas with implications for continental crust formation and (2) the relationship between magma chemistry, dynamics of subduction zones, and the formation of porphyry-type deposits. His current field work areas are in Ecuador and Peru, where he studies both active volcanic edifices and fossil magmatic-hydrothermal systems.

Professor David Cooke is a geochemist and economic geologist specializing in the characteristics and origins of porphyry and epithermal deposits. Since 1985, David and his research team have investigated porphyry and epithermal deposits in the Philippines, Indonesia, Papua New Guinea, Australia, New Zealand, the Dominican Republic, Mexico, Peru, Canada, China, and Chile. David is an associate editor of *Economic Geology* and was the recipient of the SEG Thayer Lindsay Award in 2005 and the SEG Silver Medal in 2013. He is currently the Deputy Director of CODES, the Australian Research Council’s Centre for Excellence in Ore Deposits.

Jim Coppard (CGeol, EurGeol) earned his MSc and DIC in mineral exploration at the Royal School of Mines. He then started working at the BGS, followed by nine great years at RTZ/Rio Tinto exploring for a wide range of commodities, after which Jim created his own geological consultancy. In 1999 he joined Minorco/Anglo American Exploration and was one of the key individuals in the group’s “Decade of Discovery” successes. Since leaving Anglo American in 2013, he works as an independent geological consultant focused on the Nordic region. Jim is the discoverer of the Finnish Sakatti Cu-Ni-PGE deposit and the Swedish Rakkurijarvi IOCG deposit. Awarded the 5th Fennoscandian Mining Award and the 5th Nordic Exploration Award, Jim’s expertise and passion are in the Nordic region, on which he has focused for the last 25 years, generating exploration concepts, negotiating deals, and managing teams, all the way through to significant discoveries.

Larryn W. Diamond is a Professor of Geochemistry at the Institute of Geological Sciences, University of Bern, Switzerland. In 1981 he received his BSc (Hons) in geology from the University of Auckland, New Zealand, and then worked briefly in gold and tungsten exploration in New Zealand. In 1986 he completed his PhD at ETH in Zürich on aspects of the genesis of orogenic gold deposits, and then pursued this topic as a postdoctoral researcher at Carleton University in Ottawa,
Canada. Between 1990 and 1997 he was a lecturer at University of Bern, then from 1998 to 2002 a Professor of Mineralogy and Petrology at the University of Leoben, Austria. Since 2003 he has been at Bern, heading a research group on rock-water interaction. In addition to ore deposits, he works on thermodynamics of geofluids, fluid inclusion systematics, radioactive waste repositories, geothermal energy, and CO₂ sequestration.

Dr. Adrian Fiege is a postdoctoral researcher at the University of Michigan, Ann Arbor, United States. He received his diploma in geosciences in 2009 and later, in 2013, his PhD degree (summa cum laude) at the Leibniz Universität Hannover, Germany. In 2007/08, he worked for seven months as an exploration geologist at the Vergenoeg fluorspar mine, South Africa. For his PhD he experimentally studied the fluid melt distribution of sulfur and sulfur isotopes. Dr. Fiege is an experimental petrologist and geochemist, studying processes related to volcanic eruptions and ore deposit formation. In his current research projects, he focuses on (1) sulfur and metal transport and exchange processes during magma mixing and degassing, (2) the solubility of columbite and tantalite granitic melts, and (3) tracing Earth’s sulfur cycle using sulfur and sulfur isotope signatures in melts and minerals. Besides, he is an enthusiastic teacher and loves to spend time in the field.

Caroline Forbes is based at the University of Adelaide, South Australia, where she is a lecturer and a key researcher with the Deep Exploration Technologies Cooperative Research Centre (DET CRC). Caroline’s research within the DET CRC is primarily focused on assuring that geologically representative sample is returned by the new coil-tubed drill rig being developed by the CRC. Caroline has additional research interests in understanding geochemical pathfinders toward iron oxide copper-gold mineralization and in the large-scale tectonic architecture of mineral systems. During this trip to Keystone, Caroline is hoping for an early snow season, but will settle for a nice mountain bike ride instead!

Hartwig Frimmel is a full professor of geology at the University of Würzburg (Germany) and an honorary research associate of the University of Cape Town, South Africa, where he spent many years as a lecturer and, eventually, a professor. He is a former president and current executive council member of the Society for Geology Applied to Mineral Deposits (SGA) as well as a fellow of SEG, and has worked extensively on gold and base metal deposits. This has led inter alia to more than 20 years of experience on Witwatersrand-type deposits, during which he significantly contributed toward solving the riddle of Witwatersrand gold genesis. He is also an advisor to the European Commission’s European Innovation Partnership on Raw Materials and to the Bavarian government on issues of mineral resources, as well as a founding member of the Bavarian Georesources Centre. He has authored some 145 research papers and book contributions and has supervised 34 postgrad students.
David A. Giles (SEG 1981) is currently VP Exploration at Fresnillo Plc. He was formerly VP at Industrias Penoles and exploration manager for Mexico in Amex Gold and Lacana. David has served as VP North America and a member of the Fellowship Admissions Committee for SEG. A graduate of the University of Toronto (1971), he was awarded the Thayer Lindsley Award for an International Mineral Discovery by the Prospectors and Developers Association of Canada in 2012 and the Ostotakani exploration bust from Mundo Minero Mexico in 2014. Originally from Bridlington, Yorkshire, David has worked throughout Latin America.

