

Part A. PERSONAL INFORMATION

CV date	15/01/2023
----------------	------------

First and Family name	Margarita Rivera Sánchez		
ID number		Age	
Researcher codes	WoS Researcher ID	J-3017-2017	
	SCOPUS Author ID	18038126000	
	ORCID ID	0000-0003-4717-1045	

A.1. Current position

Name of University/Institution	University of Granada		
Department	Department of Biochemistry and Molecular Biology II		
Address and Country	CIBM. Parque Tecnológico Ciencias de la Salud, Avda. del Conocimiento s/n, 18016, Armilla, Granada.		
Phone number	958241000 (ext:20343)	E-mail	mrivera@ugr.es
Current position	Profesora Titular de Universidad	From	31/12/2021
Key words	Genetics, Candidate genes, Obesity, BMI, Psychiatry, Depression, Physical disorders, GWAS, Gene-environment interactions		

A.2. Education

Degree/PhD	University	Year
Bachelor in Biology	University of Granada	2003
PhD in Genetics (Doctor Europeus*)	University of Granada	2008

*Summa Cum Laude unanimously

A.3. JCR articles, h Index, thesis supervised...

- Papers in impact journals (source: JCR): **80** (last 5 years: **43**)
- H-Index (source: Scopus): **38**
- Papers within quartile 1 in category (source: JCR): **67** (last 5 years: **38**)
- Papers within decile 1 in category (source: JCR): **50** (last 5 years: **29**)
- Citations (source: scopus): **7837**
- Master Theses supervised: **16** (last 5 years: **7**). Ongoing: **1**
- PhD Theses supervised: **4** (last 5 years: **2**). Ongoing: **2**

Part B. CV SUMMARY

My research career has been mainly devoted to the study of the genetics of psychiatric disorders, and most recently to their comorbidity with medical conditions. I graduated in Biology at the University of Granada (UGR) in 2003. Shortly after, I undertook a PhD supported by a FPU fellowship to study candidate genes and gene-environment interactions in depression. I obtained my PhD degree in Biology in June 2008 with the highest qualification (Summa Cum Laude, Doctor Europeus), and subsequently the Doctorate Special Prize in Health Sciences. In 2009, I won a prestigious Marie Curie Intra-European Fellowship (IEF) from the European Union to join Prof. McGuffin's group at King's College London. I commenced and led a new research line investigating the relationship between psychiatric disorders and obesity-related diseases. After this fellowship, I was hired in the group of Prof McGuffin to continue working in the same research line. In July 2012, I got a Postdoctoral Fellowship from the NIHR Biomedical Research Centre (BRC) for Mental Health. The last year of my stage at King's College (KCL) I got a promotion to academic Lecturer. The main results from my postdoctoral period were published in the top journals of Psychiatry area. After nearly six years at KCL, in 2014 I returned to Spain with the support of a new Marie Curie IEF Fellowship under the Top Researchers Categories: Experienced Researcher; and was awarded a project as a Principal Investigator funded by the International Brain & Behavior Research Foundation (NARSAD). I continued and initiated at the UGR the research line in which I was working since I started my postdoctoral position at KCL focused on the study of the relationship between mental and physical disorders. In 2016, I obtained a 'Ramón y Cajal' grant at the Department of Biochemistry and Molecular Biology II (UGR). This project, in which I am principal investigator, has recently received funding from the Spanish Government through 'Instituto de Salud Carlos III. Proyecto FIS (PI18/00238)'. My research experience is supported by 80 publications (JCR), 67 of them in the first quartile of the area, and 50 in the first decile. My h-index is 38 and my articles have received 7837 citations. My research results have been presented in more than 100 communications to national and international conferences, and I have been a guest speaker on several occasions. I have participated in more than 20 research projects nationally and internationally funded. I



have coordinated and managed my own projects as a principal investigator funded by the European Union, the NIHR BRC, NARSAD and the Spanish Government. Regarding my international projection, it should be noted that I am member of the Psychiatric Genomics Consortium, BRIDGES Bipolar Sequencing Consortium, Depression Consortium and Honorary Lecturer at KCL, and that I collaborate with several research groups at different international centres.

