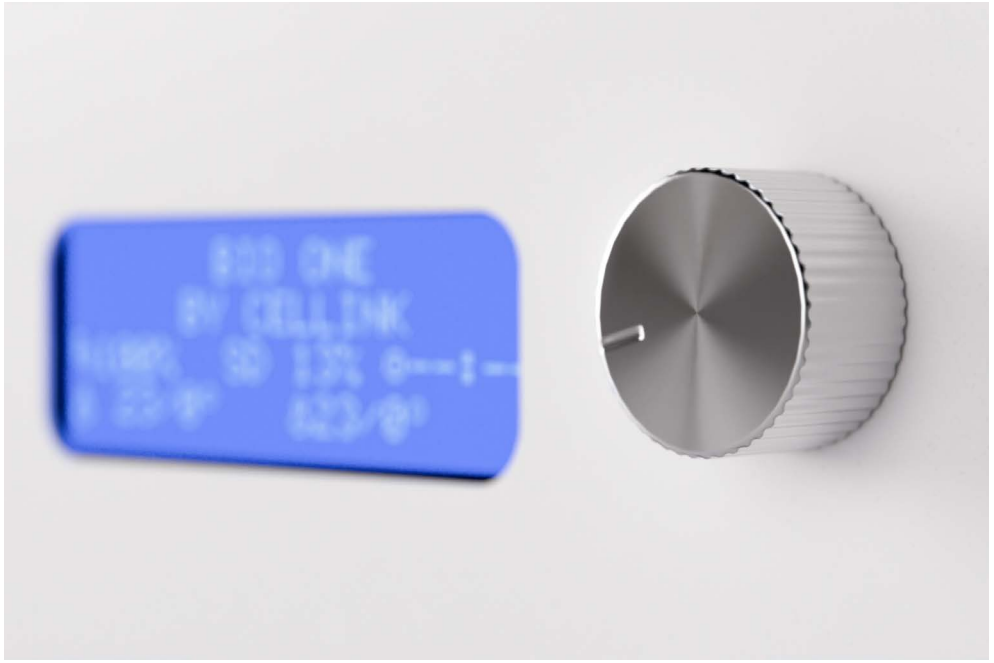
BIO ONE

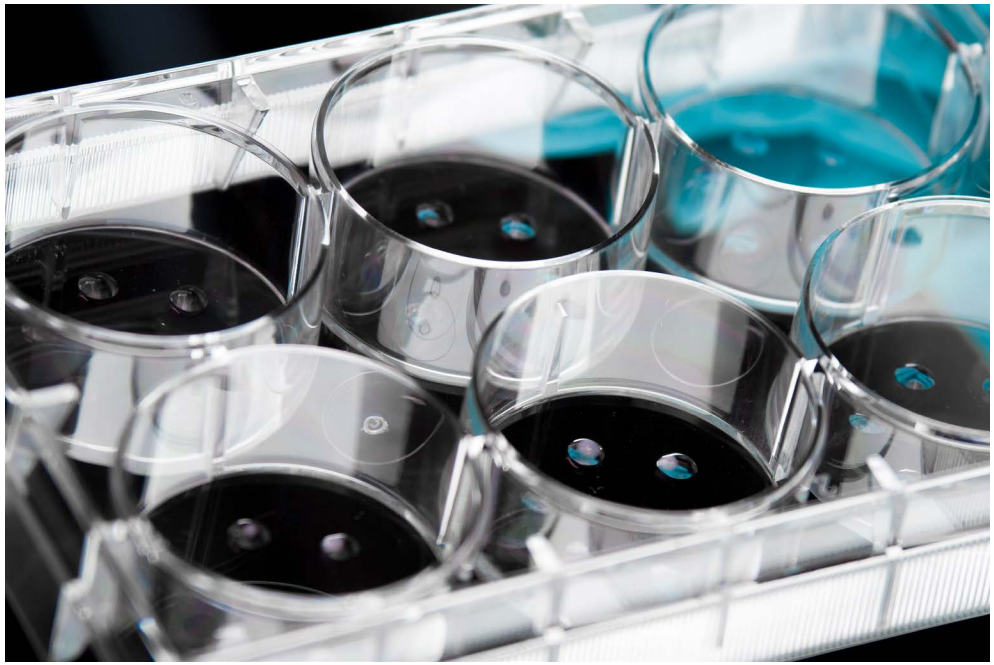
Unlock the world
of 3D cell culture

CELLINK
A BICO COMPANY

Embark on a journey of scientific innovation with 3D bioprinting

Traditional methods like 2D cell culture or animal experiments have their limitations, leading to a growing need for more precise *in vitro* models in the field of life sciences. 3D bioprinting is a technology that empowers researchers to construct more physiologically relevant models, all while reducing costs and ensuring the delivery of more accurate data.



