

CV Date	12/01/2024
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Part A. PERSONAL INFORMATION

First name *	Javier		
Family name *	Ramón Azcón		
Sex *	Male	Date of Birth *	28/09/1978
ID number Social Security, Passport *	46709928	Phone Number *	(+34) 934 039 735 - 39735
URL web	https://ibecbarcelona.eu/es/research-groups/biosensors-for-bioengineering/		
Email Address	jramon@ibecbarcelona.eu		
Researcher´s identification number	Open Researcher and Contributor ID (ORCID) *	0000-0002-3636-8013	
	Researcher ID	A-2439-2014	
	Scopus Author ID	14520678200	

* Mandatory

A.1. Current position

Job Title	ICREA professor		
Starting date	April 2020		
Institution	Institute for Bioengineering of Catalonia (IBEC)		
Department/Center	Biosensors for Bioengineering (B4b)		
Country	Spain	Phone Number	(+34) 934 039 735 - 39735
Keywords	Use of biochemical, microbiological and biological tools; Biosensors; Electrochemistry; Potentiometric; Voltammetric; Nanotechnology; Flow techniques; Gas chromatography (fid, ecd, ms, etc); Liquid chromatography (uv, luminiscence, ms, electrochemical, etc); Sample screenings; Peptides and proteins; Enzymatic reactions; Total synthesis; Biomaterials; Cell culture; Tissue culture		

A.2. Previous positions

Period	Job Title / Name of Employer / Country
01-01-2017 now	Junior Group Leader Institute for Bioengineering of Catalonia (IBEC), Barcelona, Spain
01-01-2016 31-12-2019	Ramon y Cajal fellow Institute for Bioengineering of Catalonia (IBEC), Barcelona, Spain
01-04-2013 31-06-2014	Assistant Professor Advanced Institute of Materials Research (WPI-AIMR) Tohoku University, Sendai, Japan
01-03-2011 31-03-2013	Associate Researcher Advanced Institute of Materials Research (WPI-AIMR) Tohoku University, Sendai, Japan

01-04-2009 31-02-2011	JSPS Postdoctoral Research Fellow Graduate School of Material Science, University of Hyogo, Hyogo, Japan
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A.3. Education

Degree/Master/PhD	University / Country	Year
Ph.D. In Organic Chemistry	Universitat de Barcelona Spain	2008
M.S. In Biochemistry	Instituto de Química Avanzada de Cataluña (CSIC) Spain	2004
B.S. in Organic Chemistry	Universitat de Barcelona Spain	2002

A.4. General quality indicators of scientific production

Professor Ramon has been occupying the role of Group Leader at the Institute of Bioengineering of Catalonia (IBEC) in Barcelona, Spain, since 2017. Since 2019, he has also been serving as an ICREA professor. Leading the "Biosensors for Bioengineering" group, Professor Ramon focuses on amalgamating sensor technology and nanotechnology with tissue engineering to advance the development of organs-on-a-chip (OOC) platforms. The team under his guidance consists of 18 members with diverse backgrounds, including industrial engineers, biotechnologists, and biologists. This group encompasses 1 senior researcher, 5 postdocs, 6 PhD students, 2 specialized technicians, 3 master's students, and 1 visiting researcher.

One noteworthy project led by Professor Ramon is the ERC starting grant project "DAMOC." This initiative aims to overcome limitations in the OOC field using a revolutionary technological approach, concentrating on engineering tissues in a multi-organ-on-a-chip platform to mimic the physiological characteristics of in vivo tissues. Another significant project, "TATAMI," funded by Fundación Bancaria "La Caixa" – CaixaHealth program, focuses on developing biomedical models for muscular dystrophies to comprehend molecular pathogenesis, identify therapeutic targets, and discover drugs for these rare and incurable diseases. In total during the period comprise within 2019 and 2023 more than 5 million of euros has been obtained from private and public sources.

