Zenyatta adds Interconnected Reduced Graphene Oxide to its Albany Graphite Product Development Pipeline

written by Raj Shah | October 12, 2018

October 12, 2018 (Source) – Zenyatta Ventures Ltd. (TSXV: ZEN) ("Zenyatta" or the "Company")today announced that it has added Interconnected Reduced Graphene Oxide (IC-rGO) to its product development pipeline, working with its research partner Prof. Aicheng Chen from the University of Guelph, Ontario.

IC-rGO is a three-dimensional nanomaterial with potential applications in the energy and environmental industries. While working at Lakehead University in late 2016, Prof. Chen and his team first developed the nanomaterial using graphite sourced from Zenyatta's Albany deposit in Northern Ontario – a unique form of graphite ideally suited to produce graphene and graphene derivatives. Patents are pending on the new nanomaterial.

Zenyatta, which changed its management team earlier this year, has announced a new direction as a company, and will focus in the future on exploring new applications for the high-quality graphene that can be produced from its unique Albany deposit. "Our goal is to become vertically integrated – from producing the graphene right through to the development of high-value applications for this extraordinary material," said Dr. Francis Dubé, Zenyatta's Co-CEO and Head of Business Development and Technology. "We will work with our research partners and other leading industrial partners to become an IP incubator where we will co-develop IP that has the potential to be a game changer across multiple industries. Dr. Chen's work is representative of

the exciting prospects for graphene in years to come."

"IC-rGO represents a new class of 3-D platform, which is promising for many graphene-related applications such as sensors, catalysts, supercapacitors, batteries, adsorbents, and filters," said Dr. Chen. The fabricated IC-rGO exhibits a high capacitance with impressive charging and discharging stability due to its covalent interconnections and unique 3D superstructure. It is anticipated that the discovery could facilitate the research and development of new types of 3D hybrids and functional graphene nanocomposites. For more information about IC-rGO, read more in The Royal Society of Chemistry journal, ChemComm(Chemical Communications).

"This invention has the potential to become a structural platform that can be functionalized for multiple applications leading to further innovation and IP for Zenyatta and its shareholders," said Dr. Dubé. "We are very fortunate to have talented research partners like Dr. Chen, and we are grateful to him and his team for their world-leading work in the graphene space."

About Dr. Chen

In 2015, Dr. Aicheng Chen, Professor of Chemistry and Canada Research Chair in Materials and Environmental Chemistry at Lakehead, was awarded a Natural Science and Engineering Research Council of Canada ('NSERC') Collaborative Research and Development ('CRD') grant. The two primary focuses of this NSERC CRD project are the characterization of Zenyatta's graphite and the development of new materials for practical applications derived from it. Since the award of the grant, Dr. Chen and his research group have made significant advances in the development of new graphene-based nanomaterials from Albany Graphite. Prof. Chen and his team have also developed a novel one-pot synthesis

of fluorine functionalized graphene oxide (F-GO) which was reported in a March 1, 2017 news release. A patent was filed for this invention and a paper describing the process in more detail was published in the Electrochemistry Communications journal.

Since late 2017, Dr. Chen has been a Professor of Chemistry, and the Director of the Electrochemical Technology Centre at the University of Guelph. His research interests span the areas of electrochemistry, biosensors, green chemistry, materials science and nanotechnology.

About Zenyatta

Zenyatta's Albany Graphite Project hosts a large and unique quality deposit of highly crystalline graphite. Independent labs in Japan, UK, Israel, USA and Canada have demonstrated that Zenyatta's Albany Graphite/Naturally Pure™ easily converts (exfoliates) to graphene using a variety of simple mechanical and chemical methods. The deposit is located in northern Ontario just 30km north of the Trans-Canada Highway, near the communities of Constance Lake First Nation and Hearst. Important nearby infrastructure includes hydro-power, a natural gas pipeline, a rail line 50 km away and an all-weather road just 10 km from the deposit.

To find out more on Zenyatta Ventures Ltd., please visit our website at www.zenyatta.ca. A copy of this press release and all material documents with respect of the Company may be obtained on Zenyatta's SEDAR profile at www.sedar.ca.

Mr. Peter Wood, P.Eng, P.Geo., President and COO of Zenyatta, is the "Qualified Person" for the purposes of National Instrument 43-101 and has reviewed, prepared and supervised the preparation of the technical information contained in this news release.

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