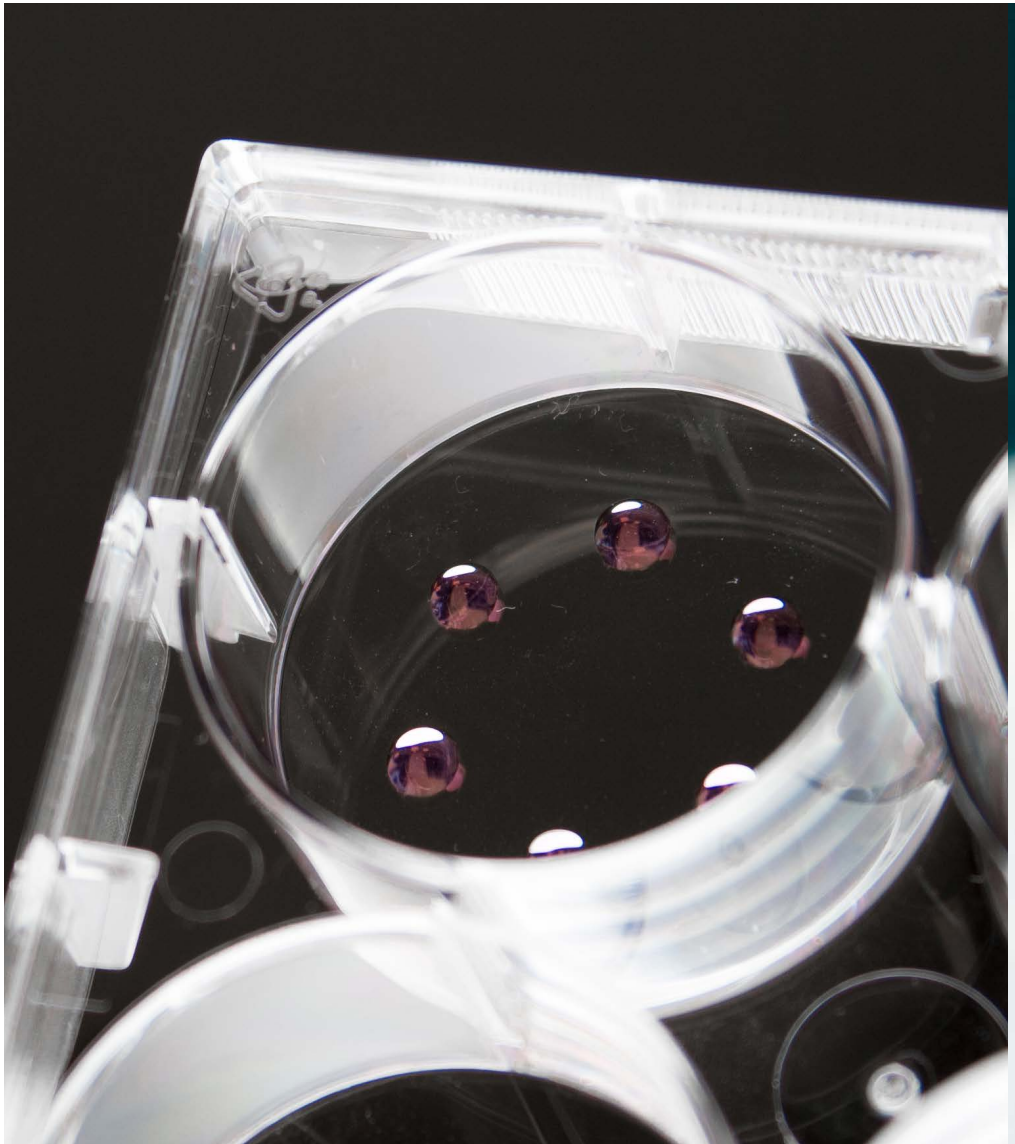


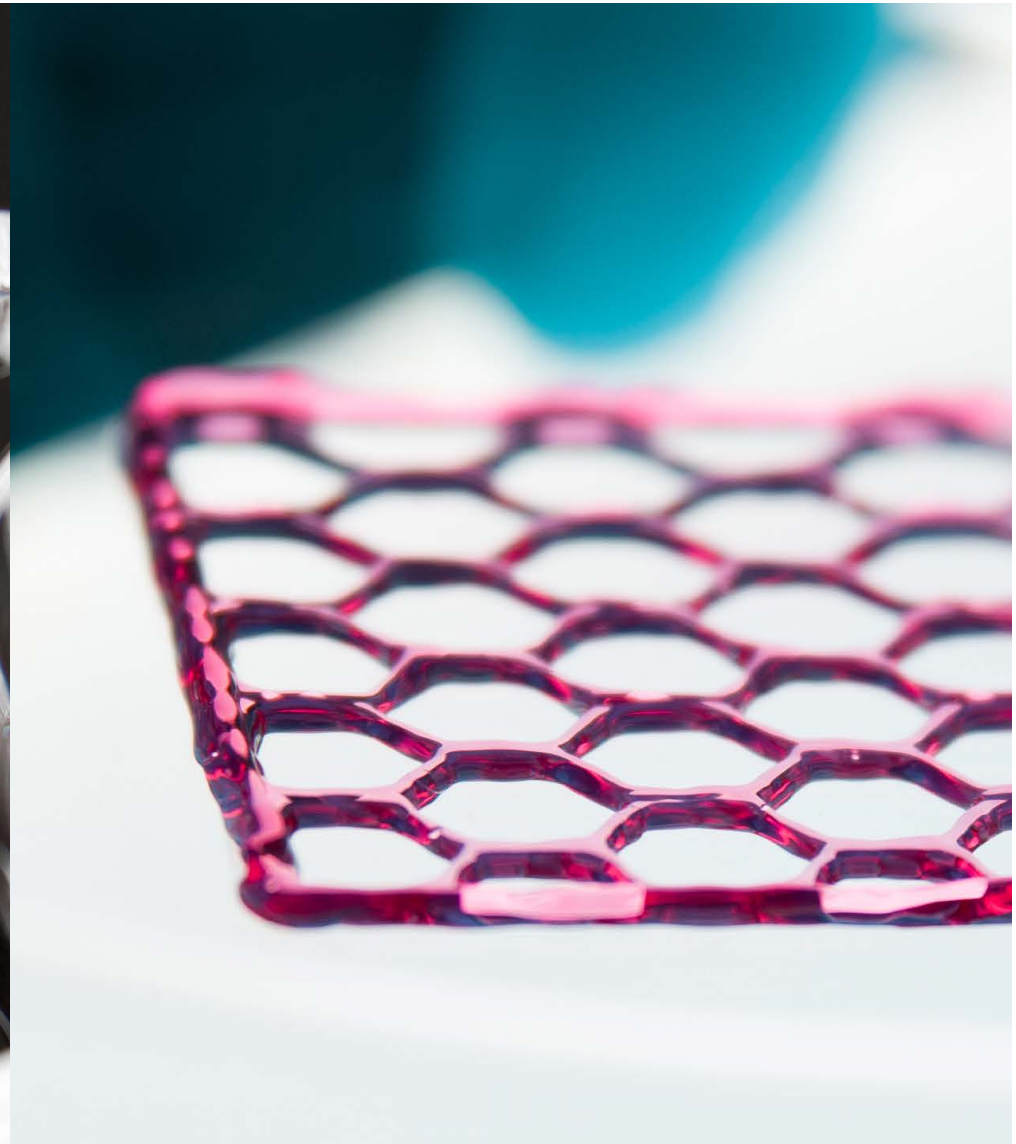
Unlock the world of 3D cell culture with BIO ONE