Amy Gilmer is currently working on a Ph.D. at the University of Bristol in the UK. Amy did her undergraduate degree in geology at the College of William and Mary in Williamsburg, Virginia, and received her master’s from the University of Texas at Austin, where she studied a small porphyry copper system in west Texas. She also worked at the Virginia Division of Geology and Mineral Resources on resource assessment and bedrock field mapping. Amy’s Ph.D. focuses on the extent to which porphyry copper deposits are consistent with modern views of how magma systems are constructed and evolve with time.

Steffen Hagemann is a Professor of Economic Geology at the Centre for Exploration Targeting at the University of Western Australia. He has 26 years’ experience in the research of ore deposits and districts and his main research interest is the structural alteration-fluid chemistry control of metal systems. He has worked on a variety of metal systems including orogenic, intrusion-related Au-Cu, Carlin-type Au, epithermal gold Au-Ag, porphyry Au-Cu, VHMSSEDEX (Cu-Pb-Zn), BIF-hosted high-grade Fe, komatiite-hosted Ni, and greisen Sn-W in a variety of countries. He has a particular interest in translating mineral system models into testable exploration criteria, concepts, and targets. He has supervised about 22 Ph.D. students, 26 honours students, and five M.Sc. students, and worked with nine postdoctoral fellows. Most of his research work, including that of the postdoctoral fellows, is funded by industry.

Robert M. Hazen, Senior Staff Scientist at the Carnegie Institution’s Geophysical Laboratory and Clarence Robinson Professor of Earth Science at George Mason University, received B.S. and S.M. degrees in geology at the Massachusetts Institute of Technology (1971) and a Ph.D. at Harvard University in Earth science (1975). He is author of 380 scientific articles and 24 books, including *Genesis: The Scientific Quest for Life’s Origin* and *The Story of Earth*. A Past President of the Mineralogical Society of America, Hazen’s recent research focuses on roles of minerals in the origin of life, the co-evolution of the geo- and biospheres, and the development of complex systems. He is also Executive Director of the Deep Carbon Observatory, a 10-year program to study the chemical and biological roles of carbon in Earth’s interior (deepcarbon.net). Hazen is active in presenting science to nonscientists through writing, radio, TV, public lectures, and video courses. In 2012 Hazen retired after a 40-year career as a professional symphonic trumpeter.
Richard Hillis is CEO of the Deep Exploration Technologies Cooperative Research Centre (DET CRC), which is developing transformational technologies for mineral exploration. He graduated with a B.Sc. (Hons) from Imperial College (London) and Ph.D. from the University of Edinburgh. Richard previously spent 18 years at the University of Adelaide, where he was Mawson Professor of Geology, State of South Australia Chair of Petroleum Geology, and Head of the Australian School of Petroleum. He has published ~200 papers in petroleum geomechanics and basin tectonics. Richard and colleagues recently sold technology spin-off company JRS Petroleum to Ikon Science, and he also has interests in geothermal energy, being formerly a director of ASX-listed Petratherm. Richard is a director of AuScope, a company established to develop Australian government-funded research infrastructure in the earth sciences, and is a Fellow of the Australian Academy of Technological Sciences and Engineering (ATSE).

Associate Professor Eun-Jung Holden is a theme leader responsible for computational data analysis research at the Centre for Exploration Targeting (CET) within the University of Western Australia (UWA). She was trained as a computer scientist at UWA and her PhD and postdoctoral research focused on developing algorithms for automated human gesture recognition and visualization. In 2006, she made a transition to geoscience with a specific aim to impact industry practice in data utilization. Since then she has established and leads a computational data analysis group that works closely with diverse industry and academic geoscientists to identify and address their challenges in data analysis. Her collaboration with the industry resulted in the commercialization of two software products: CET Grid Analysis and CET Porphyry Detection extensions for Geosoft Oasis Montaj. These products are licensed and marketed globally by Geosoft Inc.

Dr. Jon Hronsky is currently a Principal of Western Mining Services (WMS), a consultancy group with offices in Perth and Denver that provides strategic-level services to a wide range of groups across the global mineral exploration industry. In addition, Jon is a Director of two ASX listed junior mining companies, Encounter Resources and Cassini Resources. He chairs the board for the Centre for Exploration Targeting and is an Adjunct Professor at both the University of WA and Macquarie University. Jon is also currently Chair of the Australian Geoscience Council, the peak body for geoscience-related professional organisations in Australia. He was the 2009 SEG Distinguished Lecturer.

David Huston joined Geoscience Australia in 1995 and currently works in the Resources Division as part of the Mineral Systems Group. Since joining GA, David has worked on metallogenesis of Australian mineral provinces ranging from the Paleoarchean to the Phanerozoic and relating it to tectonic evolution. He has a B.Sc. in geological engineering from Colorado School of Mines, an M.Sc. in geosciences from the University of Arizona, and a Ph.D. in geology from the
University of Tasmania.

