



## CURRICULUM VITAE ABREVIADO (CVA)

**IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.**

### Part A. PERSONAL INFORMATION

First name	Jaume		
Family name	Pérez Sánchez		
Gender (*)	Male	Birth date (dd/mm/yyyy)	11/01/1960
Social Security, Passport, ID number	77732501E		
e-mail	jaime.perez.sanchez@csic.es	URL Web	https://www.nutrigroup-iats.org/
Open Researcher and Contributor ID (ORCID) (*)	0000-0003-2506-1523		

(\*) Mandatory

#### A.1. Current position

Position	Research Professor (Profesor de Investigación)		
Initial date	30/05/2008		
Institution	Agencia Estatal Consejo Superior de Investigaciones Científicas		
Department/Center	Instituto de Acuicultura Torre de la Sal		
Country	Spain	Teleph. number	964187465
Key words	Aquaculture, Physiology, Endocrinology, Growth, Nutrition, Nutrigenomics		

#### A.2. Previous positions (research activity interruptions, indicate total months)

Period	Position/Institution/Country/Interruption cause
2005-2008	Investigador Científico/ Agencia Estatal Consejo Superior de Investigaciones Científicas/ Spain
1990-2005	Científico Titular/ Agencia Estatal Consejo Superior de Investigaciones Científicas/ Spain
1989	Postdoctoral fellow/ INRA-Rennes Physiology Laboratory/ France

#### A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Degree in Biological Sciences	University of Barcelona	1984
Ph D in Biological Sciences	University of Barcelona	1988

### Part B. CV SUMMARY

Prof Jaume Pérez-Sánchez is Head of Nutrigenomics and Fish Endocrinology Group of IATS-CSIC (scored as A-excellent in the CSIC group evaluations; 2008-2012, 2013-2016). After his PhD Thesis in 1988 and a postdoctoral stage in 1989 (Physiology Laboratory at INRA-Rennes, France), he was appointed as CSIC Tenured Researcher (*Científico Titular del CSIC*) in 1990. His scientific goals qualified him as Scientific Researcher (*Investigador Científico*) in 2005, and **Research Professor (Profesor de Investigación)** since 2008. His research line is focused on the study of fish growth and behaviour with special emphasis on feed additives and new feed formulations, using implanted biosensors and integrative genomic, proteomic, microbiomic and metabolomic tools for the validation and discovery of new biomarkers of growth, welfare and health of both diagnostic and predictive value with gilthead sea bream as the main model species. As a recent milestone, he conducted the sequencing and assembly of the **first draft genome of gilthead sea bream**, which constitutes the basis for analysis tools for massive gene expression (PCR-arrays, microarrays, RNA-seq), as well as the identification and characterization of biomarkers for traits of interest in aquaculture.

This research activity has been financed by National and European Projects as well as contracts with industry and public organisms, with a total funding of the group of **4.98 million euros in the last 10 years**. Of note, since 2000 most of this funding comes from participation in European Projects from V (PEPPA), VI (AQUAFIRST, AQUAMAX), VII (ARRAINA, AQUAEXCEL) Framework Programs, as well H2020 Projects, finished (AQUAEXCEL<sup>2020</sup>,



PARAFISHCONTROL, PERFORMFISH, GAIN, AquaIMPACT) and undergoing (EatFISH, AQUAEXCEL3.0). In most of them his role is that of **CSIC Principal Investigator**, acting also as **WP leader** in ARRAINA WP1 (2012-2016) and AQUAEXCEL<sup>2020</sup> WP8 (2015-2020).

This activity has resulted in more than **195 SCI publications** (Scopus h-index: 53; Google Scholar h-index: 63), most of them (78%, Scopus) classified in the first quartile (Q1) of impact of different disciplines. The two latest updates of the **Stanford University list (World's Top 2% Scientists)** ranks his career among that of the 2% of the most influential researchers in the world. In the period 2013-2023, he has averaged more than 10 SCI publications per year. He has been **Director of 4 PhD completed theses (and other 3 undergoing)** during the last 10 years. Since 2006 he is a **Lecturer** of the Máster Interuniversitario en Acuicultura (UV, UPV).