Part C. RELEVANT MERITS

C.1. Publications (including books)

Selected impact papers

1. Zarza-Rebollo JA, Molina E, López-Isac E, *et al*, & **Rivera M**. (2022). Interaction Effect between Physical Activity and the BDNF Val66Met Polymorphism on Depression in Women from the PISMA-ep Study. *Int J Environ Res Public Health*. 19(4):2068. doi: 10.3390/ijerph19042068. **IF (JCR-2021): 4,614. Q1: 45/182.**
2. Anguita-Ruiz A, Zarza-Rebollo JA, Pérez-Gutiérrez AM, *et al*, & **Rivera M**. (2022). Body mass index interacts with a genetic-risk score for depression increasing the risk of the disease in high-susceptibility individuals. *Transl Psychiatry*. 24;12(1):30. doi: 10.1038/s41398-022-01783-7. **IF (JCR-2021): 7.989. Q1: 27/155.**
3. Zarza-Rebollo JA, Molina E, **Rivera M**. (2021). The role of the *FTO* gene in the relationship between depression and obesity. A systematic review. *Neurosci Bioehav Rev*. 2021 May 19; 127:630-637. doi: 10.1016/j.neubiorev.2021.05.013. **(IF: 9,052). Q1: 3/53 (D1).**
4. **Rivera M***, Porrás-Segovia A, Rovira P, *et al*. (2019). Associations of major depressive disorder with chronic physical conditions, obesity and medication use: Results from the PISMA-ep study. *European Psychiatry* 2019 Aug;60:20-27. doi: 10.1016/j.eurpsy.2019.04.008. **(IF: 3,941). Q1: 24/142. *Corresponding author.**
5. Porrás-Segovia, **Rivera M***, Molina E, Lopez-Chaves, Gutiérrez B, Cervilla J. (2019). Physical exercise and body mass index as correlates of major depressive disorder in community-dwelling adults: results from the PISMA-ep study. *Journal of affective disorders*. 2019. 251:263-269. doi: 10.1016/J.JAD.2019.01.050. **(IF: 4,084). Q1: 21/142. *Corresponding author.**
6. Anttila V, Bulik-Sullivan B, Finucane HK, *et al*, **Rivera M**, *et al* & Murray R. (2018). Analysis of shared heritability in common disorders of the brain. *Science*. 22;360(6395). doi: 10.1126/science.aap8757. **(IF: 41,063). Q1: 2/69 (D1).**
7. Wray NR, Ripke S, Mattheisen M, *et al*, **Rivera M**, *et al* & Sullivan PF. (2018). Genomewide association analyses identify 44 risk variants and refine the genetic architecture of major depression. *Nature Genetics*, 2018 May;50(5):668-681. doi: 10.1038/s41588-018-0090-3. **(IF: 25,455). Q1: 2/174 (D1).**
8. **Rivera M***, Locke AE, Corre T, Czamara D, *et al*. (2017). Interaction between the *FTO* gene, body mass index and depression: meta-analysis of 13701 individuals. *The British Journal of Psychiatry*. 2017 Aug;211(2):70-76. doi: 10.1192/bjp.bp.116.183475. **(IF: 5,867). Q1: 10/142 (D1). *Corresponding author.**
9. Rucker JJ, Tansey KE, **Rivera M**, *et al*. (2016). Phenotypic Association Analyses With Copy Number Variation in Recurrent Depressive Disorder. *Biological Psychiatry*. 2016 Feb 15;79(4):329-36. doi: 10.1016/j.biopsych.2015.02.025. Epub 2015 Feb 25. **(IF: 11.412). Q1: 6/142. (D1).**
10. McGuffin P, **Rivera M**. The interaction between stress and genetic factors in the etiopathogenesis of depression. (2015). *World Psychiatry*. 2015 Jun;14(2):161-3. doi: 10.1002/wps.20230. **(IF: 30). Q1: 1/142. (D1).**
11. **Rivera M***, McGuffin P. (2015). The successful search for genetic loci associated with depression. *Genome Medicine*. 2015 Aug 25;7:92. doi: 10.1186/s13073-015-0217-4. **(IF: 5.846). Q1: 17/166. *Corresponding author.**
12. Hung CF, Breen G, Czamara D, *et al*, & **Rivera M**. (2015). A genetic risk score combining 32 SNPs is associated with body mass index and improves obesity prediction in people with major depressive disorder. *BMC Medicine*. Apr 17;13:86. doi: 10.1186/s12916-015-0334-3. **(IF:9,088). Q1: 10/155. (D1).**