Mark Jessell is a Winthrop Professor and Western Australian Fellow at the Centre for Exploration Targeting, University of Western Australia (CET UWA), having recently arrived from France, where he was a Research Director with the Institute de Recherche pour le Development, where he started the West African Exploration Initiative (WAXI). His scientific interests revolve around microstructure studies (the Elle platform), integration of geology and geophysics in 2- and 3-D (the Noddy project), and the tectonics and metallogenesis of the West African craton (WAXI). His current Fellowship is focused on improving the links between geological and geophysical data analysis in 3-D via analysis of the geological and topological uncertainty.

Rolf Jonsson began working at Boliden in 1973 and retired in 2013. From 1973 to 1980, he worked in northern Sweden as a project geologist, conducting brownfields exploration for low-grade, porphyry-style open-pittable Cu deposits. From 1980 to 1995, he mainly conducted exploration for deep-seated massive sulfides in the Skellefte district, located in northern Sweden. He managed the project from 1988 to 1995. From 1995 to 2008, he worked in exploration for carbonate-hosted Zn, Pb, Ag deposits in Garpenberg and Bergslagen, central Sweden, most of the time as a manager. Together with several other retired geologists and geophysicists, he has been working on compiling Boliden’s exploration history in three books for the last four years.

Tea Laurila is a Ph.D. student currently writing up her thesis at the German Ocean Science Center (GEOMAR). She did her M.Sc. in Finland with a focus on ore geology. At present, she is working on mineralization associated with the stratiform metalliferous sediments (90 Mt) in the Red Sea, which offer a unique opportunity to study modern mineralization in a brine pool. Her Ph.D. is part of a larger CAMIRO project on black shales conducted at the University of Ottawa.

Hildebrando Leal-Mejía is a Postdoctoral Research Fellow in the Mineral Deposit Research Unit (MDRU) of the Earth Ocean and Atmospheric Sciences Department of the University of British Columbia. His doctoral research at the University of Barcelona, sponsored by AngloGold Ashanti, was focused on the regional gold metallogeny of the Colombian Andes during Phanerozoic times. He worked for two years (2011–2013) for AngloGold Ashanti as a Senior Research Geologist supporting the Greenfields Exploration Program and advanced projects. His research interests include Colombian ore deposits, regional geology, metallogeny, geochronology, lithogeochemistry, and isotopic geochemistry.

Joseph Magnall: I am originally from the UK, where I completed an environmental geology B.Sc. and geochemistry M.Sc. at the University of Leeds before moving to
Canada during the fall of 2011. I am currently enrolled in the Ph.D. program at the University of Alberta, working on sediment-hosted base metal mineralization in the Selwyn Basin (MacMillan Pass, YT) in a study funded by the Geological Survey of Canada. My primary interests relate to tracing the processes responsible for the cycling of elements in the Earth’s crust. For my doctoral research, this will involve looking at the hydrothermal systems (Tom, Jason, Nidd) that have produced metal enrichments in the Late Devonian mudstones located at Macmillan Pass, YT. A suite of geochemical techniques is being utilized, including analysis of stable (C, O, S, Mo) and radiogenic (Re-Os) isotopes, fluid inclusion microthermometry, and lithogeochemistry, to constrain the composition of the hydrothermal fluids and the role of the ambient conditions in the basin. Looking beyond my Ph.D., I look forward to developing a career in economic geology in Canada, whether in academia or industry.

Jingwen Mao is deputy director of the Institute of Mineral Resources, Chinese Academy of Geological Sciences, and director of the Laboratory of Metallogeny and Mineral Assessment, Ministry of Land and Mineral Resources. He has been an SEG Member for many years and first became an SEG Fellow in 1997. Jingwen has broad research interests and experience in the field of economic geology, comprising granite-related tin and tungsten, orogenic gold, porphyry-skarn Cu-Mo-Fe-Au, alkalic-related tellurium, mafic-ultramafic-related magmatic Cu-Ni sulfide, and black shale-hosted Ni-Mo-PGE deposits. Jingwen and his research team have published more than 100 papers in international journals, including Economic Geology, Mineralium Deposita, Ore Geology Reviews, Geochimica et Cosmochimica Acta, Journal of Asian Earth Sciences, International Geology Reviews, and Australian Journal of Earth Sciences.

Freya Marks, who is originally from Scotland, received her B.Sc. degree in earth science from the University of Glasgow in 2011. As an undergraduate she was part of a geological mapping expedition to east Iceland and received an award for her mapping dissertation of the Isle of Rum, Scotland. She spent an exchange year at the University of Auckland, New Zealand. After doing work at two nickel laterite projects with Anglo American in Brazil, she decided to pursue a career in economic geology. She is currently in the final year of her Ph.D. at University College Dublin, where she is researching the halo of the Navan Zn-Pb Irish-type deposit. Her research mostly involves using petrography, geochemistry, and isotope geochemistry to further improve deposit models and to facilitate future exploration. She is interested in all aspects of geology, especially geological mapping, and loves an opportunity to go into the field.