Professor Ramon has established national and international collaborations with researchers, clinicians, and companies throughout his career. He secured competitive funding from the Medical Research Council (UK) to study Duchenne's rare disease. Collaborating closely with clinical groups and hospitals such as Hospital de Sant Pau (Barcelona) and Instituto de Investigaciones Clínicas de Valencia (INCLIVA), he and his team develop human microtissues to study the myasthenia gravis neuromuscular rare disease.

In alignment with the translational nature of his research, Professor Ramon is actively involved as the entrepreneurial scientist in a valorization project financed by Producte Call (AGAUR) to bring plasmonic biosensors for Myasthenia Gravis diagnosis to the market. Collaborating with patient associations like "Duchenne Parent Project" and "Asociación Conquistando Escalones," as well as national and international companies, including Arthex biotech, SOM biotech, BI/OND (The Netherlands), and BioEmTech (Greece), Professor Ramon has also initiated collaborations with industry leaders such as Grifols (Spain), Multivawe (Switzerland), Oxford Instrument (UK), and NovoNordisk (Denmark) to develop new technologies with a high impact on clinical diagnosis and drug development. Additionally, Professor Ramon is a co-founder of a spin-off company, Vitala.

He is dedicated to disseminating scientific advances to society by participating in talks organized by patient associations and various activities aimed at high school and undergraduate students. Professor Ramon holds institutional responsibilities as a board member of the Working Committee for The Human Resources Strategy for Researchers (HRS4R) at IBEC. Furthermore, he is a member of the Fellowship Committee and the Symposium Committee at IBEC. Professor Ramon is also responsible for organizing the EUROOCS 2024 conference in Milan and the TERMIS 2026 in Mallorca.

Lastly, Professor Ramon actively contributes as an ad hoc reviewer in high-impact journals such as Biofabrication, Acta Biomaterialia, International Journal of Molecular Sciences, and Journal of Clinical Medicine. As a topical advisory board member at the Biology Journal, he co-organizes the Special Issue: "Clinical Application for Tissue Engineering" as Guest Editor in Biomedicines. Additionally, Professor Ramon is an Editorial Board Member of In Vitro Model Journal (Springer Nature) and an Associate Editor of Analytical Sciences (Japan Society for Analytical Science, Japan). He authorises 108 publications, including scientific manuscripts, book chapters, and full books. Moreover, Professor Ramon serves as an external reviewer for the Exploration competition of the New Frontiers in Research Fund, Canada Research Coordinating Committee (CRCC), Canada; grants Prinses Beatrix Spierfonds, Netherlands; National Science Center, Poland; and various national grants, including Torres Quevedo, Ramon y Cajal, FIS Health Research Projects, and Projects Challenges Research.

Section C. MOST RELEVANT MERITS

Documents: 108 Citations: 3358 total citations h-index: 31
Co-authors: 176 Subject area: Tissue Engineering, Chemistry, Biosensors, Biomaterials

C.1. Publications from 2019

AC: corresponding author. (n° x / n° y): position / total authors.

