

Curriculum Vitae

Name: PARRAS PARDO Surname: Carlos María

Date of birth: 24 January 1969 (Madrid, Spain) Nationality: Spanish.

Professional address: ICM Inserm U-1127. Hôpital de la Salpêtrière. Paris 75013

Professional website: <http://carlosparras8.wix.com/website>

PRESENT POSITION

Researcher CR1 INSERM at ICM in the *Hôpital de la Salpêtrière, Paris*

SCIENTIFIC METRICS

Articles: 38; Sum of the times cited: 3 152; Average citations per article: 83; Average citations per year> 126.1; h-index: 24 (from Web of Science ResearcherID G-6611-2017, 25/05/2021)

ORCID 0000-0003-0248-1752

ACADEMIC DEGREES

2010 HDR (*Habilitation à Diriger des Recherches*) *University of Pierre et Marie Curie, Paris*

2008 Researcher position CR1 (*Chargé de Recherche*) at INSERM

1997 PhD in Molecular Biology *Biology Faculty, Universidad Autónoma de Madrid, Madrid, Spain.*

Thesis: Genetic analysis of neural precursor specification in the CNS of Drosophila melanogaster.

Honors: Dissertation passed with Distinction from the jury

1992 Degree in Biology *Biology Faculty, Universidad Autónoma de Madrid, Madrid, Spain*

Marks: average mark 17 (maximum 20)

PRIZES

Prix Marie-Ange Bouvet Labruyère given by the Fondation de France in Feb 2018

RESEARCH ACTIVITIES

2019-present Project leader in the team of *Brain development* working in transcriptional regulation of neural stem cells and oligodendrogenesis in the ICM at *Hôpital de la Salpêtrière*

2011-2018 Project leader in the team of *Origin of oligodendrocytes & neurovascular interactions* working in transcriptional regulation of oligodendrogenesis in the ICM at *Hôpital de la Salpêtrière*

2006-2010 Group leader of an AVENIR team in the Unit U771 at *Hôpital de la Salpêtrière, Paris*

2003-2005 Assistant researcher in Molecular Neurobiology in the group of Dr François Guillemot at the *National Institute of Medical Research* in London

1998-2003 Postdoctoral fellow in the group of Dr François Guillemot at the *Institut de Génétique et Biologie Moléculaire et Cellulaire* in Strasbourg

1993-1998 PhD student in the group of Dr Fernando Jiménez at the *Centro de Biología Molecular Severo Ochoa* in Madrid

RESEARCH SUPPORT

- **ARSEP** (01/10/**2019**-31/12/**2021**): *Characterizing the transcriptional complex(es) promoting oligodendrocyte differentiation by identifying Chd7-interacting proteins.* C. Parras, principal investigator. €30,000
- **ANR** (2017-2021): *NeoRepair projet. Pharmacogenomics identification of small bioactive molecules for promoting oligodendrogenesis in a model of neonatal brain injury.* C. Parras, & O. Raineteau principal investigators. €466,875
- **ARSEP** (01/10/2017-31/12/**2018**): *Characterizing Chd8 function during (re)myelination.* C. Parras, principal investigator. €87,000
- **NMSS** (National Multiple Sclerosis Society) (1/10/**2015**-31/10/2018): *Chd7 chromatin remodeller function in myelination and remyelination.* C. Parras, principal investigator. €333,901
- **ARSEP** (01/01/2014-31/12/**2015**): *Characterization of Chd8 function during myelination and remyelination.* C. Parras, principal investigator. €50,000
- **ARSEP** (01/01/2014-31/12/**2014**): *Characterization of Chd7 function during oligodendrogenesis and remyelination.* C. Parras, principal investigator. €58,000
- **ARSEP** (01/01/2012-31/12/**2012**): *Inducing oligodendrogenesis and myelination from neural stem cells by combination of transcription factors.* C. Parras, principal investigator. €75,000
- **NMSS** (National Multiple Sclerosis Society) (1/10/**2010**-31/10/2014): *Promoting remyelination from endogenous oligodendrocyte precursors.* C. Parras, principal investigator. \$274,000

- **AVENIR** project (2006-2010). INSERM. *Characterization of new factors for specification and differentiation of myelinating oligodendrocytes in the forebrain*. C. Parras, principal investigator. €240,000

