Hawkeye Bio Granted U.S. Patent for Graphene Biosensor Platform Enabling Ultra-Sensitive Protease Biomarker Detection

Patent covers pristine graphene–based biosensor technology to translate protease activity into measurable optical signals for early cancer detection

WESTLAKE VILLAGE, CA, UNITED STATES, March 12, 2026 /EINPresswire.com/ -- Hawkeye Bio, Inc. announced today that the United States Patent and Trademark Office (USPTO) has granted U.S. Patent No. 12,461,102 titled “Pristine Graphene Based Biosensor for Biomarker Detection and Related Core Particles, Materials Compositions Methods and Systems.” The patent protects Hawkeye Bio’s proprietary graphene-based biosensor platform technology designed to detect biological molecules through highly sensitive optical signaling mechanisms.

> “This patent is a key milestone for Hawkeye and validates the scientific foundation of our graphene biosensor for early cancer detection” said André de Fusco, co-Founder and CEO of Hawkeye Bio.”
>
> *André de Fusco*

The patented technology utilizes pristine graphene particles functionalized with optical reporter systems that respond to the presence of specific protease biomarkers. When exposed to target biological molecules, the biosensors convert biochemical interactions into measurable optical signals, enabling precise detection of molecular activity associated with disease.

Hawkeye Bio is developing its graphene biosensor platform to power next-generation diagnostic assays, with an initial focus on the early detection and monitoring of lung cancer. The technology is designed to detect subtle biochemical changes that may occur early in disease development, potentially enabling earlier clinical intervention.

“This patent represents a key milestone for Hawkeye Bio and validates the scientific foundation of our graphene biosensor platform” said André de Fusco, co-Founder and CEO of Hawkeye Bio. “By combining advanced nanomaterials with responsive protease optical reporting systems, we believe this technology has the potential to significantly improve the sensitivity and performance of early stage diagnostic testing which is the key to better patient outcomes.”

Graphene’s unique physical and electronic properties make it an attractive material for biosensing applications. Hawkeye Bio’s patented approach leverages pristine graphene particles engineered to interact with biological targets to produce optical signals that can be quantitatively measured in diagnostic assays.
The newly issued patent strengthens Hawkeye Bio’s intellectual property portfolio and supports the company’s efforts to develop novel diagnostic technologies capable of detecting disease-associated biomarkers earlier, for much lower cost and with greater precision than conventional methods.

About Hawkeye Bio, Inc.
Hawkeye Bio, Inc. is a biotechnology company developing advanced biosensor technologies for the early detection and monitoring of disease. By integrating innovations in materials science, nanotechnology, and molecular diagnostics, Hawkeye Bio is producing highly sensitive diagnostic tests capable of detecting early biological signals associated with cancer and inflammatory disorders.
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