

PEDRO MONTOYA, PhD

PRESENT POSITION

Full Professor of Biological Psychology
Department of Psychology
University of the Balearic Islands
Carretera de Valldemossa km 7.5
E-07122 Palma, Spain
Institutional email: pedro.montoya@uib.es

CITIZENSHIP

Spanish

EDUCATION

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|---------------------|---------------------------------------------------------------------------------|
| Oct 1988 - May 1993 | PhD in Psychology at the <i>Ludwig-Maximilians</i> University (Munich, Germany) |
| 1981-1986 | Degree in Psychology at the Complutense University (Madrid, Spain) |

ACADEMIC APPOINTMENTS

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| Oct 2009 – present | Full Professor of Biological Psychology (<i>Catedrático</i>) at the University of Balearic Islands (Spain), Department of Psychology |
| Aug 2021 – present | Senior Visiting Professor, Center for Mathematics, Computing and Cognition - <i>Universidade Federal do ABC</i> (UFABC) (Sao Paulo, Brazil) |
| Dec 1997 – Oct 2009 | Associate Professor (<i>Profesor Titular</i>) at the University of Balearic Islands (Spain), Department of Psychology |
| Oct – Dec 1997 | Visiting Lecturer at the University of Balearic Islands (Spain), Department of Psychology |
| May 1993 – Sep 1997 | Research Associate at the <i>Karl-Eberhards</i> University (Tübingen, Germany), Institute of Medical Psychology and Behavioral Neurobiology |
| Jul 1996 – Apr 1997 | Visiting Research Fellow at the Vienna General Hospital (Austria), Department of Neurology (Prof. Dr. L. Deecke) |
| May 1991 – Apr 1993 | Adjunct Professor at the <i>Ludwig-Maximilians</i> University (Munich, Germany), Institute of Clinical Psychology |
| Jul – Aug 1991 | Visiting Research Fellow at the State University of New York (SUNY) at Stony Brook (USA), Department of Psychology, |
| Jan – Dec 1987 | Visiting Post Graduate Fellow at the Max-Planck Institute of Psychiatry (Munich, Germany), Department of Psychology |

FELLOWSHIPS AND AWARDS

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| Aug 2013 – Jul 2016 | Visiting Professor Fellowship (<i>Bolsa Pesquisador Visitante</i>) from the Brazilian Research Agency Coordination for the Improvement of Higher Education (CAPES, Ministry of Higher Education) |
| Jul - Sep 2001 | Postdoctoral Fellowship of the <i>Deutscher Akademischer Austauschdienst</i> - DAAD (Germany) |
| Oct 1997 | Award of the German Society for the Study of Pain |
| Jul 1996 - Apr 1997 | Postdoctoral Fellowship of the European Science Foundation (European Neuroscience Programme) |
| Oct 1988 - Jul 1992 | Postgraduate Fellowship of the <i>Deutscher Akademischer Austauschdienst</i> - DAAD (Germany) |
| Oct - Dec 1987 | Postgraduate Fellowship of the Max-Planck Society (Germany) |
| Jan - Jun 1987 | Postgraduate Fellowship of the Regional Government of Madrid (Spain) |

RESEARCH GRANTS

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| 2023-2026 | Spanish Ministry of Science and Innovation Spanish Research Agency), "Effects of non-invasive brain stimulation on brain processing of emotions in chronic pain (MODU4PAIN)" (reference: PID2022-140561NB-I00). Budget: 150.625€. PI: Pedro Montoya |
| 2018-2021 | Spanish Ministry of Economy and Competitiveness, "Pain and cerebral plasticity: Somatosensory and motor modulation" (reference: PSI2017-88388-C4-1-R). Budget: 90,000€. PI: Pedro Montoya; Co-PI: Miguel A Munoz |
| 2015-2017 | Grant from BIAL Foundation (Portugal), "Affective and cognitive modulation of brain activity to alleviate pain by using real-time fMRI neurofeedback" (reference: 385/14). Budget: 40,000€. |
| 2014-2017 | Grant from Spanish Ministry of Economy and Competitiveness, "Modulation of brain activity to alleviate pain: neurofeedback for self-regulation of functional connectivity using fMRI" (reference: PSI2013-48260-C3-1-R). Budget: 90,000€. |
| 2011-2013 | Grant from Spanish Ministry of Science and Innovation, "Analysis of genetic factors involved in the modulation of brain dynamic of chronic pain" (reference: PSI2010-19372). Budget: 70,000€. |
| 2010-2011 | Grant from Spanish Ministry of Health and Social Affairs, "Application of neurofeedback techniques in patients with motor deficits after cerebrovascular accident" (reference 141/2010). Budget: 40,000€. |
| 2010-2011 | Grant from Regional Government of the Balearic Islands, "The role of |