Ryan Mathur is currently a Professor and Chair of the Geology Department at Juniata College in Huntingdon, PA. He earned his Ph.D. from the University of Arizona in 2000 working with J. Ruiz and S. Titley. He specializes in both radiogenic and stable isotope systems (Re-Os geochemistry and transition metal isotopes) to aid in mineral exploration and to understand mineralization processes. His recent projects have centered on using transition metal isotopes in waters, soils, and Fe oxides to develop a geochemical means to identify hidden/covered resources.
Professor T. Campbell McCuaig (Director, Centre for Exploration Targeting, University of Western Australia) received his B.Sc. from Lakehead University in 1988, and his Ph.D. in geology from the University of Saskatchewan in 1996. After 10 years with SRK Consulting, Cam became the inaugural Director for the CET in 2005. The CET is a joint venture between UWA, Curtin University, and the minerals industry that is focused on advancing the science of exploration targeting. Since inception, it has grown into a center with >60 corporate members, 55 staff, 30 Ph.D. students, and a turnover of >$8M/yr, which is delivering research outcomes that are impacting on exploration industry practice, yet also being recognized at the highest academic levels in publications such as Nature and Science. Cam’s experience spans six continents and numerous commodities including gold, nickel, iron, copper, uranium, and zinc, among others, in geological terranes ranging from Archean to Eocene in age.

Pablo Mejia-Herrera, a geological engineer, has participated in mineral exploration for more than a decade. He worked in Colombia as an exploration manager on lode gold projects and underground copper mining. In 2010, he moved to France in order to pursue a master’s in exploration and ore processing at the National Higher School of Geology of Nancy. In 2011, he started his Ph.D. in Nancy, where he has collaborated on the European Project for Strategic Minerals (ProMine). In the framework of this project, he built 3-D structural models of the Kupferschiefer in mining districts in Poland and Germany, in cooperation with the Freiberg University of Technology and KGHM CUPRUM. At present, he is finishing his Ph.D. at the Gocad Research Group, the computer modeling branch of the GeoRessources laboratory in Nancy.

Tom Meuzelaar is a senior geochemist with 15 years of experience assessing fluid/rock geochemical processes. He is currently leader of Golder Associates’ Denver geochemistry group, and is involved with numerous materials characterization, predictive water quality, and environmental assessment projects in the oil and gas, mining, and utilities sectors. Tom has taught or co-taught numerous geochemical modeling short courses, has extensive experience as a petrographer, mineralogist, and geologist, and is skilled in statistical evaluation and reduction of large geochemical datasets. Tom decided to pursue a Ph.D. in ore deposit geochemistry at the Colorado School of Mines as a full-time professional in 2009, right before the birth of his first son. Shortly thereafter, a second son followed and he transitioned to a career in environmental consulting. He does not recommend following this particular path.

Steven Micklethwaite has worked closely with the minerals exploration industry for 12 years, mapped on four continents in a variety of ore deposits, trained professional geoscientists, and delivered new techniques and concepts for the exploration industry. He works across all scales, from the tectonic processes controlling deposit formation or shaping landscape and ocean basins to the macroscopic and microscopic
deformation mechanisms involved in the earthquake cycle and the formation of fault rocks. Using a combination of field mapping, numerical modelling, and advanced technologies such as unmanned aerial vehicles, his research focuses on the influence of deformation, stress changes, and fracture mechanics on the flow of fluids and mineralization in the Earth’s crust. Some of his earlier work into the application of stress transfer modeling as an exploration targeting tool has now been integrated into commercial software. Steven obtained his Ph.D. from Leeds University, UK, before working at the Australian National University and the Centre of Excellence in Ore Deposits at University of Tasmania. He is presently based at the Centre for Exploration Targeting, University of Western Australia, where he was the inaugural recipient of the Hammond-Nisbet Fellowship, having previously won a Rising Stars Award from the University of Tasmania.

James Mortensen (B.A.Sc. 1977, M.A.Sc. 1979, University of British Columbia; Ph.D. 1983, University of California, Santa Barbara) has more than forty years of field experience focused on regional tectonic and metallogenic studies in various orogenic belts (northern Cordillera, Yanshanian belt in northeast China, Guerrero terrane in Mexico, Lhasa block in Tibet, Otago schist belt in New Zealand, Mt. Read Belt in Tasmania, and the Variscan Belt in Spain and Portugal), as well as the Canadian Shield. His main expertise is on orogenic and intrusion-related gold and VHMS deposits, and the application of geochronology and radiogenic isotopes in tectonic and mineral deposit research. Jim spent seven years as a research scientist with the Geological Survey of Canada in Ottawa, and since 1992 has been a faculty member at the University of British Columbia, where he and his research group continue to investigate the geology and metallogeny of orogenic belts.

John Muntean is an Associate Professor with the Nevada Bureau of Mines and Geology at the University of Nevada Reno, where he serves as the Director for the Center for Research in Economic Geology. He received his B.S. from Purdue University, his M.S. from the University of Michigan, and his Ph.D. from Stanford University. Before joining UNR in 2005, John worked 12 years for companies in the mining industry, including Santa Fe Pacific, Homestake, and Placer Dome, mainly exploring for gold in Nevada. His research focuses on Carlin-type, epithermal, and porphyry gold deposits. He was recently named the first Arthur Brant Chair in Exploration Geology at UNR.

