

CURRICULUM VITAE

PERSONAL DETAILS

Name: Margarita Calvo
DOB: 15/05/1979
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CURRENT APPOINTMENTS

- Associate professor at Department of Physiology, Pontificia Universidad Católica de Chile
- Physician at Pain Clinic at Red Salud UC Christus

EDUCATION

- **Master in Peripheral Nervous System Disorders** 2020
Universita degli studi di Milano
Course coordinator prof. Giuseppe Lauria Pinter
- **PhD in Neuroscience** 2011
King's College London, UK
PhD supervisor: Professor David Bennett
- **MSc in Pain: Science and Society** 2007
King's College London, UK
Awarded with Distinction
- **Medical Doctor** 2006
Pontificia Universidad Catolica de Chile
Awarded with Maximal Distinction

My research interest is complementary to my clinical work. My general aim is to better understand the mechanisms behind neuropathic pain. I study both animal models and patients employing a variety of techniques ranging from transgenic mouse models to human psychophysical studies and genetics. I currently have two active lines: neuropathic pain in dermatological diseases, and pain modulation by potassium channels. Apart from research, I currently attend a chronic pain patient unit twice a week within the Interdisciplinary Pain Management Team at Pontificia Universidad Católica de Chile.

RESEARCH GRANTS FELLOWSHIPS

1. EB Research Partnership together with Elena Pope, MD, MSc University of Toronto
Title: "A double-blind, randomized, cross-over, multi-centre, feasibility trial of pregabalin for the treatment of RDEB-associated neuropathic pain and itch"
Funding Agency: EB Research Partnership
Project duration: 24 months (Jan 2019- December 2020), Amount of funding granted: \$179, 977USD
2. Debra international Innovative Research grant
Title: " Investigating neurotrophins role in small fibre neuropathy in Recessive Dystrophic Epidermolysis Bullosa ". Funding Agency: Debra International
Project duration: 2 years (Jan 2019- December 2020), Amount of funding granted: USD150,0
3. Fondecyt Regular

Title: "Shaker-type-Kv-channels as modulators of hyper excitability; impact on neuropathic pain states".

Funding Agency: National Commission for Scientific and Technological Research Chile

Project duration: 4 years (2016 – 2020), Amount of funding granted: USD 422,000

4. IASP Early Career Research Grant 2014

Title: "Investigating a novel mechanism of hypersensitivity induced by exclusive damage to intraepidermal nerve fibres: neuropathic pain in Epidermolysis Bullosa".

Funding Agency: International Association for the study of Pain (IASP)

Project duration: 1 year (2014). Amount of funding granted: USD 20,000

5. Conicyt grant: Return Home grant

Title: "Neuropathic pain in Epidermolysis Bullosa"

Funding Agency: National Commission for Scientific and Technological Research Chile

Project duration: 1 year (2014). Amount of funding granted: USD 56,500

PREVIOUS FELLOWSHIPS

-Postdoctoral Fellow at Prof. David Bennett's lab (King's College London and Oxford University)

Funding Agency: IMI Europain project. Project duration: 3 years (2010-2013)

-Doctoral grants for international studies, Chile scholarships

Title: PhD in neuroscience at King's College London

Funding Agency: Ministry of Education; National Commission for Scientific and Technological Research Chile. Project duration: 3 years (2007-2010)

-Programme ALBAN - High Level Scholarships for Latin America

Title: Magister: MSc Pain Science and Society at University of London

Funding Agency: European Commission Programme Alβan. Project duration: 1 year (2006-2007)

TEACHING EXPERIENCE

I am responsible for the course BIO135: Physiology for health careers. I give lectures in other courses about sensory physiology and pain.

STUDENT SUPERVISION

- Undergraduate Thesis Direction: Daniela Schmidt (passed with Maximum distinction) 2019, Ongoing: Marcelo Kim, Pilar Morales, Luna Olguin
- Postgraduate Thesis Direction: Martin Gonzalez, Paula Diaz, Macarena Tejos, Zulmary Farias

CONFERENCES, PLENARY CONFERENCES

Oral Presentations (plenaries and workshops)

