



Abcam Collaborates With Twist Bioscience to Enhance Antibody Discovery for Diagnostic and Research Applications

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- **Abcam to license in VHH phage library⁽¹⁾ from Twist, complementing in-house recombinant antibody capabilities**
- **Abcam to develop and commercialize antibodies for diagnostic and research use, with Twist retaining rights for therapeutic applications**
- **Reinforces Abcam's commitment to consistently improve industry standards and support the sector with best-in-class reagents**

CAMBRIDGE, England & SOUTH SAN FRANCISCO, Calif.--(BUSINESS WIRE)--Feb. 1, 2022-- [Twist Bioscience](#) Corporation (NASDAQ:TWST), a company enabling customers to succeed through its offering of high-quality synthetic DNA using its silicon platform, and [Abcam](#) (AIM:ABC; NASDAQ:ABCM), a global innovator in life sciences reagents and tools, today announced a licensing agreement under which Abcam will use a proprietary Twist VHH phage library for antibody discovery, development and commercialization for diagnostic and research applications.

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Phage display complements other antibody discovery methods, and offers several benefits for tackling challenging targets. The synthetic nature and the diversity of each Twist library (up to 10 billion variants) enable the rapid identification of antibodies against challenging targets that would otherwise fail due to toxicity or lack of immunogenicity. The recombinant format enables easier genetic engineering and maximizes *in vitro* manufacturing ensuring batch-to-batch reproducibility and scalability from bench to bedside.

Alejandra Solache, Ph.D., SVP R&D at Abcam said, "Twist's phage library complements our leading recombinant antibody discovery capabilities, adding further scale and diversity and increasing the likelihood of identifying antibodies with the desired properties against emerging or established targets. The partnership supports Abcam and Twist's commitment to deliver antibodies that have the potential to accelerate the development of innovative research tools, diagnostics and therapeutics."

Under the terms of the agreement, Twist Bioscience grants Abcam the right to engage in research and development activities using Twist single domain (VHH) synthetic antibody library. Abcam has the option to nominate, license and commercialize antibody sequences for diagnostic and research use, in return for license fees and commercial milestone payments. Twist retains the rights to the same sequences for therapeutic application.

Emily M. Leproust, Ph.D., CEO and co-founder of Twist said, "This partnership is an important milestone in Twist's journey as it allows us to access the research and diagnostic market through Abcam's commitment to advance discovery, development and commercialization of the resulting antibodies. In addition, this agreement lays the foundations for a long term collaboration with Abcam to drive new commercial opportunities. Importantly, because Twist retains the rights to develop the sequences for therapeutic uses, this partnership has the potential to benefit our internal pipeline as well."

VHH Antibody Libraries

Antibodies contain two variable domains, the heavy and the light chains. A VHH antibody, also known as a nanobody or single domain antibody, is the antigen binding domain of the heavy chain, with three complementary determining regions (CDRs), or areas where antigens bind to the antibody. Twist's VHH library uses novel methods that combine synthetic and natural approaches to maximize diversity in the 10 billion antibody library, creating high quality VHH libraries for use against any protein target. The small size of the VHH antibodies allow them to access targets that traditional antibodies cannot, with tight binding affinity. The modular nature of VHH antibodies supports creation of bi- or multi-specific antibodies ideal for developing next generation therapies specific to oncology, autoimmune disease and virology.

About Abcam plc

As a global life sciences company, Abcam identifies, develops, and distributes high-quality biological reagents and tools that are crucial to research, drug discovery and diagnostics. Working across the industry, the Company supports life scientists to achieve their mission, faster.

Abcam partners with life sciences organizations to co-create novel binders for use in drug discovery, *in vitro* diagnostics and therapeutics, driven by the Company's proprietary discovery platforms and world-leading antibody expertise.

By constantly innovating its binders and assays, Abcam is helping advance the global understanding of biology and causes of disease, which enables new treatments and improved health. The Company's pioneering data-sharing approach gives scientists increased confidence in their results by providing validation, user comments and peer-reviewed citations for its 90,000 products.

With 14 sites globally, many of Abcam's over 1,700-strong team are located in the world's leading life sciences research hubs, complementing a global network of service and support.

To find out more, please visit www.abcam.com and corporate.abcam.com.