DIRECTING RESEARCH

- Pierre-Henri HELOU, **Master2**, January-June 2021
- Morgane PIGACHE, **Master2**, January-June 2021
- Julien PIGEON, **Master2**, January-June 2019
- Jean-Baptiste HURE, **thesis**, from January 2018
- Emeric MEROUR, **Master2 & thesis**, from January 2017
- Haiyang LU, **Master2**, January-June 2016
- Antoine POTEL, **Master2**, January-June 2015
- Theodora BANICA, **Master2**, January-June 2014
- Corentine MARIE, **Postdoc Master2 & thesis**, from January 2013
- Hatem HMIDAN, **Master2 & thesis**, September 2012-September 2017
- Adrien CLAVAIROLY, **Master2 & thesis**, from January 2010-September 2014
- Aurélie DELMASURE, **Master professional**, January-June 2013
- Elodie M. MARTIN, **post-doc**, January 2012- February 2013
- Mehdi SAAB, **Master 2**, January-June 2012
- Arthur VIADIEU, **Master 2** January-June 2011
- Hessameh HASSANI, **post-doc**, February 2008-September 2012
- Hiroko NAKATANI, **post-doc**, January 2007-February 2011
- Alix BIRCHENALL, **Master 2** January-June 2009

PRESENT COLLABORATIONS

Richard Q Lu (Cincinnati, USA), **Olivier Raineteau** (Lyon, France), **Isabel Pérez Otaño** (Alicante, Spain), **Emmanuelle Huillard** (Paris, France), **Donna Martin** (Michigan, USA), **Haikun Liu** (Heidelberg, Germany), **François Guillemot** (London, UK), **Su Hao Lo** (US Davis, USA), **Sassan Hafizi** (Portsmouth, UK), **Michel Mallat** (Paris, France), **Pierre Gressens** (Paris, France)

SELECTED PUBLICATIONS

Khadijeh Shabani Julien Pigeon, [...] **Carlos Parras**, Bassem A. Hassan. The Amyloid Precursor Protein regulates human cortical neurogenesis. *BioRxiv* 2021. <https://doi.org/10.1101/2021.02.17.431707>

Parras C, Marie C, Zhao C and Lu QR (2020). Chromatin remodelers in oligodendroglia. Review. *Glia*, on-line publication 28 May 2020

Marie C, Clavairolly A, Frah M, Hmidan H, Yan J, Zhao C, Van Steenwinckel J, Daveau R, Zalc B, Hassan B, Thomas JL, Gressens P, Ravassard P, Moszer I, Martin DM, Lu QR, and Parras C (2018). Oligodendrocyte precursor survival and differentiation requires chromatin remodeling by Chd7 and Chd8. *PNAS*. August 14, 115 (35) E8246-E8255.

Zhao C, Dong C, **Frah M**, Deng Y, **Marie C**, Zhang F, Xu L, Xu J, Dong X, Koenig S, Nait-Oumesmar B, Martin D, LN Wu, Mei X, Zhou W, **Parras C**, and Lu QR (2018). Dual Requirement of CHD8 for Chromatin Landscape Establishment and Histone Methyltransferase Recruitment to Promote CNS Myelination and Repair. *Dev Cell*. 18 June, 45 (6): 753-768.

He D, **Marie C**, Zhao C, Wang J, Deng Y, Kim B, **Clavairolly A, Frah M**, Wang H, He X, **Hmidan H**, Jones BV, Witte D, Zalc B, Zhou X, Choo DI, Martin DM, **Parras C***, Lu QR* (2016). Chd7 cooperates with Sox10 and regulates the onset of CNS myelination and remyelination *Nat. Neurosci.* 29 Feb AOP. * **Corresponding authors.**

Han J, **Calvo CF**, Kang TH, Baker KL, Park JH, **Parras C**, Levittas M, **Birba U**, Pibouin-Fragner L, Fragner P, Bilguvar K, Duman RS, Nurmi H, Alitalo K, Eichmann AC, **Thomas JL** (2015). Vascular endothelial growth factor receptor 3 controls neural stem cell activation in mice and humans. *Cell Rep*. 24;10(7)

Raposo AA, Vasconcelos FF, Drechsel D, **Marie C**, Johnston C, Dolle D, Bithell A, Gillotin S, van den Berg DL, Ettwiller L, Flicek P, Crawford GE, **Parras CM**, Berninger B, Buckley NJ, Guillemot F, Castro DS (2015). Ascl1 Coordinately Regulates Gene Expression and the Chromatin Landscape during Neurogenesis. **Cell Rep.** Mar 4.

