

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	José Antonio		
Family name	Lamas Castro		
Gender (*)	Male	Birth date (dd/mm/yyyy)	
Social Security, Passport, ID number			
e-mail	antoniolamas@uvgo.es	https://cinbio.es/persoal?id=5e200e89-60a2-4e77-bf28-6fb1abfb0370	
Open Researcher and Contributor ID (ORCID) (*)		0000-0002-4453-4595	

(*) Mandatory

A.1. Current position

Position	Permanent Associate Professor (Profesor Titular de Universidad)		
Initial date	04/03/2000		
Institution	University of Vigo		
Department/Center	CINBIO	Dep. of Functional Biology and Health Sciences	
Country	Spain	Teleph. number	
Key words	Neurophysiology. Neuronal excitability. Electrophysiology. Ion Channels. Neuronal culture. Patch-clamp		

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

Period	Position/Institution/Country/Interruption cause
1993-1993	Postdoctoral fellow/Institute Alfred-Fessard/France
1993-1994	Postdoctoral fellow/University of Santiago de Compostela/Spain
1994-1995	Research Fellow/University College London/UK
1995-1998	Associate professor/University of Vigo/ Spain
1998-present	Permanent Associate Professor/University of Vigo/Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Licensed. Biological Sciences	University of Santiago de Compostela/Spain	1988
Master in Science	University of Santiago de Compostela/Spain	1989
PhD	University of Santiago de Compostela/Spain	1993

(Include all the necessary rows)

Part B. CV SUMMARY (max. 5000 characters, including spaces)

1989-1993. I started my scientific career in 1989 with a fellowship for Training of Research Staff (FPI) that allowed me to do the Doctoral Thesis under the direction of Prof. Antonio Canedo at the USC. My Thesis dealt with descending motor systems in anesthetized cats using classical electrophysiological techniques. We showed the strong connection between the motor cortex and the dorsal column nuclei. I also collaborated with the group of Prof. Carlos Diéguez in the regulation of the secretion of growth hormone by retinoic acid.

1993-1994. A fellowship from the USC (3 months) allowed me to learn the basics of the "patch-clamp" technique in the laboratory of Professor JD Vincent (Institut Alfred Fessard of Paris, CNRS). I returned to the USC where I settled the first patch-clamp laboratory in Galicia, although this stage lasted only 6 months (post-doctoral fellowship from the USC), this was

enough to study the modulation of sodium channels by caprylic acid in neuroglioma cells and to publish an article.

1994-1996. In April 1994 I started a postdoctoral stay in Prof. David A. Brown's group (University College London. UCL) that would last two and a half years. Initially I financed myself with a post-doctoral fellowship from the Xunta de Galicia. Later I got a supplement from the English Medical Research Council and from the pharmaceutical company Dupont-Merck. Finally, I got a competitive project from the Wellcome Trust Foundation. The most relevant work of this period was the systematic study of Linopirdine, a relatively selective blocker for the M current and that contributed to the discovery of the KCNQ family of potassium channels.

1996-2015. In December 1995, I obtained a Lecturer position at the University of Vigo, which became Interim Holder in April 1998 and Associate Professor in April 2000. We studied the ionic basis for the maintenance of resting potential in neurons of the superior cervical ganglion in culture. Later, we investigated the role of the persistent sodium current in subthreshold oscillations. In 2008, we discovered for the first time the presence of two-pore domain channels (K2P) in neurons of the autonomic nervous system, initially in the superior cervical ganglion and later in the nodose ganglion. During this time in Vigo, I have collaborated with different Spanish groups such as Professor Roberto Gallego, Dr. Andrés Morales, doctors Diego Álvarez and Teresa Giráldez or Dr. Álvaro Villarroel. Many of these collaborations have been financed by a CONSOLIDER project, but my group has been financed for 15 years by the different ministries.

2016-present. In February 2016, our laboratory moved from the Faculty of Biology to the Biomedical Research Centre (CINBIO) located on the UVIGO campus. This centre has obtained the qualification of "Singular Research Centre" from the Xunta de Galicia although it still belongs to the UVIGO. Here we initiated a new line of research dealing with two-pore domain potassium channels in the parasympathetic intracardiac ganglion and initiated an international collaboration with the group of Prof. Alistair Mathie from the University of Kent.