With exceptional cooling capabilities, precision syringe-based extrusion and an intuitive, easy-to-use desktop software in DNA Studio Core, the BIO ONE brings a new level of ease in the transition to 3D cell culture. Designed for printing temperature-sensitive materials like collagen, the BIO ONE enables scientists to develop 3D models that replicate *in vivo* environments, contributing to accelerated discoveries.

Construct flexibility

Robust, reliable, and small enough to fit in your biosafety cabinet or on the benchtop, the BIO ONE is perfect for printing droplets, droplet arrays and lattices, allowing easy production of organoids, spheroids and tissue constructs to accelerate your research.





Eliminate the barriers to 3D cell culture with these essential features

COOLING CAPABILITIES

Rapidly cool the BIO ONE printhead down to 0 °C and maintain the temperature throughout the print. With a novel design, ensure temperature stability till the tip of the nozzle from start to finish.

MATERIAL FLEXIBILITY

The BIO ONE is designed to be an open material platform, meaning that users can load any material into a syringe and dispense it, including temperature sensitive materials like collagen.

PRECISION EXTRUSION

Enable total control over your print with the high-precision mechanical extrusion of the BIO ONE. The mechanism boasts an impressive 0.1 µL volume step.

HEATED PRINTBED

Extend construct stability and cell viability for heat-responsive materials through thermal crosslinking, using the built-in printbed heating ranging from RT – 65 °C.

MAXIMIZED REPRODUCIBILITY

Enable highly reproducible structures with limited print-to-print variation and human error, by leveraging both the precision extrusion and saved protocols in the software.

POWERED BY DNA STUDIO

Powered by DNA Studio Core, the BIO ONE has ease-of-use as its core principle, which makes it easier than ever to enter the world of 3D cell culture.

