



Ministerio de Ciencia e Innovación
Secretaría General de Investigación

Curriculum Vitae

Name: José P. López-Atalaya Martínez
DNI: 29072879M

Date: January 2021

Surname: López-Atalaya Martínez
DNI: 29072879M

Date of birth: 13.08.1974

Name: José Pascual
Gender: Male

Current professional situation

Employing entity: Agencia Estatal Consejo Superior de Investigaciones Científicas (CSIC)
Department: Instituto de Neurociencias (UMH-CSIC)
Section: Molecular Neurobiology and Neuropathology Research Unit

Address: Av Ramón y Cajal s/n, 03550, Sant Joan d'Alacant. Alicante. España
Phone: 965 233744
Email: jose.lopezatalaya@csic.es

Unesco code: 249000 – Neurosciences

Professional category: Funcionario Escala de Científicos Titulares OPIs

Start date: July 2020

Type of contract: Tenured position
Dedication regime: Full time

Current line of research

Key words:

Fundamental Research, Neuroscience, Neurodegenerative diseases, Experimental Neuroinflammation, Cell Plasticity, Functional Genomics, Transcriptional regulation, Transcriptomics, Epigenomics.

Summary:

I am Principal Investigator of the Cellular Plasticity and Neuropathology Group at Instituto de Neurociencias (UMH-CSIC), where I also currently serve as Director of the Molecular Neurobiology and Neuropathology Department and as Head of the Omics and Bioinformatics Core Facility.

The goal of our lab is to understand how brain's innate immune cells integrate within neural circuits to influence brain function in health and disease. The questions we pursue are grounded in understanding the interplay between brain physiology and the brain's innate immune system, as a central axis controlling homeostasis and disease. Our research is focused in two lines: (1) Understanding integrated brain circuits: we aim to elucidate the roles of neuron-microglia interactions at multiple levels, from synapses to neural circuits, in the control of brain function in health and disease. (2) Investigating cellular plasticity of immune cells of the brain: the ability of innate immune cells of the brain to adopt alternative fates when exposed to different conditions is now emerging as an important process in normal physiology and in disease conditions, such as aging and neurodegenerative diseases. We seek to understand how microglia cells interpret cues from their tissue microenvironment to adopt specialized roles. We have particular interest in unveiling the molecular mechanisms regulating the transitions and maintenance of distinct phenotypic and functional states of brain's innate immune cells.

Our ultimate goal is to develop novel approaches for the treatment of chronic neurodegenerative conditions by modulating immunity and neuroinflammation. We combine animal models of neurodegenerative disease and neuroinflammation, samples from patients with the associated pathologies, mouse genetics, transcriptomics and epigenetic analyses at cell population and single-cell levels, and state-of-the-art histological, cellular and molecular biology methods and techniques.

Education

University degree	Degree awarding entity	Date of qualification
Licenciatura en Bioquímica	Universidad de Murcia	2002
Grado de Licenciado en Bioquímica	Universidad de Murcia	2002

Doctorate	Degree awarding entity	Date of qualification
Aspects Moleculaires et Cellulaires de la Biologie	Université de Caen, Basse-Normandie (FRANCE)	2006

Previous positions and activities

Professional category	Employing entity	Date
Graduate Student Fellow (Alumno Interno)	Universidad de Murcia	Sept 2000 – Sept 2001
Postgraduate Student Fellow (Becario de colaboración)	Universidad de Murcia	Oct 2001 – Dec 2002
PhD Fellow Conseil Régional Basse Normandie - France	Institut National de la Santé et de la Recherche Médicale (INSERM U919)	Jan 2003 – Mar 2006
Research Associate (Investigador Contratado Doctor)	Universidad Miguel Hernández de Elche (UMH) Instituto de Neurociencias (UMH_CSIC)	Apr 2006 – Dec 2007
Research Fellow Juan de la Cierva 2007 - MEC	Consejo Superior de Investigaciones Científicas (CSIC) - Instituto de Neurociencias (UMH_CSIC)	Jan 2008 – Dec 2010
Research Associate (Investigador Contratado Doctor)	Consejo Superior de Investigaciones Científicas (CSIC) - Instituto de Neurociencias (UMH_CSIC)	Jan 2011 – Jul 2011
Research Fellow Programa JAE-DOC 2010 CSIC	Consejo Superior de Investigaciones Científicas (CSIC) - Instituto de Neurociencias (UMH_CSIC)	Aug 2011 – Jul 2013
Research Associate (Investigador Contratado Doctor)	Universidad Miguel Hernández de Elche (UMH) Instituto de Neurociencias (UMH_CSIC)	Aug 2013 – Jul 2015
Principal Investigator Programa JIN 2014 - MINECO	Consejo Superior de Investigaciones Científicas (CSIC) - Instituto de Neurociencias (UMH_CSIC)	Sept 2015 – Mar 2017
Principal Investigator Ramón y Cajal 2015 - MINECO	Consejo Superior de Investigaciones Científicas (CSIC) - Instituto de Neurociencias (UMH_CSIC)	May 2017 – July 2020
Principal Investigator Tenured Scientist CSIC 2018	Consejo Superior de Investigaciones Científicas (CSIC) - Instituto de Neurociencias (UMH_CSIC)	From July 2020

Language skills

Language	Speaking skills	Listening skills	Writing skills
English	C1	C1	C1
French	C1	C1	C1
Spanish	C1	C1	C1