Russell Myers grew up on the Viburnum trend in Missouri and developed a taste for the mining business there. He studied geology and geophysics at the University of Missouri-Rolla and worked in gold exploration in the southeastern United States and Nicaragua before going to South Africa to get his Ph.D. from the University of the Witwatersrand. He worked for Gold Fields as a geophysicist during the pioneering days when seismic reflection was first being used to explore the Witwatersrand Basin. From South Africa, Russell moved to James Cook University in Queensland, Australia, where he worked at the Key Center in Economic Geology until the Siren
call of industry became too strong to resist. Since leaving academia, Russell has been involved in target generation and exploration programs throughout the Americas. He is currently President of Corvus Gold, which has recently discovered a new epithermal vein system in Nevada.

Randall Oliphant is the Executive Chairman of New Gold, and was elected as Chairman of the World Gold Council in September 2013. Mr. Oliphant joined New Gold after key roles with a number of gold mining companies. He has worked in the industry in many capacities for almost 30 years, and he serves on the boards of a number of public and private companies and not-for-profit organizations, including the Advisory Board of Metalmark Capital LLC, and the boards of Western Zagros Resources Ltd. and Franco-Nevada Corporation. From 1999 to 2003, he was the President and Chief Executive Officer of Barrick Gold Corporation. From 2006 to 2009, he was Chairman of Western Goldfields Inc. Mr. Oliphant is a Chartered Accountant.

Karin Olson Hoal is a mineral consultant and a research professor in geology at Colorado School of Mines. Her work focuses on integrating geological and mineralogical understanding with mining and metallurgical process information for improving the financial outcomes of projects. A consultant in geometallurgy, diamonds, and quantitative mineralogy for diverse clients, Karin was senior consultant for JKTech Pty Ltd and director of the Advanced Mineralogy Research Center at CSM, and she has held positions with Hazen Research, Rio Tinto Namibia, and the NY Geological Survey. She has a B.Sc. from St. Lawrence University, an M.Sc. from McGill University, and a Ph.D. from the University of Massachusetts, and was a postdoctoral fellow at the University of Cape Town.

Stéphane Perrouty is a postdoctoral fellow at Western University, London, Ontario, working with Dr. Robert Linnen and Dr. Gema Olivo. He completed his Ph.D. in 2012 supervised by Dr. Mark Jessell, Toulouse University, France, and Dr. Laurent Aillères, Monash University, Australia. His Ph.D. research used structural geology, geophysics, and 3-D modeling in order to understand the tectonic evolution of the Ashanti Belt, Ghana, and the regional controls of gold deposits. It was conducted in collaboration with the West African Exploration Initiative (WAXI project). He is currently working for the CMIC-NSERC-Footprints project to characterize the footprint of the Canadian Malartic gold deposit and to identify exploration criteria that could be used in other areas of the Superior Province.

Jose Piquer is a Ph.D. candidate at CODES, University of Tasmania, working on the structural controls on the emplacement of porphyry Cu-Mo deposits in central Chile. He graduated with a degree in geology from the University of Chile in 2004 with highest honors. The results of his undergraduate thesis were later published in the journal Andean Geology. In the eight years after graduation he worked as an exploration geologist for Codelco-Chile, the world’s largest copper producer. There
he was involved in both greenfields and brownfields projects, exploring for porphyry-style and IOCG deposits. He participated in the delineation of the newly discovered La Americana and Casualidad deposits, and he recommended the drilling campaign which led to the discovery of the Cerro Negro orebody in the Rio Blanco district of central Chile. In 2011, he won a Becas Chile scholarship and moved to Tasmania to begin his Ph.D.

Alejandro Pizarro is a senior exploration geologist at Minera Escondida Ltda., with eight years of experience in the exploration of porphyry copper deposits, conducting brownfield programs, field mapping, core logging, petrographic and geochemical studies, and genetic modeling of different porphyry Cu and exotic Cu deposits. He was a member of the team that discovered the Escondida Este porphyry copper deposit and was responsible for designing the drilling campaign and for core logging, modeling, and delineation of the system. He worked on the geological development of the Pampa Escondida porphyry Cu deposit. He has experience in coordination and interpretation of specialized sampling in both drilling and surface geology, rare earth elements, TerraSpec spectroscopy analyses, different methods of geochronology, and petrographic microscopy. He is an advanced user of GIS techniques and 3-D software for geologic models.

Don Pridmore is currently CEO of HiSeis Pty Ltd. Previously, he was Managing Director (and co-founder) of Intierra Ltd, Managing Director and CEO at World Geoscience Corporation, and Geologist and Research Geophysicist at WMC Resources.

Nicolas J. Saintilan (SEG 2011) has been a Ph.D. student at the University of Geneva (Switzerland) since May 2011. He has a master’s degree in exploration geology from Rhodes University in Grahamstown (South Africa) and another master’s degree as a geology-engineer from the Institut National Polytechnique de Lorraine in Nancy (France). He worked for a bit more than four years in mineral exploration in Sweden, Norway, Namibia, and South Africa, including one year as a junior geologist in brownfield exploration for volcanic-hosted massive sulfide deposits in the Skellefte district (northern Sweden) and three years planning and carrying out a greenfield exploration program for Pb-Zn sandstone-hosted Laisvall-type deposits in the Scandinavian Caledonides (northern Sweden) for Boliden AB. He proposed the present Ph.D. study to Boliden AB and started this four-year Ph.D. partly financed by Boliden AB shortly after resigning.

