

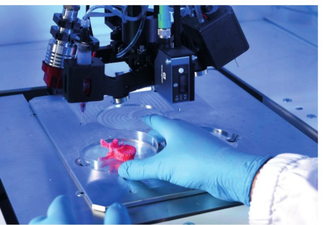
BU1 · MEDICAL 3D PRINTING SERVICES

Patient-specific 3D anatomical models for better clinical decisions and patient outcomes

BU2 · ADVANCED BIOPRINTING SYSTEMS

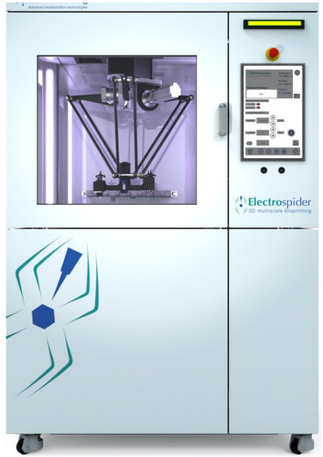
Multimaterial and multiscale bioprinting for tissue engineering research











Bio3DPrinting

Headquarters & Production – Barberino Tavarnelle

Via Signorelli, 6/8 – Loc. Sambuca
50028 Barberino Tavarnelle (FI), Italy
Tel. +39 055 0354536

R&D Site – Navacchio

Polo Tecnologico di Navacchio
Via Mario Giuntini, 190
56023 Navacchio (PI), Italy

www.bio3dprinting.it

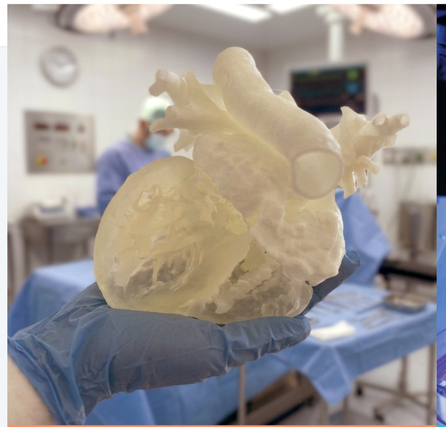
info@bio3dprinting.com

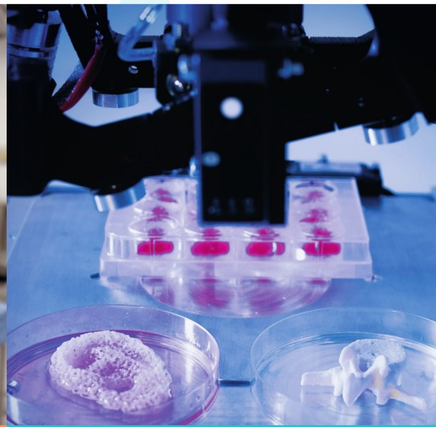
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Bio3DPrinting

Shaping the future of medicine, layer by layer.





BUSINESS UNIT 1

Medical 3D Printing Services

BUSINESS UNIT 2

Advanced Bioprinting Systems

University of Pisa spin-off · ISO 13485

ABOUT US

Two business units. One mission.

As a spin-off of the University of Pisa and part of SolidWorld Group, Bio3DPrinting operates through two highly specialized Business Units (BUs), designed to address both current clinical and surgical demands and the frontiers of translational biomedical research:

BU1 – Medical 3D Printing Services: production of high-fidelity, patient-specific 3D-printed anatomical models with realistic tissue response, leveraging advanced Stratasys technologies as an authorized and certified reseller and Stratasys Certified Healthcare Specialist.

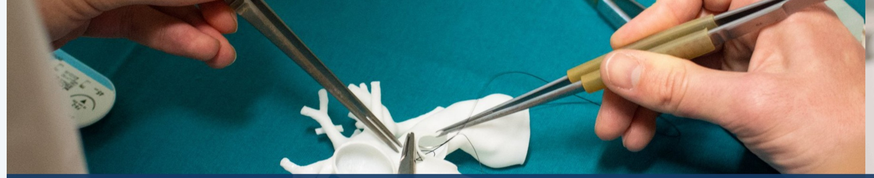
BU2 – Advanced Bioprinting Systems: backed by 15+ years of pioneering academic research, this unit is dedicated to the development and global commercialization of Electrospider, our proprietary, cutting-edge multiscale and multimaterial bioprinting ecosystem.

ISO 13485

Quality, safety & compliance. We operate under an ISO 13485-certified quality system, ensuring reliability, full traceability and regulatory compliance of our products and processes.

