

## **Boehringer Ingelheim Enters Discovery Stage Collaboration with Trutino Biosciences to Grow Its Cancer Immunology Portfolio with Novel Cytokine Platform**

- *Boehringer Ingelheim will work with Trutino Biosciences to access the company's On-Demand-Cytokine™ (ODC) platform to develop new cancer immunology compounds*
- *The partners aim to develop safer, more tolerable and more effective cytokine therapies for single agent and novel combinations with Boehringer Ingelheim's innovative cancer vaccine, oncolytic virus, T cell engager and myeloid-targeting therapies*

**Ingelheim, Germany and San Diego, California – 27 February 2020** – Boehringer Ingelheim and Trutino Biosciences today announced they have entered into a research collaboration and worldwide licensing agreement based on Trutino's innovative On-Demand-Cytokine (ODC) platform. Under the terms of strategic alliance, Boehringer Ingelheim gains access to Trutino's ODC platform technology for the generation and development of up to three new ODC candidates. This new collaboration combines Boehringer Ingelheim's long-term strategy to provide first-in-class, breakthrough therapies for cancer patients with Trutino's unique knowledge and expertise in increasing the safety and efficacy of cytokine therapies.

"Developing a strong and innovative cytokine therapeutic program as an additional component of our cancer immunology portfolio, demonstrates how we are 'Taking Cancer On,' and provides a high potential combination partner for our existing cancer vaccine, oncolytic virus, T cell engager and myeloid-targeting therapeutics portfolio," said Jonathon Sedgwick, Ph.D., Senior Vice President and Global Head, Cancer Immunology & Immune Modulation Research at Boehringer Ingelheim. "We are very pleased to partner with Trutino and harness the potential of their innovative scientific platform to develop treatment breakthroughs that will transform the lives of cancer patients."

Trutino's ODC platform masks the activity of cytokines until they reach the tumor site and become fully activated, sparing systemic exposure and potentially leading to a higher margin of safety and greater efficacy than conventional cytokine treatments. Trutino will generate the new ODC molecules and carry out preclinical validation, handing over development to Boehringer Ingelheim for late pre-clinical testing through the rest of development.

"We are excited to embark on this partnership with Boehringer Ingelheim, a leader in cancer immunology, to advance cytokine therapeutic options that address the unmet medical needs of patients worldwide," said Phillip Kim, Ph.D., MBA, Founder and CEO of Trutino Biosciences. "Boehringer Ingelheim has a deep commitment to innovative scientific approaches and is a leader in bringing novel cancer therapies to market. This global partnership validates the broad potential of our proprietary ODC platform to create safer and more effective cytokine therapies that can be delivered systemically and activated locally. Together, we can rapidly develop a new generation of cytokine therapies to address critical unmet need in oncology."

Trutino's clinical potential was initially recognized by Boehringer Ingelheim through its grass roots programs, including the 'BI Innovation Prize,' where the ODC platform technology was an early-stage standout in the 2019 program held in San Diego. Launched in 2015, the grass roots programs comprise of 'BI Office Hours,' 'BI Academy' and the 'BI Innovation Prize.' Through Office Hours, Boehringer Ingelheim has provided over 200 early-stage companies in the life-sciences community with mentoring and direct access to relevant expertise and industry perspective from senior leaders within the company. In partnership with BioLabs in Boston, New York and San Diego, Boehringer Ingelheim has awarded numerous entrepreneurs with free lab space through the 'Golden Ticket' program. As a company dedicated to improving health and quality of life, these programs give Boehringer Ingelheim the opportunity to lend expertise to the innovation community and offer guidance around the science to help enable ideas to deliver the next breakthroughs.

The partnership with Trutino will strengthen Boehringer Ingelheim's next generation immune oncology portfolio, which combines cancer vaccines, oncolytic viruses, T Cell engagers and myeloid targeting platforms with the aim of making "cold" tumors that are invisible to the immune system "hot" to rally the immune system against the tumor. Under the terms of the agreement, Boehringer Ingelheim will provide an upfront payment, near-term pre-clinical milestone payments and clinical, regulatory and commercial milestone payments, including royalties on future product sales.

### **About Boehringer Ingelheim**

Improving the health of humans and animals is the goal of the research-driven pharmaceutical company Boehringer Ingelheim. The focus in doing so is on diseases for which no satisfactory treatment option exists to date. The company therefore concentrates on developing innovative therapies that can extend patients' lives. In animal health, Boehringer Ingelheim stands for advanced prevention.

Family-owned since it was established in 1885, Boehringer Ingelheim is one of the pharmaceutical industry's top 20 companies. Some 50,000 employees create value through innovation daily for the three business areas, human pharmaceuticals, animal health and biopharmaceuticals. In 2018, Boehringer Ingelheim achieved net sales of around 17.5 billion euros. R&D expenditure of almost 3.2 billion euros corresponded to 18.1 per cent of net sales.

As a family-owned company, Boehringer Ingelheim plans in generations and focuses on long-term success. The company therefore aims at organic growth from its own resources with simultaneous openness to partnerships and strategic alliances in research. In everything it does, Boehringer Ingelheim naturally adopts responsibility towards mankind and the environment.

More information about Boehringer Ingelheim can be found on [www.boehringer-ingelheim.com](http://www.boehringer-ingelheim.com) or in our annual report: <http://annualreport.boehringer-ingelheim.com>.

### **About Trutino Bioscience**

Trutino Biosciences is a research-driven biopharmaceutical company with a mission to restore immunobalance in cancer patients by developing the next generation cytokine therapies that can safely activate tumor-fighting immune cells at the disease site without causing adverse side effects. Trutino's proprietary On-Demand-Cytokine™ (ODC) platform technology enables the design of therapeutic candidates that can be systemically delivered in an inactive cytokine form and be locally activated directly at the tumor site, thereby avoiding the extreme toxicity of conventional cytokine therapies, and

potentially improving efficacy either as a single agent or in combination with other treatment modalities.

Established in 2018, Trutino is developing an expansive menu of novel ZYTOKINES™ and ZYMOKINES™ derived from its ODC platform that trigger maximal cancer-fighting immune responses only at tumor sites without the risk of systemic toxicity. The company's lead product candidate, ODC-IL2, has produced compelling preclinical data suggesting it is poised to become a best-in-class IL-2 therapy with the potential of enhanced synergies in combination therapy approaches.

For more information about Trutino Biosciences, please visit [www.trutinobio.com](http://www.trutinobio.com) and follow us on Twitter @TrutinoBio.

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