1. **AC** Manzano-Muñoz, A., Yeste, J., Ortega, M.A., Samitier, J., Ramón-Azcón, J., Montero, J. (2024). A New Microfluidic Device to Facilitate Functional Precision Medicine Assays. In: Siciliano, V., Ceroni, F. (eds) Cancer Immunotherapy. Methods in Molecular Biology, vol 2748. Humana, New York, NY. https://doi.org/10.1007/978-1-0716-3593-3_8
2. **AC** Tejadera-Villafranca, A., Montolio, M., Ramón-Azcón, J., & Fernández-Costa, J. M. (2023). Mimicking sarcolemmal damage in vitro: a contractile 3D model of skeletal muscle for drug testing in Duchenne muscular dystrophy. Biofabrication, 15(4), 045024. <https://doi.org/10.1088/1758-5090/acfb3d>
3. **AC** Fernández-Costa, J. M., Tejadera-Vilafranca, A., Fernández-Garibay, X., & Ramón-Azcón, J. (2023). Muscle-on-a-chip devices: a new era for in vitro modelling of muscular dystrophies. Disease Models & Mechanisms, 16(6), dmm050107. <https://doi.org/10.1242/dmm.050107>
4. **Book Chapter:** Fernández-Costa, J. M., Tejadera-Vilafranca, A., Fernández-Garibay, X., & Ramón-Azcón, J. (2023) 1. Fundamentals and mechanisms. Editors: J. Miguel Oliveira, Rui L. Reis, Sandra Pina. *Multiscale Cell-Biomaterials Interplay in Musculoskeletal Tissue Engineering and Regenerative Medicine*. Elsevier. Hardback ISBN: 9780323918213 eBook ISBN: 9780323972628.
5. **(9/12)** van Aalen, E. A., Rosier, B. J. H. M., Jansen, T., Wouters, S. F. A., Vermathen, R. T., van der Veer, H. J., Yeste Lozano, J., Mughal, S., Fernández-Costa, J. M., Ramón-Azcón, J., den Toonder, J. M. J., & Merx, M. (2023). Integrated Bioluminescent Immunoassays for High-Throughput Sampling and Continuous Monitoring of Cytokines. Analytical Chemistry, 95(23), 8922–8931. <https://doi.org/10.1021/acs.analchem.3c00745>
6. **AC** J. Rodríguez-Comas, C. Castaño, M. A. Ortega, A. Tejadera, M. Fernandez-González, A. Novials, M. Párrizas, J. Ramón-Azcón, Immunoaffinity-Based Microfluidic Platform for

