Date of the CVA	09/12/2020

Section A. PERSONAL DATA

Name and Surname	Guiomar ROTLLANT ESTELRICH		
DNI/NIE/Passport		Age	
Researcher's identification number	Researcher ID	I-1838-2013	
	Scopus Author ID		
	ORCID	0000-0002-6692-9678	

* Obligatorio

A.1. Current professional situation

Institution	Consejo Superior de Investigaciones Científicas		
Dpt. / Centre			
Address			
Phone		Email	
Professional category	Investigador Científico	Start date	2018
Keywords	Biological sciences; Cattle ranch and fishes		

A.2. Academic education (Degrees, institutions, dates)

Bachelor/Master/PhD	University	Year
Doctor en Ciencias Biológicas	Université Montpellier II / Universidad de Barcelona	1993
Licenciado en Ciencias Biológicas Especialidad Zoología	Universitat Autònoma de Barcelona	1987

A.3. General quality indicators of scientific production

Sexenios: Four (1991-1999; 2000-2005; 2006-2011; 2012-2018).

Quinquenios: Five (1988-1993; 1994-1999; 2000-2005; 2006-2010; 2011-2019).

Research projects:IP of 12 projects plus participating in other 3 projects. EU: 2/4, National: 7/14, Regional: 3/7, and Others: 0/5.

Technical Consulting projects:5.

PhD supervisor: Three (Univ. Barcelona, Mireia Andrés – 2010, Carles G. Simeó – 2012 & Diego Castejón – 2018 – Awarded as the best thesis in aquaculture in 2018 by the Spanish Association of Aquaculture, SEA). One thesis under direction.

MsC supervisor: Three (Univ. Barcelona, Mireia Andrés – 2007, Carles G. Simeó – 2007 & Marta Carretón - 2016).

Publications: Editor of special volume in Crustacean Genomics published in Hydrobiologia in 2018. Author of 3 book chapters and 134 research papers, of which 97 ranked in SCI journals (43 in the last 10 years).

Total number of citations: WoS/WoK: 1450. Google Scholar: 1910.

H-index: WoS/WoK: 21; Google Scholar: 26.

Conferences: Member of the organizing committee of one international conference where I lead a specific symposium and member of the scientific committee of two other conferences. A total of 129 communications; from those, three invited communications and two awarded communications.

Outreach activities: Participating in 24 Seminars/conferences, 6 TV programs, 8 Publications, 8 Press release articles.

Participation in Research cruises: 30 cruises in Research Vessels (García del Cid, BioHesperides, Sarmiento de Gamboa and Aegeos) and Fishing Vessels (Maireta III, Marianne, Raig de Sol, Meridian, Na Teresa and Poki Tane) during 317 days in the Mediterranean Sea, Antartida, Atlantic Ocean and Pacific Ocean.

Participation in PhD and Masters committees:7 (España y Australia).

Evaluation of Research Projects/Grants (# panels):33 (EU:6 ; Spain:13 ; Catalonia: 5; Valencia: 1; Argentina:1 ; Vietnam: 2; Private: 5). A total of 88 proposals.

Certificado de elegibilidad del programa I3 (Programa de Incentivación para la Incorporación e Intensificación de la Actividad Investigadora). Diciembre de 2007.

Section B. SUMMARY OF THE CURRICULUM

1982-1987 Bachelor in Biology at the Autonomous University of Barcelona **1988-1989** Master Student at "Centre Océanogique de Marseille" - France (ERASMUS grant). **1989-1993** PhD student at the University of Montpellier (FPU grant + COMMET for mobility to Nijmegen, The Netherlands). **1993-1996** Post-Doctoral fellow at the University of Connecticut - USA (Postdoctoral grant, Spanish government). **1996-2003** Post-Doctoral researcher Institute of Marine Sciences (ICM-CSIC) - Barcelona, Spain (Reintegration postdoctoral grant, Spanish government + grant from "Fundación Alfonso Martin Escudero"). **2003-2008** Researcher "Ramón y Cajal" initiative at IRTA, Sant Carles de la Ràpita. **2008-2013** Tenured Researcher at IRTA. **2013-2017** Researcher at ICM-CSIC. **From 2018** Tenured researcher (Investigadora Científica) at ICM-CSIC.

