

Spanish bioengineering start up company offers its 3D tissue printing technology solution for partners willing to collaborate under commercial with technical assistance , research cooperation or investment agreements.

Summary

Profile type	Company's country	POD reference
Technology offer	Spain	TOES20250619010
Profile status	Type of partnership	Targeted countries
PUBLISHED	Investment agreement Commercial agreement with technical assistance Research and development cooperation agreement	• Brazil • United States • Spain • Colombia • Venezuela • Germany • Mexico
Contact Person	Term of validity	Last update
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General Information

Short summary

Spanish bioengineering deeptech company has already developed a new 3D tissue printing system designed for research and prototyping in regenerative medicine, tissue engineering and in vitro testing. Compatible with a wide range of materials and supporting modular upgrades and customization. Company offers its system for researchers and innovators willing to collaborate under r&d , investment or commercial with technical assistance agreements.

Full description

As an SME based in Spain, active in the field of biofabrication technologies and biomedical engineering. The organisation develops and manufactures tools, materials, and services to support research and innovation in tissue engineering, regenerative medicine, and advanced in vitro testing.

The business offer includes an integrated platform for 3D tissue printing, consisting of the following components:

- A cost-effective, high-performance 3D bioprinter suitable for laboratory use. This device operates with an open and modular architecture, allowing full user control of printing parameters and compatibility with a wide range of biomaterials and CAD software. It is designed for printing complex biological structures, including soft tissue scaffolds, organotypic models, and cellular constructs.
- A portfolio of customizable bioinks, developed in-house to meet different cell compatibility, viscosity, and gelation needs. These materials are suitable for applications such as soft tissue reconstruction, organoid culture, drug screening models, and neural tissue studies.
- Biofunctionalized scaffolds, either ready-to-use or developed in collaboration with clients, incorporating biologically active components (e.g., peptides, proteins, microchannels) or material gradients to mimic the complexity of native tissues.
- Technical assistance, including installation support, calibration guidance, and user training, enabling partners to integrate the system into existing workflows.
- A custom R&D service, which includes co-development of new bioinks or scaffolds, protocol optimization, and adaptation of hardware for specific applications in life sciences, biotechnology, or biomedical research.

Company offers appointments at academic laboratories, biotech startups, pharmaceutical companies, and healthcare innovation hubs seeking an accessible and flexible entry into the field of 3D bioprinting and personalized tissue engineering.

Company's team combines expertise in biomedical engineering, material science, microbiology, and mechanical design. The company has experience in prototyping, iterative development, and customization of bioprinters and biomaterials for both research and preclinical applications. Their interdisciplinary background allows them to collaborate efficiently on tailored biofabrication solutions.

The proposed international cooperation is expected to take the following forms:

- Commercial agreement with technical assistance: to support distribution and deployment of the bioprinter system and related materials in laboratory environments. The client will provide technical support to adapt the product to the local research context, including material sourcing, language adaptation of user interfaces, and bioink formulation.
- Research cooperation agreement: to jointly develop advanced applications in tissue modeling, scaffold functionalization, or novel bioinks. The SME is prepared to co-author research outputs, co-apply for collaborative funding, or participate in joint research infrastructures.
- Strategic partnership or investment cooperation: to scale up production, expand into regulated clinical or industrial markets, and develop next-generation bioprinters with enhanced automation and functionality.

These cooperation types have been selected to allow flexibility depending on the partner's capabilities, strategic focus, and maturity level. The client seeks partnerships that can enable technology transfer, expand distribution channels, or co-create innovative biofabrication approaches adapted to regional or sector-specific needs

The client welcomes collaboration with partners located in Germany, France, Spain, and USA, with whom mutual interests in advanced biotechnologies, healthcare R&D, and biomedical instrumentation are anticipated

Advantages and innovations

Company's 3D bioprinter introduces a high-performance, ultra-low-cost platform specifically designed to democratize bioprinting for research labs, startups, and educational institutions. While typical commercial bioprinters range from €10,000 to €200,000, our system delivers comparable core functionality for under €5,000 -without sacrificing precision, reliability, or modularity.

Technological and Economic Advantages:

- Open architecture allows full user customization of software and hardware, facilitating integration with existing lab protocols and upgrades.
- Plug-and-play cartridge system supports multiple bioinks, including temperature-sensitive and cell-laden materials, without requiring proprietary consumables.
- Precision mechanics and resolution on par with mid-range printers (>100 µm) at a fraction of the cost.
- Rapid ROI: users save 80–95% on upfront costs and maintenance compared to established brands, making this printer a compelling tool for low-budget innovation.

Benchmarking vs Competitors:

Compared to main market players company's printer eliminates costly hardware-lock ecosystems and licensing fees. Where competitors emphasize premium packages with locked parameters, our system prioritizes open control, continuous learning, and experimentation—critical for early-stage R&D.

Competitive Advantages:

- Ease of use: simplified user interface for non-engineers; no specialized training required.
- Flexible operation: accepts third-party bioinks and G-code input, increasing accessibility and reducing consumable costs.
- No vendor lock-in: users maintain full control over printing parameters and consumables.
- Technology stack: compatible with standard lab tools, CAD software, and imaging systems.
- Developed by researchers for researchers, based on iterative field testing, not marketing priorities.

This product lowers the barrier to entry in bioprinting and enables broader participation in tissue engineering, biosensing, and regenerative medicine.

Technical specification or expertise sought

Partners working on innovations in fields related to regenerative medicine, tissue engineering, and advanced in vitro testing, with knowledge and experience of techniques, materials and components are sought for co-developments, distribution and scaling up the system to industrial production stages.

Stage of development

Available for demonstration

Sustainable Development goals

- **Goal 3: Good Health and Well-being**
- **Goal 9: Industry, Innovation and Infrastructure**

IPR Status

IPR applied but not yet granted

IPR Notes

IPR Notes

Partner Sought

Expected role of the partner

Regarding the flexible cooperation types of partnership offered, expected roles are:

- Commercial agreement with technical assistance – partner should contribute in distribution or deployment in clinical/industrial research settings.
- Research cooperation agreement – partner collaboration is meant for co-developments regarding joint bioink/scaffold development or in vitro disease modeling, or further involvement in technical activities for co-design of printer modules, cartridges, or bioreactors.
- Investment or strategic partnership – partner role should be to contribute to the scale production stage and/or to expand the system solution technology into regulated markets.

Type of partnership

Investment agreement

Commercial agreement with technical assistance

Research and development cooperation agreement

Type and size of the partner

- **SME 50 - 249**
- **Other**
- **Big company**
- **SME 11-49**
- **R&D Institution**

Dissemination

Technology keywords

- **06002007 - In vitro Testing, Trials**
- **06001013 - Medical Technology / Biomedical Engineering**
- **06001012 - Medical Research**
- **06002002 - Cellular and Molecular Biology**

Market keywords

- **02002008 - 3D**
- **04017 - Micro- and Nanotechnology related to Biological sciences**
- **03007003 - Other analytical and scientific instrumentation**
- **05004004 - Medical instruments**
- **05004005 - Diagnostic equipment**

Targeted countries

- **Brazil**
- **United States**
- **Spain**
- **Colombia**
- **Venezuela**
- **Germany**
- **Mexico**

Sector groups involved

- **Health**