R&D projects funded through competitive calls of public or private entities

Name of the project: Neuronal Activity-Driven Posttranslational Modifications of Rela/P65: Role in Memory Formation, Cognitive Enhancement and Intellectual Disability (SAF2014-60233-JIN)
Funding entity: Ministerio de Economía y Competitividad (MINECO)
Entity where project took place: Instituto de Neurociencias (CSIC-UMH)
Start date: 2015 End date: 2018 Total amount: 193.600 €
Principal Investigator: José P. López-Atalaya

Name of the project: Ayudas Incorporación Investigadores Ramón y Cajal (RYC-2015-18056)
Funding entity: Ministerio de Economía, Industria y Competitividad (MINECO)
Entity where project took place: Instituto de Neurociencias (CSIC-UMH)
Start date: 2017 End date: 2022 Total amount: 40.000 €
Principal Investigator: José P. López-Atalaya

Name of the project: Decoding Microglia Dynamic Heterogeneity and Plasticity in Neurodegenerative Disease (RTI2018-102260-B-I00)
Funding entity: Ministerio de Ciencia, Innovación y Universidades (MICIU)
Entity where project took place: Instituto de Neurociencias (CSIC-UMH)
Start date: 2019 End date: 2021 Total amount: 217.800 €
Principal Investigator: José P. López-Atalaya

Name of the project: Regulación de la Respuesta Microglial y Eliminación de A β Por Reelina en la Enfermedad de Alzheimer (PI2019/09)
Funding entity: Ministerio de Ciencia, Innovación y Universidades (MICIU) – Ciberneted ISCiii
Entity where project took place: Univ. Barcelona (UB); Univ. Valencia (UV); Instituto Cajal CSIC; Instituto de Neurociencias (CSIC-UMH).
Start date: 2020 End date: 2021 Total amount: 280.000 €
Principal Investigator (Coordinator): Eduardo Soriano García
Principal Investigators: José M. García Verdugo; Rosario Moratalla Villalba; Carlos Vicario Abejón; José P. López-Atalaya (externo a Ciberneted ISCiii)

Name of the project: Desregulación Transcripcional y Epigenética en Transtornos de Desarrollo del Sistema Nervioso (PROMETEO/2020/007)
Funding entity: Generalitat Valenciana
Entity where project took place: Instituto de Neurociencias (CSIC-UMH).
Start date: 2020 End date: 2023 Total amount: 195.602 €
Principal Investigator (Coordinator): Eloísa Herrera González de Molina
Principal Investigators: Angel L. Barco Guerrero; José P. López-Atalaya

R&D non-competitive contracts or projects with public or private entities

Name of the project: DSPA and Blood-Brain Barrier
Funding entity: PAION GmbH (Germany)
Entity where project took place: INSERM U919
Start date: 2005 End date: 2006 Total amount: 70.000 €
Principal Investigators: Denis Vivien and José P. López-Atalaya

Name of the project: Is DSPA an antagonist of tPA for NMDA-receptor signalling?
Funding entity: PAION GmbH (Germany)
Entity where project took place: INSERM U919
Start date: 2004 End date: 2005 Total amount: 100.000 €
Principal Investigators: Denis Vivien and José P. López-Atalaya

Participation in R&D projects funded through competitive calls of public or private entities

Name of the project: Acetylation of neuronal NF-κB as a primary target of HDAC inhibition in the brain
Funding entity: Brain & Behavior Research Foundation (NARSAD Independent Investigator Grant)
Entity where project took place: Instituto de Neurociencias (CSIC-UMH)
Start date: 2014 End date: 2016 Total amount: 76.000 €
Principal Investigator: Angel Barco

Name of the project: Rubinstein-Taybi syndrome: Molecular etiology, dissection and therapy (PROMETEO/2012/005)
Funding entity: Ministerio de Economía y Competitividad (MINECO)
Entity where project took place: Instituto de Neurociencias (CSIC-UMH)
Start date: 2014 End date: 2016 Total amount: 48.535 €
Principal Investigator: Angel Barco

Name of the project: La acetilación de proteínas como dianas terapéutica en la enfermedad de Huntington (19 NEURO)
Funding entity: Fundació Gent x Gent
Entity where project took place: Instituto de Neurociencias (CSIC-UMH)
Start date: 2012 End date: 2014 Total amount: 45.000 €
Principal Investigator: Angel Barco

Name of the project: Regulación Epigenética de la Respuesta Transcripcional Dependiente de Actividad: Implicaciones en Aprendizaje, Memoria y Retraso Mental (SAF2011-22855)
Funding entity: Ministerio de Economía y Competitividad (MINECO)
Entity where project took place: Instituto de Neurociencias (CSIC-UMH)
Start date: 2012 End date: 2014 Total amount: 250.000 €
Principal Investigator: Angel Barco

Name of the project: EPITHERAPY: An epigenetic approach towards the recovery of neuronal network plasticity and cognitive function in neurodegenerative diseases (SAF2008-03194-E (ERA-Net NEURON-48-030))
Funding entity: Ministerio de Ciencia e Innovación (MICINN)
Entity where project took place: Instituto de Neurociencias (CSIC-UMH)
Start date: 2009 End date: 2012 Total amount: 210.000 €
Principal Investigator: Angel Barco

