

Nouveau Biosciences and DarwinHealth (TM) Enter Collaboration to Advance Precision Oncology Drug Discovery

Collaboration will combine DarwinHealth's systems-biology, AI, and computational oncology platform with Nouveau Biosciences' precision nanotherapeutic technology to develop therapies tailored to cancer biology

[NEW YORK, September 15, 2025] — Nouveau Biosciences, a biotechnology company developing precision nanomedicines for cancer, today announced that it has entered into a collaboration with DarwinHealth™ to identify and develop novel therapeutic approaches for cancer.

The collaboration brings together DarwinHealth's proprietary computational methodologies for identifying key biological drivers of cancer with Nouveau Biosciences' nanotherapeutic drug-design platform. The companies intend to use these complementary technologies to identify therapeutically relevant targets and drug combinations and translate those findings into precision-engineered nanomedicines for specific cancer contexts.

DarwinHealth™ has developed proprietary, clinical-grade AI- and systems biology-based methodologies designed to predict the proteins that drive and maintain the cancer cell states that coexist in a tumor and the drugs that can inactivate them. These proteins, referred to as **Master Regulators**, represent critical control points—so-called “tumor checkpoints”—within the molecular networks governing tumor survival and growth.

By analyzing RNA expression profiles using the lens of the cell's regulatory network, DarwinHealth's platform is designed to characterize the functional state of an individual patient's tumor and identify drugs or drug combinations predicted to disrupt the regulatory architecture sustaining individual and co-existing cancer cell states across the cancer subtype spectrum. Based on work performed in the Califano Lab at Columbia University, the DarwinHealth team has pioneered these approaches over the past decade and published their results in some of the most prestigious journals in the field, including Nature, Nature Genetics, Cell, Cancer Cell, Cancer Discovery, and Nature Reviews Cancer.

Nouveau Biosciences deploys a proprietary technology to identify synthetically lethal drug combinations in a highly disease specific context, and the engineers polymer nanoparticles through its proprietary nanomedicine platform. These nanoparticles are designed to deliver individual drugs or optimized drug combinations with enhanced tumor targeting and pharmacologic properties, with the goal of improving therapeutic activity and tolerability.

Under the collaboration, Nouveau Biosciences plans to use insights generated through DarwinHealth's platform to inform the development of a library of precision nanotherapeutics matched to defined cancer biology. The companies believe this integrated

approach could ultimately enable treatment strategies tailored more closely to the molecular and regulatory characteristics of an individual patient's disease.

"We have followed the groundbreaking work of our colleagues at DarwinHealth for years and have had the opportunity to work closely with Dr. Califano and his team," said **Owen A. O'Connor, M.D., Ph.D., Founder and Chief Executive Officer of Nouveau Biosciences**. "Cancer is extraordinarily complex and heterogeneous. DarwinHealth™ approaches that complexity by taking a holistic systems-biology perspective, looking beyond individual mutations to understand the regulatory networks that sustain a given tumor."

"The ability to use these molecular insights to identify rational drug combinations and then engineer therapies specifically around a patient's cancer biology has long been an important goal for precision oncology," Dr. O'Connor continued. "By bringing together DarwinHealth's capabilities with our ability to synthesize a specific nanotherapeutic drug or drug combination we will be taking a quantum step toward the ability to create personalized precision targeted strategies".

"We believe the platforms and methodologies DarwinHealth™ brings to this collaboration can help reshape how precision cancer therapies are conceived and developed," said **Gideon Bosker, M.D., Chief Executive Officer of DarwinHealth**. "Our objective is to move beyond generalized treatment paradigms toward an approach in which the functional biology of each cancer informs therapeutic selection. Combining that capability with Nouveau's nanomedicine platform creates an exciting opportunity to translate biological insights directly into highly tailored therapeutic strategies today."

"I have had the pleasure of working closely with Drs. Bosker, Alvarez and Califano for years," said **Charles Karan, Ph.D., Chief Scientific Officer of Nouveau Biosciences**. "Their approach recognizes cancer as a complex system of interacting regulatory and signaling networks communicating through a restricted number of nodes, rather than as disease defined by any single mutation or singular target. That perspective is highly complementary to our ability to identify synthetically lethal combinations and to engineer nanoparticles capable of delivering therapeutic combinations precisely."

Dr. Karan added, "Integrating tumor-specific biological analysis with the design of personalized precision nanotherapeutics represents a compelling new development model. We believe this collaboration has the potential to create a highly differentiated platform for the next generation of cancer therapies."

About Nouveau Biosciences

Nouveau Biosciences is an innovative biotechnology company developing precision-targeted cancer therapeutics through its proprietary **Nouveau Nexus™** platform. The platform integrates advances in cancer biology, genomics, computational biology, drug development, and nanomedicine to engineer therapies for defined cancer populations and biological contexts.

Nouveau's polymer-based nanoparticles are designed to deliver individual drugs and optimized drug combinations with enhanced precision, with the goal of improving therapeutic efficacy and tolerability. The company's lead program is clinic-ready and supported by a growing intellectual-property portfolio focused on high-need oncology indications.

About DarwinHealth

DarwinHealth™ is a precision-focused oncology company that develops and utilizes proprietary, clinical-grade algorithms and high-throughput experimental platforms to identify therapeutic strategies tailored to the biology of individual cancer patients. Its platform is designed to determine the regulatory programs that drive a patient's tumor and identify drugs and drug combinations capable of disrupting those programs.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements include, but are not limited to, statements regarding the companies' future plans; the discovery, development, and potential licensing of cancer therapeutics; the anticipated benefits of the collaboration; and the potential clinical or commercial applications of the companies' technologies.

Forward-looking statements are based on current expectations and assumptions and involve risks and uncertainties that could cause actual results to differ materially from those expressed or implied in such statements. Nouveau Biosciences undertakes no obligation to update or revise any forward-looking statements as a result of new information, future developments, or otherwise, except as required by applicable law.

Media Contact

media@nouveaubiosciences.com