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications (see instructions)

- Iglesias-Martínez-Almeida M, Campos-Ríos A, Freiría-Martínez L, Rivera-Baltanás T, Rodríguez-Amorín D, Diz-Chaves Y, Comis-Tuche M, Fernández-Palleiro P, Rodríguez-Jamardo C, Ramos-García S, Rodríguez-Tébar A, Del Carmen Vallejo-Curto M, Campos-Pérez JA, López-García M, de Las Heras E, García-Caballero A, Olivares JM, **Lamas JA**, Spuch C. (2024) Characterization of voltage-gated potassium channels in peripheral blood mononuclear cells in schizophrenia. *Schizophr Res.* **270:260-272** doi: 10.1016/j.schres.2024.06.034 **JCR23 IF: 3.6. Q1**
- Diz-Chaves Y, Maastor Z, Spuch C, Lamas JA, González-Matías LC and Mallo F (2024) Glucagon-like peptide 1 receptor activation: anti-inflammatory effects in the brain. *Neural Regeneration Research.* 19(8):1671-1677. doi: 10.4103/1673-5374.389626. JCR22 IF: 6.1. Q1. eISSN: 1876-7958
- Herrera-Pérez S, **Lamas JA** (2023) TREK channels in the mechanotransduction process: Focusing on cardiovascular system. *Frontiers in cardiovascular medicine* 10:11802. doi: 10.3389/fcvm.2023.1180242. JCR21 IF: 5.848. Q2. 43/143. SJR20: eISSN: 2297-055X
- Campos-Ríos A, Rueda-Ruzafa L, Lamas JA. (2022) The Relevance of GIRK Channels in Heart Function. *Membranes* (Basel). 2022 Nov 9;12(11):1119. doi: 10.3390/membranes12111119. JCR21 IF: 4.562. Q1
- Herrera-Pérez S, Rueda-Ruzafa L, Campos-Ríos A, Fernández-Fernández D, Lamas JA (2022) Antiarrhythmic calcium channel blocker verapamil inhibits TREK currents in sympathetic neurons. *Frontiers in Pharmacology* 13:997188. 14 pages doi: 10.3389/fphar.2022.997188 JCR21 IF: 5.988. Q1.
- Rueda-Ruzafa L, Herrera-Pérez S, Campos-Ríos A and Lamas JA (2021) Are TREK channels temperature sensors? *Frontiers in cellular Neuroscience* 15:744702. 10 pages doi: 10.3389/fncel.2021.744702 PMID: 34690704. JCR21 IF: 6.147. Q1.
- Campos-Ríos A, Rueda-Ruzafa L, Herrera-Pérez S, Rivas-Ramírez P and Lamas JA (2021) Tetrodotoxin: a new strategy to treat visceral pain?. *Toxins* 13:496. 15 pages doi: /10.3390/toxins13070496 PMID: 34357968 JCR21 IF: 5.075. Q1.
- Herrera-Pérez S, Campos-Ríos A, Rueda-Ruzafa L and Lamas JA (2021) Contribution of K2P potassium channels to cardiac physiology and pathophysiology. *International Journal of Molecular Sciences* 22 (12):6635. 11 pages doi: 10.3390/ijms22126635. PMID: 34205717 JCR21 IF: 6.208. Q1. 69/296
- Romani-Pérez M; López-Almela I; Bullich-Vilarrubias C; Rueda-Ruzafa L; Gómez Del Pulgar EM; Benítez-Páez A; Liebisch G; Lamas JA; Sanz Y (2021) Holdemania bififormis 1 improves glucose

- tolerance and regulates GLP-1 signaling in obese mice. *FASEB Journal* 35(7): e21734. 17 pages doi: 10.1096/fj.202100126R. PMID: 34143451 JCR21 IF: 5.834. Q1. 16/94
- Fernández-Fernández D and Lamas JA (2021) Metabotropic modulation of potassium channels during synaptic plasticity. *Neuroscience* 456:4-16. 13 pages. Epub 2020 Feb 28 doi: 10.1016/j.neuroscience.2020.02.025. PMID: 32114098 JCR21 IF: 3.708. Q3. 146/274
 - Diz-Chaves Y, Herrera-Pérez S, González-Matías LC, Lamas JA, Mallo F (2020). Glucagon-like Peptide-1 (GLP-1) in the integration of neural and endocrine responses to stress. *Nutrients* 12 (11), 3304. 32 pages. doi: 10.3390/nu12113304. PMID: 33126672. JCR20 IF: 5.717. Q1. 17/89. SJR20: Q1
 - Rivas-Ramírez P, Reboreda A, Rueda-Ruzafa L, Herrera-Pérez S and Lamas JA (2020) Contribution of KCNQ and TREK channels to the resting membrane potential in sympathetic neurons at physiological temperature. *International Journal of Molecular Sciences* 21(16):5796. 16 pages. doi: 10.3390/ijms21165796. PMID: 32806753 JCR20 IF: 5.923. Q1. 67/298
 - Rivas-Ramírez P, Reboreda A, Rueda-Ruzafa L, Herrera-Pérez S and Lamas JA (2020) PIP2 mediated inhibition of TREK potassium currents by bradykinin in cultured mouse sympathetic neurons. *International Journal of Molecular Sciences* 21(2):389. 17 pages. doi: 10.3390/ijms21020389. PMID: 31936257 JCR20 IF: 5.923. Q1. 67/298
 - Armas-Capote N, Maglio LE, Pérez-Atencio L, Martín-Batista E, Reboreda A, Barrios JA, Hernández G, Álvarez de la Rosa D, Lamas JA, Barrio LC, Giráldez T (2020) SGK1.1 reduces kainic acid-induced seizure severity and leads to rapid termination of seizures. *Cerebral Cortex*. 30(5):3184-3197. 13 pages. doi: 10.1093/cercor/bhz302. PMID: 31819941 JCR20 IF: 5.357. Q1. 68/273