- Exosomal MicroRNA Isolation from Obese and Lean Mouse Plasma. *Adv. Mater. Technol.* 2023, 8, 2300054. <https://doi.org/10.1002/admt.202300054>
7. **Book:** Javier Ramón-Azcón and Artur Rydosz. Human Organs-On-a-chip. *Novel Organ-On-a-chip Techniques in Medicine* (2023). Elsevier. eBook ISBN: 9780443153846
 8. **AC** J. M. Fernández-Costa, M. A. Ortega, J. Rodríguez-Comas, G. Lopez-Muñoz, J. Yeste, L. Mangas-Florencio, M. Fernández-González, E. Martin-Lasierra, A. Tejedera-Villafranca, J. Ramon-Azcon, Training-on-a-Chip: A Multi-Organ Device to Study the Effect of Muscle Exercise on Insulin Secretion in Vitro. *Adv. Mater. Technol.* 2023, 8, 2200873. <https://doi.org/10.1002/admt.202200873>
 9. **(8/11)** Overby SJ, Cerro-Herreros E, Espinosa-Espinosa J, González-Martínez I, Moreno N, Fernández-Costa JM, et al. BlockmiR AONs as Site-Specific Therapeutic MBNL Modulation in Myotonic Dystrophy 2D and 3D Muscle Cells and HSALR Mice. *Pharmaceutics*. 2023; 15(4):1118. <https://doi.org/10.3390/pharmaceutics15041118>
 10. **AC** María J. Ugarte-Orozco, Gerardo A. López-Muñoz, Aurora Antonio-Pérez, Karla M. Esquivel-Ortiz, Javier Ramón-Azcón, High-throughput biointerfaces for direct, label-free, and multiplexed metaplasmonic biosensing, *Current Research in Biotechnology*, 5, 2023, 100119, <https://doi.org/10.1016/j.crbiot.2023.100119>
 11. **(11/20)** Fontcuberta-PiSunyer, M., García-Alamán, A., Prades, È. et al. Direct reprogramming of human fibroblasts into insulin-producing cells using transcription factors. *Commun Biol* 6, 256 (2023). <https://doi.org/10.1038/s42003-023-04627-2>
 12. **AC** Manzano-Muñoz, A., Yeste, J., Ortega, M.A. et al. Microfluidic-based dynamic BH3 profiling predicts anticancer treatment efficacy. *npj Precis. Onc.* 6, 90 (2022). <https://doi.org/10.1038/s41698-022-00333-0>
 13. **AC** Mughal, S, Lopez-Munoz, GA, Fernandez-Costa, JM, Cortes-Resendiz, A, De Chiara, F, Ramon-Azcon, J, (2022). Organs-on-Chips: Trends and Challenges in Advanced Systems Integration *Advanced Materials Interfaces* 9, 2201618. <https://doi.org/10.1002/admi.202201618>
 14. **Book Chapter:** Lopez-Munoz, GA, Mughal, S., Ramón-Azcón, J. (2022) 1. Sensors and Biosensors in Organs-on-a-Chip Platforms Editors: David Caballero, Subhas C. Kundu, Rui L. Reis. *Microfluidics and Biosensors in Cancer Research. Applications in Cancer Modeling and Theranostics*. Elsevier. Hardback ISBN: 9783031040382 eBook ISBN: 9783031040399. <https://doi.org/10.1007/978-3-031-04039-9>
 15. **AC** Chiara, F. de, Ferret-Miñana, A., Fernández-Costa, J. M., Senni, A., Jalan, R., & Ramón-Azcón, J. (2022). Fatty Hepatocytes Induce Skeletal Muscle Atrophy In Vitro: A New 3D Platform to Study the Protective Effect of Albumin in Non-Alcoholic Fatty Liver. *Biomedicines*, 10(5), 958. <https://doi.org/10.3390/biomedicines10050958>
 16. **AC** Fernández-Costa, J. M., Ortega, M. A., Rodríguez-Comas, J., Lopez-Muñoz, G., Yeste, J., Mangas-Florencio, L., Fernández-González, et al. (2022). Training-on-a-Chip: A Multi-Organ Device to Study the Effect of Muscle Exercise on Insulin Secretion in Vitro. *Advanced Materials Technologies*, 2200873. <https://doi.org/10.1002/admt.202200873>
 17. **AC** Fernandez-Costa, J, Tejedera-Villafranca, A, Ramon-Azcon, J, (2022). Duchenne muscular dystrophy functional muscle organoid-on-a-chip for potential therapies evaluation (FP.41) *Neuromuscular Disorders* 32, S125
 18. **AC** Clua-Ferre, L, De Chiara, F, Rodriguez-Comas, J, Comelles, J, Martinez, E, Godeau, AL, Garcia-Alaman, A, Gasa, R, Ramon-Azcon, J, (2022). Collagen-Tannic Acid Spheroids for beta-Cell Encapsulation Fabricated Using a 3D Bioprinter *Advanced Materials Technologies* 7, 2101696. <https://doi.org/10.1002/admt.202101696>
 19. **AC** Fernández-Garibay, X., Gómez-Florit, M., Domingues, R. M. A., Gomes, M. E., Fernández-Costa, J. M., & Ramón-Azcón, J. (2022). Xen-free bioengineered human skeletal muscle tissue using human platelet lysate-based hydrogels. *Biofabrication*, 14(4), 45015. <https://doi.org/10.1088/1758-5090/ac8dc8>

