

CURRICULUM VITAE (CVA)
IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION

CV date 12/01/2024

First name	María Isabel		
Family name	Pividori Gurgo		
Gender	Female	Birth date (
ID number			
e-mail	Isabel.pividori@uab.es	URL Web	https://isabelpividori.net
Open Researcher and Contributor ID (ORCID) (*)	0000-0002-5266-7873		

A.1. Current position

Position	Professor/Catedrática de universidad		
Initial date	21/10/2020		
Institution	Universitat Autònoma de Barcelona		
Department/Center	-IBB Institut de Biotecnologia i Biomedicina -Departament de Química		
Country	Spain	Tel. number	+34935811976/2804
Key words	Bioanalytical chemistry, in vitro diagnostic tests (IVD), biosensors, immunochromatography, rapid diagnostic tests (RDT), bioinstrumentation, bionanotechnology, magnetic particles, biomimetic materials, exosomes		

A.2. Previous professional status (including breaks in research career, according to what is indicated in the call, indicate total months)

Period	Position/Institution/Country/Interruption cause
2010-2020	Profesora Titular de universidad, TC
2005-2010	Profesora Lectora (ayudante doctor), TC

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD Chemistry	Universitat Autònoma de Barcelona	2002
Bc. in Biochemistry	Universidad Nacional del Litoral (Argentina)	1997

Part B. CV SUMMARY (max. 5000 characters, including spaces) to complete this section, please read carefully: "Instructions to fill CVA"

María Isabel Pividori is Professor at the Autonomous University of Barcelona (UAB), Catalonia, Spain. She holds a B.A. degree in Biochemistry with First Class honours from the Universidad Nacional del Litoral, Argentina. She received her PhD degree in Chemistry from the Autonomous University of Barcelona, in 2002. Her research is particularly focused on the design of in vitro diagnostic tests, biosensors and bioinstrumentation. Her research expertise is related with the improvements in terms of the biorecognition event as well as in the simplification of the biosensing procedures, the integration of nanomaterials and the enhancement of the analytical signal. Other research line is the integration of magnetic particles in magneto-actuated platforms. Regarding the application fields, she is mainly focused on affordable emerging technologies appropriate at community and primary-care level in healthcare and food safety in low resource settings. She took part in 44 grants, of which 19 as principal investigator including 5 national plan projects as PI (BIO2010-17566, BIO2013-41242, BIO2016-75751-R, PID2019-106625RB-I00, PID2022-136453OB-I00), 8 technology transfer projects (including Proyectos de I+D+I de Colaboración Público-Privada 2021 CPP2021-008459 and 2023 CPP2023-010442, and Prueba de Concepto 2022 PDC2022-133363-100), 1 ITN network, 4 bilateral projects in the frame of international collaborations. She raised 2,271 K funding as PI. She is the PI of the proposal EChLiBRiST HLTH-2021-DISEASE-04 (6,535 K total, coordinator Dr Quique Bassat (IsGlobal), related with

“Development and validation of a quantitative point-of-care test for the measurement of severity biomarkers to improve risk stratification of fever syndromes and enhance child survival”. She has supervised **14 doctoral dissertations** in this research topic of biosensing and rapid diagnostic (7 with honors, 2 Marie Curie Fellows), and **2 in progress** and 33 Master's final projects. She has also supervised **25 International visiting PhD students** and secondments in the frame of international collaborations. She is author of 160 publication including 125 articles in indexed reputed journals of the specialty (h index 40 (Author ID: 6602612057/Researcher ID: K-9602-2015); h Google 48), N citation 2023: 312, 295 congress presentation and posters, and 38 invited conferences and presentations (7 in entrepreneurship and technology transfer). She is also inventor of 3 patents, two under exploitation.

Besides, MIP is also the cofounder of the spin-off BioEcllosion, Spain. Seal of Excellence on the SME Instrument phase 1 Call H2020-SMEInst-2016-2017 Proposal # 773711. The company was awarded in 2015 Valortec first prize. She also participated in reputed Programs of technology transfer, including: Empenta (ESADE Entrepreneurship Institute and ACCIO, Generalitat de Catalunya), Tech Fair (IESE Business School), Catalonia-UC Berkeley Lean LaunchPad Course (University of California Berkeley), Llabor (AGAUR, Generalitat de Catalunya), IQS Next Tech, Fall 2017 Boston Immersion Program (Richi Social Entrepreneurs), Merck Accelerator days 2018 (2018), among others.

