



## BioNTech and InstaDeep Announce Strategic Collaboration and Form AI Innovation Lab to Develop Novel Immunotherapies

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- *Long-term collaboration underpins BioNTech's strategy to leverage Artificial Intelligence (AI) and Machine Learning (ML) technologies to support the discovery and development of novel immunotherapies based on InstaDeep's DeepChain™ technology platform*
- *BioNTech and InstaDeep to establish a joint AI Innovation Lab to advance a portfolio of enterprise-wide digital initiatives in the areas of drug discovery and design, protein engineering, and operations*

**MAINZ, Germany and LONDON, United Kingdom, November 25, 2020 (GLOBE NEWSWIRE)** -- [BioNTech SE](#) (Nasdaq: BNTX, "BioNTech") and [InstaDeep Ltd](#) today announced a multi-year strategic collaboration aimed at applying the latest advances in artificial intelligence (AI) and machine learning (ML) technology to develop novel immunotherapies for a range of cancers and infectious diseases.

As part of the collaboration, BioNTech and InstaDeep will form a joint AI Innovation Lab in London, UK, and Mainz, Germany, to advance a portfolio of initiatives across drug discovery and design, protein engineering, manufacturing and supply chain optimization. The AI Innovation Lab will combine InstaDeep's advanced capabilities in the areas of artificial intelligence, machine learning, and digitalization along with BioNTech's deep domain expertise in precision immunotherapies and its access to a wide variety of internal and external datasets. One of the key research areas of the BioNTech-InstaDeep joint Innovation Lab will be the development of next generation vaccines and biopharmaceuticals for the treatment of cancer and prevention and therapy of infectious diseases, including Covid-19.

The strategic collaboration will focus on three core areas:

- **Novel Drug Design:** BioNTech is advancing a pipeline of novel mRNA-based vaccines and therapeutics and will apply InstaDeep's DeepChain™ protein design platform to engineer new mRNA sequences for protein targets, including for its RiboMab™ and RiboCytokine™ platforms, which use messenger RNA to encode antibodies and cytokines *in vivo*.
- **Advanced Analytics:** BioNTech and InstaDeep plan to generate insights from public and proprietary meta datasets, as well as anonymized patient data through the use of machine learning and edge analytics to identify novel biological targets and predictive biomarkers.
- **Manufacturing and Supply Chain Optimization:** BioNTech plans to utilize AI and ML applications to further optimize manufacturing and supply chain processes. By employing the latest advances in robotics and autonomous decision-making algorithms, BioNTech aims to deliver higher efficiencies in drug manufacturing, logistics and supply chain processes.

"We see a significant opportunity at the intersection of AI and immunology by computational design of new precision immunotherapies. This collaboration will expand our digital capabilities and optimize our operations across the value chain by adding InstaDeep's powerful Artificial Intelligence and Machine Learning expertise. We look forward to working with InstaDeep to advance the next wave of innovation in the field," says **Ugur Sahin, M.D., CEO and Co-Founder of BioNTech**.

"Pairing BioNTech's deep knowledge of the human immune system and scientific data-driven development approach with our AI platform could transform the way we discover and develop new drug classes for patients all over the world. For InstaDeep, the long-term collaboration with BioNTech also means we can further expand on our mission as a company to accelerate the transition to an AI-First world that benefits everyone. Based on the results already achieved by working together, we see an exciting path forward," says **Karim Beguir, Co-Founder and CEO of InstaDeep**.

The long-term collaboration builds on the existing relationship between InstaDeep and BioNTech which was initiated in 2019. InstaDeep is headquartered in London and was recently [nominated](#) by CB Insights as one of the 100 most promising AI start-ups in the world.

### About BioNTech

Biopharmaceutical New Technologies is a next generation immunotherapy company pioneering novel therapies for cancer and other serious diseases. The Company exploits a wide array of computational discovery and therapeutic drug platforms for the rapid development of novel biopharmaceuticals. Its broad portfolio of oncology product candidates includes individualized and off-the-shelf mRNA-based therapies, innovative chimeric antigen receptor T cells, bi-specific checkpoint immuno-modulators, targeted cancer antibodies and small molecules. Based on its deep expertise in mRNA vaccine development and in-house manufacturing capabilities, BioNTech and its collaborators are developing multiple mRNA vaccine candidates for a range of infectious diseases alongside its diverse oncology pipeline. BioNTech has established a broad set of relationships with multiple global pharmaceutical collaborators, including Genmab, Sanofi, Bayer Animal Health, Genentech, a member of the Roche Group, Regeneron, Genevant, Fosun Pharma, and Pfizer. For more information, please visit [www.BioNTech.de](http://www.BioNTech.de).

### About InstaDeep

Founded in 2014, InstaDeep is today an EMEA leader in decision-making AI products for the Enterprise, with headquarters in London, and offices in Paris, Tunis, Lagos, Dubai and Cape Town. With expertise in both machine intelligence research and concrete business deployments, the Company provides a competitive advantage to its partners in an AI-first world. Leveraging its extensive know-how in GPU-accelerated computing, deep learning and reinforcement learning, InstaDeep has built products, such as its novel [DeepChain™](#) protein design platform, that tackle the most complex challenges across a range of industries. InstaDeep has also developed collaborations with global leaders in the Artificial intelligence ecosystem, such as Google DeepMind, Nvidia and Intel. The Company is part of Intel's AI Builders program and was named a Preferred Deep Learning Partner by

Nvidia. To learn more, please visit [www.instadeep.com](http://www.instadeep.com).

### **BioNTech Forward-looking Statements**

This press release contains “forward-looking statements” of BioNTech within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements may include, but may not be limited to, statements concerning: the strategic collaboration between BioNTech and InstaDeep; the ability of DeepChain™ protein design platform to engineer new mRNA sequences for protein targets; the ability of AI and Machine Learning to advance drug discovery and development of new drug classes; the ability of AI and Machine Learning to quicken and scale up the delivery of next generation of diagnostics and therapeutics; the ability of Machine Learning and edge analytics to identify novel predictive biomarkers, inform patient selection, and accelerate the development of therapeutic programs; the ability to utilize AI and Machine Learning applications to further optimize manufacturing and supply chain processes, including by using robotics and autonomous decision-making; and BioNTech’s efforts to combat COVID-19. Any forward-looking statements in this press release are based on BioNTech current expectations and beliefs of future events, and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to, the ability of AI and Machine Learning to produce improvements in the drug discovery and development process or deliver efficiencies in drug manufacturing, logistics and supply chain. For a discussion of these and other risks and uncertainties, see BioNTech’s Quarterly Report for the Three and Nine Months Ended September 30, 2020, filed as Exhibit 99.2 to its Current Report on Form 6-K filed with the SEC on November 10, which is available on the SEC’s website at [www.sec.gov](http://www.sec.gov). All information in this press release is as of the date of the release, and BioNTech undertakes no duty to update this information unless required by law.

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