- 20.AC** Lopez-Muñoz GA, Mughal S, Ramón-Azcón J, (2022). Sensors and Biosensors in Organs-on-a-Chip Platforms Microfluidics and Biosensors In Cancer Research 1379, 55-80 https://doi.org/10.1007/978-3-031-04039-9_23
- 21.AC** Rodríguez-Comas, Júlia, Ramón-Azcón, Javier, (2022). Islet-on-a-chip for the study of pancreatic beta-cell function In *In Vitro Models* 1, 41-57. <https://doi.org/10.1007/s44164-021-00005-6>
- 22.(8/9)** Azagra, Marc, Pose, Elisa, Chiara, Francesco, Perez, Martina, Avitabile, Emma, Servitja, Joan-Marc, Brugnara, Laura, Ramon-Azcón, Javier, Marco-Rius, Irene, (2022). Ammonium quantification in human plasma by proton nuclear magnetic resonance for staging of liver fibrosis in alcohol-related liver disease and nonalcoholic fatty liver disease *Nmr In Biomedicine* 35, e4745 *Nmr In Biomedicine* 35, e4745 <https://doi.org/10.1002/nbm.4745>
- 23.AC** Fernández-Costa JM, Fernández-Garibay X, Velasco-Mallorquí F, Ramón-Azcón J. Bioengineered in vitro skeletal muscles as new tools for muscular dystrophies preclinical studies. *J Tissue Eng.* 2021 Feb 10;12:2041731420981339. <https://doi.org/10.1177/2041731420981339>
- 24.AC** Vila Judith Camaló, Castro-Aguirre Nerea, López-Muñoz Gerardo A., Ferret-Miñana Ainhoa, De Chiara Francesco, Ramón-Azcón Javier. (2021). Disposable Polymeric Nanostructured Plasmonic Biosensors for Cell Culture Adhesion Monitoring. *Frontiers in Bioengineering and Biotechnology*, 9. <https://10.3389/fbioe.2021.799325>
- 25.(8/9)** Nashimoto, Y., Abe, M., Fujii, R., Taira, N., Ida, H., Takahashi, Y., Ino, K., Ramon-Azcon, J. and Shiku, H. (2021), Topography and Permeability Analyses of Vasculature-on-a-Chip Using Scanning Probe Microscopies. *Adv. Healthcare Mater.*, 10: 2170101. <https://doi.org/10.1002/adhm.202170101>
- 26.AC** Fernández-Garibay, X., Ortega, M. A., Cerro-Herreros, E., Comelles, J., Martínez, E., Artero, R., Fernández-Costa, J. M., & Ramón-Azcón, J. (2021). Bioengineered in vitro 3D model of myotonic dystrophy type 1 human skeletal muscle. *Biofabrication*, 13(3), 35035. <https://doi.org/10.1088/1758-5090/abf6ae>
- 27.AC** Lopez-Muñoz, G. A., Fernández-Costa, J. M., Ortega, M. A., Balaguer-Trias, J., Martín-Lasierra, E., & Ramón-Azcón, J. (2021). Plasmonic nanocrystals on polycarbonate substrates for direct and label-free biodetection of Interleukin-6 in bioengineered 3D skeletal muscles. *Nanophotonics*, 10(18), 4477–4488. <https://doi.org/10.1515/nanoph-2021-0426>
- 28.AC** Ferran Velasco-Mallorquí et al (2021). Cellulose-based scaffolds enhance pseudoislets formation and functionality. *Biofabrication* 13 035044. <https://10.1088/1758-5090/ac00c3>
- 29.AC** Ortega, M.A.; Rodríguez-Comas, J.; Yavas, O.; Velasco-Mallorquí, F.; Balaguer-Trias, J.; Parra, V.; Novials, A.; Servitja, J.M.; Quidant, R.; Ramón-Azcón, J. In Situ LSPR Sensing of Secreted Insulin in Organ-on-Chip. *Biosensors* 2021, 11, 138. <https://doi.org/10.3390/bios11050138>
- 30.AC** De Chiara, F.; Ferret-Miñana, A.; Ramón-Azcón, J. The Synergy between Organ-on-a-Chip and Artificial Intelligence for the Study of NAFLD: From Basic Science to Clinical Research. *Biomedicines* 2021, 9, 248. <https://doi.org/10.3390/biomedicines9030248>
- 31.AC** Velasco-Mallorquí, F., Fernández-Costa, J. M., Neves, L., & Ramón-Azcón, J. (2020). New volumetric CNT-doped gelatin–cellulose scaffolds for skeletal muscle tissue engineering. *Nanoscale Advances*. <https://doi.org/10.1039/D0NA00268B>
- 32.AC** De Chiara, F., Checcllo, C. U., & Azcón, J. R. (2019). High protein diet and metabolic plasticity in non-alcoholic fatty liver disease: Myths and truths. *Nutrients*, 11(12). <https://doi.org/10.3390/nu11122985>
- 33.AC** Hernández-Albors, A., Castaño, A. G., Fernández-Garibay, X., Ortega, M. A., Balaguer, J., & Ramón-Azcón, J. (2019). Microphysiological sensing platform for an in-situ detection of tissue-secreted cytokines. *Biosensors and Bioelectronics*: X, 2, 100025. <https://doi.org/https://doi.org/10.1016/j.biosx.2019.100025>