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| | sexual hormones and stress on the brain processing of pain in fibromyalgia patients" (reference: AAEE0111/09). Budget: 9,000€. |
| 2009-2010 | Grant from Regional Government of the Balearic Islands, "Study of the prevalence of the COMT gene polymorphism involved in pain sensitivity among patients with chronic pain". Budget: 7,700€. |
| 2008-2011 | Grant from La Marato de TV3 Foundation (Spain), "Brain dynamic of cognitive and affective processing in patients with fibromyalgia" (reference: 070110). Budget: 199,668€. |
| 2007-2010 | Grant from Spanish Ministry of Education and Science, "Dynamic of brain activity and pain perception in patients with chronic pain" (reference: SEJ2007-62312). Budget: 117,370€. |
| 2004-2007 | Grant from Spanish Ministry of Education and Science, "Assessment of information processing in chronic pain with fMRI" (reference: SEJ2004-01332). Budget: 147,200€. |
| 2001-2004 | Grant from Spanish Ministry of Science and Technology, "Psychophysiological assessment of central sensitization in chronic pain and the influence on emotional and cognitive processing" (reference: BSO2001-0693). Budget: 100,939€. |

SHORT INVITED VISITS TO OTHER INSTITUTIONS

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| Mar 2014 – Sep 2016 | Visiting Professor, Institute of Health Sciences, Federal University of Bahia (Salvador, BA, Brazil) |
| June 2013 – Sep 2014 | Visiting Professor, Institute of Medical Psychology and Behavioral Neurobiology, Eberhard-Karls University of Tübingen (Germany) |
| Aug 2006 – July 2007 | Visiting Scholar, Department of Physiology, Feinberg Medical School, Northwestern University, Chicago (USA) |
| July – Sep 2001 | Visiting Research Fellow, Institute of Medical Psychology and Behavioral Neurobiology (Prof. Dr. Niels Birbaumer), Eberhard-Karls University of Tübingen (Germany) |
| July – Sep 2002 | |
| July – Sep 2003 | |
| July 1996 – Apr 1997 | Visiting Research Fellow, Department of Neurology (Prof. Dr. L. Deecke), Vienna General Hospital (Austria) |
| July – Aug 1991 | Visiting Research Fellow, Department of Psychology, State University of New York at Stony Brook (USA) |
| Jan – Dec 1987 | Visiting Post Graduate Fellow, Department of Psychology (Prof. J. Brengelmann), Max-Planck Institute of Psychiatry, Munich (Germany) |

OTHER RELEVANT ACADEMIC & RESEARCH ACTIVITIES

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| May – June 2001 | Organization of the II International Workshop on Emotion and the Brain (Palma, Spain) |
| Oct 1999 – June 2004 | Vice Dean of the Faculty of Psychology, University of Balearic Islands (Spain) |
| 2011 – 2015 | Organization of several editions of the Annual International Symposium on Fibromyalgia and Chronic Pain in Palma (Spain) (http://www.fibrosymposium.org) |
| Jan 2001 – present | Academic tutor of the Erasmus Exchange Programme at the Faculty of Psychology, University of Balearic Islands (Spain) |

MEMBERSHIPS

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| 2011 – 2017 | European Society for Cognitive and Affective Neuroscience (ESCAN) (board member) |
| 2001 – 2015 | International Association for the Study of Pain |
| 1996 – 2002 | European Neuroscience Association |
| 1996 – present | Spanish Society for Psychophysiology |
| 1991 – 2002 | Society for Psychophysiological Research |