Name of the project: Desarrollo y plasticidad en el sistema nervioso (BRAIN) (CONSOLIDER-INGENIO CSD 2007-00023)
Funding entity: Ministerio de Ciencia e Innovación (MICINN)
Entity where project took place: Instituto de Neurociencias (CSIC-UMH)
Start date: 2007 End date: 2012 Total amount: 5.696.000 €
Principal Investigator: Carlos Belmonte

Name of the project: Alteraciones transcripcionales en modelos animales y celulares de enfermedades neurodegenerativas inducidas por poliglutaminas (Ref. GVPRE/2008/365)
Funding entity: Generalitat Valenciana. Conselleria de Cultura Educació i Esport
Entity where project took place: Instituto de Neurociencias (CSIC-UMH)
Start date: 2009 End date: 2011 Total amount: 22.000 €
Principal Investigator: Luis M. Valor

Name of the project: Expresión génica y modificación de la cromatina dependientes de actividad en procesos de plasticidad sináptica, aprendizaje y memoria (BFU2008-00611)
Funding entity: Ministerio de Ciencia e Innovacion (MICINN)
Entity where project took place: Instituto de Neurociencias (CSIC-UMH)
Start date: 2009 End date: 2011 Total amount: 170.000 €
Principal Investigator: Angel Barco

Name of the project: Alteraciones en la expresión génica dependiente de CREB y sus consecuencias en procesos neurodegenerativos y cognitivos: Desarrollo de nuevas terapias para la enfermedad de Huntington y el síndrome de Rubinstein-Taybi
Funding entity: Fundación Ramón Areces
Entity where project took place: Instituto de Neurociencias (CSIC-UMH)
Start date: 2007 End date: 2010 Total amount: 100.000 €
Principal Investigator: Angel Barco

Name of the project: Chromatin acetylation and CREB-dependent gene expression in Huntington disease pathology (Ref. 063510)
Funding entity: Fundació La Marató de TV3
Entity where project took place: Instituto de Neurociencias (CSIC-UMH)
Start date: 2007 End date: 2010 Total amount: 133.000 €
Principal Investigator: Angel Barco

Name of the project: Histone acetylation in Rubinstein-Taybi patients. Acciones Integradas Italia
Funding entity: Ministerio de Ciencia e Innovacion (MICINN)
Entity where project took place: Instituto de Neurociencias (CSIC-UMH)
Start date: 2008 End date: 2009 Total amount: 11.490 €
Principal Investigator: Angel Barco

Name of the project: Papel de la expresión génica dependiente de CREB en procesos de supervivencia neuronal, plasticidad sináptica, aprendizaje y memoria. CSIC-Proyectos Intramurales Especiales
Funding entity: Consejo Superior de Investigaciones Científicas (CSIC)
Entity where project took place: Instituto de Neurociencias (CSIC-UMH)
Start date: 2008 End date: 2009 Total amount: 30.000 €
Principal Investigator: Angel Barco

Name of the project: Transcriptional Regulation in Synaptic Plasticity, Learning and Memory under Normal and Pathological Situations
Funding entity: European Commission (Marie Curie Excellence Grant). EC FP7.
Entity where project took place: Instituto de Neurociencias (CSIC-UMH)
Start date: 2004 End date: 2008 Total amount: 1.594.911 €
Principal Investigator: Angel Barco

Scientific Publications

Type of production: A = Journal, R = Review, BC = Book chapter

1. Equivocal roles of tissue-type plasminogen activator in stroke-induced injury

Benchenane K, **Lopez-Atalaya JP**, Fernandez-Monreal M, Touzani O, Vivien D

Trends Neurosci. 2004. 27(3):155-60

Type of production: R

Impact factor (2004): 14.9

2. Is tissue-type plasminogen activator a neuromodulator?

Fernandez-Monreal M, **Lopez-Atalaya JP**, Benchenane K, Leveille F, Cacquevel M, Plawinski L, MacKenzie ET, Bu G, Buisson A, Vivien D

Mol Cell Neurosci. 2004. 25(4):594-601

Type of production: A

Impact factor (2004): 4.34

3. Arginine 260 of the amino-terminal domain of NR1 subunit is critical for tissue-type plasminogen activator-mediated enhancement of N-methyl-D-aspartate receptor signaling

Fernandez-Monreal M*, **Lopez-Atalaya JP***, Benchenane K, Cacquevel M, Dulin F, Le Caer JP, Rossier J, Jarrige AC, Mackenzie ET, Colloc'h N, Ali C, Vivien D

J Biol Chem. 2004. 279(49):50850-6

Type of production: A

Impact factor (2004): 6.36

* Co-first authors

4. 2,7-Bis-(4-amidinobenzylidene)-cycloheptan-1-one dihydrochloride, tPA stop, prevents tPA-enhanced excitotoxicity both in vitro and in vivo

Liot G, Benchenane K, Leveille F, **Lopez-Atalaya JP**, Fernandez-Monreal M, Ruocco A, Mackenzie ET, Buisson A, Ali C, Vivien D

J Cereb Blood Flow Metab. 2004. 24(10):1153-9

Type of production: A

Impact factor (2004): 5.67

5. Tissue-type plasminogen activator crosses the intact blood-brain barrier by low-density lipoprotein receptor-related protein-mediated transcytosis

Benchenane K, Berezowski V, Ali C, Fernandez-Monreal M, **Lopez-Atalaya JP**, Brillault J, Chuquet J, Nouvelot A, MacKenzie ET, Bu G, Cecchelli R, Touzani O, Vivien D