C.2. Congress, indicating the modality of their participation (invited conference, oral presentation, poster)

- Campos-Ríos A, Herrera-Pérez S, Rueda-Ruzafa L, Rodríguez-Piñeiro A and Lamas JA. "BL-1249 induces a clear hyperpolarization and a TREK-like current in mouse sympathetic neurons". 3rd Annual Meeting CINBIO. 1-2 July 2019, Vigo (Spain).
- *Campos-Ríos A, Lamas JA (2019) Caracterización farmacológica de la corriente activada por BL-1249 en neuronas simpáticas de ratón. XV Jornadas para jóvenes investigadores en neurociencia. Libro abstracts p26, O-18. A Coruña, 19 de julio de 2019. *Oral.
- S. Herrera-Perez, L. Rueda Ruzafa, A. Campos Rios, A. Rodriguez Piñeiro, J.A. Lamas Castro (2019) CLASS IV ANTIARRHYTHMIC DRUGS REDUCE THE CURRENT THROUGH TREK CHANNELS IN MOUSE INTRACARDIAC GANGLION NEURONS. 18th National meeting of the Spanish society of Neuroscience. PS3-15. Santiago de Compostela. September 4-6, 2019.
- L.E. Maglio, N. Armas-Capote, L. Pérez-Atencio, E. Martín-Batista, A. Reboreda, J.A. Barrios, G. Hernández, D. Álvarez De La Rosa, J.A. Lamas, T. Giráldez (2019). SGK1.1 ACTIVATION CAUSES EARLY SEIZURE TERMINATION VIA EFFECTS ON M-CURRENT. 18th National meeting of the spanish society of Neuroscience. PS5-95. Santiago de Compostela. September 4-6, 2019.
- Pérez-Romani M, López-Almela I, Villarrubias C, Cenit-Laguna MC, Gómez del Pulgar-Villanueva EM, Páez A, Rueda-Ruzafa L, Lamas JA and Sanz Y (2019). "Holdemanella Spp. improves glucose tolerance and benefits endogenous GLP- 1 system in diet- induced obese mice". *NeuroGASTRO* 2019. 5-7 September 2019, Lisbon (Portugal).
- *Varela M, Lamas JA (2021) Influencia de la acidificación intracelular en la actividad neuronal en neuronas de ganglio intracardíaco. XVI Jornadas para jóvenes investigadores en neurociencia. Libro abstracts p18, O-13. Santiago de Compostela, 23 de julio de 2021. *Oral.
- Campos-Ríos A, Rodrigues D, Rueda-Ruzafa L, Herrera-Pérez S, Monteiro P, Lamas JA. TREK channels and their physiological role in the intracardiac neurons: Focusing on temperature and intracellular acidification. 19th National meeting of the Spanish Society of Neuroscience (SENC). Abstract book p215. Lleida. November 3-5, 2021.
- Campos-Ríos, A., Rueda-Ruzafa, L., Herrera-Pérez, S. and Lamas, JA. Temperature modulates the behaviour of intracardiac neurons through TREK channels. Presented at 4th Annual Meeting CINBIO. Vigo, July 1 – 2, 2021.
- Campos-Ríos, A., Rodríguez-Castañeda, M., Monteiro, P. and Lamas, JA. K⁺ channels are responsible for alterations in intrinsic electrical properties in a Shank3 mouse model of autism spectrum disorder. Presented at VIII Congreso de la Red Española de Canales Iónicos (RECI). Alicante, May 24 – 27, 2022.
- Campos-Ríos A, Rodrigues D, Rueda-Ruzafa L, Herrera-Pérez S, Monteiro P, Lamas JA. TREK channels and their physiological role in the intracardiac neurons: Focusing on temperature and intracellular acidification. FENS Forum 2022. Paris. 9-13 July.

