

Fecha del CVA

18/12/2023

## Parte A. DATOS PERSONALES

Nombre	Isabel		
Apellidos	Rodríguez-Moldes Rey		
Sexo	Mujer	Fecha de Nacimiento	
DNI/NIE/Pasaporte			
URL Web			
Dirección Email	isabel.rodriguez-moldes@usc.es		
Open Researcher and Contributor ID (ORCID)	0000-0003-1460-5935		

### A.1. Situación profesional actual

Puesto	Full Professor		
Fecha inicio	2011		
Organismo / Institución	University of Santiago de Compostela		
Departamento / Centro	Departamento de Biología Funcional (Área de Biología Celular) / Facultad de Biología-CIBUS		
País		Teléfono	
Palabras clave	Biología del desarrollo; Biología evolutiva; Regulación de la expresión génica; Embriología animal		

### A.2. Situación profesional anterior (incluye interrupciones en la carrera investigadora - indicar meses totales, según texto convocatoria-)

Periodo	Puesto / Institución / País
2014 - 2018	Vice-chancellor of Research and Innovation / University of Santiago de Compostela
2012 - 2014	Director of the International Doctoral School (EDI) / University of Santiago de Compostela
1991 - 2011	Associate Professor / University of Santiago de Compostela
1991 - 1991	Associate Professor / University of Vigo

### A.3. Formación académica

Grado/Master/Tesis	Universidad / País	Año
PhD in Biology	University of Santiago de Compostela	1986
Degree in Biology	University of Santiago de Compostela	1980

## Parte B. RESUMEN DEL CV

Isabel Rodríguez-Moldes (**ORCID 0000-0003-1460-5935**) is graduate (1980) and PhD (1986) in Biology from the University of Santiago de Compostela (USC). Associate Professor of Cell Biology from 1990 and Full Professor since 2011. Researcher on the neuroscience field at the Center for Research in Biology of USC (CIBUS) in the NEURODEVO group (<https://investigacion.usc.gal/investigadores/60225/detalle>) focused on the development and regeneration of the nervous system of fish, which has been recognized as a Competitive Reference Group by the Xunta de Galicia in 2021. Most of her research has been focused on the study of the vertebrate brain development from an evolutionary approach that uses the shark embryo as a model with the aim of identifying the conserved patterns and mechanisms of brain development. This approach can provide key information to advance knowledge about the origins of neurological disorders. Most of this research has been carried out under the framework of 20 national and autonomic funded projects of which she has been IP or Co-IP of 11 (5 funded by Spanish Ministry of Education and Technology-FEDER and 6 by Xunta de Galicia). She carries out research with international groups, highlighting the one she develops

since 2004 with the group of Dr. Sylvie Mazan from the CNRS (currently at the Observatoire Océanologique de Banyuls, France) and responsible for the sequencing of the genome of a small shark, the dogfish *Scyliorhinus canicula*, which has made possible to consolidate this species as a model organism for experimentation in developmental and evolutionary biology. With an h-index= 32 (Google Scholar) and 6 six-year research periods (sexenios; the last granted 2017/20226 with date 05/05/2023), Rodríguez-Moldes is co-author of 89 cited documents among scientific articles published in SCI indexed journals (Q1 more than 90% of those published in the last 10 years) and book chapters (the most relevant in the last 10 years listed below), and more than 100 communications to congresses on neuroscience and developmental biology. Referee of more than 20 indexed journals. Supervisor of 12 Doctoral Theses, 4 in the last 10 years, 6 as co-supervisor (5 received the extraordinary doctorate award and 5 the European or International Mention) and more than 20 supervised research works among Degree's and Master's thesis. Teaching activity for 37 years (mainly in the Faculty of Biology, USC) in Degree in Biology and Master Degree in Neuroscience, among others. Director of the International Doctoral School (EDI) of the USC (2012-2014) and Vice-chancellor of Research and Innovation of the USC (2014-2018).

## Parte C. LISTADO DE APORTACIONES MÁS RELEVANTES

### C.1. Publicaciones más importantes en libros y revistas con “peer review” y conferencias

AC: Autor de correspondencia; (nº x / nº y): posición firma solicitante / total autores. Si aplica, indique el número de citaciones