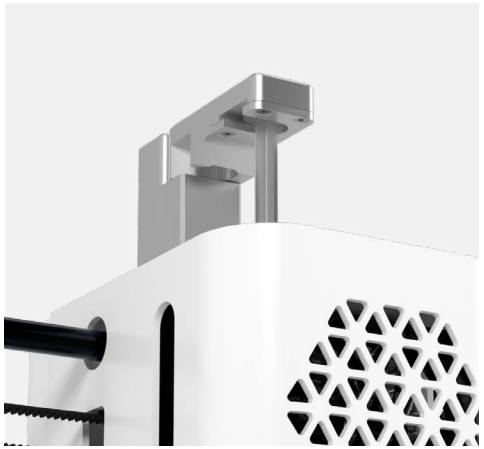
PRECISION IN EVERY PRINT

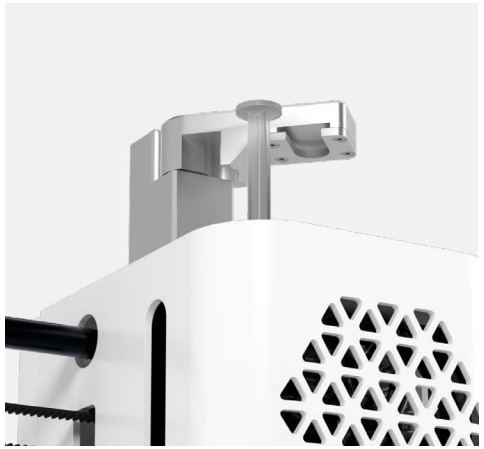
The BIO ONE Printhead

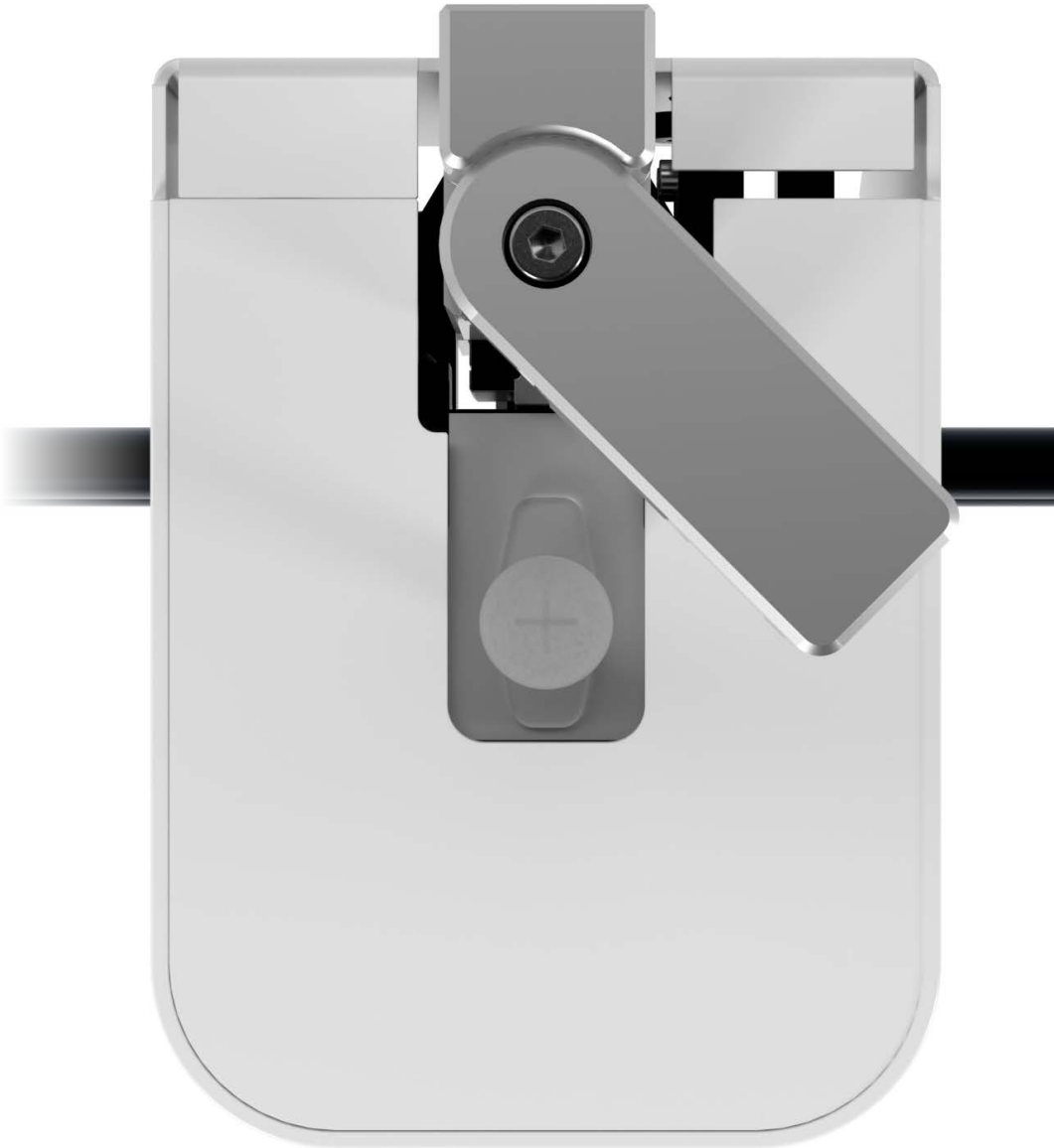
Combining the syringe-based mechanism with tight temperature control, the BIO ONE printhead ensures high precision in printing. The technology enables not only accurate printing of both low and high viscous materials, but it also maintains consistent flow rates of temperature sensitive materials, ensuring consistency across every print.