Other grants and awards

- 2011-2016. Visitor professor. Conselho Nacional de Desenvolvimento Científico e Tecnológico – CNPq. Linha 2 Bolsa Pesquisador Visitante Especial Programa Ciência sem fronteiras.
- 2012. Tecan Award 2012.
- 2011. Awarded with the grant “Becas Iberoamérica para Jóvenes Profesores e Investigadores de Santander Universidades”.
- 2008. Invitation to the expert panel FAO/IAEA “Consultants Meeting on devices and systems for early and rapid detection of animal diseases, early response to emerging diseases”. Vienna, Austria
- 2005. VIII European A-IQS Award on Enzyme Technology. AIQS.
- 2005. 1st Prize Premio Nacional a la Excelencia 2005. IADE. Instituto Argentino.
- 2005. “Las Mejores Ideas de 2005. Nuevo Sensor Electroquímico”. Diari medico.
- 1997-2001. Awarded with the grant from the International Bank for Reconstruction and Development (IBRD) (World United Nations Development Group).

Part C. RELEVANT MERITS

C.1. Publications Selected among 160 publications, 125 indexed paper, Last 5 years

- 2024 R. da Fonseca Alves, A Pallarès Rusiñol, R. Rossi, M Martí, E. Rezende Vaz, T. Gonçalves de Araújo, M.P.T. Sotomayor MI Pividori. Peptide-based biosensing approaches for targeting breast cancer-derived exosomes. Biosensors and Bioelectronics 255, 116211. IF: 12.6. Q1. <https://doi.org/10.1016/j.bios.2024.116211>. Cited by 3. 8/8
- 2024 M. Mesas Gómez, B. Molina-Moya, B. Camila de Araújo, A Pallarès Rusiñol, J. Ferrer-Dalmau, M.V. Boldrín Zanoni, J. Domínguez, E. Julian, MI Pividori. Mycobacterium detection method combining filtration, immunomagnetic separation, and electrochemical readout in a portable biosensing device. Sensors & Actuators: B. Chemical 403 135211 IF: 8.4. Q1. <https://doi.org/10.1016/j.snb.2023.135211>. 9/9
- 2023 A. Cano, E. Esteban-de-Antonio, M. Bernuz, M. et al. Plasma extracellular vesicles reveal early molecular differences in amyloid positive patients with early-onset mild cognitive impairment. J Nanobiotechnol 21, 54. IF: 10.2. Q1. Cited by 14. 27/29. <https://doi.org/10.1186/s12951-023-01793-7>
- 2023 A Pallarès Rusiñol, S.L. de Moura, M Martí, MI Pividori. Electrochemical genosensing of overexpressed GAPDH transcripts in breast cancer exosomes. Analytical Chemistry, 95, 2487-2495. IF: 7.4. Q1. <https://doi.org/10.1021/acs.analchem.2c04773> Cited by 16. 4/4
- 2023 Advances in exosome analysis. A Pallares-Rusiñol, M Bernuz, S L Moura, C Fernández-Senac, R Rossi, M Martí and MI Pividori, Advances in Clinical Chemistry, 112, 69-117. IF: 5.4. Q1 <https://doi.org/10.1016/bs.acc.2022.09.002> . Cited by 23. 7/7
- 2023 A. Cano A, M. Etcheto, M. Bernuz, R. Puerta, E. Esteban de Antonio, E. Sánchez-López, EB Souto, A Camins, M Martí, MI Pividori, M. Boada, A Ruiz. Extracellular vesicles, the

emerging mirrors of brain physiopathology. *Int J Biol Sci.* 19(3), 721-743. IF: 9.2. Q1. DOI: 10.7150/ijbs.79063. Cited by 40. 10/12.

- 2022 S Lima Moura, A Pallarès Rusiñol, L Sappia, M Martí, MI Pividori. The activity of alkaline phosphatase in breast cancer exosomes simplifies the biosensing design. *Biosens Bioelectron* 198, 113826. IF: 12.6. Q1. Cited by 46. 5/5. <https://doi.org/10.1016/j.bios.2021.113826>
- 2020. S Lima Moura, C García Martín, M Martí, MI Pividori. Electrochemical immunosensing of nanovesicles as biomarkers for breast cancer, *Biosensors and Bioelectronics*, 150, 111882. IF: 10.257 (12.6/2022). <https://doi.org/10.1016/j.bios.2019.111882>. Cited by 79. 4/4
- 2019. LD Sappia, B Felice, MA Sánchez, M Martí, R Madrid, MI Pividori. Electrochemical Sensor for Alkaline Phosphatase as Biomarker for Clinical and in vitro applications. *Sensors and Actuators B: Chemical* 281, 221-228. IF: 7.460 (9.221/2021). <https://doi.org/10.1016/j.snb.2018.10.105> Cited by 53. 6/6
- 2018. A Hassan, S Moura, F Ali, W Moselhy, MP Sotomayor, Pividori MI. Electrochemical sensing of methyl parathion on magnetic molecularly imprinted polymer. *Biosens & Bioelectron* 118, 181-187. 2018. <https://doi.org/10.1016/j.bios.2018.06.052>. Cited by 99. 5/5.