13. Levinson DF, Mostafavi S, Milaneschi Y, **Rivera M**, *et al.* (2014). Genetic studies of major depressive disorder: Why are there no GWAS findings, and what can we do about it? *Biological Psychiatry*. 1;76(7):510-2. (IF: 11,984). Q1: 6/142. (D1).
14. Hung C⁺, **Rivera M**⁺, Craddock N, *et al.* ⁺Joint first author. (2014). Relationship between obesity and the risk of clinically significant depression: Mendelian randomisation study. *The British Journal of Psychiatry*. 2014 Jul;205(1):24-8. doi: 10.1192/bjp.bp.113.130419. Epub 2014 May 8. (IF: 5,867). Q1: 10/140. (D1). ⁺Shared first authors. *Corresponding author.
15. Samaan Z, Anand S, Zhang X, Desai, D, **Rivera M**, *et al.* (2013). The protective effect of the obesity-associated rs9939609 A variant in fat mass- and obesity-associated gene on depression. *Molecular Psychiatry*, 2013 Dec;18(12):1281-6. doi: 10.1038/mp.2012.160. Epub 2012 Nov 20. (IF: 15.147). Q1: 5/290 (D1).
16. **Rivera M**^{*}, Cohen-Woods S, Kapur K, *et al.* (2012). Depressive disorder moderates the effect of the FTO gene on body mass index. *Molecular Psychiatry*, Vol 17 (6): 604-611. doi: 10.1038/mp.2011.45. (IF: 14.897). Q1: 5/290 (D1). *Corresponding author.
17. **Rivera M**, Gutiérrez B, Molina E, *et al.* (2008). High-activity variants of the uMAOA polymorphism increase the risk for depression in a large primary care sample. *American Journal of Medical Genetics. Part B (Neuropsychiatric Genetics)* 150B: 395-402. (IF: 3.932). Q1: 23/101.

Books

1. **Rivera M**. (2013). Towards 2020 the genetic influence on obesity and associated disease (Euroscicon Meeting Reports) [Kindle Edition]. Astrid Englezou (Editor), Shara Cohen (Editor). Publisher: Honnau. ASIN: B00HLIZ1B2.

Books chapters

1. Rodríguez -Hidalgo M, Agudo M, *et al* & **Rivera M**. Relación entre el gen *FTO*, índice de masa corporal y depresión. *Encuentros en Neurociencias Vol. V*. pp:35-49. Editorial: Universidad de Granada.
2. **Rivera M**, Rovira P, Gutierrez B, *et al.* (2017). The BDNF VAL66MET genetic polymorphism does not modify the association between body mass index (BMI) and major depression. *Encuentros en Neurociencias. Vol IV*. pp: 205 – 224. Editorial: Universidad de Granada. ISBN: 978 -84 -697 -8282-8.
3. Ching -López A, **Rivera, M**, Cervilla, J, *et al.* (2015). Genes del eje hipotalámico-hipofisario -adrenal de la neurotransmisión serotoninérgica se asocian con depresión mayor. *Encuentros en Neurociencias Vol. III*. pp: 59-78. Editorial: UGR. ISBN: 978 -84 -338 -589
4. Iyegbe C, Modinos G, **Rivera M**. (2012). Old obstacles on new horizons: the challenge of implementing Gene x Environment discoveries in Schizophrenia research, pp:77 -106. "Public Health - Epidemiology, Environmental and System Issues" (working title), ISBN 979 -953-307-884 -6, (InTech Publishing).

C.2. Research projects and grants

1. **Title:** Estudio de la relación genética entre depresión, obesidad y ejercicio físico utilizando nuevas aproximaciones metodológicas. **Funding entity:** Proyectos de I+D+i en el marco del Programa Operativo FEDER. (B-CTS-256-UGR20). **PI:** Margarita Rivera. **Duration:** 01/01/2022 - 31/12/2023. **Amount:** 20,000 €.
2. **Title:** Análisis de asociación del genoma completo (GWAS) y secuenciación de genes candidatos para depresión y obesidad en una muestra epidemiológica española. Estudio PISMA-Med. **Funding entity:** Ministerio de Ciencia, Innovación y Universidades. Instituto de Salud Carlos III. Proyecto FIS (PI18/00238). **PI:** Margarita Rivera. **Duration:** 01/01/2019 -30/06/2023. **Amount:** 123,420 €.
3. **Title:** Factores genéticos y ambientales de enfermedades médicas comórbidas en los principales trastornos psiquiátricos. **Funding entity:** Ministerio de Economía y Competitividad. Programa Ramón y Cajal. **PI:** Margarita Rivera. **Duration:** 01/09/2016 - 01/09/2021. **Amount:** 40,000 €.
4. **Title:** Genetics and environmental determinants of comorbid medical conditions in Depression. **Funding entity:** Brain and Behavior Research Foundation (NARSAD). NARSAD Young Investigator Grant. **PI:** Margarita Rivera. **Duration:** 15/01/2015 - 15/01/2019. **Amount:** \$65,000.
5. **Title:** Genetic and Environmental Determinants of Comorbid Medical Conditions in Major Psychiatric Disorders: The Med-Psych Study. **Funding entity:** European Union. 7th Framework Programme (FP7) (FP/-PEOPLE-2013). **PI:** Margarita Rivera. **Duration:** 01/09/2014 - 01/09/2016. **Amount:** 223,002.20 €.



