



first graphene

Australia's leading graphene company

ASX Announcement

22 June 2018

New NanoScience firm to produce 'clean' super-strength carbons

Highlights

- 2D Fluidics Pty Ltd launched to commercialise the Vortex Fluidic Device (VFD)
- 2D Fluidics Pty Ltd is owned 50% by FGR and 50% by Flinders University's newly named Flinders Institute for NanoScale Science and Technology
- The key intellectual property used by 2D Fluidics comprises two patents around the production of carbon nanomaterials, assigned by Flinders University.
- The VFD enables new approaches to producing a wide range of materials such as graphene and sliced carbon nanotubes, complementing its position as the leading graphene production company

Advanced materials company, First Graphene Limited ("**FGR**" or "**the Company**") (ASX: FGR) is pleased to announce the launch of its 50%-owned associate company, 2D Fluidics Pty Ltd, in collaboration with Flinders University's newly named Flinders Institute for NanoScale Science and Technology.

The initial objective of 2D Fluidics will be the commercialisation of the Vortex Fluidic Device (VFD), invented by the Flinders Institute for NanoScale Science and Technology's Professor Colin Raston. The VFD enables new approaches to producing a wide range of materials such as graphene and sliced carbon nanotubes, with the bonus of not needing to use harsh or toxic chemicals in the manufacturing process (which is required for conventional graphene and shortened carbon nanotube production).

This clean processing breakthrough will also greatly reduce the cost and improve the efficiency of manufacturing these new high quality super-strength carbon materials. The key intellectual property used by 2D Fluidics comprises two patents around the production of carbon nanomaterials, assigned by Flinders University

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ASX Code

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2D Fluidics will use the VFD to prepare these materials for commercial sales, which will be used in the plastics industry for applications requiring new composite materials, and by the electronics industry for circuits, supercapacitors and batteries, and for research laboratories around the world.

2D Fluidics will also manufacture the VFD, which is expected to become an in-demand state-of-the-art research and teaching tool for thousands of universities worldwide, and should be a strong revenue source for the new company.

Managing Director, Craig McGuckin said *"First Graphene is very pleased to be partnering Professor Raston and his team in 2D Fluidics, which promises to open an exciting growth path in the world of advanced materials production. Access to this remarkably versatile invention will complement FGRs position as the leading graphene company at the forefront of the graphene revolution."*

Professor Colin Raston AO FAA, Professor of Clean Technology, Flinders Institute for NanoScale Science and Technology, Flinders University said *"The VFD is a game changer for many applications across the sciences, engineering and medicine, and the commercialisation of the device will have a big impact in the research and teaching arena," Nano-carbon materials can replace metals in many products, as a new paradigm in manufacturing, and the commercial availability of such materials by 2D Fluidics will make a big impact. It also has exciting possibilities in industry for low cost production where the processing is under continuous flow, which addresses scaling up - often a bottleneck issue in translating processes into industry."*

About First Graphene Ltd (ASX: FGR)

First Graphene produces high quality graphene from high grade Sri Lankan vein graphite.

First Graphene seeks to develop graphene production methods and acquire graphene related intellectual property which can provide further revenue related opportunities.

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