Frank Santaguida is a principal geologist for First Quantum Minerals Ltd. and is responsible for global Ni-Cu-PGE generative projects. Frank also works closely with the FQML exploration groups in Fennoscandia and West Africa on several active projects, including near-mine exploration at the Kevitsa Cu-Ni-PGE deposit in
northern Finland. Frank received his Ph.D. from Carleton University in Ottawa and M.Sc. from the University of Waterloo in Ontario. He has enjoyed working in mining and exploration for over 15 years in Canada, Australia, throughout Africa, and Fennoscandia. Frank is wearing his favorite tie during his presentation for good luck.

Jim Saunders is a professor of geochemistry and economic geology at Auburn University. He has spent the last 30 years doing research on epithermal ores, Gulf Coast salt dome cap rock mineralization, and bioremediation of metals and arsenic in groundwater. He holds a B.S. in geology from Auburn University, an M.S. in geology from the University of Georgia, and a Ph.D. in geology from the Colorado School of Mines, where he worked on Colorado Au-Ag ores for his thesis research. He continues to do research on the mid-Miocene Yellowstone hotspot-related epithermal ores in northern Nevada and southwest Idaho.

Richard Schodde (Managing Director, MinEx Consulting, and Adjunct Professor at the University of Western Australia) completed his B.E. degree in materials engineering in 1978 and an M.B.A. in 1985. Over the following three decades he worked in a wide variety of project analysis, business development, and strategic planning roles within the international resources industry—including 15 years at WMC and, more recently, 4 years at BHP Billiton. In 2008 Richard founded MinEx Consulting to provide strategic and economic advice to industry and government. His main focus is on the economics of mineral exploration. Richard has published several dozen papers on exploration performance and is internationally recognized by his peers as a world leader in mineral economics. He serves on the Editorial Board of the Journal of Resources Policy, the organizing committees for the AusIMM and the Melbourne Mining Club, and is also a member of SEG and the SME and an Adjunct Professor at the Centre for Exploration Targeting at UWA.

Clint Scott is a research geologist at the U.S. Geological Survey in Reston, Virginia. His research has focused on the inorganic biogeochemistry of black shales with emphases in the study of biogeochemical cycles through time, mineral deposits, and energy deposits. He earned a Ph.D. in geology from the University of California-Riverside in 2009.

Eric Seedorff was born in Carlsbad, New Mexico, and raised in a mining family. Eric earned a B.S. degree in geology from the University of California, Davis, and M.S. and Ph.D. degrees in the Ore Deposits and Exploration Program at Stanford University. Eric currently is Director of the Lowell Program in Economic Geology, University of Arizona. Immediately prior to becoming a faculty member, Eric was an entrepreneur for two years. His earlier positions in industry included Vice President Mineral Resources for BHP Copper, Chief Geologist of Magma Copper Company in Tucson, Chief Mine Geologist for Magma on the Robinson project, and Exploration Geologist for WestGold and Chevron Resources. His research interests include porphyry-related deposits,
extensional tectonics, and hydrothermal alteration-mineralization. Eric has a long-term interest in sources of organizational effectiveness. Eric is an SEG Fellow and Past President of the Geological Society of Nevada and the Arizona Geological Society.

Reimar Seltmann graduated from Bergakademie Freiberg (Germany) with a Ph.D. in mineral exploration (1987). He specialized in granite-related metallogeny at GeoForschungsZentrum Potsdam until 1999. He was also a visiting research fellow at the Geological Survey of Canada and at Carleton University Ottawa (1996). Joining the Natural History Museum London (UK) in 1999, he became a researcher in petrology and mineral deposits. Since 2002, he has led the Centre for Russian and Central EurAsian Mineral Studies (CERCAMS), with a focus on deposit case studies and development of GIS datasets of Central Asia, Mongolia, China, and major ore provinces of Russia. He is a visiting professor of four universities in China and Kazakhstan. From 2006 to 2010, he led the research project “Metallogeny of the Altaids” for an industry consortium, studying a series of geotraverses across major magmatic arcs of Central Eurasia. He has published more than 100 research papers and edited numerous monographs on geodynamics and metallogeny.

Dr. Libby Sharman is a motivated, experienced geologist who is currently focusing on communications and public relations in order to address her concerns with the public perception of mining. Previously, Libby worked in the minerals and mining industry as a project geologist at an Ni-Cu-PGE- and VMS-focused exploration company as well as at an established consulting company. More recently, she was a geologist for a porphyry Cu-Mo exploration program. Libby holds a Ph.D. (economic geology) from McGill University, Canada (2011), and both a B.Sc. Hons. (geology/geochemistry) and an M.Sc. (economic geology) from the University of the Witwatersrand, South Africa (2004 and 2006, respectively). Libby currently sits on the Association of Mineral Exploration of British Columbia’s “Mineral Exploration” Editorial Board and Membership Liaison Committee and has previous involvement with the Society of Economic Geologists as the Chair of the Students’ Committee.