Business Unit Comparison Matrix

	BU1 – Medical 3D Printing Services	BU2 – Advanced Bioprinting Systems
Business focus	Patient-specific, high-fidelity 3D-printed anatomical models	Electrospider – Multiscale and Multimaterial Bioprinting Ecosystem (Proprietary).
What it's for	Patient-specific, 3D-printed anatomical models designed to support complex clinical decision-making, surgical planning, hands-on training, and medical device testing.	Research applications in tissue engineering, regenerative medicine, and biomedical research.
Services offered	We manage the complete workflow – from DICOM image segmentation to the manufacturing of 3D anatomical models using Stratasys technologies (certified reseller).	Development and sale of Electrospider, plus end-to-end services: scaffold design, printability studies, protocol optimization and R&D contract manufacturing.
Regulatory status	Custom-made or patient-matched 3D-printed anatomical models on the European market as CE-compliant medical devices under the EU MDR (Regulation (EU) 2017/745).	Research Use Only (RUO) – A bioprinting platform for advanced research in tissue engineering and regenerative medicine.
Target audience	Hospitals and private clinics, universities, clinical training centers, usability and forensic medicine labs.	Research institutes, universities, pharma labs, biomaterial scientists, CROs, R&D-driven companies.



BUSINESS UNIT 1

Medical 3D Printing Services

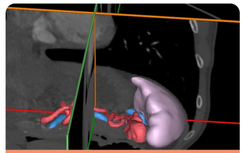
Making patient-specific 3D anatomical models a standard of care, for better clinical decisions and patient outcomes.

What we offer

High-fidelity 3D anatomical printing services: we transform clinical imaging data (standard DICOM datasets from CT and MRI) into highly accurate, patient-specific 3D-printed anatomical models using advanced Stratasys technologies. Where applicable, these models are developed and manufactured in compliance with the EU MDR (2017/745) and placed on the market as CE-marked medical devices.

Medical 3D printing solutions: authorized and certified Stratasys 3D printing technologies, hardware and solutions tailored for advanced medical applications.

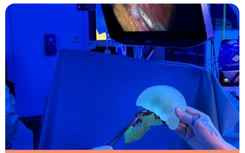
From scan to surgery



01 CT / MRI Data Segmentation



02 Multimaterial PolyJet model



03 In the operating room

Target applications

Patient-specific 3D-printed anatomical models support the entire clinical pathway, from diagnosis and surgical planning to training, patient communication and device testing, helping clinicians act with greater confidence and precision.

Diagnosis & clinical decisions
3D evaluation of complex or pathological anatomy

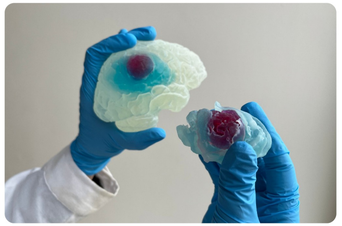
Surgical planning (pre- & intra-operative)
Optimize strategy, cut operating time and risk

Medical education & training
Hands-on practice and clinical skill development

Patient communication & engagement
Tactile aids for a clearer informed consent

Clinical & medico-legal documentation
A physical record of the patient's anatomy

Usability & medical device testing
An ethical alternative to cadaver labs



OTHER SERVICES

Authorized and certified reseller of Stratasys 3D printers and materials.



BUSINESS UNIT 2

Advanced Bioprinting Systems

Bridging research and real-world applications, from the lab to clinical reality.

What we offer

Electrospider: the multimaterial and multiscale bioprinting ecosystem

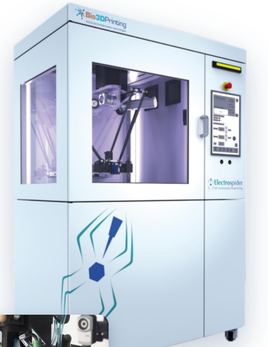
Our proprietary bioprinting ecosystem, engineered to reproduce the structural complexity of native biological tissues.

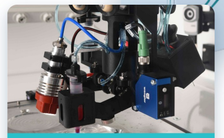
5 technologies, 1 multitool printhead: electrospinning plus four pneumatic extrusion modes (thermosensitive, thermoplastic, photocrosslinkable, standard hydrogels/pastes), used alone or combined.

Nano-to-macro resolution: continuous multimaterial deposition from nanometers to millimeters, in a single construct.

Integrated hardware & software: a modular bioprinting ecosystem to design and fabricate heterogeneous, hierarchical 3D biological constructs.

Reproducible & scalable: standardized workflows that carry your research from the lab toward translational and clinical applications.





Multitool printhead

Electrospider
3D multiscale bioprinting

Target applications

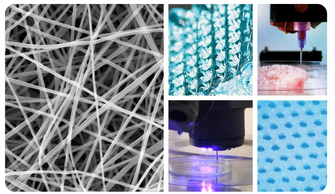
Electrospider enables a broad range of advanced applications in tissue engineering, biomaterials research, and translational medicine. Its multiscale, multimaterial capabilities support the development of complex biological models and experimental platforms across different stages of biomedical research.

Medical research & disease modeling
Human-relevant multiscale tissue models, beyond 2D cultures

Pharma & cosmetics testing
Drug & toxicity testing (FDA Modernization Act 2.0, 3Rs)

Personalized medicine (early-stage R&D)
Patient-specific in vitro models, e.g. personalized oncology

Biomaterial development for Bioprinting
A versatile testbed for novel hydrogels, bioinks, and biopolymers



R&D AND SCIENTIFIC SERVICES

Scaffold design, biofabrication & characterization · Bioink printability studies · Protocol development & standardization.