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Curriculum Vitae – Javier González-Maeso

Department of Physiology and Biophysics

Virginia Commonwealth University

School of Medicine

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Education and Training

Postdoctoral training

2001-2005 Postdoctoral fellow
 Mount Sinai School of Medicine, New York
 Advisor: Stuart C. Sealfon, MD

Graduate

1997-2001 PhD student
 University of the Basque Country (Bilbao, Spain)
 Advisor: J. Javier Meana, MD, PhD

1998 Visiting PhD student
 Esteve Laboratories (Barcelona, Spain)

1999 Visiting PhD student
 University of Cambridge (Cambridge, England)
 Advisor: Jennifer A. Koenig, PhD

Undergraduate

1992-1997 Master's thesis student
 University of the Basque Country (Bilbao, Spain)
 Advisor: Isabel Barcina, PhD

1995-1997 BS in Biochemistry and Molecular Biology
 University of the Basque Country (Bilbao, Spain)

1990-1995 BS in Biology
 University of the Basque Country (Bilbao, Spain)

Positions

2020 – present Professor
 Department of Physiology and Biophysics
 Virginia Commonwealth University

2015 – 2020 Associate Professor (tenured, 2016)
 Department of Physiology and Biophysics
 Virginia Commonwealth University

2008 – 2015 Assistant Professor
 Department of Psychiatry
 Mount Sinai School of Medicine

2006 – 2008 Instructor
 Mount Sinai School of Medicine

Honors and Awards

2022	VCU Breakthroughs Fund Award
2021	American College of Neuropsychopharmacology (ACNP) Travel Award
2020-2021	President, Central Virginia Society for Neuroscience
2019	Value and Efficiency Teaching and Research (VETAR) Award
2018	VCU School of Medicine Outstanding Departmental Teacher Award
2017	Life Science Poster at Tocris (Schizophrenia) https://www.tocris.com/literature/life-science-posters
2016	VCU Presidential Research Award
2012	The Mortimer D. Sackler Foundation Award
2011	XII Premio de Investigación Dr. Antonio Esteve (Honorary mention)
2010	NARSAD Young Investigator Award
2009	Maltz Family Foundation Award
2009	Selected to present at the 2009 Annual New York Mental Health Symposium
2008	NARSAD Young Investigator Award
2001-2003	Postdoctoral fellowship (Basque Government, Spain) at Mount Sinai in New York
2001	PhD <i>summa cum laude</i> . University of the Basque Country, Spain
1999	International PhD rotation fellowship (Ministry of Science and Technology, Spain) at the University of Cambridge in England.
1997-2000	PhD student fellowship. Ministry of Science and Technology, Spain.
1996	Master's Thesis Honor. University of the Basque Country, Spain.
1994-1996	Master's Thesis fellowship. Basque Government, Spain.
1990-1995	BS fellowship. Basque Government, Spain.

Membership in Scientific or Professional Societies

2018 – present	International Society for Research on Psychedelics
2018 – present	American Physiological Society
2012 – present	International Society for Serotonin Research (formerly known as the Serotonin Club)
1997 – present	Society for Neuroscience
1997 – present	Spanish Society of Pharmacology

Study Section/Grant Reviewer

2019 – 2025	Pathophysiological Basis of Mental Disorders and Addictions (PMDA) Study Section at NIH – NIMH
2018 – 2021	Fellowships: Behavioral Neuroscience (F02A) at NIH – NIMH
2019 – <i>ad hoc</i>	India Alliance DBT welcome
2018 – <i>ad hoc</i>	Research Council of Canada

2017 – *ad hoc* Swiss National Science Foundation
2017 – *ad hoc* Medical Research Council (UK)
2015 – *ad hoc* Ireland Health Research Board
2015 – *ad hoc* Agencia Nacional de Evaluación y Prospectiva (ANEP), Spain
2015 – *ad hoc* Agence Nationale de la Recherche (France)
2012 – *ad hoc* Poland National Science Center
2009 – *ad hoc* NIH

2022 W.M. Keck Foundation
2022 Danish National Research Foundation
2020 American Heart Association
2019 Veterans Affairs Office
2017 Comisión Evaluación Juan de la Cierva (Spain)
2016 Promoción Científica y Tecnológica (Argentina)
2016 Deutsche Forschungsgemeinschaft
2015 Comisión Evaluación Ramón y Cajal (Spain)
2014 Defense Threat Reduction Agency
2009 Austrian Science Fund (FWF) Peer Review Committee