The motor's rapid and precise control features an impressive 0.1 µL volume step, allowing you to decide the exact volume deposited into the well-plate or petri dish.

The autocalibration capabilities of the instrument enable increased workflow efficiency and walkaway capabilities once the prints are defined.







DNA STUDIO **CORE**

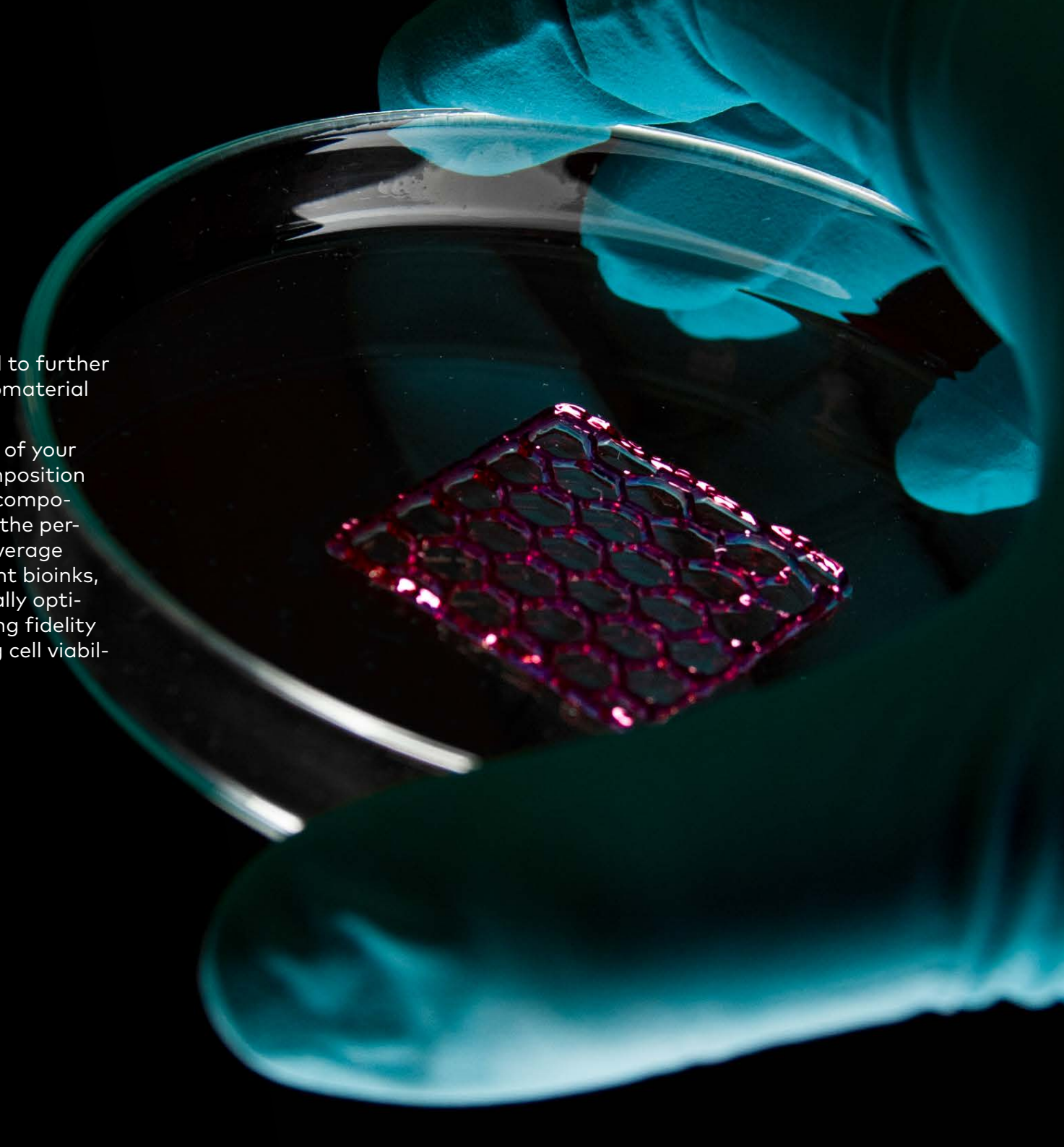
Powered by DNA STUDIO CORE

With DNA Studio Core, users have an easy-to-use desktop software, which guides them through the entire bioprinting journey.