- 2020 Chilean Congress in Neuroscience, online
- 2020 EB2020 World Congress, London UK
- 2019 7th International Congress in Neuropathic pain (NeuPSIG 2019) London UK
- 2019 eLife Annual Board meeting. London UK
- 2018 XIV Reunión Anual Sociedad Chilena de Neurociencia 2018, Puerto Varas, Chile
- 2018 17th World Congress in Pain IASP. Boston, USA
- 2017 6th International Congress in Neuropathic pain (NeuPSIG 2017). Gothenburg, Sweden
- 2017 Peripheral Nerve Society Annual Meeting. Sitges, Spain
- 2017 EB Clinet2017, Salzburg, Austria
- 2017 eLife Annual Board meeting. Boston MIT, USA
- 2016 Pharmacology Society of Chile. Castro, Chile
- 2016. 16th World Congress in Pain IASP. Yokohama, Japan
- 2016. Euroconference in Pain Taormina, Sicily, Italy

- 2015. 5th International Congress NeuPSIG. Nice, France
- 2015. EFIC IX Pain Congress, Vienna, Austria
- 2015. World Congress in neurology. Santiago, Chile
- 2015. Chilean Congress in Pain (ACHED). Santiago, Chile
- 2014. Satellite symposium in painful neuropathies (NeuPSIG, IASP). Santiago, Chile
- 2013. Peripheral Nerve Society Biennial Meeting ,. St Malo, France
- 2012. Joint Italian and British Peripheral Nerve Societies meeting. London, UK

Posters

- 2019 7th International Congress in Neuropathic pain (NeuPSIG 2019) London UK
- 2018 17th World Congress in Pain IASP. Boston, USA
- 2017 NeuPSIG 2017. Gothenburg, Sweden
- 2017 Peripheral Nerve Society Annual Meeting. Sitges, Spain
- 2016. 16th World Congress in Pain IASP. Yokohama, Japan
- 2015 5th NeuPSIG. Nice, France
- 2015. EFIC IX Pain Congress, Vienna, Austria
- 2014 15th World Congress in Pain IASP. Buenos Aires, Argentina
- 2013 4th International NeuPSIG Congress. Athens, Greece
- 2012 14th World Congress in Pain IASP. Milan, Italy
- 2010 13th World Congress in Pain IASP. Montreal, Canada
- 2009 Peripheral Nerve Society meeting. Würzburg, Germany
- 2008 12th World Congress in Pain IASP. Glasgow, UK
- 2007. Peripheral Nerve Society, meeting. Snowbird, Utah, USA

MEMBERSHIP/AFFILIATIONS

- International Association for the Study of Pain
- Neuropathic Pain Special Interest Group NeuPSIG
- Peripheral Nerve Society
- Pain Special Interest Group Peripheral Nerve Society
- Chilean Society for Neuroscience
- Chilean Society of Molecular Biology

PARTICIPATION IN OTHER ACTIVITIES ASSOCIATED WITH RESEARCH

- Council elected IASP 2020-2026 <https://www.iasp-pain.org>
- Member of the editorial board of Pain Research Forum: 2018-ongoing
- Member of the management committee board of NeuPSIG: 2019-ongoing <https://www.iasp-pain.org/SIG/NeuropathicPain>
- Member of the Early Career Research Advisory Board of the Journal eLife 2017-2019
- Member of the NeuPSIG 2019 Conference scientific committee
- Reviewer of International Publications: eLife, Glia, Plos, Neuroscience letters, Journal of Pain, Pain Research and Treatment, Pain Medicine, Journal of pain Research, Biological Research
- Reviewer of National Projects: FONDEF, FONDECYT PhD and MSc programs
- Reviewer of Foreign Projects: The Netherlands Organization for Scientific Research (NWO / ZonMw), Italian Ministry of Health (MOH) Riserca Sanitaria, Newton Price/UK National Commission for UNESCO