C.3. Research projects, indicating your personal contribution. In the case of young researchers, indicate lines of research for which they have been responsible.

- **MICINN**, PID2022-138236NB-I00. Modulación Colinérgica de los canales de potasio de doble dominio de poro tipo TREK expresados en neuronas de ganglio intracardiaco. Investigadores: J. Antonio Lamas (IP). Financiación: 81.250 €. Duración: 3 años, 1/9/2023-1/9/2026.
- **MICINN**, PID2019-109425GB-I00. BIF. Canales de potasio de doble dominio de poro (K2P-TREK) en neuronas parasimpáticas del ganglio intracardiaco de ratón (TREKING). Investigadores: J. Antonio Lamas (IP). Financiación: 36.300 €. Duración: 3 años, 1/6/2020-31/5/2023.
- **Xunta de Galicia**, ED431G/02. CINBIO. Acreditación, estructuración y mejora de Centros de investigación Singulares. Centro de investigación biomédica. Grupos de investigación: 13. IP del grupo de Neurociencia: J. Antonio Lamas. Director Científico: África González. Financiación total: 1.750.000 €. Financiación Grupo: ≈70.000 € Duración: 4 años, 2016-2019.
- **MINECO**, BFU2014-58999-P. Caracterización de los canales de potasio de doble dominio de poro (K2P) en neuronas del ganglio nodoso y su posible papel en la sensibilidad visceral. Investigadores: J. Antonio Lamas (IP). Financiación: 145.200 €. Duración: 4 años, 1/1/2015-31/12/2018.
- **MINECO**, BFU2015-70067-REDC. Redes de Excelencia CONSOLÍDER. Red Temática "La iniciativa española de canales iónicos. Grupos de investigación: 26. Coordinador General: Antonio Vicente Ferrer Montiel. IP del grupo Laboratory of Neuroscience: J. Antonio Lamas (IP). Financiación total: 51.500 €. Duración: 2 años, 2015-2017.
- **EUROPEAN COMMISSION**. FP7-316265-BIOCAPS. Call Identifier: FP7-REGPOT-2012-2013-1. Coordination and Support Actions (Support Action). Biomedical Capacities Support Program (BIOCAPS). África González: Coordinadora General. J. Antonio Lamas (IP): Research Leader of the Experimental Neurophysiology Group. Financiación total: 4.300.000 €. Duración: 3 años, 1/2/13-31/7/16.
- **MICINN**, BFU2011-25371. "Regulación de los canales de potasio de doble dominio de poro (K2P), de la subfamilia TREK, por agonistas muscarínicos y sustancias nootrópicas en neuronas del Sistema Nervioso Autónomo". Investigadores: J. Antonio Lamas (IP), Antonio Reboreda. Financiación: 94.380. Duración: 3 años + 10 meses, 1/1/2012-31/10/2015.
- **MICINN**, CSD2008-00005. Programa CONSOLIDER-INGENIO 2010. The Spanish Ion Channel Initiative (SICI). Grupos de investigación: 26. Coordinador General: Antonio Vicente Ferrer Montiel. IP del grupo Laboratory of Neuroscience: J. Antonio Lamas (IP). Financiación total: 6.000.000 €. Financiación Grupo: 190.000 €. Duración: 6 años, 15/12/2008-15/12/2014.
- **MICINN**, BFU2008-02952/BFI. "Corrientes iónicas implicadas en el mantenimiento del potencial de reposo y en la modulación de la excitabilidad celular en neuronas del ganglio cervical superior de ratón en cultivo". Investigadores: J. Antonio Lamas (IP), Sandro Ribeiro. Financiación: 136.730 €. Duración: 1/1/2009-31/12/2011.

C.4. Contracts, technological or transfer merits, Include patents and other industrial or intellectual property activities (contracts, licenses, agreements, etc.) in which you have collaborated. Indicate: a) the order of signature of authors; b) reference; c) title; d) priority countries; e) date; f) Entity and companies that exploit the patent or similar information, if any

Título del contrato/proyecto: Estudio del mecanismo de acción de β -carbolinas sobre neuronas simpáticas de ratón.

Tipo de contrato: Contrato de I+D

Código UVIGO: IN-0145-13

Empresa/Administración financiadora: SJT Molecular Research

Entidades participantes: Universidad de Vigo y SJT Molecular Research

Duración: desde: 9-5-2013 hasta: 9-9-2013

Investigador responsable: José Antonio Lamas Castro

Número de investigadores participantes: 1

PRECIO TOTAL DEL PROYECTO: 7123.88 euros
