



Curriculum Vitae

Personal information **Carlos Fitzsimons**

Work experience

Positions and Employment

1/9/2022 – to date: Associate Professor Level 2, permanent position, Group Leader. Swammerdam Institute for Life Sciences, University of Amsterdam.

1/5/2015 – 31/8/2022: Assistant Professor Level 1, permanent position, Group Leader. Swammerdam Institute for Life Sciences, University of Amsterdam.

1/5/2013 – 1/5/2015: Assistant Professor Level 2, permanent position, Group Leader. Swammerdam Institute for Life Sciences, University of Amsterdam.

1/5/2010 – 30/4/2013: Assistant Professor Level 2, tenure track, Group Leader. Swammerdam Institute for Life Sciences, University of Amsterdam.

1/8/2004 – 30/4/2010: Postdoctoral Fellow. Medical Chemistry Dpt., Leiden Academic Centre for Drug Research, Universiteit Leiden.

15/1/2002 – 31/7/2004: Postdoctoral Fellow. Medicinal Chemistry Dpt., Faculty of Sciences, Free University Amsterdam.

1/6/2001 – 31/7/2001: Postdoctoral Researcher. Université Claude Bernard, France.

1/5/2000 – 31/8/2000: Postdoctoral Researcher. Semmelweis University of Medicine, Hungary

Education and training

Masters

- University/College of Higher Education: Faculty of Biochemistry and Pharmacy, University of Buenos Aires, Argentina.

Date: 20 March, 1993. Main subject: Biochemistry

- University/College of Higher Education: Faculty of Biochemistry and Pharmacy, University of Buenos Aires, Argentina.

Date: 15 March, 1998. Main subject: Pharmacy

Doctorate/PhD

- University/College of Higher Education: Faculty of Biochemistry and Pharmacy, University of Buenos Aires, Argentina.

Date: December 19, 1999. Promotion summa cum-laude

Additional information

Publications

Selected peer-reviewed publications

Most significant peer reviewed publications (110 scientific articles, including 104 peer-reviewed articles and 6 book chapters, h-index: 44, 5424 citations in Google Scholar)

Ø Cross-Analysis of Single-Cell Transcriptomic Datasets Reveals Conserved Neurogenic Gene Signatures and New Insights Into Neural Stem Cell Aging. Polzer O, Kinloch E, Lucassen PJ, Salta E, Fitzsimons CP. *Aging Cell*. 2025

Ø Traumatic brain injury promotes neurogenesis at the cost of astrogliogenesis in the adult hippocampus of male mice. Bielefeld P, Martirosyan A, Martín-Suárez S, Apresyan A, Meerhoff GF, Pestana F, Poovathingal S, Reijner N, Koning W, Clement RA, Van der Veen I, Toledo EM, Polzer O, Durá I, Hovhannisyán S, Nilges BS, Bogdoll A, Kashikar ND, Lucassen PJ, Belgard TG, Encinas JM, Holt MG, Fitzsimons CP. *Nat Commun*. 2024 (IF= 16.1)

Ø Astrocyte-targeted gene delivery of interleukin 2 specifically increases brain-resident regulatory T cell numbers and protects against pathological neuroinflammation. Yshii L, Pasciuto E, Bielefeld P, Mascali L, Lemaitre P, Marino M, Dooley J, Kouser L, Verschoren S, Lagou V, Kemps H, Gervois P, de Boer A, Burton OT, Wahis J, Verhaert J, Tareen SHK, Roca CP, Singh K, Whyte CE, Kerstens A, Callaerts-Vegh Z, Poovathingal S, Prezzemolo T, Wierda K, Dashwood A, Xie J, Van Wonterghem E, Creemers E, Aloulou M, Gsell W, Abiega O, Munck S, Vandenbroucke RE, Bronckaers A, Lemmens R, De Strooper B, Van Den Bosch L, Himmelreich U, Fitzsimons CP, Holt MG, Liston A. *Nat Immunol*. 2022 Jun;23(6):878-891. (IF=25,61)

Ø Circadian glucocorticoid oscillations preserve a population of adult hippocampal neural stem cells in the aging brain. Schouten M, Bielefeld P, Garcia-Corzo L, Passchier EMJ, Gradari S, Jungenitz T, Pons-Espinal M, Gebara E, Martín-Suárez S, Lucassen PJ, De Vries HE, Trejo JL, Schwarzacher SW, De Pietri Tonelli D, Toni N, Mira H, Encinas JM, Fitzsimons CP. *Mol Psychiatry*. 2020 Jul;25(7):1382-1405 (IF= 15.992)

Ø Glucocorticoid-mediated modulation of morphological changes associated with aging in microglia. van Olst L, Bielefeld P, Fitzsimons CP, de Vries HE, Schouten M. *Aging Cell*. 2018 Jun 7:e12790. (IF=11)

Ø Knockdown of the glucocorticoid receptor alters functional integration of newborn neurons in the adult hippocampus and impairs fear-motivated behavior. Fitzsimons CP, van Hooijdonk LW, Schouten M, Zalachoras I, Brinks V, Zheng T, Schouten TG, Saaltink DJ, Dijkmans T, Steindler DA, Verhaagen J, Verbeek FJ, Lucassen PJ, de Kloet ER, Meijer OC, Karst H, Joels M, Oitzl MS, Vreugdenhil E. *Mol Psychiatry*. 2013 Sep;18(9):993-1005. (IF= 15.992).