PUBLICATIONS

- Metformin protects from oxaliplatin induced peripheral neuropathy in rats
Martinez NW, Sánchez A, Diaz P, Broekhuizen R, Godoy J, Mondaca S, Catenaccio A, Macanas P, Nervi B, Calvo M, Court FA. *Neurobiol Pain*. 2020 aug-dec; 8: 100048.
- Margarita Calvo, Alexander J. Davies, Harry L. Hébert, Greg A. Weir, Elissa J. Chesler, Nanna B. Finnerup, Roy C. Levitt, Blair H. Smith, G. Gregory Neely, Michael Costigan, David L. Bennett. *Neuron*. 2019 Nov 20; 104(4): 637–653.
- Von Bischhoffshausen S, Ivulic D, Alvarez P, Schuffeneger Vc, Idiaquez J, Fuentes C, Morande P, Fuentes I, Palisson F, Bennett Dhl, Calvo M*. Recessive Dystrophic Epidermolysis Bullosa Results In Painful Small Fibre Neuropathy. *Brain*. 2017 Mar 28. Doi: 10.1093/Brain/Awx069. (In Press)*Corresponding Author
- Huang W**, Calvo M**, Pheby T, Bennett DI, Rice As. A Rodent Model Of Hiv Protease Inhibitor Indinavir Induced Peripheral Neuropathy. *Pain*. 2016 Sep 23.** Joint First Author
- Calvo M*, Richards N, Schmid Ab, Barroso A, Zhu L, Ivulic D, Zhu N, Anwandter P, Bhat Ma, Court Fa, Mcmahon Sb, Bennett DI*. Altered Potassium Channel Distribution And Composition In Myelinated Axons Suppresses Hyperexcitability Following Injury. *Elife*. 2016 Apr 19;5:E12661. Doi: 10.7554/Elife.12661 *Corresponding Author
- K.L. Knopp, C. Stenfors, C. Bastrup, A.W. Bannon, M. Calvo, O. Caspani, G. Currie, N.B. Finnerup, W. Huang, J.D. Kennedy, I. Lefevre, I. Machin, M. Macleod, H. Rees, A.S.C. Rice, K. Rutten, M. Segerdahl, J. Serra, R. Wodarski, O.-G. Berge, R.-D. Treede. Experimental design and reporting standards for improving the internal validity of pre-clinical studies in the field of pain: Consensus of the IMI-Europain consortium, *Scandinavian Journal of Pain*, 2015,(7)58-70
- Perkins Jr, Antunes-Martins A, Calvo M, Grist J, Rust W, Schmid R, Hildebrandt T, Kohl M, Orengo C, Mcmahon Sb, Bennett DI. A Comparison Of Rna-Seq And Exon Arrays For Whole Genome Transcription Profiling Of The L5 Spinal Nerve Transection Model Of Neuropathic Pain In The Rat. *Mol Pain*. 2014 Jan 28;10(1):7.
- Gilthorpe Jd, Oozeer F, Nash J, Calvo M, Bennett DI, Lumsden A, Pini A. Extracellular Histone H1 Is Neurotoxic And Drives A Pro-Inflammatory Response In Microglia. *F1000res*. 2013 Jul 8;2:148. Doi: 10.12688/F1000research.2-148.V1. Ecollection 2013.
- Huang W**, Calvo M**, Karu K, Olausen Hr, Bathgate G, Okuse K, Bennett DI, Rice As. A Clinically Relevant Rodent Model Of The Hiv Antiretroviral Drug Stavudine Induced Painful Peripheral Neuropathy. *Pain*. 2013 Apr;154(4):560-75** Joint First Author
- Calvo M, Dawes Jm, Bennett DI. The Role Of The Immune System In The Generation Of Neuropathic Pain. *Lancet Neurol*. 2012 Jul;11(7):629-42.
- Calvo M, Bennett DI. The Mechanisms Of Microgliosis And Pain Following Peripheral Nerve Injury. *Exp Neurol*. 2012 Apr;234(2):271-82.
- Dawes J. M., Calvo M., Perkins J. R., Paterson K. J., Kiesewetter H., Hobbs C., Kaan T. K. Y., Orengo C., Bennett D. L.H., Mcmahon S. B. Cxcl5 mediates Uvb Irradiation-Induced Pain. *Sci. Transl. Med.* 3, 90ra60 (2011).
- Marchand F, D'mello R, Yip Pk, Calvo M, Muller E, Pezet S, Dickenson Ah, Mcmahon Sb. Specific Involvement Of Atypical Pkc ζ /Pkm ζ In Spinal Persistent Nociceptive Processing Following Peripheral Inflammation In Rat. *Mol Pain*. 2011 Nov 5;7:86.
- Calvo M, Zhu N, Grist J, Ma Z, Loeb Ja, Bennett DI Following Nerve Injury Neuregulin-1 Drives Microglial Proliferation And Neuropathic Pain Via The Mek/Erk Pathway. *Glia*. 2011 Apr;59(4):554-68.
- Calvo M, Zhu N, Tsantoulas C, Ma Z, Grist J, Loeb Ja, Bennett DI. Neuregulin-ErbB Signaling Promotes Microglial Proliferation And Chemotaxis Contributing To Microgliosis And Pain After Peripheral Nerve Injury. *J Neurosci*. 2010 Apr 14;30(15):5437-50.