Vue TY, Kim EJ, **Parras CM**, Guillemot F, Johnson JE (2014). Ascl1 controls the number and distribution of astrocytes and oligodendrocytes in the gray matter and white matter of the spinal cord. **Development.** 141 (19):3721-31.

Ono, K[§], **Clavairolly, A[§]**, Nomura T, Gotoh H, Uno A, Armant O, Takebayashi H, Zhang Q, Shimamura K, Itohara S, **Parras CM**, Ikenaka K (2014). Development of the prethalamus is crucial for thalamocortical projection formation and is regulated by Olig2. **Development** 141, 2075-2084. [§]**Equal contribution**

Nakatani H, Martin EM, Hassani H, Clavairolly A, Maire CL, **Viadieu A**, Kerninon C, **Delmasure A**, Frah M, Weber M, Nakafuku M, Zalc B, Thomas JL, Guillemot F, Nait-Oumesmar B, **Parras C** (2013). Ascl1/Mash1 promotes postnatal oligodendrogenesis and remyelination in the mouse cortex. **JNeurosci.** 33 (23): 9752-9768

Binder E[§], Rukavina M[§], **Hassani H[§]**, **Nakatani H**, Weber M, **Parras C[#]**, Taylor V[#] and Rohrer H[#] (2011). PNS progenitors can be reprogrammed to produce myelinating oligodendrocytes and repair brain lesions. **JNeurosci.** 31 (17): 6379-6391. [§] and [#] **Equal contribution**

Castro DS, Martynoga B, **Parras C**, Ramesh V, Pacary E, Johnston C, Drechsel D, Lebel-Potter M, Garcia LG, Hunt C, Dolle D, Bithell A, Ettwiller L, Buckley N, Guillemot F (2011). A novel function of the proneural factor Ascl1 in progenitor proliferation identified by genome-wide characterization of its targets. **Genes & Dev.** 25(9):930-45.

Galichet C, Guillemot F, and **Parras CM**, (2008). *Neurogenin2* has an essential role in development of the dentate gyrus. **Development.** 135, 2031-2041.

Parras CM, Hunt C, Sugimori M, Nakafuku M, Rowitch D, and Guillemot F (2007). The proneural gene Mash1 specifies an early population of telencephalic oligodendrocytes. **JNeurosci.** 27(16): 4233-4242.

FELLOWSHIPS

- AVENIR group leader fellowship from the **Fondation de France** at INSERM U711 2006-2007
- Assistant researcher contract from the **Medical Research Council** at NIMR 2002-2005
- Postdoctoral fellowship from **La Fondation pour la Recherche Médicale** 2001-2002
- Postdoctoral fellowship from **EMBO** 2000-2001
- Postdoctoral fellowship from the **Fundación Ramón Areces** 1998-2000
- PhD fellowship from the **Comunidad Autónoma de Madrid** 1993-1998
- Contract from the **Science project** *Generation of Drosophila GAL4 lines* 1992-1993
- Student fellowship from the **Ministerio de Educación y Ciencia** 1990-1992

COMMUNICATIONS IN INTERNATIONAL MEETINGS

- **2021 Glia 2021** Introductory Course, Marseille. Oral presentation: Development of glial cells
- **2017 ISN** (International Society of Neurochemistry) **satellite meeting in myelin** (Embiez) Oral presentation: Chd7 and Chd8 chromatin remodelers cooperate to induce OPC differentiation and survival
- **2017 European Glial Meeting** (Edinburg) Poster presentations: Tns3, a new marker of immature oligodendrocytes during (re)myelination, is absolutely required for oligodendrocyte differentiation; Chd7, chromatin remodeling factor, function in oligodendrogenesis and (re)myelination
- **2016 Gordon Conference on Myelin** (Luca) Poster presentation: Characterization of *Tensin 3* function during Oligodendrogenesis & Remyelination
- **2015 European Glial Meeting** (Bilbao) Symposium organizer: Transcriptional regulation of (re)myelination
- **2014 ASN** (American Society of Neurochemistry) (Los Angeles) Oral presentation: Mash1/Ascl1 transcriptional regulation of oligodendrogenesis

