

Candidate: Regional Treasurer, Europe



Joaquim Vives, PhD
Head of Production of MTAs
Banc de Sang i Teixits
Spain

Summary of academic and professional background:

Joaquim Vives is a Biochemist, MRes in Biotechnology and PhD in Biochemistry (UAB, Spain) with extensive experience in the R&D biotech sector, both in private and academic environments. He has focused his career on the optimisation of cellular processes towards A) high yield production of diagnostic and therapeutic molecules, and B) the development of methods to produce cells for drug screening and therapy, in compliance with current regulatory and quality standards. Dr. Vives conducted post-doctoral research at the Institute for Stem Cell Research (University of Edinburgh, UK) and then moved to Stem Cell Sciences Ltd (Cambridge, UK). In 2008, he joined Banc de Sang i Teixits (Barcelona, Spain) to lead a laboratory for the development and production of advanced cell therapies for clinical use. Dr. Vives collaborates with other laboratories and it is affiliated to the “Musculoskeletal Tissue Engineering Group” (Vall d'Hebron Institute for Research) focusing his research on three main lines:

- Generation of 3D tissue constructs. Ex: Prat et al. Clinical translation of a mesenchymal stromal cell-based therapy developed in a large animal model and two case studies of the treatment of atrophic pseudoarthrosis. JTERM 2018
- Development of in vivo models for the study of tissue regeneration. Ex: Caminal et al. A reproducible method for the isolation and expansion of ovine mesenchymal stromal cells from bone marrow for use in regenerative medicine preclinical studies. JTERM, 2017
- Identification and validation of biomarkers of bone remodelling. Ex: Chaverri & Vives. Toward the clinical use of circulating biomarkers predictive of bone union. Biomark Med, 2017

Affiliated professional and commercial associations and any perceived or potential conflict of interests:

Employed by Banc de Sang i Teixits since 2008

Employed by Universitat Autònoma de Barcelona since 2017

No conflict of interests declared

List of top 3 publications in the last 5 years and top 3 publications over the course of your career:

Last 5 years:

1. Oliver-Vila I, Coca MI, Grau-Vorster M, Pujals-Fonts N, Caminal M, Casamayor-Genescà A, Ortega I, Reales L, Pla A, Blanco M, García J, Vives J. Evaluation of a cell-banking strategy for the production of clinical grade mesenchymal stromal cells from Wharton's jelly. *Cytotherapy*. 2016 Jan;18(1):25-35. doi: 10.1016/j.jcyt.2015.10.001. Epub 2015 Nov 6. PubMed PMID: 26549383.
2. Prat S, Gallardo-Villares S, Vives M, Carreño A, Caminal M, Oliver-Vila I, Chaverri D, Blanco M, Codinach M, Huguet P, Ramírez J, Pinto JA, Aguirre M, Coll R, Garcia-López J, Granell-Escobar F, Vives J. Clinical translation of a mesenchymal stromal cell-based therapy developed in a large animal model and two case studies of the treatment of atrophic pseudoarthrosis. *J Tissue Eng Regen Med*. 2018 Jan;12(1):e532-e540. doi: 10.1002/term.2323. Epub 2017 Jun 1. PubMed PMID: 27684058.
3. Cabrera-Pérez R, Monguió-Tortajada M, Gámez-Valero A, Rojas-Márquez R, Borràs FE, Roura S, Vives J. Osteogenic commitment of Wharton's jelly mesenchymal stromal cells: mechanisms and implications for bioprocess development and clinical application. *Stem Cell Res Ther*. 2019 Nov 28;10(1):356. doi:10.1186/s13287-019-1450-3. PubMed PMID: 31779673; PubMed Central PMCID:PMC6883559

Top 3:

1. J Vives, G Carmona (editors). *Guide to Cell Therapy GxP: Quality Standards in the Development of Cell-Based Medicines in Non-pharmaceutical Environments*. 2015 Academic Press, London. ISBN:978-0-12-803115-5
2. Soler R, Orozco L, Munar A, Huguet M, López R, Vives J, Coll R, Codinach M, Garcia-Lopez J. Final results of a phase I-II trial using ex vivo expanded autologous Mesenchymal Stromal Cells for the treatment of osteoarthritis of the knee confirming safety and suggesting cartilage regeneration. *Knee*. 2016 Aug;23(4):647-54. doi: 10.1016/j.knee.2015.08.013. Epub 2016 Jan 11. PubMed PMID:26783191.
3. Caminal M, Vélez R, Rabanal RM, Vivas D, Batlle-Morera L, Aguirre M, Barquinero J, García J, Vives J. A reproducible method for the isolation and expansion of ovine mesenchymal stromal cells from bone marrow for use in regenerative medicine preclinical studies. *J Tissue Eng Regen Med*. 2017 Dec;11(12):3408-3416. doi: 10.1002/term.2254. Epub 2016 Nov 18. PubMed PMID:27860364.

Summary of involvement with ISCT in the past five years:

In the last 5 years, I have personally attended ISCT meetings in Seville (2015) and Firenze (2018) and co-authors presented abstracts to both world and European regional meetings with the only exception of Melbourne (2019). In Firenze, one of my abstracts was chosen for elevator pitch presentation and soon after was published in *Cytotherapy*. Indeed, I have published up to 7 papers in *Cytotherapy*, the official journal of ISCT, and acted as reviewer several times. I also edited a guide intended to be used by developers of ATMPs in which the president at the time, Prof. Massimo Dominici, accepted my invitation to write the "Foreword" chapter.

Regarding outreach science activities, I participated as volunteer in Eurostemcell.org (translation of English content into Spanish) and I am the local coordinator of Unistem Day in our institution since 2017, which is an event coordinated by TerCel network in Spain.

Summary of strategic vision for the Global Society:

I envisage ISCT as a global actor in the cell therapy field, facilitating a readily translation of novel developments into the clinical setting. In order to do this successfully it is crucial to foster collaboration between academia, industry, and public and governmental organisations. ISCT already do this through meetings, courses, workshops, committees, task forces, white papers on relevant topics. Supporting outreach science activities (for a lay audience) and the establishment of fluent communication channels among the different actors, particularly regulators, may help to complete this endeavour.

I expect to contribute by:

- Looking after ISCT's regional budget, as a regional EU treasurer, in a close working relationship with other members of the board.
- Encouraging collaborations between academic and industrial production groups to streamline the scale up production of ATMP and help to standardize QC panels (i.e. giving more visibility to working groups in these areas and establish criteria in agreement with regulatory authorities, academic and industrial partners).
- Promote mobility of scientists in laboratories in order to learn and share methods and protocols (i.e. travel bursaries)
- Facilitate the organisation of workshops and courses to train new professionals in the field of ATM scale up production and characterisation (i.e. ISCT co-sponsor such events, giving support in organisation)
- Encourage initiatives for the analysis of preclinical and clinical data in order to understand safety and efficacy of novel ATMP (i.e. specific grants, training in systematic review/meta-analysis, specific section in Cytotherapy and annual meetings)