

HALIFAX, NOVA SCOTIA--(Marketwired - Jun 19, 2017) - [Ucore Rare Metals Inc.](#) (TSX VENTURE:UCU)(OTCQX:UURAF) ("Ucore" or the "Company") is pleased to welcome the University of Kentucky to its recently announced US Rare Earths Consortium (the "Consortium"). The Center for Applied Energy Research at the University of Kentucky ("UK CAER" or the "University") joins Ucore and its partners in completing the recently awarded US Department of Energy ("USDOE") US\$1M work program (the "Award"). Under the terms of the Award, the Consortium has been tasked with sourcing and concentrating feedstock from US domestic coal tailings, and utilizing Molecular Recognition Technology ("MRT") to produce a saleable oxide of Critical Rare Earth Elements ("CREE") to the US market (see Ucore press release dated June 12, 2017).

UK CAER is an international leader in research pertaining to coal production, coal combustion, and coal combustion products. The UK CAER team is led by colleagues Dr. Jim Hower and Dr. Jack Groppo.

Dr. Hower, a Principal Research Scientist at UK CAER and a Research Professor in UK's Earth & Environmental Sciences Department, will lead the coal fine refuse feedstock identification, selection, and characterization portions of the project. Dr. Hower has been publishing studies about the high concentration of rare earth elements in coal seams in southern and eastern Kentucky since the late 1990s, and is a global expert in coal geochemistry, petrology, coal mining operations and coal products, including coal fine refuse.

Dr. Groppo, a Principal Research Engineer and a faculty member in UK's Mining Engineering Department, will provide his extensive knowledge in physical separation processing and plant design to the project. Dr. Groppo will be utilizing mineral processing techniques to the pilot-scale plant design.

"UK CAER is a tremendous Consortium partner," said Jim McKenzie, President and CEO of Ucore. "The Center has a collective knowledge base of mineral-enriched coal fields that is recognized at a world level. In turn, Dr's Hower and Groppo lead a team of researchers specializing in the maximization of economic utility from US coal production. This specialized knowledge, combined with the collective experience of the other members of the Consortium, makes for a formidable lineup of participants tackling this remarkable opportunity."

"This mission builds upon UK CAER's well-established and growing knowledge in CREE processing," said Dr. Jim Hower. "We look forward to bringing this knowledge to bear, and the potential for creating new jobs and economic opportunities not just in Kentucky, but as part of an emerging rare earth supply chain in the US."

"Our rare earth recovery work is a natural extension of the Center's efforts in creating high-value products from coal and coal combustion byproducts," said Dr. Groppo. "We are building upon a proud UK CAER history of success, and we are excited about the technical and economic prospects of this important project."

The Award builds on UK CAER's capabilities and knowledge in the emerging field of CREE research. Participation in the Consortium continues a long tradition of UK CAER work in byproduct utilization. Such work commenced more than two decades ago, when UK CAER researchers commercialized a new and unique way of utilizing coal fines in coal combustion at the Powell Mountain Coal Company's Mayflower Preparation Plant in Virginia.

Since that time, UK CAER has established itself as a global leader in coal and coal combustion byproduct utilization. The Center's Materials Technologies Group has invented several unique methods for utilizing fly ash to develop stronger, faster-setting cementitious products. One of that group's patented products - Tekcrete - is available commercially through UK CAER's corporate partner, Minova.

UK CAER's Biofuels and Environmental Catalysis team has also developed technology to capture and utilize CO<sub>2</sub> from coal-fired power plants. CO<sub>2</sub> is consumed via an algal capture system created at UK CAER, and utilized to create biofuels, bio-chemicals and bio-plastics. UK CAER is partnering with Lianhenghui Investment Company to construct a 5-acre algae production facility in Zhengzhou, China to demonstrate this technology.

## About Consortium

The Consortium is comprised of a number of participants which compliment UK CAER's extensive expertise in materials processing technologies, including IBC Advanced Technologies, Inc. of American Fork, Utah ("IBC"), Equinox Chemicals, LLC of Albany, Georgia ("Equinox") and Physical Sciences Inc. of Andover, Massachusetts ("PSI").