34.AC Ortega, M. A., Fernández-Garibay, X., Castaño, A. G., De Chiara, F., Hernández-Albors, A., Balaguer-Trias, J., & Ramón-Azcón, J. (2019). Muscle-on-a-chip with an on-site multiplexed biosensing system for in situ monitoring of secreted IL-6 and TNF- α . *Lab on a Chip*, 19(15), 2568–2580. <https://doi.org/10.1039/C9LC00285E>

C.2. Conferences form 2022

1. Organ on a chip models to emulate multi systemic metabolic diseases. Symposium on natural drugs development. Masaryk University Faculty of Pharmacy. 2023. Czech Republic.
2. Training-on-a-Chip: a multi-organ device to study the effect of muscle exercise on insulin secretion in vitro. TERMIS-EU 2023, Manchester, UK
3. Organization of scientific activity: First conference in bioengineering for Neuromuscular Diseases, IBEC, 2022, Barcelona, Spain
4. Functional 3D skeletal muscle model of Duchenne muscular dystrophy that reproduces disease phenotypes and evaluates potential therapeutic compounds. World Muscle Society. World Muscle Society. 2022. Canada.
5. Preparación de «Músculo en un Chip» para el estudio de la DMD. Congreso International Duchenne Parent Project España. Duchenne Parent Project España. 2022. Spain.
6. Training-on-a-Chip: a multi-organ device to study the effect of muscle exercise on insulin secretion in vitro. EUROoCs. EUROoCs. 2022. France.

C.3. Participation in R&D and Innovation projects from 2019

Project title	Funding source	Amount (Euros)	Period	Role of the PI
Diabetes Approach by Multi-Organ-on-a-Chip (DAMOC)	ERC starting grant project – 714317 (European Commission)	1.500.000	2017 – 2021	Principal investigator
FAP-DMD: Elucidating the role of FAP cells in the process of muscle degeneration in patients with Duchenne muscular dystrophy	Medical Research Council (United Kingdom) MR/W019086/1	1.165.061,85	2022 – 2024	Partner
Benchtop NMR for Lab-on-chip (BLOC)	FET open project – 863037 (European Commission)	900.000	2020 – 2023	Principal investigator
Unlocking data content of Organ-On-Chips (UNLOOC)	European Commission (Key Digital Technologies Joint Undertaking, KDT-JU-2023-1-IA - Topic 1 Global call according to SRIA 2023 (IA), Ref. 101140192)	588.000	2024 – 2027	PI - Partner
Bone Marrow-on-Chip as smart sensor of lung cancer relapse (BuonMarrow)	European Commission (EIC Pathfinder Open 2023, Ref. 101130604)	694.470	2024 – 2027	PI - Partner