- 1 **Capítulo de libro.** Rodríguez-Moldes, I.; Santos-Durán, G.N.; Pose-Méndez, S.M.; Quintana-Urzainqui, I.; Candal, E.2020. The Brains of Cartilaginous Fishes. Evolutionary Neuroscience. Elsevier. 1, pp.101-123. ISBN 9780128206065.
- 2 **Capítulo de libro.** (1/5) Isabel Rodríguez-Moldes (AC); Gabriel N. Santos-Durán; Sol M.Pose-Méndez; Idoia Quintana-Urzainqui; Eva Candal. 2016. The Brains of Cartilaginous Fishes. Evolution of Nervous Systems (Second Edition), vol 1, Editor-in-Chief: Jon Kaas. Elsevier. vol 1, ch. 5, pp.77-97. ISBN 978-0-12-804096-6.
- 3 **Artículo científico.** Gabriel Santos-Durán; Susana Ferreiro-Galve; Sylvie Mazan; Ramón Anadón; (5/6) Isabel Rodríguez-Moldes; Eva Candal. 2022. Developmental genoarchitectonics as a key tool to interpret the mature anatomy of the chondrichthyan hypothalamus according to the prosomeric model. Frontiers in Neuroanatomy. 16:901451..
- 4 **Artículo científico.** (1/8) Rodríguez-Moldes, I. (AC); Quintana-Urzainqui, I.; Santos-Durán, G.N.; Ferreiro-Galve, S.; Pereira-Guldris, S.; Candás, M.; Mazan, S.; Eva Candal. 2021. Identifying Amygdala-Like Territories in *Scyliorhinus canicula* (Chondrichthyan): Evidence for a Pallial Amygdala. BRAIN BEHAVIOR AND EVOLUTION. Karger-Basel. 18, pp.1-22.
- 5 **Artículo científico.** Daniel Sobrido Cameán; Hervé Tostivint; Sylvie Mazan; María Celina Rodicio; (5/8) Isabel Rodríguez-Moldes; Eva Candal; Ramón Anadón; Antón Barreiro Iglesias. 2020. Differential expression of five prosomatostatin genes in the central nervous system of the catshark *Scyliorhinus canicula*. The Journal of Comparative Neurology. Wiley. 528-14, pp.2333-2360.
- 6 **Artículo científico.** Lagadec, Ronan; Lanoizelet, Maxence; Sanchez-Farias, Nuria; et al; Mazan, Sylvie; (8/10) Rodriguez-Moldes, Isabel. 2018. Neurogenetic asymmetries in the catshark developing habenulae: mechanistic and evolutionary implications. SCIENTIFIC REPORTS. NATURE PUBLISHING GROUP. 8. ISSN 2045-2322. Google Scholar (1)
- 7 **Artículo científico.** Santos-Duran, Gabriel N.; Ferreiro-Galve, Susana; Menuet, Arnaud; Mazan, Sylvie; (5/6) Rodriguez-Moldes, Isabel; Candal, Eva. 2018. The Shark Basal Hypothalamus: Molecular Prosomeric Subdivisions and Evolutionary Trends. FRONTIERS IN NEUROANATOMY. FRONTIERS MEDIA SA. 12. ISSN 1662-5129. Google Scholar (1)