- **2014 Gordon Conference on Myelin** (Ventura) Poster presentation: Mash1 function during postnatal oligodendrogenesis and remyelination
- **2013 European Glial Meeting** (Berlin) Poster presentation: Ascl1/Mash1 promotes brain oligodendrogenesis during myelination and remyelination
- **2013 SFN meeting** (American Society for Neuroscience) (San Diego) Poster presentation: Mash1 expression & function during cortical oligodendrogenesis and remyelination
- **2012 Gordon Conference on Myelin** (Pise) Poster presentation: Mash1 function during postnatal oligodendrogenesis and remyelination
- **2011 European Glial Meeting** (Prague) Poster presentation: Characterization of Mash1 and Olig2 common target in oligodendrogenesis
- **2010 Gordon Conference on Myelin** (Ventura) Poster presentation: Mash1 expression & function during cortical oligodendrogenesis and remyelination
- **2009 European Glial Meeting** (Paris) Oral presentation: Mash1 expression & function during cortical oligodendrogenesis and remyelination
- **2009 bHLH Transcription Factors EMBO workshop** (London) Poster presentation: Characterization of Mash1 function in postnatal oligodendrogenesis
- **2008 Gordon Conference on Myelin** (Pise) Poster presentation: Characterization of Mash1 function in postnatal oligodendrogenesis
- **2007 European Glial Meeting** (London) Poster presentation: Characterization of Mash1 function in postnatal oligodendrogenesis
- **2006 Club des Cellules Gliales** (Agelonde) Poster presentation: Mash1 specifies an early population of oligodendrocyte precursors in the forebrain
- **2006 Gordon Conference on Myelin** (Ventura) Poster presentation: Mash1 function in generation of oligodendrocyte precursors in the developing forebrain
- **2006 SFN meeting** of the American Society of Neuroscience (Washington) Poster presentation: Mash1 function in generation of oligodendrocyte precursors in the developing forebrain
- **2003 Winter FENS meeting** at Lenberg (Austria)
- **2002 FENS meeting.** Poster presentation : Expression and function of Mash1 proneural gene in the adult brain
- **2002 IX Reunion de la Société Genevoise de Neurosciences.** Genève (Suisse). Oral presentation: Expression and function of Mash1 proneural gene in the adult brain
- **2002 Conférences Philippe Laudat** Aix-le-Bains (France). Oral presentation: Expression and function of Mash1 proneural gene in the adult brain
- **2001 GBM-Meeting** in Bochum (Germany). Oral presentation: The role of Mash1 proneural gene in adult brain
- **2001 Stem Cells meeting:** Biology & Applications meeting, at Cold Spring Harbor (USA). Poster presentation: Characterization of Mash1-positive progenitors in adult neurogenesis
- **2000 FENS meeting.** Poster presentation: The function of Ngn2 in hippocampus development

INVITED SEMINARS

- **2019 Gulbenkian institute, Lisbon**, invited by Diogo Castro
- **2019 Stem cell institute, Edimburg**, invited by Chales ffrench-Constant
- **2018 Institute of Neurosciences, Alicante**, invited by Constantino Sotelo & Hugo Cabedo
- **2016 Hopital Robert Devré, Paris**, invited by Pierre Gressens
- **2014 Children's Hospital Research Foundation, Cincinnati**, invited by Richard Q Lu
- **2013 Institute of Physiological Chemistry, Mainz**, invited by Benedikt Berninger
- **2010 Brain Research Institute, Zurich**, invited by Dr. Olivier Raineteau.
- **2008 Children's Hospital Research Foundation, Cincinnati**, invited by Dr. Masato Nakafuku.
- **2007 INSERM UMR 546**, invited by Dr. Brahim Nait-Oumesmar.

LANGUAGES

- **English** - speak fluently and read/write with high proficiency
- **French** - speak fluently and read with high proficiency and write with basic competence
- **Spanish** - native language

5 BEST PUBLICATIONS

Marie C, Clavairolly A, Frah M, Hmidan H, Yan J, Zhao C, Van Steenwinckel J, Daveau R, **Zalc B, Hassan B, Thomas JL**, Gressens P, Ravassard P, Moszer I, Martin DM, Lu QR, and **Parras C**. Oligodendrocyte precursor survival and differentiation requires chromatin remodeling by Chd7 and Chd8. **PNAS**. 17 August.