FEATURE HIGHLIGHTS

- Multiple printing modes facilitating droplet or 3D construct printing
- Compatible with multiple file types
- User-friendly UI for an intuitive experience

Bioinks and Biomaterials



AN OPEN MATERIAL PLATFORM

BIO ONE is built from the ground up with flexibility in mind, with the intent that users can add any biomaterial and dispense it. This is achieved through DNA Studio Core, where users can easily modify printing parameters like retraction volume and extrusion rate. Couple this with printhead cooling capabilities and a heated printbed to further the system's biomaterial flexibility.

Take full control of your biomaterial composition with our bioink components and build the perfect bioink or leverage our ready to print bioinks, which are specially optimized for printing fidelity and maintaining cell viability.

Explore CELLINK's biomaterial portfolio.

Unlock the advantages of 3D cell culture and reap the benefits of reproducibility for greater insights across applications

01. TISSUE ENGINEERING

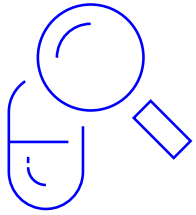
Engineering tissue models

Bioprinting has become an essential tool in tissue engineering. With its user-friendly interface, BIO ONE is the ideal stepping stone to start creating 3D tissue models. Easily develop tissue models like skin and cartilage to study regenerative properties or develop alternatives to animals for cosmetic testing.

02. MATERIAL SCIENCE

Developing the next generation of biomaterials

The open platform of BIO ONE allows users to freely develop and readily use their own materials, without any workarounds or fees. Relying on non-proprietary syringes and nozzles, it is possible to print with any bioink. The software allows fine tuning of various printing parameters, including volume and flow, which means you can create protocols of your choice. This ensures the system can be used in multiple areas of material sciences, from bioink development and soft robotics to smart materials.



03. DRUG DISCOVERY

Accelerating the drug discovery process

With compatibility for printing on up to 384-well plates, BIO ONE enables researchers within the field of drug discovery to easily increase the number of replicates and gain a more accurate understanding of compound activity. This accelerates drug discovery processes by ensuring only the best candidates are carried along to clinical trials. Simply print an array of droplets to investigate drug delivery in easily reproducible *in vitro* models.

Join the ever-expanding community of scientists embracing 3D bioprinting for transformative breakthroughs in biomedical research.

"Having access to their amazing products and exceptional service has been helpful, and we want to continue the relationship with CELLINK."

– **CARCINOTECH,** UK

"We have a lot of fun working with CELLINK. We've presented them with problems, and they've worked with us to fix them, like a collaboration."

– **RONAWK,** USA

"Although the technology is an easy-to-use, plug-and-play, the real value is in the CELLINK team's support and expertise."

– **DR. JOSHUA CHOU,** UNIVERSITY OF TECHNOLOGY SYDNEY, AUSTRALIA

"The access to a bioprinter has allowed us to ask more interesting research questions, and has enabled us to be able to do our current research."

– **DR. DANIEL AILI,** LINKÖPING UNIVERSITY, SWEDEN

Choosing CELLINK as your bioprinting partner

CELLINK's global team of application specialists are ready to provide support when you need it. With multiple support packages available to meet your needs, rest assured you are not alone on this journey. A member of our team can reach out within hours of recieving your request. We are happy to work by phone, over email, through video chat and on-site to perform installations, repairs and preventive maintenance or application support.