It is also noteworthy his expertise in **Research management** as IATS Vice-director (1994-2000; 2019-present), IATS-Director (2000-2011), Head of IATS Biology, Culture and Pathology of Marine Species Department (2011-2015), Member of CSIC Agricultural Sciences Commission (Vocal del Area de Ciencias Agrarias) (2011-2016), external consultant of INIA Strategic Plan (2015), and Ministerio de Agricultura, Pesca y Alimentación Development Strategy for Spanish Aquaculture (2021). He was a member (2015-2020) of **AQUAEXCEL<sup>2020</sup> IRAP (Industry & Research Advisory Panel)**, composed of Project WP leaders, members of EATiP (European Aquaculture Technology and Innovation Platform) and FEAP (Federation of European Aquaculture Producers) as well as R+D experts in aquaculture and biotechnology. This Advisory Panel acts a pro-active interface for aquaculture research community and the aquaculture industry. He was a member of the **Scientific Committee of the Iberian Association of Comparative Endocrinology** (2009-2018). He has organized Scientific Congresses, being the **Chair of the steering committee of the upcoming Aquaculture Europe 2025 Congress**, Valencia September 2025. At present, he is the **Coordinator of the Complementary R&D Plan ThinkInAzul (2022-2025) of the Valencian Community**. This Project, co-funded by the National and Regional Governments, is dedicated to excellence and multidisciplinary research in Marine Sciences, with a budget of 10 million euros and the participation of 39 research groups from CSIC and five public/private Valencian Universities (UV, UPV, UA, UMH, UJI, UCV).

## **Part C. RELEVANT MERITS** (sorted by typology)

### **C.1. Publications**

- Naya-Català F, Piazzon MC, Torrecillas S...[Pérez-Sánchez J \(CA\)\(9/9\)](#). 2022. Genetics and nutrition drive the gut microbiota succession and host-transcriptome interactions through the gilthead sea bream (*Sparus aurata*) production cycle. *Biology* 11:1744. doi:10.3390/biology11121744
- Piazzon MC, Naya-Català F, Pereira GV...[Pérez-Sánchez J \(CA\)\(12/12\)](#). 2022. A novel fish meal-free diet formulation supports proper growth and does not impair intestinal parasite susceptibility in gilthead sea bream (*Sparus aurata*) with a reshape of gut microbiota and tissue-specific gene expression patterns. *Aquaculture* 558:738362. doi: 10.1016/j.aquaculture.2022.738362
- Naya-Català F, Piazzon MC, Calduch-Giner JÀ, Sitja-Bobadilla A, [Pérez-Sánchez J \(CA\)](#). Diet and host genetics drive the bacterial and fungal intestinal metatranscriptome of gilthead sea bream. *Frontiers in Microbiology* 13:883738 (2022). doi: 10.3389/fphys.2021.748265
- Naya-Català F, do Vale Pereira G, Piazzon MC...[Pérez-Sánchez J \(CA\) \(8/8\)](#). 2021. The cross-talk between intestinal microbiota and host gene expression in juveniles of gilthead sea bream (*Sparus aurata*). *Insights in fish feeds for increased circularity and resource utilization*. *Frontiers in Physiology* 12:748265. doi: 10.3389/fphys.2021.748265
- Piazzon MC, Naya-Català F, Perera E, Palenzuela O, Sitja-Bobadilla A, [Pérez-Sánchez J \(CA\)](#). 2020. Genetic selection for growth drives differences in intestinal microbiota composition and parasite disease resistance in gilthead sea bream. *Microbiome* 8:168. doi: 10.1186/s40168-020-00922-w
- [Pérez-Sánchez J \(CA\)\(1/9\)](#), Naya-Català F, Soriano B...Calduch-Giner JA. 2019. Genome sequencing and transcriptome analysis reveal recent species-specific gene duplications in the plastic gilthead sea bream (*Sparus aurata*). *Frontiers in Marine Science* 6: 760. doi: 10.3389/fmars.2019.00760
- [Pérez-Sánchez J \(CA\)](#), Simó-Mirabet P, Naya-Català F, Martos-Sitcha JA, Perera E, Bermejo-Nogales A, Benedito-Palos L, Calduch-Giner JA. 2018. Somatotropic axis

- regulation unravels the differential effects of nutritional and environmental factors in growth performance of marine farmed fishes. *Frontiers in Endocrinology* 9:687. doi: 10.3389/fendo.2018.00687
- Simó-Mirabet P, Felip A, Estensoro I... [Pérez-Sánchez J \(CA\) \(10/10\)](#). 2018. Impact of low fish meal and fish oil diets on the performance, sex steroid profile and male-female sex reversal of gilthead sea bream (*Sparus aurata*) over a three-year production cycle. *Aquaculture*, 490:64-74. Doi: 10.1016/j.aquaculture.2018.02.025
  - Piazzon MC, Calduch-Giner JA, Fouz B...[Pérez-Sánchez J \(CA\)\(10/10\)](#). 2017. Under control: how a dietary additive can restore the gut microbiome and proteomic profile, and improve disease resilience in a marine teleost fish fed vegetable diets. *Microbiome* 5:164. doi: 10.1186/s40168017-0390-3
  - Estensoro I, Ballester-Lozano GF, Benedito-Palos L...[Pérez-Sánchez J \(CA\)\(13/13\)](#). 2016. Dietary butyrate helps to restore the intestinal status of a marine teleost (*Sparus aurata*) fed extreme diets low in fish meal and fish oil. *PLoS ONE* 11:e0166564. doi: 10.1371/journal.pone.0166564