Implication of two chromatin remodelers, Chd7 and Chd8, link to Autism and CHARGE syndrome respectively, in the control of oligodendrocyte precursor (OPC) cell-fates, with partial compensatory functions

He D, **Marie C**, Zhao C, Wang J, Deng Y, Kim B, **Clavairolly A, Frah M**, Wang H, He X, **Hmidan H**, Jones BV, Witte D, Zalc B, Zhou X, Choo DI, Martin DM, **Parras C***, Lu QR* (2016). Chd7 cooperates with Sox10 and regulates the onset of CNS myelination and remyelination **Nat. Neurosci.** 29 Feb 2016 AOP. * **Corresponding authors.**

First study demonstrating the role of Chd7 chromatin remodeler, responsible for CHARGE syndrome, in oligodendrocyte differentiation and myelination both during development and adult remyelination

Nakatani H, Martin EM, Hassani H, Clavairolly A, Maire CL, **Viadieu A**, Kerninon C, **Delmasure A**, Frah M, Weber M, Nakafuku M, Zalc B, Thomas JL, Guillemot F, Nait-Oumesmar B, **Parras C** (2013). Ascl1/Mash1 promotes postnatal oligodendrogenesis and remyelination in the mouse cortex. **JNeurosci.** 33 (23): 9752-9768

Demonstration that Ascl1/Mash1, a known factor for its capacity to drive neurogenesis in many contexts, is involved in oligodendrocyte specification (generation), and the control of the balance between proliferation and differentiation of oligodendrocyte precursors both in the postnatal (during myelination) and adult brain (in remyelination)

Parras, CM, Galli, R, Britz, O, Soares, S, Galichet, C, Battiste, J, Johnson, J E, Nakafuku, M, Vescovi, A and Guillemot, F. (2004). Mash1 specifies neurons and oligodendrocytes in the postnatal brain. **EMBO J** 23, 4495-505.

First evidence that Ascl1/Mash1 proneural factor is required not only for neurogenesis but also for oligodendrocyte precursor generation during brain development

Parras CM, Schuurmans C, Scardigli R, Kim J, Anderson DJ and Guillemot F (2002). Divergent functions of the proneural genes Mash1 and Ngn2 in the specification of neuronal subtype identity. **Genes Dev.** 16, 324-338.

Demonstration that two main proneural transcription factors, Ascl1/Mash1 and Neurogenin 2, control neuronal subtype specification in different regions of the nervous systems.

10 BEST PUBLICATIONS

Khadijeh Shabani Julien Pigeon, [...] **Carlos Parras**, Bassem A. Hassan. The Amyloid Precursor Protein regulates human cortical neurogenesis. BioRxiv 2021. doi: <https://doi.org/10.1101/2021.02.17.431707>

Marie C, Clavairolly A, Frah M, Hmidan H, Yan J, Zhao C, Van Steenwinckel J, Daveau R, **Zalc B, Hassan B, Thomas JL**, Gressens P, Ravassard P, Moszer I, Martin DM, Lu QR, and **Parras C**. Oligodendrocyte precursor survival and differentiation requires chromatin remodeling by Chd7 and Chd8. **PNAS**. 17 August.

Zhao C, Dong C, **Frah M**, Deng Y, **Marie C**, Zhang F, Xu L, Xu J, Dong X, Koenig S, Nait-Oumesmar B, Martin D, LN Wu, Mei X, Zhou W, **Parras C**, and Lu QR (2018). Dual Requirement of CHD8 for Chromatin Landscape Establishment and Histone Methyltransferase Recruitment to Promote CNS Myelination and Repair. **Dev Cell.** 18 June, 45 (6): 753-768.

He D, **Marie C**, Zhao C, Wang J, Deng Y, Kim B, **Clavairolly A, Frah M**, Wang H, He X, **Hmidan H**, Jones BV, Witte D, Zalc B, Zhou X, Choo DI, Martin DM, **Parras C***, Lu QR* (2016). Chd7 cooperates with Sox10

and regulates the onset of CNS myelination and remyelination **Nat. Neurosci.** 29 Feb 2016. AOP *
Corresponding authors.

Nakatani H, Martin EM, Hassani H, Clavairolly A, Maire CL, Viadieu A, Kerninon C, Delmasure A, Frah M, Weber M, Nakafuku M, Zalc B, Thomas JL, Guillemot F, Nait-Oumesmar B, Parras C (2013). Ascl1/Mash1 promotes postnatal oligodendrogenesis and remyelination in the mouse cortex. **JNeurosci.** 33 (23): 9752-9768

Binder E[§], Rukavina M[§], **Hassani H[§]**, **Nakatani H**, Weber M, **Parras C[#]**, Taylor V[#] and Rohrer H[#] (2011). PNS progenitors can be reprogrammed to produce myelinating oligodendrocytes and repair brain lesions. **JNeurosci.** 31 (17): 6379-6391

[§] and [#] These authors have **equally contributed** to this work

Galichet C, Guillemot F, and **Parras CM**, (2008). *Neurogenin2* has an essential role in development of the dentate gyrus. **Development.** 135, 2031-2041.