Circulation. 2005. 3;111(17):2241-9

Type of production: A

Impact factor (2005): 11.63

6. The brain-specific tissue-type plasminogen activator inhibitor, neuroserpin, protects neurons against excitotoxicity both in vitro and in vivo

Lebeurrier N, Liot G, **Lopez-Atalaya JP**, Orset C, Fernandez-Monreal M, Sonderegger P, Ali C, Vivien D

Mol Cell Neurosci. 2005. 30(4):552-8

Type of production: A

Impact factor (2005): 4.64

7. Tissue-type plasminogen activator rescues neurones from serum deprivation-induced apoptosis through a mechanism independent of its proteolytic activity

Liot G, Roussel BD, Lebeurrier N, Benchenane K, **Lopez-Atalaya JP**, Vivien D, Ali C

J Neurochem. 2006. 98(5):1458-64

Type of production: A

Impact factor (2006): 4.26

8. Anti-NR1 N-terminal-domain vaccination unmasks the crucial action of tPA on NMDA-receptor-mediated toxicity and spatial memory

Benchenane K, Castel H, Boulouard M, Bluthe R, Fernandez-Monreal M, Roussel BD, **Lopez-Atalaya JP**, Butt-Gueulle S, Agin V, Maubert E, Dantzer R, Touzani O, Dauphin F, Vivien D, Ali C

J Cell Sci. 2007. 120(Pt 4):578-85

Type of production: A

Impact factor (2007): 6.38

9. Recombinant *Desmodus rotundus* salivary plasminogen activator crosses the blood-brain barrier through a low-density lipoprotein receptor-related protein-dependent mechanism without exerting neurotoxic effects

Lopez-Atalaya JP#, Roussel BD, Ali C, Maubert E, Petersen KU, Berezowski V, Cecchelli R, Orset C, Vivien D#

Stroke. 2007. 38(3):1036-43

Type of production: A

Impact factor (2007): 6.30

Corresponding author

10. Hunting for synaptic tagging and capture in memory formation

Viosca J, Jancic D, **Lopez-Atalaya JP**, Benito E

J Neurosci. 2007. 27(47):12761-3

Type of production: R

Impact factor (2007): 7.49

11. Toward safer thrombolytic agents in stroke: molecular requirements for NMDA receptor-mediated neurotoxicity

Lopez-Atalaya JP#, Roussel BD, Levrat D, Parcq J, Nicole O, Hommet Y, Benchenane K, Castel H, Leprince J, To Van D, Bureau R, Rault S, Vaudry H, Petersen KU, Santos JS, Ali C, Vivien D#

J Cereb Blood Flow Metab. 2008. 28(6):1212-21

Type of production: A

Impact factor (2008): 5.74

Corresponding author

12. Selective boosting of transcriptional and behavioral responses to drugs of abuse by histone deacetylase inhibition

Sanchis-Segura C*, **Lopez-Atalaya JP***, Barco A

Neuropsychopharmacology. 2009. 34(13):2642-54

Type of production: A

Impact factor (2009): 6.99

* Co-first authors

Featured Article: Adachi M, Monteggia LM. Synergistic interactions between histone seacetylase inhibitors and drugs of abuse. *Neuropsychopharmacology* (2009) 34, 2619–2620.

13. Syndromic features and mild cognitive impairment in mice with genetic reduction on p300 activity: Differential contribution of p300 and CBP to Rubinstein-Taybi syndrome etiology

Viosca J, **Lopez-Atalaya JP**, Olivares R, Eckner R, Barco A

Neurobiol Dis. 2010. 37(1):186-94

Type of production: A

Impact factor (2010): 5.12

14. CBP is required for environmental enrichment-induced neurogenesis and cognitive enhancement

Lopez-Atalaya JP, Ciccarelli A, Viosca J, Jimenez-Minchan M, Canals S, Giustetto M, Barco A

EMBO J. 2011. 30(20):4287-98

Type of production: A

Impact factor (2011): 9.21

15. Histone acetylation deficits in lymphoblastoid cell lines from patients with Rubinstein-Taybi syndrome

Lopez-Atalaya JP*, Gervasini C*, Mottadelli F, Spina S, Piccione M, Scarano G, Selicorni A, Barco A\$, Larizza L\$

J Med Genet. 2012. 49(1):66-74

Type of production: A

Impact factor (2012): 5.70

* Co-first authors

Featured Article: Malcolm S and Abu-Amero S: F1000Prime Recommendation. In F1000Prime, 16 Jan 2012; DOI: 10.3410/f.13476994.14857122.