## C.2. Congress

- Pérez-Sánchez J. Importancia de la Microbiota en Acuicultura. Interacción Nutrición, Ambiente y Genética. XIII Workshop Spanish Society of Microbiome, Probiotics and Prebiotics. June 7-9 2022, Valencia (Spain). Invited Conference.
- Ruiz-Hernández A, Andree KB, Furones D, Holhorea PG, Calduch-Giner J, Morais S, Viñas M, Pérez-Sánchez J, Gisbert E. Effect of dietary bile salts supplementation on gut microbiota and intestinal immune response in gilthead seabream. 2<sup>nd</sup> International Symposium Mucosal Health in Aquaculture (MHA). October 3-6 2022, Madrid (Spain). Invited Conference.
- Pérez-Sánchez J, Calduch-Giner JA, Simó-Mirabet P. Updates on the cross talk between growth, endocrine factors, nutrients and environmental factors in marine farmed fish. 29th Conference of European Comparative Endocrinologists. August 19-22 2018, Glasgow (UK). Invited Conference.
- Pérez-Sánchez J. Integrative "omic" approaches to improve fish nutrition and individual phenotyping. XI Congress of Iberian association for Comparative Endocrinology. July 13-15 2017, Vigo (Spain). Invited Plenary Conference.
- Calduch-Giner J, Sitjà-Bobadilla A, Pérez-Sánchez J. Functional plasticity of the intestine of Mediterranean farmed fish to cope with environmental and nutritional stressors. 8th International Symposium on Fish Endocrinology. June 26-July 2 2016, Goteborg (Sweden). Invited Conference.

## C.3. Research projects, most relevant in the 2014-2024 period (max.10):

- AQUASERV, Research infrastructure services for sustainable aquaculture, fisheries and the blue economy (2024-2029); FUNDING: UE, HORIZON, call HORIZON-INFRA-2023-SERV-01, no. 101131121; COORDINATOR: Adelino Canario CCMAR (Portugal). ROLE: CSIC Principal Investigator; PARTNERS: 33; FUNDING FOR CSIC (includes IATS and IEO): 535,022.40 €; TOTAL FUNDING FOR IATS: 334,869.52 €. TOTAL FUNDING FROM EU: 14,157,482.52 €
- Coordinación de THINKINAZUL (2022-2025); FUNDING: Ministerio de Ciencia e Innovación, NextGenerationEU (PRTR-C17.I1) and Generalitat Valenciana; ROLE: Project Coordinator; FUNDING Total 10,000,000 €, CSIC 300,000 €
- FishNUTRIWELL, Aproximaciones holísticas basadas en el uso de nuevas tecnologías para la mejora de la nutrición, salud y bienestar animal de peces en cultivo con la dorada como especie modelo (2022-2025); FUNDING: Ministerio de Ciencia e Innovación, NextGenerationEU (PRTR-C17.I1) and Generalitat Valenciana (GVA-THINKINAZUL/2021/024); ROLE: Principal investigator; FUNDING 293,320 €
- AQUAEXCEL3.0: AQUAculture infrastructures for EXCELlence in EUropean fish research 3.0 (2020-2025); FUNDING: UE, H2020, call H2020-INFRAIA-2018-2020, topic INFRAIA-01-2018-2019, no. 871108; COORDINATOR: Marc Vandeputte INRA (France); ROLE: CSIC Principal investigator; PARTNERS: 22; FUNDING FOR CSIC: 478,062 €; TOTAL FUNDING FROM EU: 9,981,113.75 €
- Bream-AquaINTECH, Desde mejoras en nutrición y genética a la intensificación e innovación tecnológica del cultivo de la dorada (2019-2022); FUNDING: MICIU, RTI2018-094128-B-I00; ROLE: Principal investigator; FUNDING: 257,004 €