6. **Title:** Depression, Genomics and Biomarkers. **Funding entity:** NIHR Biomedical Research Centre. **PI:** Margarita Rivera. **Duration:** 01/09/2012- 31/08/2014. **Amount:** £63,000.
7. **Title:** Professionals, patients and genetic factors and their interaction associated with therapeutic success of an intervention to prevent major depression in primary care. The Predict-Eval study. **Funding entity:** Convocatoria Proyectos de Investigación en Salud del Instituto de Salud Carlos III (FIS). PI12/02755. **PI:** Juan A. Bellón Saameño. **Duration:** 01/01/2013- 01/01/2015. **Amount:** 99,820 €. **Type of participation:** PI of the Genetic study.
8. **Title:** A genome wide association study of the relationship between BMI, type 2 diabetes and recurrent depression. **Funding entity:** European Union. 7th Framework Programme (FP7) (FP/PEOPLE-2008). **PI:** Margarita Rivera. **Duration:** 02/03/2009-01/03/2011. **Amount:** 171.867,6€.
9. **Title:** Asociación de síndromes clínicos en psicosis con factores genéticos, infecciosos y ambientales. **Funding entity:** Consejería de Innovación (Junta de Andalucía). Proyecto de Investigación de Excelencia. P06-CTS-01686. **PI:** Jorge Cervilla. **Duration:** 01/01/2007-31/12/2009. **Amount:** 215,000 €. **Type of participation:** Researcher.
10. **Title:** Interacción genético-ambiental y riesgo para depresión en la comunidad: un estudio prospectivo de cohorte (Estudio PREDICT-Gene). **Funding entity:** Ministerio de Educación y Ciencia. SAF2006/07 192. **PI:** Jorge Cervilla. **Duration:** 01/01/2006- 31/12/2008. **Amount:** 60,000 €. **Type of participation:** Researcher.

C.3. Contracts

2014-2016 Senior Marie Curie Researcher (IEF) Universidad de Granada.
2013-2014 Lecturer (Assistant Professor) King's College London.
2012-2013 Senior Postdoctoral Researcher King's College London.
2011-2012 NIHR BRC Postdoctoral Researcher King's College London.
2009-2011 Marie Curie Postdoctoral Researcher (IEF) King's College London.
2008-2009 Postdoctoral Researcher (University of Granada).

C.5. Fellowships

2014: Postdoctoral Fellowship *Marie Curie Intra-European Fellowships for Career Development*.
2012: Postdoctoral Fellowship from *NIHR Biomedical Research Centre (BRC)*.
2009: Postdoctoral Fellowship *Marie Curie Intra-European Fellowships for Career Development*.
2007: Predoctoral Travel Fellowship funded by the Spanish Ministry.
2006: Predoctoral Travel Fellowship funded by the Spanish Ministry.
2004: Predoctoral FPU Fellowship funded by Ministerio de Educación y Ciencia.
2002: Collaboration Fellowship funded by the Spanish Ministry.

C.6. Awards

2013: BRC Travel Award. 2012: BRC Nucleus Travelling Fellowship Scheme Award. 2010: Associate Member of the European College of Neuropsychopharmacology. 2008: Premio Extraordinario de Doctorado de la Universidad de Granada.

C.7. Referee

Social Science Research; Science (junto con Professor McGuffin); Psychiatric Genetics; New England Journal of Medicine; Biological Psychiatry, Scientific Reports, The Journal of Clinical Psychiatry.

C.8. Memberships of scientific societies, International Committees and Research Groups

-Psychiatric Genomics Consortium (PGC).-BRIDGES Bipolar Sequencing Consortium.-BRC Bioresource and Genomics and Biomarkers Theme. -BRC Training & Capacity Development Board. -Training Committee of the BRC Bioresource.-Depression Consortium. -Centre for Biomedical Research on Mental Health (CIBERSAM).-Associate and Ordinary member of the European College of Neuropsychopharmacology.-Member of the International Society of Psychiatric Genetics (ISPG), The American Society of Human Genetics.-Member of the Organizing Committee of two WPA Thematic Conferences (Spain, 2008 and 2012).

C.9. Institutional responsibilities

-Secretaria del Programa de Doctorado de Biomedicina de la Universidad de Granada, desde el 11/07/2017.

- Miembro de la Comisión Académica del Programa de Doctorado de Biomedicina de la Universidad de Granada, desde el 21/07/2017.

-Miembro de la Comisión de Garantía de Calidad del Programa de Doctorado de Biomedicina de la Universidad de Granada, desde el 11/07/2018.