16. Lysine acetyltransferases CBP and p300 as therapeutic targets in cognitive and neurodegenerative disorders

Valor LM, Viosca J, **Lopez-Atalaya JP**, Barco A

Curr Pharm Des. 2013. 19(28):5051-64

Type of production: R

Impact factor (2013): 3.29

17. Genomic landscape of transcriptional and epigenetic dysregulation in early onset polyglutamine disease

Valor LM*, Guiretti D*, **Lopez-Atalaya JP***, Barco A

J Neurosci. 2013. 33(25):10471-82

Type of production: A

Impact factor (2013): 6.75

* Co-first authors

18. Genomic targets, and histone acetylation and gene expression profiling of neural HDAC inhibition

Lopez-Atalaya JP#, Ito S, Valor LM, Benito E, Barco A#

Nucleic Acids Res. 2013. 41(17):8072-84

Type of production: A

Impact factor (2013): 8.81

Corresponding author

19. Histone H3 lysine methylation in cognition and intellectual disability disorders

Parkel S, **Lopez-Atalaya JP**, Barco A

Learning & Memory. 2013. 20(10):570-9

Type of production: R

Impact factor (2013): 4.38

20. Loss of neuronal 3D chromatin organization causes transcriptional and behavioural deficits related to serotonergic dysfunction

Ito S*, Magalska A*, Alcaraz-Iborra M, **Lopez-Atalaya JP**, Rovira V, Contreras-Moreira B, Lipinski M, Olivares R, Martinez-Hernandez J, Ruszczyccki B, Lujan R, Geijo-Barrientos E, Wilczynski G, Barco A

Nature Communications. 2014. Jul 18;5:4450

Type of production: A

Impact factor (2014): 11.47

21. Can changes in histone acetylation contribute to memory formation?

Lopez-Atalaya JP, Barco A

Trends in Genetics. 2014. 30(12):529-539

Type of production: R

Impact factor (2014): 9.92

22. Epigenetic Factors in Intellectual Disability: The Rubinstein–Taybi Syndrome as a Paradigm of Neurodevelopmental Disorder with Epigenetic Origin.

Lopez-Atalaya JP, Barco A

Prog Mol Biol Transl Sci. 2014. 128:139-176

Epigenetics and Neuroplasticity - Evidence and Debate.

Edited by S. Akbarian and F. Lubin.

Academic Press. Elsevier, 2014. ISBN 978-0-12-800977-2

Type of production: BC

Impact factor (2014): 3.49

23. Blocking miRNA biogenesis in adult forebrain neurons enhances seizure susceptibility, fear memory, and food intake by increasing neuronal responsiveness

Fiorenza A, **Lopez-Atalaya JP**, Rovira V, Scandaglia M, Geijo-Barrientos E, Barco A

Cereb Cortex. 2016. 26(4):1619-33. Epub 2015

Type of production: A

Impact factor (2015): 8.29

24. Brain size regulation by cbp haploinsufficiency evaluated by in-vivo MRI-based volumetry

Ateca-Cabarga JC, Cosa A, Pallares V, **Lopez-Atalaya JP**, Barco A, Canals S, Moratal D

Scientific reports. 2015. 5:16256

Type of production: A

Impact factor (2015): 5.23

25. Specific promoter deacetylation of histone H3 is conserved across mouse models of Huntington's disease in the absence of bulk changes.

Guiretti D, Sempere A, **Lopez-Atalaya JP**, Ferrer-Montiel A, Barco A, Valor LM

Neurobiol Dis. 2016. 89:190-201

Type of production: A

Impact factor (2016): 5.02

26. Lack of IL-1R8 in neurons causes hyperactivation of IL-1 receptor pathway and induces MECP2-dependent synaptic defects.

Tomasoni R, Morini R, **Lopez-Atalaya JP**, Corradini I, Canzi A, Rasile M, Mantovani C, Pozzi D, Garlanda C, Mantovani A, Menna E, Barco A, Matteoli M

Elife. 2017. pii: e21735

Type of production: A

Impact factor (2017): 7.62

27. Loss of Kdm5c Causes Spurious Transcription and Prevents the Fine-Tuning of Activity-Regulated Enhancers in Neurons.

Scandaglia M, **Lopez-Atalaya JP**, Medrano-Fernandez A, Lopez-Cascales MT, Del Blanco B, Lipinski M, Benito E, Olivares R, Iwase S, Shi Y, Barco A

Cell Rep. 2017. 21(1):47-59

Type of production: A

Impact factor (2017): 8.03

28. Development and maintenance of the brain's immune toolkit: Microglia and non-parenchymal brain macrophages.

Lopez-Atalaya JP, Askew KE, Sierra A, Gomez-Nicola D

Dev Neurobiol. 2018. 78(6):561-579

Special Issues: Roles of Microglia in Neural Development, Plasticity and Disease

Edited by Beth Stevens and Dori Schaffer.

Type of production: R

Impact factor (2018): 2.60

29. Cbp-dependent histone acetylation mediates axon regeneration induced by environmental enrichment in rodent spinal cord injury models.

Hutson TH, Kathe C, Palmisano I, Bartholdi K, Hervera A, De Virgiliis F, McLachlan E, Zhou L, Kong G, Barraud Q, Danzi MC, Medrano-Fernandez A, **Lopez-Atalaya JP**, Boutillier AL, Sinha SH, Singh AK, Chaturbedy P, Moon LDF, Kundu TK, Bixby JL, Lemmon VP, Barco A, Courtine G, Di Giovanni S.

Science Transl Med. 2019. 11(487), eaaw2064.

Type of production: A

Impact factor (2019): 16.30

30. Ecdysone-Induced 3D Chromatin Reorganization Involves Active Enhancers Bound by Pipsqueak and Polycomb.

Gutierrez-Perez I, Rowley MJ, Lyu X, Valadez-Graham V, Vallejo DM, Ballesta-Illan E, **Lopez-Atalaya JP**, Kremsky I, Caparros E, Corces VG, Dominguez M.

Cell Rep. 2019. 28(10):2715-2727.