Abcam's Forward-Looking Statements

This announcement contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Any express or implied statements contained in this announcement that are not statements of historical fact may be deemed to be forward-looking statements, including, without limitation, statements regarding Abcam's portfolio and ambitions, as well as statements that include the words "expect," "intend," "plan," "believe," "project," "forecast," "estimate," "may," "should," "anticipate" and similar statements of a future or forward-looking nature. Forward-looking statements are neither promises nor guarantees, but involve known and unknown risks and uncertainties that could cause actual results to differ materially from those projected, including, without limitation: a regional or global health pandemic, including the novel coronavirus ("COVID-19"), which has adversely affected elements of our business, could severely affect our business, including due to impacts on our operations and supply chains; challenges in implementing our strategies for revenue growth in light of competitive challenges; developing new products and enhancing existing products, adapting to significant technological change and responding to the introduction of new products by competitors to remain competitive; failing to successfully identify or integrate acquired businesses or assets into our operations or fully recognize the anticipated benefits of businesses or assets that we acquire; if our customers discontinue or spend less on research, development, production or other scientific endeavours; failing to successfully use, access and maintain information systems and implement new systems to handle our changing needs; cyber security risks and any failure to maintain the confidentiality, integrity and availability of our computer hardware, software and internet applications and related tools and functions; failing to successfully manage our current and potential future growth; any significant interruptions in our operations; if our products fail to satisfy applicable quality criteria, specifications and performance standards; failing to maintain our brand and reputation; our dependence upon management and highly skilled employees and our ability to attract and retain these highly skilled employees; and the important factors discussed under the caption "Risk Factors" in Abcam's prospectus pursuant to Rule 424(b) filed with the U.S. Securities and Exchange Commission ("SEC") on 22 October 2020, which is on file with the SEC and is available on the SEC website at www.sec.gov, as such factors may be updated from time to time in Abcam's other filings with the SEC. Any forward-looking statements contained in this announcement speak only as of the date hereof and accordingly undue reliance should not be placed on such statements. Abcam disclaims any obligation or undertaking to update or revise any forward-looking statements contained in this announcement, whether as a result of new information, future events or otherwise, other than to the extent required by applicable law.

About Twist Biopharma

By leveraging our unique ability to manufacture DNA at scale, we can construct proprietary antibody libraries precisely designed to match sequences that occur in the human body. The library of libraries gives our partners an integral and unbiased resource for antibody therapeutic discovery and optimization. This precise and rational approach to library fabrication combined with sophisticated bioinformatics and software expertise expedites antibody discovery by decreasing risk, increasing speed, and lowering the failure rate for antibody therapeutic development.

About Twist Bioscience Corporation

Twist Bioscience is a leading and rapidly growing synthetic biology and genomics company that has developed a disruptive DNA synthesis platform to industrialize the engineering of biology. The core of the platform is a proprietary technology that pioneers a new method of manufacturing synthetic DNA by "writing" DNA on a silicon chip. Twist is leveraging its unique technology to manufacture a broad range of synthetic DNA-based products, including synthetic genes, tools for next-generation sequencing (NGS) preparation, and antibody libraries for drug discovery and development. Twist is also pursuing longer-term opportunities in digital data storage in DNA and biologics drug discovery. Twist makes products for use across many industries including healthcare, industrial chemicals, agriculture and academic research.

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Twist's Legal Notice Regarding Forward-Looking Statements

This press release contains forward-looking statements. All statements other than statements of historical facts contained herein, including without limitation Twist's ability to discover novel therapeutic antibodies and to receive annual licensing fees or royalties, and to generate new antibody libraries, are forward-looking statements reflecting the current beliefs and expectations of management made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements involve known and unknown risks, uncertainties, and other important factors that may cause Twist Bioscience's actual results, performance, or achievements to be materially different from any future results, performance, or achievements expressed or implied by the forward-looking statements. Such risks and uncertainties include, among others, the risks and uncertainties of the ability to attract new customers and retain and grow sales from existing customers; risks and uncertainties of rapidly changing technologies and extensive competition in synthetic biology could make the products Twist Bioscience is developing obsolete or non-competitive; the retention of employees of acquired companies and the ability of Twist Bioscience to successfully integrate acquired companies and to achieve expected benefits, risks of third party claims alleging infringement of patents and proprietary rights or seeking to invalidate Twist Bioscience's patents or proprietary rights; and the risk that Twist Bioscience's proprietary rights may be insufficient to protect its technologies. For a further description of the risks and uncertainties that could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to Twist Bioscience's business in general, see Twist Bioscience's risk factors set forth in Twist Bioscience's Annual Report Form 10-K filed with the Securities and Exchange Commission on November 23, 2021 and subsequent filings with the SEC. Any forward-looking statements contained in this press release speak only as of the date hereof, and Twist Bioscience specifically disclaims any obligation to update any forward-looking statement, whether as a result of new information, future events or otherwise.

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