

Press Kit

Corporate Profile

Twist Bioscience synthesizes genes from scratch, known as "writing" DNA. Just as children learn to both read and write, the next phase of development for the genomics revolution is the ability to write DNA to advance discovery and development across multiple industries. Building on the next generation sequencing explosion dominated by Illumina, customers now find themselves faced with new bottlenecks in their synthetic biology workflows: scalability and fidelity of synthetic genes. Twist Bioscience addresses both through its engineering-based silicon solution that delivers high quality synthetic DNA faster, cheaper and seamlessly.

Twist Bioscience has developed a proprietary semiconductor-based synthetic DNA manufacturing process featuring a high-throughput silicon platform capable of producing a diverse offering of DNA-based products and solutions. By synthesizing DNA on silicon instead of on traditional 96-well plastic plates, this platform overcomes the current inefficiencies of synthetic DNA production and enables cost-effective, rapid, high-quality, and high-throughput DNA synthesis to accelerate research and development.

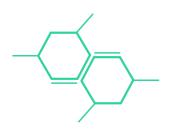
Twist Bioscience's technology uses the same chemical and molecular biology reagents as the conventional approach to synthesizing DNA, but miniaturizes the reaction volumes by orders of magnitude. This results in lower reagent costs, a higher number of genes synthesized in parallel and at greater speed than when using conventional microtiter plates. As a result, researchers can purchase very large quantities of clonally perfect genes, at speeds up to two times faster than traditional methods of gene synthesis

Our Customers Use Our Products & Solutions for Many Applications



MEDICINE

Synthetic DNA is a critical component in the development and production of biologics and antibody drugs. It is also integral to the emerging discovery of new natural products following the deep sequencing of environmental microbiomes, and to the inexpensive enzymatic synthesis of chemical entities. Also, the realization of personalized medicine will require individualized synthetic DNA to potentially correct genetic mutations discovered through next-generation sequencing diagnostics, possibly through CRISPR or other genome editing technologies.



INDUSTRIAL CHEMICALS

The production of chemicals is shifting to bioprocesses that use atmospheric carbon dioxide (CO₂) as the source of carbon instead of petroleum. By introducing synthetic DNA into the genes of yeast, bacteria and algae, the natural process of sugar fermentation can be harnessed to produce any chemical, e.g. nylon used in carpet, rubber used in tires, plastics used in everyday life. In addition to a net reduction in atmospheric carbon that promotes sustainability, the cost of production decreases when compared to oil-based products. Also, new high-value chemicals not accessible through petroleum-based chemistry can be manufactured through synthetic DNA, e.g. synthetic silk, cosmetics and advanced materials.

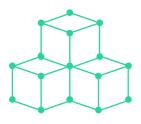


AGRICULTURAL-BIOTECHNOLOGY

The security of the worldwide food supply requires the engineering of crops resistant to evolving pests, adapted to more extreme drought and flood conditions, and cheaper to grow by eliminating the need for fertilizers. Current and emerging genetic modification technologies use synthetic DNA to add traits to plants and the microbes living synergistically with them. Additional advancement now allows for the ability to add multiple traits at once, also known as trait stacking.

Pursuing Vertical Market Opportunities

Building on its core gene synthesis business, Twist Bioscience intends to build out vertical market opportunities in drug discovery and development as well as DNA digital data storage.



STORING DIGITAL DATA ON DNA: NATURE'S WAY

The amount of digital data worldwide is forecast to grow to over 16 zettabytes (1 zettabyte = 10²¹ bytes) in 2017. While the demand for digital data continues to grow exponentially, the supply is becoming more and more limiting even accounting for future technology improvements. A large fraction of the data created is in archival form – where durability and density is paramount.

Twist is leveraging its breakthrough DNA synthesis technology to store digital data on DNA. Currently a \$10 to \$15 billion market, DNA provides several benefits over current storage methods: **permanence** – DNA is stable for thousands of years; **density** – all the world's digital data could be stored in one shoebox of DNA; **low energy requirements** – current facilities require significant energy to preserve data; **universal format** – DNA is composed of four bases, which will be true for all time. Twist also has a non-exclusive collaboration with Microsoft and the University of Washington that has demonstrated the feasibility and benefits of DNA as storage media.



DRUG DISCOVERY AND DEVELOPMENT

In drug discovery, there is an opportunity to improve the process of antibody optimization to identify the best antibody or series of antibodies for a specific disease treatment. Current methods of drug discovery are based on the creation and screening of randomly created antibody libraries that do not follow the rules of the human repertoire and do not explore the sequence space rationally, analogous to looking for a needle in a haystack, resulting in long and costly timelines. By designing and building precise libraries of antibodies that follow the rules of the human repertoire and explore the sequence space rationally, analogous to stacks of needles, Twist Bioscience's synthetic DNA is accelerating the process of antibody discovery, optimization and humanization, thus minimizing time and maximizing discovery output.

