

Zenyatta and Alliance Rubber alliance with University of Sussex on graphite enhanced rubber

Zenyatta Ventures Ltd. {TSX.V: ZEN} has begun a collaboration program with Alliance Rubber Company and the University of Sussex, United Kingdom, to develop enhanced rubber products using graphene converted from the company's high-purity Albany graphite.

.



Zenyatta to create rubber products with Albany graphite

2017-07-27 09:41 ET – News Release

Mr. Aubrey Eveleigh reports

ZENYATTA AND ALLIANCE RUBBER INITIATE COLLABORATION WITH
UNIVERSITY OF SUSSEX ON GRAPHENE ENHANCED RUBBER PRODUCTS

Zenyatta Ventures Ltd. {TSX.V: ZEN} has begun a collaboration program with Alliance Rubber Company and the University of Sussex, United Kingdom, to develop enhanced rubber products using graphene converted from the company's high-purity Albany graphite.

Alliance, an American company founded in 1923, is based in Hot Springs, Ark., that manufactures 2,200 products and markets them in 55 countries. It is financing research at Sussex under the guidance of Dr. Alan Dalton, professor of experimental physics, to develop enhanced new rubber products using graphene produced from Zenyatta graphite. The program is focused on rubber sensor products that will hold credit and debit cards to prevent hacking of information stored on the chip. The global radio frequency identification (RFID) chip market is growing rapidly from \$5.6-billion (U.S.) in 2010 to a projected market value of \$21.9-billion (U.S.) in 2020*. This market includes software/services, labels, fobs, tags, readers and all other similar types.

The Alliance program will also focus on a rubber sensor product attached to food produce that changes colour when the produce item reaches a set temperature or after a certain amount of time passes since harvest. This product can also act as a bar code on produce in grocery stores.

Jason Risner, director of business strategy at Alliance, stated: *"Alliance has a long history of innovation and it is vital for us to play an active role in leading edge rubber technology that uses a disruptive nanomaterial like graphene. It is also critical that we partner with scientific leaders like Dr. Alan Dalton at Sussex and a company like Zenyatta with a special raw material graphite source located in North*

America.”

Graphene can enhance the mechanical, thermal and electrical properties of a vast range of composite materials. It can be added to rubber to make it lighter, stronger and conductive for improving its performance in a large variety of industries.

Separately from the above Alliance project, Zenyatta will also be working with a team of scientists at Sussex under the direction of Dr. Dalton using graphene produced from Zenyatta graphite on other projects such as:

- Motion sensors: Create a flexible (rubber-graphene) sensor that can detect motions as subtle as those associated with breathing and pulse for health care monitors and sportswear use.
- Emulsions: Where the control of electrical and thermal properties is critical for performance. Examples of such applications include inkjet printing, thin wires, stress sensors, thermal management liquids and fluid conductors.
- Energy storage devices – The goal is to develop supercapacitor devices based on a self-assembly of nanomaterials to produce electrode structures and a better battery using graphene.
- Automotive industry: to develop more sensitive airbags and vehicle batteries made with stacked graphene for faster charging and more energy.

Aubrey Eveleigh, president and chief executive officer of Zenyatta, commented: *“We are very pleased to have a collaborative research program with an end-user like Alliance*

and the great team of scientists at Sussex on exciting new and innovative products. Technology companies around the world are making significant investments which are accelerating the pace of graphene development. We are delighted to play a part in the advancement of this new innovative material by providing a high-quality and consistent graphite material for conversion to graphene."

.