COURSES TAUGHT

| | |
|---------------------------------------------------|--------------------------------------------------------------------------------------------|
| <i>University of Balearic Islands (Spain)</i> | Pain and the brain – MNEU11246 Master in Neuroscience |
| | Plasticity and neuror rehabilitation – MNEU11253 Master in Neuroscience |
| | Cognitive Neuroscience – MNEU11241 Master in Neuroscience |
| | Psychobiology of chronic pain Doctoral program in Psychology |
| | Psychobiology of emotions Doctoral program in Psychology |
| | Brain maps and representation of knowledge Doctoral program in Psychology |
| | Biological Psychology – PSY21312 |

Bachelor's program in Psychology

[Psychophysiology – PSY1925](#)

Bachelor's program in Psychology

[Cognitive Psychophysiology – PSY1957](#)

Bachelor's program in Psychology

[Health psychophysiology – PSY1958](#)

Bachelor's program in Psychology

Foundations on Neuroscience – PSY1164

Bachelor's program in Psychology

*Universidade Federal do ABC
(São Paulo, Brazil)*

Cognitive Psychology
Bachelor's program in Neuroscience

*University of Tübingen
(Germany)*

Medical Psychology and Sociology
Program in Medicine

*Valencian International
University*

Psychophysiology
Bachelor's program in Psychology (online)

*Autonomous University of
Barcelona (Spain)*

Somatosensory processing
[International Master Program in Psychobiology and
Cognitive Neuroscience](#) (online)

ACADEMIC ADVISING (by date)

Álvaro Sabater Gárriz

PhD thesis: Pain assessment based on biomarkers in people with cerebral palsy without cognitive-voluntary communication (2024)

Alex Novaes de Santana

PhD thesis: Chronic pain classification: a machine learning perspective (2021)

Juan Lorenzo Terrasa Navarro

PhD thesis: Effects of aging and neuromodulation on somatomotor cortex (2020)

José Antonio Mingorance
Rubiño

PhD thesis: Proprioception and chronic pain (2019)

Saliha Belmonte Darraz

PhD thesis: Event-related potentials elicited by affective pictures in a pediatric sample with cerebral palsy (2019)

Isis da Silva Costa

PhD thesis: Variations in EEG and motor functions related to COMT gene in patients with fibromyalgia (2017)

Francisca Rossello Muntaner

PhD thesis: Modulation of the defense system in patients with fibromyalgia (2016)

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| Cynthia Noguera Carrión | Master thesis: Differences between patients with fibromyalgia and chronic low back pain in balance and sensitivity to pain (2016) |
| Mercedes Martínez Jauand | PhD thesis: Genetic and psychosocial factors involved in pain modulation (2013) |
| Ana Maria Gonzalez Roldan | PhD thesis: Dynamics of brain activity associated with the processing of nociceptive and affective stimuli in chronic pain patients (2013) |
| Juan P. Gea Ramón | Master thesis: Approach-avoidance tendencies to facial expressions (2013) |
| Marcello Meli | Master thesis: Changes in pain sensitivity associated with the application of pulsed radiofrequency (PRF) treatment in dorsal root ganglion (2013) |
| Pascal Maurice Aggensteiner | Master thesis: Application of neurofeedback techniques in patients with motor deficits due to stroke (2013) |
| Juana María Heredia Varón | Master thesis: Differences in Heart Rate Variability (HRV) before and after a treatment in fibromyalgia (2013) |
| Francisca Victoria Rossello Muntaner | Master thesis: Affective modulation of cerebral and autonomic responses to nociceptive stimulation by using virtual reality in fibromyalgia (2012) |
| César A. Walteros | Master thesis: Analysis of cognitive processing during decision-making in patients with fibromyalgia (2012) |
| Ana Mantecón Carrero | Master thesis: Learning and memory of words with emotional content in fibromyalgia (2012) |
| Inmaculada Riquelme Agulló | PhD thesis: Approaching the hypothesis of a sensorimotor deficit in cerebral palsy (2011) |
| Isis da Silva Costa | Master thesis: Gait and balance characteristics in patients with fibromyalgia (2011) |
| Ana María Zamorano Andrés | Master thesis: Assessment of touch sensitivity in professional musicians (2011) |
| Mercedes Martínez Jauand | Master thesis: Somatosensory activity modulation during observation of others' pain (2010) |
| Ana María González Roldán | Master thesis: Temporal dissociation in the brain processing of pain and anger faces with different intensities of emotional expression (2010) |
| Thomas Leo Kaufmayer | Master thesis: Pain and social support (2010) |
| Noemí Sánchez Nàcher | Master thesis: Temporal changes in brain activity elicited |

