Zen Graphene Solutions developing virucidal ink to combat covid-19

Zen Graphene Solutions Ltd.

Has agreed to an international collaboration with United Kingdom-based Graphene Composites Ltd. (GC) to fight COVID-19 by developing a potential virucidal graphene-based composite ink that can be applied to fabrics including N95 face masks and other personal protective equipment for significantly increased protection.

Zen to develop graphene-based ink for N95 masks

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Dr. Francis Dube reports

ZEN GRAPHENE SOLUTIONS ANNOUNCES COLLABORATION WITH GRAPHENE COMPOSITES LTD. TO DEVELOP A COVID-19 VIRUCIDAL GRAPHENE-BASED COMPOSITE INK FOR FACE MASKS

Zen Graphene Solutions Ltd. has agreed to an international collaboration with United Kingdom-based Graphene Composites Ltd. (GC) to fight COVID-19 by developing a potential virucidal graphene-based composite ink that can be applied to fabrics including N95 face masks and other personal protective equipment for significantly increased protection. Once the development, testing and confirmation of the graphene ink's virucidal ability have been completed, the ink will then be incorporated into fabrics used for PPE.

Francis Dube, chief executive officer of Zen, commented: *"We are pleased to be collaborating with GC and be on the forefront of a new innovative technology that could contribute to combating the deadly COVID-19 virus. The development of this potential COVID-19 virucidal graphene ink is coming at a crucial time to provide effective PPE supplies for the safety of front-line workers and hospital staff." Dr. Dube continued: "The current N95 masks trap the virus but don't kill it. Our testing will demonstrate if the graphene ink is an effective virucide, which would kill the virus, as this could make a big difference to people's safety. We have been very impressed by the Graphene Composites team and look forward to continued collaborations."*

Sandy Chen, CEO of GC, stated: *"Combining the deep nanomaterials expertise of GC and Zen with a truly collaborative approach has enabled us to do a year's worth of R&D in a matter of weeks. Quickly developing and deploying our virucidal/germicidal ink would make a significant difference in slowing the rate of infection – thus saving many lives."*

Under the collaboration, Zen has synthesised a silver nanoparticles functionalised graphene oxide ink at its lab in Guelph, Ont., that has been documented by previous researchers to kill earlier versions of coronavirus. Once testing is completed, the Zen/GC graphene ink would then be incorporated into a fabric to be included into masks and filters designed by GC.

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Efficacy testing of the silver-graphene-oxide-based ink to kill COVID-19 will be conducted at Western University's ImPaKT facility, biosafety level 3 lab, in Ontario. In addition, the graphene ink will be tested to kill influenza A and B viruses at biosafety level 2 labs in the United Kingdom and the United States.

About Zen Graphene Solutions Ltd.

Zen is an emerging graphene technology solutions company with a focus on the development of graphene-based nanomaterial products and applications. The unique Albany graphite project provides the company with a potential competitive advantage in the graphene market as independent labs in Japan, the U.K., Israel, the U.S. and Canada have independently demonstrated that Zen's Albany Pure graphite is an ideal precursor material, which easily converts (exfoliates) to graphene, using a variety of mechanical, chemical and electrochemical

methods.

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