My research has been focus on crustacean physiology, mainly in reproduction, to bring the scientific knowledge to improve production (fisheries and aquaculture), conservation and restoration of crustaceans in a continuous changing environment. This research is developed through three objectives centred in basic research: life cycle of crustaceans, anatomy and morphology, and endocrine control of reproduction. The fourth objective studies the effect of the environmental changes in the crustacean populations. To do so, I realize studies from the gene to the ecosystem using diverse methodologies: omics, in situ hybridization, histochemistry, biochemistry and/or histology. The use of omics in crustaceans is relatively new and to include this approach in my research I did a training in the CSIRO in Brisbane thanks to a Sir Frederick Fellowship. The leadership of an EU project followed this training for the cooperation with Australia and the results of this cooperation is summarized in the Crustacean Genomic Symposium that I organize and the publication of special volume in Hydrobiologia.

My research in crustacean physiology has been enlarged in the last 5 years due to society needs. First, the recent exponential decrease in biodiversity increased my research interest in this field since functional physiology approach might improve our chance to mitigate the effect of global change. Secondly, the European Food Safety Authority (EFSA) pointed out the lack of practical and scientific validated humane stunning methods for crustaceans and indicated that these animals need to be legislated as vertebrates and cephalopods.

Section C. MOST RELEVANT MERITS (ordered by typology)

C.1. Publications

AC: Autor de correspondencia; (nº x / nº y): posición firma solicitante / total autores

1 **Scientific paper**. Marta Carretón; Antonina Dos Santos; Lígia Faria De Sousa; Guiomar Rotllant; Joan B. Company. 2020. Morphological description of the first protozoeal stage of the deep-sea shrimps Aristeus antennatus and Gennadas elegans, with a key Scientific Reports. Springer Nature. 10-11178, pp.1-10.

2 **Scientific paper**. Morane Clavel-Henry; Nixon Bahamón; Jordi Solé; Giulia Gorelli; José Antonio García del Arco; Marta Carretón; Guiomar Rotllant; Joan B. Company. 2020. Modeling the spatiotemporal distribution of the deep-sea shrimp Aristeus antennatus (Crustacea: Decapoda) on the northwestern Mediterranean continental margin crossed by submarine canyons Journal of Marine Systems. Elsevier B.V.. 209-103372, pp.1-9.

3 **Scientific paper**. Morane Clavel-Henry; Jordi Solé; Miguel Ahumada-Sempoal; Nixon Bahamon; Florence Briton; Guiomar Rotllant; Joan B. Company. 2019. Influence of the summer deep-sea circulations on passive drifts among the submarine canyons in the northwestern Mediterranean Sea Ocean Science. 15-6, pp.1745-1759.

4 **Scientific paper**. Castejon, Diego; Rotllant, Guiomar; Ribes, Enric; Durfort, Merce; Guerao, Guillermo. 2019. Structure of the stomach cuticle in adult and larvae of the spider crab Maja brachydactyla (Brachyura, Decapoda) JOURNAL OF MORPHOLOGY. WILEY. 280-6, pp.370-380. ISSN 1097-4687.

5 **Scientific paper**. Castejón, Diego; Rotllant, Guiomar; Guillermo Guerao. (2/3). 2019. Factors influencing successful settlement and metamorphosis of the common spider crab Maja brachydactyla Balss, 1922 (Brachyura: Majidae): Impacts of larval density, adult exudates and different substrates Aquaculture. 501, pp.374-381. ISSN 0044-8486.

6 **Scientific paper**. Roldán María Inés; Carretón Marta; Company Joan B.; et al;. 2019. Morphological identification and molecular confirmation of the deep-sea blue and red shrimp Aristeus antennatus larvae PeerJ. 7-e6063.

7 **Scientific paper**. Castejón, Diego; Rotllant, Guiomar; Alba-Tejedor, Javier; Maria Font i Furnols; Enric Ribes; Mercè Durfort; Guillermo Guerao. (2/). 2018. Morphology and ultrastructure of the midgut gland ("hepatopancreas") during ontogeny in the common spider crab Maja brachydactyla Balss, 1922 (Brachyura, Majidae) Arthropod structure & development. Epub 2018 Dec 14.

8 **Scientific paper**. Ventura, Tomer; Palero, Ferran; Rotllant, Guiomar; Fitzgibbon, Quinn P.2018. Crustacean metamorphosis: an omics perspective HYDROBIOLOGIA. 825-1, pp.47-60. ISSN 0018-8158.

9 **Scientific paper**. Rotllant, Guiomar; Tuan Viet Nguyen; Hurwood, David; et al; Mather, Peter B.2018. Evaluation of genes involved in Norway lobster (Nephrops norvegicus) female sexual maturation using transcriptomic analysis HYDROBIOLOGIA. 825-1, pp.137-158. ISSN 0018-8158.