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| | by conditioned stimuli during associative aversive learning (2010) |
| Carolina Sitges Quiros | PhD thesis: Brain activity in patients with fibromyalgia: multidimensional aspects of chronic pain (2009) |
| Catalina Alorda Quetglas | Master thesis: Symptom perception in the patient with chronic respiratory disease and psychological functional variables (2009) |
| Dominik Fischerg | PhD thesis: Influence of social support on central processing of pain in fibromyalgia: a controlled fMRI study (2008) |
| Patrick Schlegel | PhD thesis: Influences of social support on the affective component of pain processing in fibromyalgia: a combined study using behavioral and fMRI data (2008) |
| Katrin Buck | PhD thesis: Changes in pain perception in fibromyalgia patients through Katadolon (2006) |
| Sonia Lamothe | PhD thesis: Effects of Katadolon on functional organization of the primary somatosensory cortex in fibromyalgia (2006) |
| Carolina Sitges Quiros | Master thesis: Analysis of emotional and cognitive variables in patients with fibromyalgia and patients with musculoskeletal pain (2006) |
| Uwe Köster | PhD thesis: Psychophysiological assessment of phantom limb pain under different stress conditions (2005) |
| Dirk Meine | PhD thesis: Changes in peripheral physiological parameters in amputees with and without phantom limb pain under experimentally-induced stress (2000) |
| Jutta Karmann | PhD thesis: Changes in cortical information processing in amputees with phantom limb pain (1995) |
| Gisela Bauersfeld | PhD thesis: Psychological predictors of phantom limb pain (1995) |

RELEVANT EXPERT ACTIVITIES

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| June 2014 – present | Expert peer reviewer of the H2020 Research and Innovation programme of the European Commission |
| Feb 2009 – present | Expert peer reviewer for higher education accreditation in Spain (ANECA, DEVA, ACSUG), Costa Rica (SINAES) and Brazil (CNPq) |

SELECTED PUBLICATIONS (recent peer-reviewed work on pain neurobiology, neuroimaging, and neuromodulation; full list available on <http://pedromontoya.com>)

González-Roldán, A.M., Delgado-Bitata, M., Dorado, A., Costa da Silva, I., & Montoya, P. (2025). Chronic pain and its association with cognitive decline and brain function abnormalities in older adults. *Neurobiol Aging*, 150: 172-181.

Santana, J.E.R.S., Carvalho, M.L., Lopes, T.S., Miranda, J.G.V., Montoya, P., et al. (2025). Distinct brain connectivity patterns in sickle cell disease: a biomarker for chronic pain severity. *Brain Connect*, 15(3):125-138.

Dorado, A., Terrasa, J.L., van der Meulen, M., Montoya, P., & González-Roldán, A.M. (2024). Altered endogenous pain inhibition and disrupted functional connectivity in older adults with chronic pain. *J Pain*.

Lopes, T.S., Santana, J.E., Silva, W.S., Fraga, F.J., Montoya, P., et al. (2024). Delta and theta power in sickle cell disease with chronic pain: a resting-state EEG study. *Brain Topogr*, 37(5): 859-873.

Sabater-Gárriz, A., Mestre-Sansó, F., Canals, V., Mingorance, J.A., Montoya, P., & Riquelme, I. (2024). Emotional modulation of proprioceptive beta rhythms in children with neurodevelopmental conditions. *Res Dev Disabil*, 154: 104842.

Belmonte-Darraz, S., Montoro, C.I., Andrade, N.C., Montoya, P., & Riquelme, I. (2021). Emotion knowledge and regulation in children with cerebral palsy. *J Autism Dev Disord*, 51: 1238-1248.

González-Roldán, A.M., Terrasa, J.L., Prats-Sedano, M.A., Sitges, C., van der Meulen, M., Anton, F., & Montoya, P. (2021). Pain modulation via controllability and expectations in aging. *Eur J Pain*, 25: 1472–1481.