C.2. Congress (Selected among 38 **invited conferences** and 7 in entrepreneurship and technology transfer).

- 2024. MI Pividori. “New Era on Medical Devices”. Tech section. Health Revolution Congress. Recinte Modernista de Sant Pau (Barcelona). 16/05/2024. **Invited tech pitch**.
- 2024. MI Pividori. “Portable biosensing device for environmental and industrial microbiology”. SusNano Spring School. ICIN2, Barcelona. 16/04/2024. **Invited conference**.
- 2022. MI Pividori. “Advances in Materials and Biomarkers for Electrochemical Biosensing”. III Reunião Bienal da Sociedade Brasileira de Eletroquímica e Eletroanalítica. Bento Gonçalves. Brasil. 29/09/2022. **Invited conference**.
- 2022. MI Pividori. “Rapid test for exosomes”. 20º ENQA (Encontro Nacional de Química Analítica) /8º CIAQA (Congresso Ibero-Americano de Química Analítica). Bento Gonçalves. Brasil. 25-28/09/2022. **Invited conference**.
- 2022. MI Pividori. “Nuevas herramientas para el futuro del diagnóstico in vitro”. BIRDS 2022 - Barcelona Innovation, Research and Development Summit. Biokit Research & Development (Werfen). S.L.U. 10/06/2022. **Invited conference**.
- 2021. MI Pividori. “Webinar: Problemática de la gestión de la innovación en las empresas”. Maestría en Gestión Internacional de la Tecnología y la Innovación, Universidad Nacional de Luján, Argentina. **Invited conference**.
- 2020. MI Pividori. “Pruebas de diagnóstico rápido basados en inmunocromatografía”. Escuela Profesional de Química de la Facultad de Ciencias de la Universidad Nacional de Ingeniería, Lima, Perú. Online. 15/10/20. **Invited conference**.
- 2016. MI Pividori. “Biosensors for the detection and quantification of foodborne bacteria in food industry”. XX Congreso Nacional de Microbiología de los Alimentos de la Sociedad Española de Microbiología (SEM), León, España. 14- 16/09/2016. **Invited conference**
- 2014. MI Pividori. “Magnetic particles in biosensing and bioassays”. CEITEC (Central European Institute of Technology) Annual conference Frontiers in Life and Materials Science. Brno, Czech Republic. 22/10/2014. **Invited conference**
- 2008. MI Pividori. “Biosensors and bioelectronics - the present status and the future prospects”. Consultants Meeting on devices and systems for early and rapid detection of animal diseases, early response to emerging diseases. Animal Production & Health Section Joint FAO/IAEA. Vienna, Austria. 14/10/2008. **Invited conference**

C.3. Research projects. Participation in 42 grants, of which 18 as PI: 5 national plan projects as PI, 7 technology transfer grants, 1 ITN network, 4 bilateral projects. 2,271 K funding as PI.

- AviaSens. Rapid Test for Viral Outbreaks in Poultry Farms. Ref: CPP2023-010442. Proyectos Colaboración Público-Privada 2023. €480.286,61 total. 03/10/2024 to 02/10/2027. Coordinator: BioEcllosion SL. PI UAB: MI Pividori (106.554 €).
- SenS4IVD. Biosensing devices for *in vitro* diagnostics. MICINN. Ref: PID2022-136453OB-I00. 125.000,00 €. 1/09/23 to 31/08/26. PI: MI Pividori Colp: M. Martí
- ExoSens-PoC. Enhancing tests for the early diagnosis of Alzheimer’s disease. Ref: PDC2022-133363. Proyectos Pruebas de Concepto 2022. €138,000 01/12/2022 to 31/5/2025. PI UAB: MI Pividori.