10 **Scientific paper**. Tuan Viet Nguyen; Jung, Hyungtaek; Rotllant, Guiomar; Hurwood, David; Mather, Peter; Ventura, Tomer. 2018. Guidelines for RNA-seq projects: applications and opportunities in non-model decapod crustacean species HYDROBIOLOGIA. 825-1, pp.5-27. ISSN 0018-8158.

11 **Scientific paper**. Rotllant, Guiomar; Palero, Ferran; Mather, Peter B.; Bracken-Grissom, Heather D.; Begona Santos, M.2018. Preface: Recent advances in Crustacean Genomics HYDROBIOLOGIA. 825-1, pp.1-4. ISSN 0018-8158.

12 **Scientific paper**. Rotllant, Guiomar; Tuan Viet Nguyen; Aizen, Joseph; Suwansa-ard, Saowaros; Ventura, Tomer. 2018. Toward the identification of female gonad-stimulating factors in crustaceans HYDROBIOLOGIA. 825-1, pp.91-119. ISSN 0018-8158.

13 **Scientific paper**. Castejon, Diego; Rotllant, Guiomar; Gimenez, Luis; Torres, Gabriela; Guerao, Guillermo. 2018. Influence of temperature and light regime on the larval development of the common spider crab Maja brachydactyla Balss, 1922 (Brachyura: Majidae) AQUACULTURE RESEARCH. WILEY. 49-11, pp.3548-3558. ISSN 1355-557X.

14 **Scientific paper**. Castejon, Diego; Alba-Tercedor, Javier; Rotllant, Guiomar; Ribes, Enric; Durfort, Merce; Guerao, Guillermo. 2018. Micro-computed tomography and histology to explore internal morphology in decapod larvae SCIENTIFIC REPORTS. NATURE PUBLISHING GROUP. 8. ISSN 2045-2322.

15 **Scientific paper**. Nguyen, Tuan V.; Rotllant, Guiomar E.; Cummins, Scott F.; Elizur, Abigail; Ventura, Tomer. 2018. Insights Into Sexual Maturation and Reproduction in the Norway Lobster (Nephrops norvegicus) via in Silico Prediction and Characterization of Neuropeptides and G Protein-coupled Receptors FRONTIERS IN ENDOCRINOLOGY. FRONTIERS MEDIA SA. 9. ISSN 1664-2392.

16 **Scientific paper**. Sbragaglia, V; Lamanna, F.; Mat, A. M.; Rotllant, G.; Joly, S.; Ketmaier, V. 2018. Identification, Characterization, and Diel Pattern of Expression of Canonical Clock Genes in Nephrops norvegicus (Crustacea: Decapoda) Eyestalk (vol 10, e0141893, 2015) PLOS ONE. 13-7. ISSN 1932-6203.

17 **Scientific paper**. Rotllant, Guiomar; Tuan Viet Nguyen; Sbragaglia, Valerio; et al; Mather, Peter B.2017. Sex and tissue specific gene expression patterns identified following de novo transcriptomic analysis of the Norway lobster, Nephrops norvegicus BMC GENOMICS. BMC. 18. ISSN 1471-2164.

18 **Scientific paper**. Valls, Elisenda; Navarro, Joan; Barria, Claudio; Coll, Marta; Fernandez-Borras, Jaume; Rotllant, Guiomar. 2016. Seasonal, ontogenetic and sexual changes in lipid metabolism of the small-spotted catshark (Scyliorhinus canicula) in deep-sea free-living conditions JOURNAL OF EXPERIMENTAL MARINE BIOLOGY AND ECOLOGY. ELSEVIER SCIENCE BV. 483, pp.59-63. ISSN 1879-1697.

19 **Scientific paper**. Castejon, Diego; Rotllant, Guiomar; Gimenez, Luis; Torres, Gabriela; Guerao, Guillermo. 2015. THE EFFECTS OF TEMPERATURE AND SALINITY ON THE SURVIVAL, GROWTH AND DURATION OF THE LARVAL DEVELOPMENT OF THE COMMON SPIDER CRAB MAJA BRACHYDACTYLA (BALSS, 1922) (BRACHYURA: MAJIDAE) JOURNAL OF SHELLFISH RESEARCH. NATL SHELLFISHERIES ASSOC. 34-3, pp.1073-1083. ISSN 0730-8000.