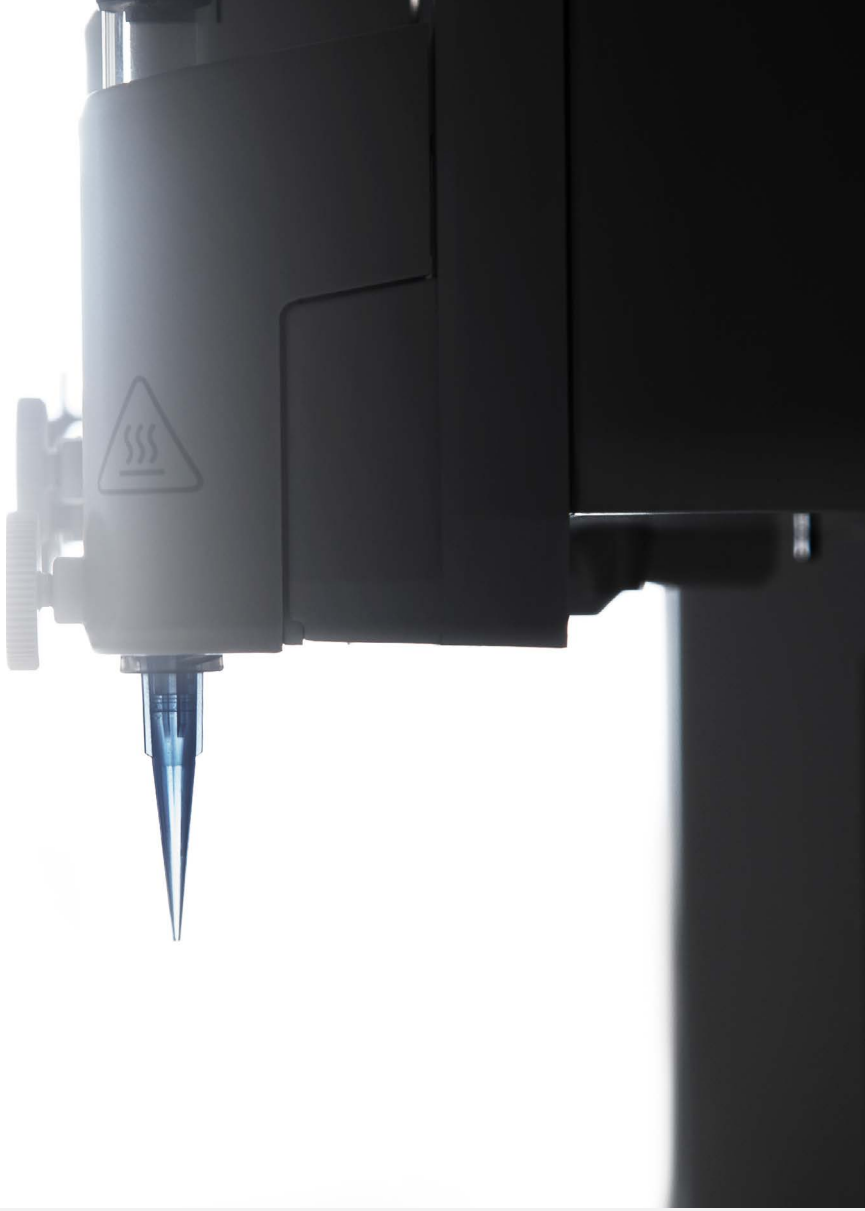
CELLINK

Unrivaled portfolio for your research needs

As the bioprinting leader, we take pride in providing the most extensive portfolio of bioprinting solutions to meet the diverse needs of laboratories worldwide. Our portfolio of light-based and extrusion-based bioprinters and biodispensers, is designed to cater to a spectrum of needs, ensuring that you have the right tools to achieve your project's goals.

Whether you are a newcomer to bioprinting and looking to produce simple and straightforward models or if you are advancing into high throughput or complex model printing, we have the solution for you.

Explore our diverse range of bioprinters and revolutionize your research.



Learn more on how the BIO ONE can support your research.

Application note

Technical specifications

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