Adam Simon is an associate professor at the University of Michigan who combines field, laboratory, and experimental work to investigate the physical and chemical evolution of ore deposits related to magmatic systems. His research group is especially interested in the role that aqueous fluids play in moderating trace element mobility in environments ranging from porphyry-type ore deposits to the slab-mantle wedge interface. Current projects range from the development of arc volcanoes and their relationship to melting and dehydration processes above subducting oceanic crust, the physical and chemical nature of magma degassing and how this relates to the formation of metal ore deposits, the behavior of base and precious metals in water-saturated silicate magmas, and the physical and chemical connectivity of plutons and volcanoes. His academic background
includes a B.S. and Ph.D. in geology from the University of Maryland, and an M.S. from Stony Brook University.

John F. Slack is a research geologist at the U.S. Geological Survey in Reston, Virginia. His studies have focused on the mineralogy and geochemistry of stratabound mineralization, chiefly VMS and SEDEX deposits, but also metalliferous black shales, phosphorites, and iron formations. Slack is leader of a multidisciplinary USGS project on Proterozoic iron oxide and iron oxide copper-gold deposits in southeast Missouri. He earned a Ph.D. from Stanford University in 1976 and has done fieldwork in numerous countries, mainly the United States, Canada, and Norway. He currently serves on the Editorial Board of Economic Geology, and previously was on the Editorial Boards of Geology and Canadian Mineralogist. He is a fellow of SEG and the Geological Society of America, and a member of the Society for Geology Applied to Mineral Deposits (SGA), for which he is Chief Editor of the International Book Series on Ore Deposits.

Stephen Sparks is a volcanologist and professor of geology at the School of Earth Sciences, Bristol University. His research concerns volcanic and igneous processes with contributions in petrology, physical volcanology, fundamental fluid mechanics, sedimentology, and in hazard and risk assessment methods. He has published over 400 peer-reviewed papers with 27,700 citations and an h-index of 97 (Google Scholar). He is a Fellow of the Royal Society and of the American Geophysical Union. His international awards include the 2004 Arthur Holmes Medal (European Union of Geoscience), 2008 Thorarinsson Medal (IAVCEI), 2000 Arthur L. Day Medal of the Geological Society of America, and Fellowship in the American Geophysical Union illustrates international recognition. He was President of the Geological Society of London (1994–1996), President of the International Association of Volcanology and Chemistry of the Earth’s Interior (1999–2003), and President of the VGP section of AGU (2008–2012). His economic research includes kimberlites and porphyry copper deposits.

Lize Stander is an exploration geologist working for Newgold at their Peak gold mine operation, in the Cobar basin, Australia. She was born in the place of stones, Mafikeng, South Africa, and graduated from the University of the Free State in 2005. She started her career exploring for a junior coal company, Motjoli Resources, in Johannesburg. She continued her coal-based profession in the Waterberg coal fields for Exxaro Resources. She married a geologist, Mark Stander, in 2006 and they continue speaking the phenomenal language. They moved to Australia in 2008 and love the golf course in Cobar. She can be contacted at lize.stander@newgold.com.

John P. Sykes (MSci (Hons) MSc ARSM MIMMM MAusIMM CSci FGS) is a geologist and mineral economist. He is currently a Ph.D. candidate and Adjunct Research Fellow at the Centre for Exploration Targeting, part of Curtin University and the University of Western Australia. His Ph.D. research is entitled “Finding
the copper mine of tomorrow: Exploration targeting for copper mines, not copper resources.”

John has a master’s in geophysical hazards from University College London and a master’s (with honours) in geology from the Royal School of Mines (RSM), Imperial College London. After graduating, John briefly explored for gold in the Brazilian Amazon, before working as a consultant in copper mining for commodities consultancy, CRU Group, in London. Subsequently, John set up his own consultancy, Greenfields Research, specializing in the long-term mineral economics of exploration and mine projects. His work at CRU Group and Greenfields Research eventually morphed into the Ph.D. research now underway at the Centre for Exploration Targeting.

Dr. Brian Tattitch: My primary research interest lies in investigating the evolution of arc magmas during their ascent and emplacement, specifically during the loss of gases or volatiles. My current research is focused on understanding the efficient extraction and precipitation of copper, gold, molybdenum, and other ore metals via the exsolution of volatile gases during the ascent and emplacement of evolving arc magmas. The formation of magmatic-hydrothermal ore deposits, such as porphyry Cu-Au-Mo deposits, likely hinges on variation in key parameters, such as $f_{O_2}$, $f_{S_2}$, ΣCl of exsolved volatiles and the complex interplay of multiple fluid phases from volatile exsolution to mineral precipitation. I strive to use novel experiments to examine magmatic fluid chemistry and metal behavior from extraction to mineralization and provide insight where the data from the natural rock record is greatly limited.