20 **Scientific paper**. Sbragaglia, Valerio; Lamanna, Francesco; Mat, Audrey M.; Rotllant, Guiomar; Joly, Silvia; Ketmaier, Valerio; de la Iglesia, Horacio O.; Aguzzi, Jacopo. 2015. Identification, Characterization, and Diel Pattern of Expression of Canonical Clock Genes in Nephrops norvegicus (Crustacea: Decapoda) Eyestalk PLOS ONE. PUBLIC LIBRARY SCIENCE. 10-11. ISSN 1932-6203.

21 **Scientific paper**. Marta Carretón; Joan B. Company; Alenxandra Boné; Guiomar Rotllant; Guillermo Guerao; Nixon Bahamón; Antonina Dos Santos. 2020. Decapod crustacean larval community structure of the submarine canyon off Blanes (NW Mediterranean Sea) Scientia Marina. CSIC. 84-1, pp.71-82.

22 **Scientific paper**. Morane Clavel-Henry; Jordi Solé; Trond Kristiansen; Nixon Bahamon; Guiomar Rotllant; Joan B. Company. 2020. Modeled buoyancy of eggs and larvae of the deep-sea shrimp Aristeus antennatus (Crustacea: Decapoda) in the northwestern Mediterranean Sea PLoS ONE. 15-1, pp.e0223396-e0223396.

23 **Book chapter**. Guiomar Rotllant; Joan B. Company; Rudà Amorim Lucena; Anna Solr-Membrives. 2021. Deep-sea pycnogonids from Urugay: every deep cruise adds valuable information Deep-Sea Pycnogonids and Crustaceans of the Americas. Springer. 6, pp.1-14.

24 **Book chapter**. Guiomar Rotllant; Ana Verdi; Ricardo Santos-Bethencourt; Nixon Bahamón. 2021. Diversity, Abundance, and Biomass of Deep-Sea Decapod Crustaceans of the Uruguayan Continental Slope in the Southwestern Atlantic Ocean Deep-Sea Pycnogonids and Crustaceans of the Americas. Springer. 19, pp.1-31.

25 **Book chapter**. Chaosu Zeng; Guiomar Rotllant; Luis Giménez; Nicholas Romano. (2/4). 2020. Environmental conditions and larval growth The Natural History of the Crustacea. Oxford University Press. VII-7.

C.2. Participation in R&D and Innovation projects

1 Unifying Approaches to Marine Connectivity for improved Resource Management for the Seas (SEA-UNICORN) Audrey Darnaude. (CNRS). 22/09/2020-21/09/2024.

2 Colaboración para el diseño de medidas de manejo de nuevas pesquerías de aguas profundas en un ecosistema pristinio del mar caribe colombiano 1. (ICM-CSIC). 01/04/2019-31/03/2021. 23.550 €.

3 Mejoras en el Laboratorio de Biología Molecular para el estudio de los ecosistemas Marinos (MolMar) Guiomar Rotllant Estelrich. (ICM-CSIC). 01/01/2019-31/12/2020. 144.371 €.

4 CTM2017-82991-C2-1-R, Reservas marinas de interés pesquero como herramienta de gestion para recuperar pesquerias icónicas del Mediterráneo: el caso de la cigala Nephrops norvegicus (RESNEP) Plan Estatal - MINECO-Proyectos I+D+I RETOS. Joan Navarro Bernabé. (Instituto de Ciencias del Mar). 01/01/2018-31/12/2020. 171.820 €. Team member.

5 CTM2014-54648-C2-1-R, ¿Conectividad poblacional en la gamba rosada, Aristeus antennatus, en el Mediterraneo noroccidental entre el golfo de León y el golfo de Valencia? Modelo de deriva larvaria Plan Estatal - MINECO-Proyectos I+D+I RETOS. Joan B. Company Claret. (Instituto de Ciencias del Mar). 01/01/2015-31/12/2018. 154.880 €. Team member.

6 1442320113, Connectivity among Mediterranean fishery stakeholders and scientists resolves connectivity of fishery populations (ConFish) UE-InterrregMed. Anamaria Štambuk. (Instituto de Ciencias del Mar). 01/11/2016-30/07/2018. 561.574 €. Team member.

7 2013-IRSES (n° 612296), Development of genomic tools for assessing nutrition, growth and reproduction issues in farmed crustacean species FP7-PEOPLE. Guiomar Rotllant Estelrich. (Instituto de Ciencias del Mar). 01/11/2013-31/10/2017. 42.000 €. Co-ordinator.

C.3. Participation in R&D and Innovation contracts

Estudio de la megafauna de profundidad en la Zona de Explotación Económica de Uruguay Guiomar Rotllant Estelrich. (Instituto de Ciencias del Mar). 02/03/2016-02/10/2016. 86.152 €.

C.4. Patents