

## Graphene Biosensors – The Next Frontier in Medical Diagnostics

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Called “the miracle material of the 21st century,” graphene is a single atomic layer of carbon atoms, tightly bonded in a hexagonal lattice. It is a single atomic layer of graphite, with all interatomic bonds in a 2-dimensional plane. Despite its short history as an experimental system, graphene has already revealed exciting new physics and exceptional electronic, optical, mechanical, and chemical properties, which are appealing for a broad variety of applications in several fields. Potential applications include flexible, transparent electrodes, transistors, nanopore filters, impermeable coatings for corrosion and/or chemical protection, ultracapacitors, chemical sensors and biological sensors.

Graphene Frontiers is developing a graphene-based biosensor platform for highly sensitive, rapid response, medical diagnostics. In this presentation, Mr. Patterson will discuss the work under way at Graphene Frontiers to develop and commercialize graphene electronics and sensor technology for medical diagnostics and related applications for health care, fitness, security, and defense.