- AQUAIMPACT: Genomic and nutritional innovations for genetically superior farmed fish to improve efficiency in European aquaculture (2019-2023); FUNDING: UE, H2020, call H2020-EU.3.2.3.2, topic DTBG-04-2018-2019, no. 818367; COORDINATOR: Antti Kause, Natural Resources Institute (Finland); ROLE: CSIC Principal investigator; PARTNERS: 22; FUNDING FOR CSIC: 340,704 €; TOTAL FUNDING FROM EU: 6,100,000 €
- PERFORMFISH: Integrating Innovative Approaches for Competitive and Sustainable Performance across the Mediterranean Aquaculture Value Chain (2017-2022); FUNDING: UE, H2020-SFS-2016-2017, topic SFS-23-2016, Type of action: RIA GA no. 727610-2; COORDINATOR: Katerina Moutou, University of Thessalia (Greece); ROLE: CSIC principal investigator; PARTNERS: 28; FUNDING FOR CSIC: 334,580 €; TOTAL FUNDING FROM EU: 6,997,060.75 €
- AQUAEXCEL<sup>2020</sup>, AQUAculture infrastructures for EXCELlence in European fish research towards 2020 (2015-2020); FUNDING: UE, H2020, Call INFRAIA-1-2014-2015, grant no. 652831; COORDINATOR: Marc Vandeputte INRA (France); ROLE: CSIC Principal investigator and WP8 leader; PARTNERS: 22; FUNDING FOR CSIC: 591,798 €; TOTAL FUNDING FROM EU: 9.7 million €
- Mi2-FISH, las sirtuinas como marcadores epigenéticos que median los cambios metabólicos inducidos por factores nutricionales y patológicos en dorada (2014-2018); FUNDING: MINECO, modalidad Retos AGL2013-48560-C2-1-R; Role: Project coordinator and Principal Investigator of Subproject 1; FUNDING: 556,600 €, total (284,350, subproject 1)
- ARRAINA, Advanced Research Initiatives for Nutrition & Aquaculture (2012-2016); FUNDING: EU, Seventh Framework Programme FP7-KBBE-2011-5; 262336; COORDINATOR: Sadasivam Kaushik (INRA, France); ROLE: CSIC Principal Investigator and WP1 leader; FUNDING: 534,240.54

#### **C.4. Contracts, technological or transfer merits**

- Research and experimental support services in the scope of project "ALGAEBREW, sustainable solutions for the valorisation of brewery by-products using microalgae " (2023-2024); Type of Contract: Contrato de apoyo tecnológico; Funding Enterprise: Lambers-Seghers (Belgium); Principal investigator: Jaume Pérez-Sánchez; FUNDING: 89,167 €
- MAGNIFICENT, Gene expression patterns by PCR-array of different tissues of juvenile sea bream fed with yeast and microalgae as alternative protein sources (2021). Type of Contract: Contrato de apoyo tecnológico; Funding Enterprise: SPAROS Lda (Portugal); Principal investigator: Jaume Pérez-Sánchez; FUNDING: 26,000 €
- Evaluation of functional feeds against *Enteromyxum leei* in sea bream (2019-2020). Type of Contract: Contrato de apoyo tecnológico; Funding Enterprise: Skretting (Noruega); Principal investigator: Oswaldo Palenzuela; FUNDING: 44,525 €
- PATENT: Dispositivo y método de monitorización de actividad en peces (ref. P201830305). Registered by CSIC and Las Palmas de Gran Canaria University. E Cabruja, M Lozano, J Pérez-Sánchez, J Calduch-Giner, CJ Sosa, MA Ferrer, JA Montiel, JM Afonso
- Proinmunoil+, dieta funcional para sustitución de ingredientes marinos en peces: maximización de resistencia a patógenos vía refuerzo de barreras epiteliales y herramientas de inmunización (2018-2019); Type of Contract: Contrato de apoyo tecnológico; Funding Enterprise: Instituto Universitario de Investigación en Acuicultura Sostenible y Ecosistemas Marinos; Principal investigator: Jaume Pérez-Sánchez; FUNDING: 9,262 €
- Research and experimental support services in the scope of project "ALISSA - Bases para uma alimentação saudável e sustentável para peixes de aquacultura" (2017-2018); Type of Contract: Contrato de apoyo tecnológico; Funding Enterprise: Universidade do Algarve; Principal investigator: Jaume Pérez-Sánchez; FUNDING: 53,200 €
- Training Course on "Fish Nutrition Research: Recent Advances and Perspectives" (2017); Type of Contract: Contrato de apoyo tecnológico; Funding Enterprise: USSEC (U.S. Soybean Export Council); Principal investigator: Jaume Pérez-Sánchez; FUNDING: 13,894.59 €
- Heptanoate effects on gilthead sea bream growth performance (2016); Type of Contract: Contrato de apoyo tecnológico; Funding Enterprise: Biomar, Norel S.A.; Principal investigator: Jaume Pérez-Sánchez; FUNDING: 41,963.77 €
- Efectos del DICOSAN y ECOBIOL sobre el crecimiento de doradas en cultivo (Fases I y II) (2015-2016); Type of Contract: Contrato de apoyo tecnológico; Funding Enterprise: NOREL S.A.; Principal investigator: Jaume Pérez-Sánchez; FUNDING: 23.909,60 €