Type of production: A

Impact factor (2019): 8.11

31. KAT3-dependent acetylation of cell type-specific genes maintains neuronal identity in the adult mouse brain.

Lipinski M, Muñoz-Viana R, Del Blanco B, Marquez-Galera A, Medrano-Relinque J, Carames JM, Szczepankiewicz AA, Fernandez-Albert J, Navarron CM, Olivares R, Wilczynski GM, Canals S, **Lopez-Atalaya JP**, Barco A..

Nature Communications. 2020. 11(1):2588.

Type of production: A

Impact factor (2019): 12.12

32. Repression of *Irs2* by let-7 miRNAs is essential for homeostasis of the telencephalic neuroepithelium.

Fernandez V, Martinez-Martinez MA, Prieto-Colomina A, Cardenas A, Soler R, Dori M, Tomasello U, Nomura Y, **Lopez-Atalaya JP**, Calegari F, Borrell V.

EMBO J. 2020. 39(21):e105479.

Type of production: A

Impact factor (2019): 9.89

33. A *Zic2*-regulated switch in a noncanonical Wnt/ β catenin pathway is essential for the formation of bilateral circuits.

Morenilla-Palao C, Lopez-Cascales M, **Lopez-Atalaya JP**, Baeza D, Calvo-Diaz L, Barco A, Herrera E.

Science Advances. 2020. 6(46):eaaz8797.

Type of production: A

Impact factor (2019): 13.12

Invited talks and lectures

Speaker: **Lopez-Atalaya JP**

Title: Heterogeneidad Dinámica de Microglía

Entity: Instituto de Investigación e Innovación en Ciencias Biomédicas de Cádiz (INIBICA)

Meeting: Invited Seminar (*Host*: Luis M. Valor. INIBICA)

City (Country): Cádiz (Spain)

Date: January 2021

Speaker: **Lopez-Atalaya JP**

Title: Differential vulnerability of CA1 pyramidal neurons to acquired epileptogenesis reveals a causative role of microglia in hippocampal sclerosis

Entity: Instituto Cajal CSIC

Meeting: Invited Seminar (*Host*: Pablo Méndez. I. Cajal CSIC)

City (Country): Madrid (Spain)

Date: November 2019

Speaker: **Lopez-Atalaya JP**

Title: A Sublayer Specific Network of Interacting Cell Types Underlying Hippocampal Sclerosis in CA1

Entity: Spanish Society of Neuroscience (SENC)

Meeting: 18th National Meeting of the SENC

Activity: Symposium (Speakers: Albert Giralt (UB) (Chair); Pablo E. Jercog (BSC-CNS); Pablo Méndez (I. Cajal CSIC; José P. López-Atalaya (I. Neurociencias (CSIC-UMH))

City (Country): Santiago de Compostela (Spain) Date: September 2019

Speaker: **Lopez-Atalaya JP**

Title: A Sublayer Specific Network of Interacting Cell Types Underlying Hippocampal Sclerosis in CA1

Entity: Synaptic Role in Cognitive Disabilities Network (SynCogDis)

Meeting: Third Meeting of the Synaptic Role in Cognitive Disabilities Network

City (Country): Santiago de Compostela (Spain) Date: September 2019

Speaker: **Lopez-Atalaya JP**

Title: A Sublayer Specific Network of Interacting Cell Types Underlying Hippocampal Sclerosis in CA1

Entity: Instituto de Neurociencias (Programa Severo Ochoa 2013-2017)

Meeting: Workshop: Single-Cell Transcriptomics and Regulatory Neurogenomics

City (Country): Sant Joan d'Alacant (Spain) Date: June 2018

Speaker: **Lopez-Atalaya JP**

Title: Workshop: Scientific career after PhD

Entity: FENS – ENCODS 2017

Meeting: Congreso Científico Europeo Estudiantes PhD en Neurociencia (Workshop)

City (Country): Benidorm (Spain) Date: May 2017

Speaker: **Lopez-Atalaya JP**

Title: Dynamic gene regulatory networks driving microglial activation in Alzheimer's disease

Entity: Centro de Investigación Príncipe Felipe (CIPF)

Meeting: Invited Seminar

City (Country): Valencia (Spain) Date: Sept 2016

Speaker: **Lopez-Atalaya JP**

Title: Epigenetic Factors in Intellectual Disability: The Rubinstein–Taybi Syndrome as a Paradigm of Neurodevelopmental Disorder with Epigenetic Origin

Entity: University of Almeria (Universidad de Almeria, UAL). Departament of Psychology
Meeting: Invited Seminar

City (Country): Almeria (Spain)

Date: Apr 2015

Speaker: **Lopez-Atalaya JP**

Title: Genomic targets, and histone acetylation and gene expression profiling of neural HDAC inhibition

Entity: Society for Neuroscience (SfN)
Meeting: Neuroscience 2013 (Nanosymposium)

City (Country): San Diego (U.S.)