- AmpliSens. Enhancing Rapid Tests for perinatal GBS. Ref: CPP2021-008459. Proyectos Colaboración Público-Privada 2021. €272,700 total. 03/10/2022 to 02/10/2025. Coordinator: BioEcllosion SL Dr. PI UAB: MI Pividori (46,568 €).
- EChLiBRiST. HORIZON-HLTH-2021-DISEASE-04-03. Ref: 101057114. €6,535,006.00 total. 01/09/2022 to 31/08/2027. Coordinator: Dr. Quique Bassat– Isglobal (ES). PI UAB: MI Pividori Gurgo (370 K€).
- ExoSens. The exosomes as diagnostic biomarkers in biosensors. MICINN. Ref: PID2019-106625RB-I00. 121.000,00 €. 01/06/2020 to 01/06/2023. PI:MI Pividori
- SENS4ALL. Enhancing Rapid Tests for Worldwide Diagnostics. MICINN. Ref: BIO2016-75751-R . 181.000,00 € and doctoral Grant. 1/01/2017 to 31/12/2019. PI: MI Pividori Gurgo.
- REDE ZIKSENSOR: Rede para desenvolvimento de dispositivos Sensores “Point-Of-Care”, do Zika virus. Universidade Federal de Pernambuco (coordinador)/ UNESP/UAB/ Pittsburgh University/ UECE/ CNPEM/Sincrotron Funding organization: CNPqReference: 440605/2016-4. 719.000,00 R\$. 1/01/2017 to 31/12/2020 PI UAB: MI Pividori.
- ASSURED Diagnostics for Global Health. MINECO. Ref: BIO2013-41242-R. 133.100,00 €. 1/01/2014 to 31/12/2016. PI: MI Pividori Gurgo.
- BioMaX: Novel diagnostic bio-assays based on magnetic particles. FP7-PEOPLE-2010-ITN Marie Curie ITN. Ref: 264737. 3,236,392.01 € (total), 1/02/2011 to 31/01/2015. Participants KUL (Belgium, coordinator), UAB, UPMC (France); Philips (Netherlands) UU (Sweden) EPFL (Switzerland) TUE (Netherlands). MI Pividori (PI UAB) 453.459,20 €

C.4. Contracts, technological or transfer merits

Patents

- 2021. Device for assay system, system and method. Inventor: María Isabel Pividori. PCT/EP2022/071078 Date of priority: 28/07/2021. Patent exploited by BioEcllosion, SL
- 2015. Peptide, magnetic peptide and method for the detection of celiac disease. Inventor: MI Pividori/S Kergaravat. Application N°: PCT/ES2015/070097. Country of priority: Spain. Date of priority: 16/02/2015. Patent transferred and exploited by BioEcllosion, SL 2016. CANADA: CA 2939476 (AUG 11, 2016); USA: US15/118,516 (AUG 12, 2016); EU: EP15749357.8 (AUG 18, 2016).
- 2015. María Isabel Pividori, MPT Sotomayor. Method for the determination of targets of biotinylated molecules. Application N°: PCT/EP2016/062021. Country of priority: Spain: Date of priority: 27/05/2015.

Grants technological transfer

- Dispositivo magneto-actuado para el diagnóstico temprano de enfermedades. Funding Institution: Neotec. CDTI MICINN. Reference: EXP - 00123637 / SNEO-20191139. 250.000,00 €. 1/01/2020 to 31/09/2022.
- CeliFast: A fast diagnosis for Celiac Disease at Point of Care. Funding organization: European Commission. Horizon 2020, the EU Framework Program for Research and Innovation. Reference: Grant Agreement. 691556. Sub-Grant Agreement No.: 2017/A17 50.000,00 € 01/11/2017 to 30/08/2018.
- Point of Care to diagnose celiac disease Funding: Ministerio de Economía, Industria y Competitividad. Horizonte Pyme 2017. Ref: SME-2017-0939-1. Funding granted: 59.920,00 € From 01/06/2017 to 31/05/2018.
- BioEcllosion Funding organization: Valuni. Creació d'empreses de base tecnològica. ACCIO, Generalitat de Catalunya Reference: VALUNI 16-1-0037 Funding granted: 30.500,00 € 22/12/2016 to 22/12/2017.
- CeliFast. Rapid diagnosis of celiac disease at point of care based on magneto actuated platforms and deamidated magnetic peptides. Funding organization: Llabor. Projectes innovadors amb potencial d'incorporació al sector productiu, Programa Indústria del Coneixement, AGAUR. Ref 2014 LLAV 00052. 24.000,00 €. 14/05/2015 to 11/12/2015.

Contracts, technological or transfer merits

- Advisory agreement in B-Triage. Proyecto de Desarrollo Tecnológico en Salud. DTS23/00105. IsGLOBAL. 1/07/2024-30/06/2025. 27.193,96 €.
- Advisory agreement in topics related with dementias. Fundació ACE Institut català de neurociències aplicades. 11/11/2020-10/11/2022.
- Contracts Bioeclosion SL. Maria Isabel Pividori Gurgo. (Department of Chemistry). 20/07/2020-19/07/2022. 17.000 €.