Origami Paper-based technology for the innovative and sustainable Organ-on-Chip devices (Phoenix)	European Commission (EIC Pathfinder Open 2023, Ref. 101130395)	498.238	2024 – 2027	PI - Partner
Integrated nano-photonics OMICs bio-SENSOR for lung cancer (OMICSENS)	Pathfinder Open programme – (European Commission)	398.238	2024 – 2027	PI - Partner
Glass-Laser Multiplexed Biosensor (GLAM)	H2020 – PHC-10 – 2014 (European Commission)	500.000	2015 – 2019	Partner
BASE3D (001-P-001646)	Catalan Government / ERDF	241.025	2019 – 2022	PI - Partner
Modelización in vitro de la enfermedad progresiva sarcopenia	Ministerio de Ciencia e Innovación (Proyectos de generación del conocimiento, Ref. PID2022-136833OB-C22)	207.000	2022 – 2025	Principal investigator
Fabricación de textiles ecológicos con propiedades antimicrobianas (TED2021-130467B-C21)	Proyectos orientados a la transición ecológica y a la transición digital Spanish Ministry of Science and Innovation	168.000	2022 – 2024	PI - Coordinator
Scalable and multiplexed point-of-care device for autoimmune neurological diseases	Producte 2021PROD00108 (AGAUR)	99.562,50	2022 – 2024	Principal investigator
Universal 3D printer bioink for Type 1 diabetes cell therapy	European Research Council (ERC Proof of Concept 2021, Ref. 101113301)	150.000	2024 – 2025	Principal investigator
Generación de nuevos modelos 3D de pools de células hepáticas microencapsuladas mediante bioimpresión	Generalitat Catalunya (Nuclis R&D, Ref. ACE088/23/000114)	99.979	2024 – 2026	Principal investigator
Therapeutic targeting of MBNL microRNAs as innovative treatments for myotonic dystrophy	La Caixa Foundation HR17-00268 (Caixa Health Programme 2017)	79.873,50	2019 – 2021	Partner
Fabrication of a biomimetic in vitro	MCINN – Retos Investigación I+D	69.454	2018 –	Principal investigator

model of the intestinal tube muscle wall: smooth muscle-on-a-chip (INDUCT)	(Spain)		2021	
Bioengineering for health (B4H)	Generalitat de Catalunya (Ajuts per donar suport a l'activitat científica dels grups de recerca de Catalunya Ref. 2021 SGR 01495)	60.000	2022 – 2024	Principal investigator
Faster Future 2017: A muscle-on-a-chip for muscle dystrophy	Institute for Bioengineering of Catalonia (IBEC) crowdfunding project	25.000	2018 – 2019	Principal investigator
New fly and 3D cell tools for the development of therapeutic oligonucleotides (FLY3D-ON)	Proyectos en líneas estratégicas, del plan estatal de investigación científica, técnica y de innovación 2021-2023	158.365	2021 – 2023	Partner
Atomic-Sensor-Integrated Tissue-On-a-Chip: optically detected biomagnetism to understand muscular disease	Barcelona Institute of Science and Technology (BIST)/ BIST Ignite Seed Grant	20.000	2021 – 2022	Team-Individual
BioLiver Assist Device (2019 LLAV 00056)	Catalan Government/ Knowledge Industry	20.000	2020 – 2021	PI – Individual

C.4. Activities of technology / knowledge transfer and results exploitation from 2019

1. EP23382034.9. Metaplasmonic biosensor with enhanced surface sensitivity Spain. 17/01/2023. Institute of Bioengineering of Catalonia.
2. WO2022229107A1. System and method for NMR analysis of a physiological condition in an analyte, Spain. 26/04/2021. Institute of Bioengineering of Catalonia.
3. PCT/EP2020/075278. Multi-layered cell capsules and uses thereof, Spain. 16/11/2020. Institute of Bioengineering of Catalonia
4. PCT/EP2020/061820. Self-referenced sensor. United States of America. 30/04/2019. Institute of Bioengineering of Catalonia
5. **2021** Co-founder of spin-off Company "Vitalia".
6. **2019-2023** Collaborative project: Characterization of PHB materials for medical applications. 377.100€ Novo Nordisk, Denmark. IP = Javier Ramón
7. **2021-2023** Collaborative project: Liver-on-a-chip. 294.600€. Grifols, Spain. IP = Javier Ramón