Ø Epigenetic regulation of adult neural stem cells: implications for Alzheimer's disease. Fitzsimons CP, van Bodegraven E, Schouten M, Lardenoije R, Kompotis K, Kenis G, van den Hurk M, Boks MP, Biojone C, Joca S, Steinbusch HW, Lunnon K, Mastroeni DF, Mill J, Lucassen PJ, Coleman PD, van den Hove DL, Rutten BP. *Mol Neurodegener*. 2014 Jun 25;9:25. doi: 10.1186/1750-1326-9-25. (IF= 18, 88)

Ø MicroRNA-124 and -137 cooperativity controls caspase-3 activity through BCL2L13 in hippocampal neural stem cells. M Schouten, SA Fratantoni, CJ Hubens, SR Piersma, TV Pham, P Bielefeld, RA Voskuyl, PJ Lucassen, CR Jimenez, CP Fitzsimons. *Sci. Reports*, 2015. (IF=4,996).

Ø Perinatal programming of adult hippocampal structure and function; emerging roles of stress, nutrition and epigenetics. Lucassen PJ, Naninck EF, van Goudoever JB, Fitzsimons C, Joels M, Korosi A. Trends Neurosci. 2013 Nov;36(11):621-31. (IF= 13.837)

Ø MicroRNA 18 and 124a down-regulate the glucocorticoid receptor: implications for glucocorticoid responsiveness in the brain. Vreugdenhil E, Verissimo CS, Mariman R, Kamphorst JT, Barbosa JS, Zweers T, Champagne DL, Schouten T, Meijer OC, de Kloet ER, Fitzsimons CP. Endocrinology. 2009 May;150(5):2220-8. (IF=4.776)

Ø The microtubule-associated protein doublecortin-like regulates the transport of the glucocorticoid receptor in neuronal progenitor cells. Fitzsimons CP, Ahmed S, Wittevrongel CF, Schouten TG, Dijkmans TF, Scheenen WJ, Schaaf MJ, de Kloet ER, Vreugdenhil E. Mol Endocrinol. 2008 Feb;22(2):248-62. (IF=5.098)

Ø Lentivirus-mediated transgene delivery to the hippocampus reveals sub-field specific differences in expression. van Hooijdonk LW, Ichwan M, Dijkmans TF, Schouten TG, de Backer MW, Adan RA, Verbeek FJ, Vreugdenhil E, Fitzsimons CP. BMC Neurosci. 2009 Jan 13;10:2. doi: 10.1186/1471-2202-10-2. (IF=3.288)

Projects

Research Support and Funding

Grants PI

Social Isolation During Adolescence, As A Risk Factor For Unsuccessful Aging. ERA-4HEALTH EU cofund 350 2025 ongoing

Systematic assessment of a microRNA-based therapeutic approach for AD. Alzheimer Nederland 300 2021 ongoing

Induction of Reactive Neural Stem Cells by Traumatic Brain Injury in the Adult Hippocampus. ERA-NET NEURON EU cofund 250 2016 completed

Epigenetic programming of hippocampal neurogenesis by stress in sporadic Alzheimer's disease. Project #14533, ISAO. 100 01/01/2015-01/01/2017 completed

Reversal of aberrant neurogenesis by glucocorticoids and microRNAs: relevance for the treatment of epilepsy. Project

H64.09.016. Innovational Research Incentives Scheme VIDJ, NOW. 914 1/5/2010-1/5/2016 completed

New Investigator Welcome Startup Incentive, SILS, FNWI, UvA. 50 1/5/2010-1/5/2016 completed

Grants Co-PI

Cognitive reserve mechanisms against Alzheimer pathology in mice and men. Alzheimer Nederland 300 2022 ongoing

Single-cell molecular mapping of adult neurogenesis in Alzheimer's disease. Alzheimer Nederland 300 2021 ongoing

Advanced in vitro and in vivo modeling to study the role of astrocytes in Major Depression Disease. Funded by The Amsterdam Brain and Mind Project (www.abmp.eu) 250 01/03/2016- 01/03/2018 completed

The use of RNA interference to develop new therapies against neuroblastoma. Funded by Villa Joep Foundation against

Neuroblastoma / SenterNovem 170 2006-2007 completed

Memberships

Honors and awards

2023 – to date: Senior member of the Editors board, Pharmacology Research & Perspectives.

2020 – to date: Associate Editor, Frontiers in Molecular Neuroscience.

2020 – to date: Associate Editor, Frontiers in Cellular Neuroscience.

2016- to date: Member of the Editorial Board Panel of Scientific Reports, Section Neuroscience.

2015 – to date: Associate Editor, Frontiers in Neuroscience, Section Neurogenesis.

2021- to date: 2015 –2017: Group leader Alzheimer Nederland/International Foundation for Alzheimer's Research (ISAO)

2017-2020: Principal investigator and work package leader EU Horizon 2020 ERA-NET NEURON Project "REACT NSC".

2015 –2017: Group leader Alzheimer Nederland/International Foundation for Alzheimer's Research (ISAO)

2010-2015: Group leader Innovational Research Incentives Scheme VIDJ NWO.

2014: Top Paper Award, Dutch Neuroscience Society Meeting.

2012: Public Award Amsterdam Science Innovation Award.

1999: Young Investigator Award, University of Buenos Aires, Argentina.

1999: Thesis promotion summa cum-laude, University of Buenos Aires, Argentina

Other Relevant Information