Philipp Weis earned his M.Sc. degree in geology from the University of Freiburg, Germany, in 2000. Subsequently, he was trained as a scientific writer and worked for several leading German and international newspapers and journals, including Science, Nature, and Die Welt. In 2003, he received a scholarship from the International Max Planck Research School on Earth System Modelling in Hamburg, Germany, and earned his Ph.D. degree in 2006 for his research on numerical modeling of ocean tides and their impact on the Earth’s rotation. In 2007, he joined the Fluids and Mineral Deposits Group at ETH Zurich, Switzerland, as a postdoctoral researcher. Since 2010, he works as a senior scientist at the Department of Earth Sciences, ETH Zurich. His research focuses on the geology and hydrology of magmatic-hydrothermal ore deposits and geothermal resources, using numerical process models, geochemical analysis, and field observations.

Jamie Wilkinson was born in the United Kingdom and educated at Cambridge (B.A.) and Southampton (Ph.D.), followed by postdoctoral research at Imperial College London. This was followed by a 20-year research and lecturing career teaching field geology, geochemistry, and ore deposit geology. He was recently a Visiting Research Professor at CODES, University of Tasmania, and is currently an Honorary Research Associate there. In February 2014 Jamie joined the Department of Earth Sciences at the Natural History Museum (NHM), London, as Research Leader in Mineral Deposits, where he heads a research group and consults for the exploration industry.
Recent research is focused on the development of tools for mineral exploration using mineral chemistry, the application of transition metal isotope geochemistry to ore deposit studies, and investigations of metal transport and deposition from hydrothermal fluids. He is co-founder of the London Centre for Ore Deposits and Exploration (LODE), based at the NHM.

A. E. Williams-Jones (Willy) is a professor in economic geology and geochemistry at McGill University, Canada. He received his early education in South Africa, completing B.Sc. and M.Sc. degrees at the University of Natal, and then immigrated to Canada, where he earned a Ph.D. at Queen’s University. Prior to becoming a university professor, he worked for several years as an exploration geologist with INCO in southern Africa and Brazil. His research, which combines field-based and experimental approaches, focuses on the behavior of metals in crustal fluids and the genesis of hydrothermal ore deposits. He and his students, postdoctoral fellows, and research associates have made significant contributions to our understanding of the genesis of magmatic base and precious metal deposits and, more recently, deposits of the rare earth elements and related rare metals. The results of this research have appeared in over 170 refereed journal articles and book chapters, and have been recognized by awards from the Geological Association of Canada, the Mineralogical Association of Canada, and the Royal Society of Canada. He was the 2014 SEG Distinguished Lecturer and is a fellow of the Society of Economic Geologists and the Royal Society of Canada.

Ken Witherly graduated from the University of British Columbia (Vancouver, Canada) with a B.Sc. in geophysics and physics in 1971. He then spent 27 years with the Utah/BHP Minerals Company, during which time he championed BHP’s programs in airborne geophysics as Chief Geophysicist, resulting in the development of the MegaTEM and Falcon technologies. In 1999, Ken helped form a technology-focused service company that specializes in the application of innovative processing and data analysis to help drive the discovery of new mineral deposits.

David Wood completed undergraduate studies at Monash University and postgraduate studies at the Australian National University. He then worked as a consultant geoscientist based out of Perth for four years. Following several trips to the Central African Copperbelt as a consultant, David moved to Zambia as a resident expatriate for four years, employed by First Quantum Minerals. David is primarily a structural geologist and believes that classical geological and structural mapping is a critical part of mineral exploration. Understanding basin and subbasin evolution with respect to mineral systems has been a recent focus of David’s research. David has been a driver for academia-industry collaboration. He recognizes that this relationship is essential for the development of strong technical teams, leading to innovation, learning, and exploration success. David currently resides in Santiago, Chile, and is focused on porphyry copper exploration.
Kaihui Yang graduated with a Ph.D. from the China University of Geosciences in Beijing in 1990. From 1990 to 1993, he was employed as an associate research professor by the Institute of Geology, Chinese Academy of Geological Sciences. In 1993, he was awarded an NSERC International Fellowship working as a postdoctoral fellow in the Department of Geology, University of Toronto, focusing on VMS deposits and melt inclusions. From 1995 to 2005 he was a research scientist in the Department of Geology, University of Toronto, and a senior consultant for Canadian major mining companies (e.g., Barrick, Inco, Falconbridge, Noranda) and the World Bank Group. From 2003 to April 2012, he was the President of Asia Now Resources Corporation, a mineral exploration company listed on the Toronto Stock Exchange (Venture), and he won the Prospection and Exploration Outstanding Achievement Award from the China Mining Conference in 2011. He is a guest professor of the China University of Geosciences (Beijing). He is currently acting as the Vice President for Exploration and Overseas Operations for Zijin Mining Group Company Limited.

Kuifeng Yang was born in 1979 in Liaoning Province, China. He received his Ph.D. degree in mineralogy, petrology, and mineral deposit geology from the Institute of Geology and Geophysics, Chinese Academy of Sciences (IGGCAS), in 2008. Since that time, he has conducted research at IGGCAS, where he is currently an associate professor. His research interests have focused on the formation and evolution mechanism of carbonatite in the continental rifts, genesis of Bayan Obo REE ore, and structural control of the Jiaodong gold deposits in the North China craton.