Date: Nov 2013

Speaker: **Lopez-Atalaya JP**

Title: Modulation of the NMDA receptor function by tissue-type plasminogen activator

Entity: Instituto de Neurociencias (CSIC – UMH)
Meeting: ENI-Net Christmas Meeting

City (Country): Alicante (Spain)

Date: Dec 2005

Speaker: **Lopez-Atalaya JP**

Title: Le domaine amino-terminal de la sous-unité NR1 du récepteur NMDA comme cible de l'effet potentialisateur du tPA sur la neurotransmission glutamatergique

Entity: Société de Circulation et de Métabolisme du Cerveau (SCMC)
Meeting: Colloque d'automne: "De l'imagerie cellulaire à l'IRM fonctionnelle"

City (Country): Paris (France)

Date: 2003

Speaker: **Lopez-Atalaya JP**

Title: Modulation of the NMDA receptor function by tissue-type plasminogen activator

Entity: Société de Circulation et de Métabolisme du Cerveau (SCMC)
Meeting: Réunion de printemps de la Société de Circulation et de Métabolisme du Cerveau. Réunion satellite du VI colloque de la Société des Neurosciences Française

City (Country): Caen (France)

Date: 2003

Speaker: **Lopez-Atalaya JP**

Title: Modulation of the NMDA receptor function by tissue-type plasminogen activator

Entity: Society for Neuroscience (SfN)
Meeting: Neuroscience 2003

City (Country): New Orleans (U.S.)

Date: 2003

PhD/Thesis director

Project title: Epigenetic Regulation in Memory and Cognitive Disorders

Student: Michal Lipinski

Role: Co-director (Director: Prof. A Barco)

Start date: 06/02/2014

Date of defense: 02/12/2019

Funding entity: FPI Santiago Grisolia Fellowship (Generalitat Valenciana)

Affiliation entity: Universidad Miguel Hernández de Elche (UMH)

Project title: Mecanismos Moleculares de Regulación de las Transformaciones Fenotípicas de la Microglía en Enfermedad Neurodegenerativa

Student: Carmen María Navarrón Izquierdo

Role: Director

Start date: 05/10/2016

Date of defense: NA

Funding entity: FPI Severo Ochoa (MINECO)

Affiliation entity: Universidad Miguel Hernández de Elche (UMH)

Project title: Diversidad Celular y Microcircuitos en el Hipocampo Adulto: Mecanismos Reguladores de la Esclerosis Mesial Temporal Epileptogénica

Student: Angel Márquez Galera

Role: Director

Start date: 25/10/2018

Date of defense: NA

Funding entity: PI project MICINN.

Affiliation entity: Universidad Miguel Hernández de Elche (UMH)

Project title: Understanding the Mechanisms Underlying the Temporal Molecular Patterning of Progenitor Cells and their Daughter Neurons in the Developing Thalamus

Student: Lorenzo Puche Aroca

Role: Co-director (Director: Guillermina López Bendito)

Start date: 23/10/2019

Date of defense: NA

Funding entity: FPI (MICINN)

Affiliation entity: Universidad Miguel Hernández de Elche (UMH)

Project title: Targeting the NF- κ B pathway in Alzheimer's Disease

Student: Aysha María Bhojwani Cabrera

Role: Director

Start date: 16/10/2020

Date of defense: NA

Funding entity: FPI (MICINN)

Affiliation entity: Universidad Miguel Hernández de Elche (UMH)

R&D management and participation in scientific committees

Committee title: Agencia Nacional de Evaluación y Prospectiva (ANEP) Experto Biomedicina - Expert of the National Agency of Evaluation and Prospective (Biomedicine)

Primary (UNESCO code): 320000 - Medical Science
Affiliation entity: Ministerio de Ciencia e Innovación (MICINN)
City affiliation entity: Madrid, Spain
Start date: 2015

Other merits

Direction and Coordination responsibilities

- 2018 – present: Scientific Director of Omics and Bioinformatics Core Facility at Instituto de Neurociencias (UMH – CSIC). *Link:* http://in.umh-csic.es/omic_presentation.aspx
- 2020 – present: Head of Molecular and Neuropathology Research Unit at Instituto de Neurociencias (UMH – CSIC). *Link:* <http://in.umh-csic.es/unidad-detalle.aspx?unidad=3>

Teaching activities

- Lecturer in Master Universitario en Neurociencia: de la Investigación a la Clínica. Univ. Miguel Hernández de Elche (UMH), Elche (Spain). Academic year: 2015-2016; 2016-2017; 2017-2018; 2018-2019; 2019-2020; 2020-2021.
- Lecturer in Master Universitario en Neurociencia Fundamental y Traslacional. Univ. Pablo Olavide (UPO), Sevilla (Spain). Academic year: 2019-2020; 2020-2021.
- Invited lecturer at XIV Curso Nacional de Neurociencias (2016). Organizers: Jose M. Delgado García (Univ. Pablo Olavide, Sevilla) & Alberto Ferrús (Instituto Cajal CSIC, Madrid).
- Our team regularly host visiting undergraduate and graduate, national and international students for lab rotations (Univ. Bologna (Italy); Univ Lleida (Spain); Univ. Murcia (Spain); UMH (Spain)).