Parras CM, Hunt C, Sugimori M, Nakafuku M, Rowitch D, and Guillemot F (2007). The proneural gene Mash1 specifies an early population of telencephalic oligodendrocytes. **JNeurosci.** 27(16): 4233-4242.

Parras, CM, Galli, R, Britz, O, Soares, S, Galichet, C, Battiste, J, Johnson, J E, Nakafuku, M, Vescovi, A and Guillemot, F. (2004). Mash1 specifies neurons and oligodendrocytes in the postnatal brain. **EMBO J** 23, 4495-505.

Parras CM, Schuurmans C, Scardigli R, Kim J, Anderson DJ and Guillemot F (2002). Divergent functions of the proneural genes Mash1 and Ngn2 in the specification of neuronal subtype identity. **Genes Dev.** 16, 324-338.

Parras C, Chu H, White K and Jiménez F (1998). Formation and specification of ventral neuroblasts is controlled by *vnd* in *Drosophila* neurogenesis. **Genes & Dev.** 12: 3613-3624

PUBLICATIONS

Khadijeh Shabani Julien Pigeon, [...] **Carlos Parras**, Bassem A. Hassan. The Amyloid Precursor Protein regulates human cortical neurogenesis. BioRxiv 2021. doi:
<https://doi.org/10.1101/2021.02.17.431707>

Parras C, Marie C, Zhao C and Lu QR (2020). Chromatin remodelers in oligodendroglia. Review. **Glia**, on-line publication 28 May 2020

Marie C, Clavairolly A, Frah M, Hmidan H, Yan J, Zhao C, Van Steenwinckel J, Daveau R, **Zalc B, Hassan B, Thomas JL**, Gressens P, Ravassard P, Moszer I, Martin DM, Lu QR, and **Parras C**. Oligodendrocyte precursor survival and differentiation requires chromatin remodeling by Chd7 and Chd8. **PNAS.** 17 August.

Zhao C, Dong C, **Frah M**, Deng Y, **Marie C**, Zhang F, Xu L, Xu J, Dong X, Koenig S, Nait-Oumesmar B, Martin D, LN Wu, Mei X, Zhou W, **Parras C**, and Lu QR (2018). Dual Requirement of CHD8 for Chromatin Landscape Establishment and Histone Methyltransferase Recruitment to Promote CNS Myelination and Repair. **Dev Cell.** 18 June, 45 (6): 753-768.

He D, **Marie C**, Zhao C, Wang J, Deng Y, Kim B, **Clavairolly A, Frah M**, Wang H, He X, **Hmidan H**, Jones BV, Witte D, Zalc B, Zhou X, Choo DI, Martin DM, **Parras C***, Lu QR* (2016). Chd7 cooperates with Sox10 and regulates the onset of CNS myelination and remyelination **Nat. Neurosci.** 29 Feb 2016 AOP. *
Corresponding authors.

Francius C, Hidalgo-Figueroa M, Debrulle S, Pelosi B, Rucchin V, Ronellenfitch K, Panayiotou E, Makrides N, Misra K, Harris A, **Hassani H**, Schakman O, **Parras C**, Xiang M, Malas S, Chow RL, Clotman F (2016). Vsx1 Transiently Defines an Early Intermediate V2 Interneuron Precursor Compartment in the Mouse Developing Spinal Cord. **Front in Mol Neurosci.** DOI: 10.3389/FNMOL.2016.00145

Han J, Calvo CF, Kang TH, Baker KL, Park JH, **Parras C**, Levittas M, Birba U, Pibouin-Fragner L, Fragner P, Bilguvar K, Duman RS, Nurmi H, Alitalo K, Eichmann AC, Thomas JL (2015). Vascular endothelial growth

factor receptor 3 controls neural stem cell activation in mice and humans. **Cell Rep.** 2015 Feb 24;10(7):1158-72.