Intramural presentations

2003 Mount Sinai School of Medicine
2007 Department of Psychiatry. Mount Sinai School of Medicine
2007 Department of Psychiatry Grand Rounds. Mount Sinai School of Medicine
2008 Sinai Molecular Interactions Discussion Group. Mount Sinai School of Medicine.
2017 Department of Pharmacology and Toxicology, VCU, Richmond, VA
2017 Department of Dance and Choreography, VCU School of Arts, Richmond, VA
2018 Department of Biochemistry and Molecular Biology, VCU, Richmond, VA
2019 Retreat on Opioids at VCU, Richmond, VA.
2019 Virginia Institute for Psychiatric and Behavioral Genetics, Richmond, VA.
2021 Student Psychiatry Society of VCU
2021 Department of Pharmacology and Toxicology, VCU, Richmond, VA
2021 Department of Anatomy and Neurobiology, VCU, Richmond, VA
2021 Center for Microbiome Engineering and Data Analysis (cMEDA), VCU, Richmond, VA
2022 Retreat on Opioids at VCU, Richmond, VA.

Extramural Presentations

2002 Department of Psychiatry. Columbia University
2006 Department of Pharmacology. University of the Basque Country
2006 Keystone Symposia, Colorado.
2007 Society for Neuroscience. San Diego, CA.
2008 Department of Physiology and Pharmacology. University of Cantabria, Spain.
2008 Lieber Center Seminars. Columbia University and New York Psychiatric Institute.

- 2008 Keystone Symposia. Killarney, Co. Kerry, Ireland.
- 2008 Spanish Society of Pharmacology, Bilbao, Spain.
- 2009 NARSAD 21st Annual New York Mental Health Symposium.
- 2009 Sanofi-Aventis. Bridgewater, New Jersey.
- 2010 11th Annual Joint Meeting of the Great Lakes GPCR retreat, Toronto, Canada.
- 2010 BioForo UPV/EHU, Bilbao, Spain.
- 2011 City College of CUNY, New York.
- 2011 7th International Meeting of Metabotropic Glutamate Receptors, Taormina, Sicily, Italy.
- 2012 45th Winter Conference on Brain Research, Snowbird, Utah.
- 2012 6th European Congress on Pharmacology (EPHAR), Granada, Spain.
- 2012 XXVIII International College of Neuro-Psychopharmacology Congress, Stockholm, Sweden.
- 2012 16th Serotonin club meeting, Montpellier, France.
- 2012 Neurobiology Research Unit, Copenhagen University Hospital, Denmark
- 2012 Nagoya University Global COE Program, Japan
- 2012 Dainippon Sumitomo Pharma, Osaka, Japan
- 2013 Department of Psychiatry Grand Rounds. Richmond University Medical Center, Staten Island, NY
- 2013 4th GPCR Colloquium (ASPET Annual Meeting), Boston, MA
- 2013 11th World Congress of Biological Psychiatry, Kyoto, Japan
- 2013 Integrative Neurobiology Section, National Institute on Drug Abuse (NIH-NIDA), Baltimore, MD.
- 2014 22nd European Congress of Psychiatry, Munich, Germany
- 2014 17th International Society for Serotonin Research Meeting (formerly Serotonin Club), Arabella, South Africa
- 2014 8th International Meeting of Metabotropic Glutamate Receptors, Taormina, Sicily, Italy.
- 2015 Spanish Society of Pharmacology, Valencia, Spain.
- 2015 Schizophrenia research forum at Bispebjerg Hospital, University of Copenhagen
- 2016 18th International Society for Serotonin Research Meeting (formerly Serotonin Club), Seattle, WA
- 2017 Instituto de Investigación Sanitaria Valdecilla (IDIVAL), Santander, Spain
- 2017 Departamento de Farmacología, Universidad de Santiago de Compostela, Spain
- 2017 Departamento de Farmacología, Universidad del País Vasco, Bilbao, Spain
- 2017 ASPET Annual Meeting at Experimental Biology, Chicago, IL.
- 2017 Global Health and Emerging Pathogens Institute, New York, NY.
- 2017 9th International Meeting of Metabotropic Glutamate Receptors, Taormina, Sicily, Italy.
- 2017 Institute of Neuroscience, University of Oregon, Eugene, OR
- 2017 Global Health and Emerging Pathogens Institute, New York, NY
- 2018 Winter Conference on Brain Research, Whistler, Canada
- 2018 Boehringer Ingelheim Pharma, Germany