- 8 Artículo científico.** Souto, Javier; Lustres-Perez, Vicente; Gonzalez-Touceda, David; Rodriguez, Miguel; Rodriguez-Moldes, Isabel. 2018. Occurrence of *Staurosoma parasiticum* in populations of *Anemonia viridis* in the NW Iberian Peninsula. CAHIERS DE BIOLOGIE MARINE. CAHIERS DE BIOLOGIE MARINE. 59-1, pp.25-29. ISSN 2262-3094. WOS (0)
- 9 Artículo científico.** Pose-Mendez, Sol; (2/5) Rodriguez-Moldes, Isabel; Candal, Eva; Mazan, Sylvie; Anadon, Ramon. 2017. A Developmental Study of the Cerebellar Nucleus in the Catshark, a Basal Gnathostome. BRAIN BEHAVIOR AND EVOLUTION. KARGER. 89-1, pp.1-14. ISSN 1421-9743. WOS (1)
- 10 Artículo científico.** Santos-Duran, Gabriel N.; Ferreiro-Galve, Susana; Menuet, Arnaud; Quintana-Urzainqui, Idoia; Mazan, Sylvie; (6/7) Rodriguez-Moldes, Isabel; Candal, Eva. 2016. The Shark Alar Hypothalamus: Molecular Characterization of Prosomeric Subdivisions and Evolutionary Trends. FRONTIERS IN NEUROANATOMY. FRONTIERS MEDIA SA. 10. ISSN 1662-5129. WOS (2)
- 11 Artículo científico.** Pose-Mendez, Sol; Candal, Eva; Mazan, Sylvie; (4/4) Rodriguez-Moldes, Isabel (AC). 2016. Genoarchitecture of the rostral hindbrain of a shark: basis for understanding the emergence of the cerebellum at the agnathan-gnathostome transition. BRAIN STRUCTURE & FUNCTION. SPRINGER HEIDELBERG. 221-3, pp.1321-1335. WOS (8)
- 12 Artículo científico.** Pose-Mendez, Sol; Candal, Eva; Mazan, Sylvie; (4/4) Rodriguez-Moldes, Isabel (AC). 2016. Morphogenesis of the cerebellum and cerebellum-related structures in the shark *Scyliorhinus canicula*: insights on the ground pattern of the cerebellar ontogeny. BRAIN STRUCTURE & FUNCTION. SPRINGER HEIDELBERG. 221-3, pp.1691-1717. ISSN 1863-2653. WOS (4)
- 13 Artículo científico.** Quintana-Urzainqui, Idoia; (2/4) Rodriguez-Moldes, Isabel; Mazan, Sylvie; Candal, Eva. 2015. Tangential migratory pathways of subpallial origin in the embryonic telencephalon of sharks: evolutionary implications. BRAIN STRUCTURE & FUNCTION. SPRINGER HEIDELBERG. 220-5, pp.2905-2926. ISSN 1863-2653. WOS (7)
- 14 Artículo científico.** Santos-Duran, Gabriel N.; Menuet, Arnaud; Lagadec, Ronan; Mayeur, Helene; Ferreiro-Galve, Susana; Mazan, Sylvie; Rodriguez-Moldes, Isabel; Candal, Eva. 2015. Prosomeric organization of the hypothalamus in an elasmobranch, the catshark *Scyliorhinus canicula*. FRONTIERS IN NEUROANATOMY. FRONTIERS RESEARCH FOUNDATION. 9. ISSN 1662-5129. WOS (7)
- 15 Artículo científico.** Lagadec, Ronan; Laguerre, Laurent; Menuet, Arnaud; et al; Boutet, Agnes; (9/13) Rodriguez-Moldes, Isabel. 2015. The ancestral role of nodal signalling in breaking L/R symmetry in the vertebrate forebrain. NATURE COMMUNICATIONS. NATURE PUBLISHING GROUP. 6. ISSN 2041-1723. WOS (16)
- 16 Artículo científico.** Idoia Quintana-Urzainqui; Ramón Anadón; Eva Candal; Isabel Rodríguez-Moldes. 2014. Development of the terminal nerve system in the shark *Scyliorhinus canicula*. Brain Behav Evol. Karger AG, Basel. 84 (2014), pp.277-287.
- 17 Artículo científico.** Pose-Mendez, Sol; Candal, Eva; Adrio, Fatima; (4/4) Rodriguez-Moldes, Isabel (AC). 2014. Development of the Cerebellar Afferent System in the Shark *Scyliorhinus canicula*: Insights Into the Basal Organization of Precerebellar Nuclei in Gnathostomes. JOURNAL OF COMPARATIVE NEUROLOGY. WILEY-BLACKWELL. 522-1, pp.131-168. ISSN 0021-9967. WOS (10)
- 18 Artículo científico.** Quintana-Urzainqui, Idoia; (2/3) Rodriguez-Moldes, Isabel; Candal, Eva. 2014. Developmental, tract-tracing and immunohistochemical study of the peripheral olfactory system in a basal vertebrate: insights on Pax6 neurons migrating along the olfactory nerve. BRAIN STRUCTURE & FUNCTION. SPRINGER HEIDELBERG. 219-1, pp.85-104. ISSN 1863-2653. WOS (12)
- 19 Artículo científico.** Anadon, Ramon; (2/3) Rodriguez-Moldes, Isabel; Adrio, Fatima. 2013. Glycine-immunoreactive neurons in the brain of a shark (*Scyliorhinus canicula* L.). JOURNAL OF COMPARATIVE NEUROLOGY. WILEY-BLACKWELL. 521-13, pp.3057-3082. ISSN 0021-9967. WOS (4)
- 20 Revisión bibliográfica.** Carmen Álvarez-Lorenzo; Mariana Zarur; Alejandro Rabina-Seijo; Bárbara Blanco-Fernández; (5/6) Isabel Rodriguez-Moldes; Ángel Concheiro. 2023. Physical stimuli-emitting scaffolds: The role of piezoelectricity in tissue regeneration. Materials today. Bio.Elsevier. 22:100740.

### C.3. Proyectos o líneas de investigación

- 1 **Proyecto.** PID2020-113881RB-I00, ARQUITECTURAS 5D PARA MEDICINA REGENERATIVA Y TERAPIA LOCALIZADA. Ministerio de Ciencia e Innovación (Convocatoria RETOS 2000). Álvarez Lorenzo IP1. (Universidad de Santiago de Compostela). 01/09/2021-01/09/2024. 228.569 €.
- 2 **Proyecto.** Descodificacion de las bases moleculares de la neurogenesis en el adulto mediante el analisis de la dinamica transcripcional de nichos neurogenicos de larga duracion. Ministerio de Economia, Industria y Competitividad. Isabel Rodríguez-Moldes Rey. (Universidad de Santiago de Compostela). 01/01/2018-31/12/2020. 133.100 €.
- 3 **Proyecto.** BFU2014-58631-P, Estudio de la neurogenesis en cerebro embrionario y adulto desde una perspectiva evolutiva.. Ministerio de Ciencia e Innovación. Isabel Rodríguez-Moldes Rey. (Universidad de Santiago de Compostela). 01/01/2015-31/12/2017. 145.000 €. Co-Investigador Principal.