## About IBC

IBC Advanced Technologies, Inc. is an award-winning, green chemistry selective separations company based on innovative MRT products. IBC is headquartered in American Fork, Utah, with manufacturing facilities in Utah and Houston, Texas. IBC has supplied industrial, governmental and academic customers worldwide with environmentally friendly products, processes and services for over 29 years. IBC specializes in MRT, utilizing green chemistry to achieve highly selective separations of individual

metal ions in complex matrices. Based on Nobel Prize-winning technology (1987), IBC's proprietary products and processes are used worldwide by premier metals refining and mining companies such as Tanaka Kikinzoku K.K. (Japan), Asarco Grupo Mexico (USA), Impala Platinum Ltd. (South Africa), and Sino Platinum (China). In 2014, the Japanese Government (Mitsubishi Research, Inc.) awarded to IBC a highly competitive subsidy grant, "Demonstration Project for Seawater Purification Technologies", concerning the selective separation of the radionuclides strontium and cesium from contaminated seawater at Fukushima, Japan.

IBC's expertise is illustrated by its extensive development and commercialization of separations systems for platinum group metals ("PGM's") at a world level. PGM's are analogous to REE, in that they are considered difficult to selectively separate due to their constituent chemical similarities. The Ucore-IBC alliance builds on IBC's proven capabilities to develop, scale-up and commercialize selective separations systems for a number of diverse and complex applications. See [www.ibcmrt.com](http://www.ibcmrt.com) for additional information.

#### About Equinox

Equinox is a chemical products research, commercialization, and manufacturing company with two chemical manufacturing plants located in Albany, Georgia. Equinox has a proven track record of successful in-process design, scale-up, and commercialization. Since its founding in 2003, Equinox has focused on chemical process intensifying novel equipment and process design coupled with commercialization contributing to the lower cost, increased safety and environmental profiles impacting over 600 products on the market today. Many of these products would not be on the market today if the producers had to rely on traditional manufacturing processes. Specifically, Equinox has experience in process design, scale-up, and operations of heterogeneous chemical extraction processes, including coal fines and coal ash extractions. See [www.echemsource.com](http://www.echemsource.com) for additional information.

#### About PSI

PSI is a technology R&D company developing a range of technologies in energy, materials and processing, environmental, aerospace, and medical instrumentation fields. They have been working on process development for REE recovery from coal ash under company-sponsored IR&D, and government-funded (EPA, OSD/ONR, DOE) research programs, making significant advancements in high-yield, high-concentration REE recovery methods. PSI currently holds two patents on the REE recovery process. The PSI work is being led by Dr. Prakash B. Joshi, who will serve as Principal Investigator and Program Coordinator on the proposed DOE/NETL program. PSI will lead the overall development of the chemical separation process including the demonstration of REE extraction in a continuous process. See [www.psicorp.com](http://www.psicorp.com) for additional information.

#### About Ucore

Ucore Rare Metals is a development-phase company focused on rare metals resources, extraction and beneficiation technologies with near term potential for production, growth and scalability. On March 3, 2015, Ucore announced the development of a joint venture with IBC for the deployment of SuperLig® Molecular Recognition Technology for REE and multi-metallic tailings processing applications in North America and associated world markets. The Company has a 100% ownership stake in the Bokan project. On March 31, 2014, Ucore announced the unanimous support of the Alaska State Legislature for the investment of up to USD \$145 Million in the Bokan project at the discretion of the Alaska Import Development and Export Agency ("AIDEA").

#### Cautionary Notes

This press release includes certain statements that may be deemed "forward-looking statements". All statements in this release, other than statements of historical facts, that address future exploration drilling, exploration activities, research and development timelines, and events or developments that the Company expects, are forward-looking statements. Forward-looking statements in this press release include that we may enter into a long-term supply partnership and offtake relationship and the possibility of an independent North American REE supply chain. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in forward-looking statements. Factors that could cause actual results to differ materially from those in forward-looking statements include exploitation and exploration successes or setbacks, research and develop successes or setbacks, continued availability of financing, that we may not be able to reach agreements, that the product may not be suitable for intended uses, and general economic, market or business conditions.

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