Team & Investors

Institutional, Strategic, Venture And High Net Worth Investors

Twist Bioscience has raised approximately \$200 million in capital since its founding in 2013, bringing together top life science VC investors (ARCH Venture Partners, Paladin Capital Group, Biomatics Capital, others), strategic companies (Illumina, Applied Materials, WuXi Healthcare Ventures, others), high-net-worth individuals (Nick and Joby Pritzker through their family's fund Tao Invest, Yuri Milner, others) and cross-over investors (Fidelity Management and Research Company, Cormorant Asset Management LLC, Foresite Capital Management LLC).

MANAGEMENT TEAM

Emily Leproust, PhD

Chief Executive Officer

Bill Peck, PhD

Chief Technology Officer

Bill Banyai, PhD

Chief Operating Officer

Solange Glaize

Chief Financial Officer

Mark Daniels

Chief Ethics and Compliance Officer and General Counsel

Patrick Weiss

Senior Vice President of Operations

Patrick Finn, PhD

Vice President of Sales and Marketing

Paula Green

Vice President of Human Resources

Logo Guidelines

LOGO GUIDELINES I PRIMARY LOGO

To ensure accurate and consistent use, never alter, embellish, rotate, or attempt to recreate the Twist logo. Whenever possible use the primary logo. In stances where the primary logo does not fit or is not legible the "T" icon or vertical logo may be used sparingly.

The preferred format is the slate background, but it's expected that there will be occasions when a white background is more fitting.

PRIMARY LOGO





TICON







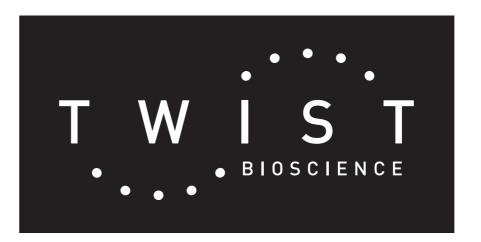
LOGO GUIDELINES I B&W / SINGLE COLOR

It is preferred to always use the full color logo, in instances where full color is not an option, the logo should be black or white (never greyscale).

EXAMPLE SCENARIOS

- package labeling
- trade show giveaways
- clothing
- sponsorships logo piles

BLACK & WHITE





COLORED BACKGROUND



The logo must always be full color or black / white.



LOGO GUIDELINES I MISUSE

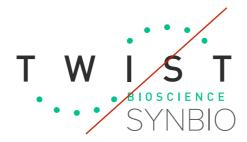
Except for size, the logo should not be changed in any way when reproduced. This includes changes in color, adding effects or scaling non-proportionally.



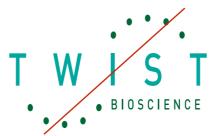
Do not make the logo greyscale



Do not overlay on a busy background



Do not add additional text



Do not deform original shape and color

Photography

PHOTOGRAPHY I FOUNDERS





Emily Leproust, PhD
Chief Executive Officer

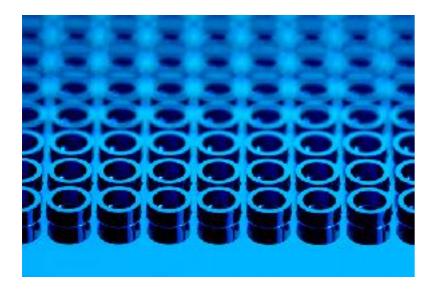


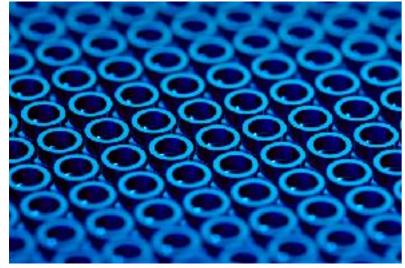
Bill Peck, PhD
Chief Technology Officer

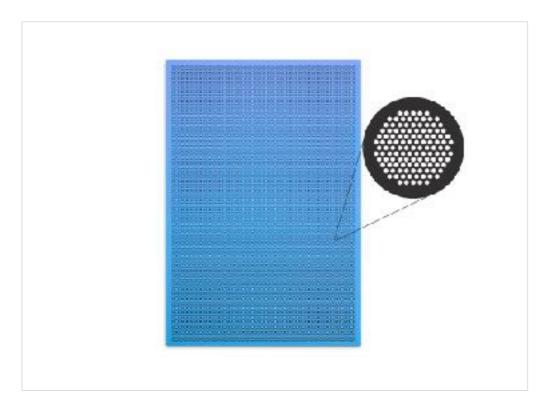


Bill Banyai, PhDChief Operating Office

PHOTOGRAPHY I SILICON PLATE









PHOTOGRAPHY I LAB









Contact Us

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