Raposo AA, Vasconcelos FF, Drechsel D, **Marie C**, Johnston C, Dolle D, Bithell A, Gillotin S, van den Berg DL, Ettwiller L, Flicek P, Crawford GE, **Parras CM**, Berninger B, Buckley NJ, Guillemot F, Castro DS (2015). Ascl1 Coordinately Regulates Gene Expression and the Chromatin Landscape during Neurogenesis. **Cell Rep.** Mar 4.

Göttle P, Sabo JK, Heinen A, Venables G, Torres K, Tzekova N, **Parras CM**, Kremer D, Hartung HP, Cate HS, Küry P. Oligodendroglial maturation is dependent on intracellular protein shuttling. **J Neurosci.** 2015 Jan 21; 35 (3):906-19.

Francius C, Hidalgo-Figueroa M, Ronellenfitch K, Worth E, Panayiotou E, Misra K, **Parras C**, Xiang M, Malas S, Chow RL, Clotman F (2015). Identification of a novel population of V2 interneurons in the developing mouse spinal cord. **Inter J of Develop Neurosci.** DOI: 10.1016/J.IJDEVNEU.2015.04.054

Vue TY, Kim EJ, **Parras CM**, Guillemot F, Johnson JE. Ascl1 controls the number and distribution of astrocytes and oligodendrocytes in the gray matter and white matter of the spinal cord. **Development.** 2014 Oct; 141 (19):3721-31.

Ono, K[§], **Clavairolly, A[§]**, Nomura T, Gotoh H, Uno A, Armant O, Takebayashi H, Zhang Q, Shimamura K, Itohara S, **Parras CM**, Ikenaka K (2014). Development of the prethalamus is crucial for thalamocortical projection formation and is regulated by Olig2. **Development** 141, 2075-2084.

[§] These authors have **equally contributed** to this work

Nakatani H, Martin EM, Hassani H, Clavairolly A, Maire CL, **Viadieu A**, Kerninon C, **Delmasure A**, Frah M, Weber M, Nakafuku M, Zalc B, Thomas JL, Guillemot F, Nait-Oumesmar B, **Parras C** (2013). Ascl1/Mash1 promotes postnatal oligodendrogenesis and remyelination in the mouse cortex. **JNeurosci.** 33 (23): 9752-9768

Khalaf-Nazzal R, Bruel-Jungerman E, Rio JP, Bureau J, Irinopoulou T, Sumia I, Roumegous A, **Martin E**, Olaso R, **Parras C**, Cifuentes-Diaz C, Francis F (2013). Organelle and cellular abnormalities associated with hippocampal heterotopia in neonatal doublecortin knockout mice. **PLoS One.** Sep 2;8(9): e72622.

Miguez A, Ducret S, Di Meglio T, **Parras C, Hmidan H**, Haton C, Sekizar S, Mannioui A, Vidal M, Kerever A, Nyabi O, Haigh J, Zalc B, Rijli FM, Thomas JL (2012). Opposing Roles for Hoxa2 and Hoxb2 in Hindbrain Oligodendrocyte Patterning. **JNeurosci.** 32: 17172-17185.

Binder E[§], Rukavina M[§], **Hassani H[§]**, **Nakatani H**, Weber M, **Parras C[#]**, Taylor V[#] and Rohrer H[#] (2011). PNS progenitors can be reprogrammed to produce myelinating oligodendrocytes and repair brain lesions. **JNeurosci.** 31 (17): 6379-6391

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Castro DS, Martynoga B, **Parras C**, Ramesh V, Pacary E, Johnston C, Drechsel D, Lebel-Potter M, Garcia LG, Hunt C, Dolle D, Bithell A, Ettwiller L, Buckley N, Guillemot F (2011). A novel function of the proneural factor Ascl1 in progenitor proliferation identified by genome-wide characterization of its targets. **Genes & Dev.** 25(9):930-45.

Pacary E, Heng J, Azzarelli R, Riou P, Castro D, Lebel-Potter M, **Parras C**, Bell DM, Ridley AJ, Parsons M, Guillemot F. (2011). Proneural transcription factors regulate different steps of cortical neuron migration through Rnd-mediated inhibition of RhoA signaling. **Neuron.** 24;69(6):1069-84.

Brill MS, Ninkovic J, Winpenny E, Hodge RD, Ozen I, Yang R, Erdelyi F, Szabo G, **Parras C**, Guillemot F, Frotscher M, Berninger B, Hevner RF, Raineteau O and Götz M (2009). Adult generation of glutamatergic olfactory bulb interneurons. **Nat Neurosci.** 12(12):1524-33.

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