Organization of R&D activities

Title of the activity: Quantitative Biology to capture how tissues are organized (and name new shapes)

Speaker: Luis M. Escudero (Univ. Sevilla (US). Sevilla. Spain)

Type of activity: IN International Scientific Seminar Programme

Convening entity: Instituto de Neurociencias (CSIC – UMH)

City: Alicante (Spain)

Type of participation: Chairman

Start-End date: 07/02/2020

Title of the activity: Dysfunctional Microglia in the Pathogenesis of Neurodegeneration

Speaker: Rosa Paolicelli (Univ. Lausanne (UNIL). Lausanne. Switzerland)

Type of activity: IN International Scientific Seminar Programme

Convening entity: Instituto de Neurociencias (CSIC – UMH)

City: Alicante (Spain)

Type of participation: Chairman

Start-End date: 24/01/2020

Title of the activity: Innate Immune Memory in the Brain Shapes Neurological Disease Hallmarks
Speaker: Jonas Neher (DZNE. Tubinger. Gemany)
Type of activity: IN International Scientific Seminar Programme
Convening entity: Instituto de Neurociencias (CSIC – UMH)
City: Alicante (Spain)
Type of participation: Chairman
Start-End date: 07/06/2019

Title of the activity: Workshop: "Neuroscience Meets 3D Genome Biology"
Type of activity: International Scientific Meeting
Speakers: Prof. Victor Corzes (Emory Univ. USA); Yijun Ruan (The Jackson Lab. For Genomic Medicine. USA); Alexander Kukalev (MDC. Germany); Grzegorz Wilczyski (Nencki Institute. Poland); Biola M Javierre (Josep Carreras Leukaemia Research Insitute. Spain); Tanya Vavouri (Josep Carreras Leukaemia Research Insitute. Spain); Marian Martinez-Balbas (IBM-CSIC. Spain)...
Meeting venue: Instituto de Neurociencias (CSIC – UMH)
City: Alicante (Spain)
Type of participation: Organizer (with Prof. Angel Barco)
Start-End date: 16/05/2019

Title of the activity: Prediction of New Gene-Phenotype Associations in Neurodevelopmental Diseases
Speaker: Juan A. Botía (Univ. Murcia (UMU). Murcia. Spain)
Type of activity: Department Seminar Programme
Convening entity: Instituto de Neurociencias (CSIC – UMH)
City: Alicante (Spain)
Type of participation: Chairman
Start-End date: 14/11/2018

Title of the activity: Microglia and prenatal inflammation in early cortical wiring
Speaker: Prof. Sonia Garel (IBENS - ENS. Paris. France)
Type of activity: IN International Scientific Seminar Programme
Convening entity: Instituto de Neurociencias (CSIC – UMH)
City: Alicante (Spain)
Type of participation: Chairman
Start-End date: 19/10/2018

Title of the activity: Workshop: "Single-Cell Transcriptomics and Regulatory Neurogenomics"
Type of activity: International Scientific Meeting
Speakers: Gonzalo Castelo-Branco (Karolinska Institutet. Sweden); Prof. Wieland B. Huttner (MPI. Germany); Alvaro Rada (CSIC. Spain); Giovanni Iacono (CNAG-CRG. Spain); James Hockley (Univ. Cambridge. UK)...
Meeting venue: Instituto de Neurociencias (CSIC – UMH)
City: Alicante (Spain)
Type of participation: Organizer (with Prof. Angel Barco)
Start-End date: 1/06/2018

Title of the activity: When and where learning is taking place: neuronal and synaptic changes in activity during the acquisition of associative learning tasks
Speaker: Prof. José María Delgado (Univ. Pablo Olavide. Sevilla. España)
Type of activity: IN International Scientific Seminar Programme
Convening entity: Instituto de Neurociencias (CSIC – UMH)
City: Alicante (Spain)
Type of participation: Chairman
Start-End date: 9/06/2017

Title of the activity: Jornada Alternativas Profesionales en la Carrera Investigadora
Type of activity: Jornada Formativa
Convening entity: Sociedad Científicos Retornados a España (CRE)
City: Valencia (Spain)
Type of participation: Organizing committee
Start-End date: 5/04/2016

Title of the activity: 1st Instituto de Neurociencias (IN) PhD Students and Postdoc Meeting
Type of activity: Meeting
Convening entity: Instituto de Neurociencias (CSIC – UMH)
City: Alicante (Spain)
Type of participation: Organizing committee
Start-End date: 18/02/2016 - 19/02/2016

Title of the activity: Tissue-type plasminogen activator (tPA): a two faces neuromodulator
Speaker: Prof. Denis Vivien (INSERM. INSERM U919. GIP Cyceron. France)
Type of activity: IN International Scientific Seminar Programme
Convening entity: Instituto de Neurociencias (CSIC – UMH)
Type of participation: Chairman
Date: 13/03/2009

Title of the activity: NMDA receptors located extra-synaptically mediate excitotoxic neuronal death. Ponente: Prof. Alain Buisson (CNRS. GIP Cyceron. France)
Type of activity: IN International Scientific Seminar Programme
Convening entity: Instituto de Neurociencias (CSIC – UMH)
Type of participation: Chairman
Date: 28/06/2006

Doctoral dissertation defense committee

- 2020. Pablo Vicente Munuera. Director: Luis M. Escudero. Univ. Sevilla (US). Spain.
- 2019. Jordi Fernández Albert. Director: Angel Barco. Univ. Miguel Hernández (UMH). Spain
- 2019. Pol Ramón Cañellas. Director: Javier Morante. Univ. Miguel Hernández (UMH). Spain
- 2017. Antonio J. Hinojosa García. Director: Beatriz Rico. Univ. Miguel Hernández (UMH). Spain

Meetings and workshops

- Regular attendance to international meetings (SfN, FENS, EMBO, SENC) to communicate our scientific research activity.

Education and public outreach

- Regular participation in outreach activities such as Brain Awareness Week (2016, 2017, 2018), seminars at high schools (IES), media appearance (press, radio).