- 2018 19th International Society for Serotonin Research Meeting (formerly Serotonin Club), Cork, Ireland
- 2018 Department of Pharmacology, Carver College of Medicine, University of Iowa, Iowa City, IA.
- 2019 International Society for Research on Psychedelics (Inaugural Conference), New Orleans, LA
- 2020 10th Esteve Foundation Discussion Group, Barcelona, Spain
- 2020 20th International Society for Serotonin Research Meeting (formerly Serotonin Club), Cancún, Mexico (postponed to 2022)
- 2020 10th International Meeting of Metabotropic Glutamate Receptors, Taormina, Sicily, Italy (postponed to 2021)
- 2021 XXIX Curso Nacional de Actualización en Psiquiatría, Vitoria-Gasteiz, Spain (virtual meeting)
- 2021 Division of Molecular Psychiatry, Yale School of Medicine, New Haven, CT
- 2021 The Psychedelic Therapeutics & Drug Development Conference (virtual meeting)
- 2021 60th American College of Neuropsychopharmacology, San Juan, Puerto Rico
- 2021 Psychedelic Neuroscience & Therapy, University of Michigan, Ann Harbor MI.
- 2022 14th Behavior, Biology, and Chemistry: Translational Research in Addiction meeting, San Antonio, TX.
- 2022 The Psychedelic Therapeutics & Drug Development Conference, Washington, DC
- 2022 Johns Hopkins University Psychiatry Research Conference, Baltimore, MD.
- 2022 The National Hispanic Science Network (NHSN), Grand Rapids, MI.
- 2023 Brain Awareness Week at University of Mississippi, Oxford, MS.
- 2023 STEAM-H Seminar, Virginia State University, Petersburg, VA.
- 2023 Graduate Student Distinguished Lecturer, Department of Pharmacology, Toxicology and Neuroscience, Louisiana State University Health Shreveport, LA
- 2023 The Einstein Center for Neurosciences, Humboldt University of Berlin, Germany

Publications (h-index = 42; citations = 7,569)

Preprints:

1. Zhu B, Ainsworth RI, Wang Z, Sierra S, Deng C, Callado LF, Meana JJ, Wang W*, Lu C*, **González-Maeso J***. Antipsychotic-induced epigenomic reorganization in frontal cortex samples from individuals with schizophrenia *bioRxiv* (2021) – *co-corresponding authors.
2. Olivet J, Choi SG, Sierra S, O’Grady TM, de la Fuente Revenga M, Laval F, Botchkarev VV, Gorgulla C, Coote PW, Blavier J, Geffken EA, Lakhani J, Song K, Yeoh ZC, Hu B, Varca AC, Nyquist SK, Richardson A, Yue H, Wang Y, Calongui N, Stefan A, Spirohn K, Vertommen D, Baietti MF, Lemmens I, Seo HS, Dozmorov MG, Willems L, Tavernier J, Das K, Leucci E, Hochkoeppler A, Jim Sum ZY, Calderwood MA, Hao T, Shalek AK*, Hill DE*, Boeszormentyi A*, Arthanari H*, Buhrlage SJ*, Dhe-Paganon S*, **González-Maeso J***, Dequiedt F*, Twizere JC*, Vidal M*. Expanding the HDAC

druggable landscape beyond enzymatic activity *bioRxiv* (2022) – *co-corresponding authors.

Research Papers:

1. Wolstenholme JT, Saunders JM, Smith M, Kang JD, Hylemon PB, **González-Maeso J**, Fagan A, Zhao D, Sikaroodi M, Herzog J, Shamsaddini A, Peña-Rodriguez M, Su L, Tai Y-L, Zhen J, Cheng B-C, Sartor R.B., Guillevet PM, Zhou H, Bajaj JS. Improvement in drinking behavior after fecal transplant from patients with alcohol use disorder is transmissible to germ-free mice. *Nature Communications* 13:6198 (2022).
2. Saunders JM, Muguruza C, Sierra S, Moreno JL, Callado LF, Meana JJ, Beardsley PM, **González-Maeso J**. Glucocorticoid receptor dysregulation underlies 5-HT_{2A} receptor-dependent synaptic and behavioral deficits in a mouse neurodevelopmental disorder model. *Journal of Biological Chemistry* 298:102481 (2022).
3. Jaster A, Younkin J, Cuddy T, de la Fuente Revenga M, Poklis JL, Dozmorov MG, **González-Maeso J**. Differences across sexes on head-twitch behavior and 5-HT_{2A} receptor signaling in C57BL/6J mice. *Neuroscience Letters* 788:136836 (2022).
4. de la Fuente Revenga M, Jaster AM, McGinn J, Silva G, **González-Maeso J**. Tolerance and cross-tolerance among psychedelics and nonpsychedelic 5-HT_{2A} receptor agonists in mice. *ACS Chemical Neuroscience* 13:2436-2448 (2022).
Special Issue: DARK classics in chemical neuroscience.
5. Meng J, Xu C, Lafon P-A, Roux S, Mathieu M, Zhou R, Scholler P, Blanc E, Becker JAJ, Le Merrer J, **González-Maeso J**, Chames P, Liu J, Pin JP, Rondard P. Optical biosensors of native membrane protein complexes reveal a high proportion of mGlu heterodimers in brain. *Nature Chemical Biology* 18:894-903 (2022).
6. Jaster AM, Elder H, Marsh SA, de la Fuente Revenga M, Negus SS*, **González-Maeso J***. Effects of the 5-HT_{2A} receptor antagonist volinanserin on head-twitch response and intracranial self-stimulation depression induced by different classes of psychedelics in rodents. *Psychopharmacology* 239:1665-1677 (2022) – *co-corresponding authors.
Special Issue: Psychopharmacology on psychedelic drugs.
7. Sierra A, Muchhala KH, Jessup DK, Contreras KM, Shah UH, Stevens DL, Jimenez J, Cuno Lavilla XK, de la Fuente Revenga M, Lippold KM, Shen S, Poklis JL, Qiao LY, Dewey WL, Akbarali HI, Damaj MI, **González-Maeso J**. Sex-specific role for serotonin 5-HT_{2A} receptor in modulation of opioid-induced antinociception in mice. *Neuropharmacology* 209:108988 (2022).
- *8. de la Fuente Revenga M, Zhu B, Guevara CA, Naler LB, Saunders JM, Zhou Z, Toneatti R, Sierra S, Wolstenholme JT, Beardsley PM, Huntley GW, Lu C*, **González-Maeso J***. Prolonged epigenomic and synaptic plasticity alterations following single exposure to a psychedelic in mice. *Cell Reports* 37:109836 (2021) – *co-corresponding authors
Cover article

Treatments not trips. **Nature** 609:S80 (2022)

Epigenetic roots of long-lasting therapy. **Nature** 609:S99 (2022)

This is the first article showing long-lasting epigenomic alterations by a psychedelic

9. Vohra HZ, Saunders JM, Jaster AM, de la Fuente Revenga M, Jimenez J, Fernandez-Teruel A, Wolstenholme JT, Beardsley PM, **González-Maeso J**. Sex-specific effects of psychedelics on prepulse inhibition of startle in 129S6/SvEv mice. **Psychopharmacology** 239:1649-1664 (2022).
Special Issue: Psychopharmacology on psychedelic drugs.
 10. Egusquiza I, Munarriz-Cueva E, Segarra R, **González-Maeso J**, Callado LF, Meana JJ, Diez-Alarcia R. Characterization of dopamine D₂ receptor coupling to G proteins in postmortem brain of subjects with schizophrenia **Pharmacological Reports** 73:1136-1146 (2021).
 11. Zhang Y, Kang JD, Zhao D, Ghosh SS, Wang Y, Tai Y, **González-Maeso J**, Sikaroodi M, Gillevet PM, Lippman HR, Hylemon PB, Zhou H, Bajaj JS. Hepatic branch vagotomy modulates the gut-liver-brain axis in murine cirrhosis. **Frontiers in Physiology** 12:702646 (2021)
 12. Martin-Guerrero SM, Alonso P, Iglesias A, Cimadevilla M, Brea J, Loza MI, Casado P, Martin-Oliva D, Cutillas PR, **González-Maeso J***, Lopez-Gimenez JF*. His452Tyr polymorphism in the human 5-HT_{2A} receptor affects clozapine-induced signaling networks revealed by quantitative phosphoproteomics. **Biochemical Pharmacology** 185:114440 (2021) – *co-corresponding authors
 13. de la Fuente Revenga M, Shah UH, Nassehi N, Jaster AM, Hemanth P, Sierra S, Dukat M, **González-Maeso J**. Psychedelic-like properties of quipazine and its structural analogs in mice. **ACS Chemical Neuroscience** 12:831-844 (2021)
 14. Sanchez-Gonzalez A, Thougard E, Tapias-Espinosa C, Cañete T, Sampedro-Viana D, Saunders JM, Toneatti R, Tobeña A, **González-Maeso J**, Aznar S, Fernandez-Teruel A. Increased thin-spine density in frontal cortex pyramidal neurons in a genetic rat model of schizophrenia-related features. **European Neuropsychopharmacology** 44:79-91 (2021).
 15. Toneatti R, Jong JM, Shah UH, Mayer CR, Saunders JM, Fribourg M, Arsenovic PT, Janssen WG, Sealton SC, Lopez-Gimenez JF, Benson DL, Conway DE, **González-Maeso J**. Interclass GPCR heteromerization affects localization and trafficking. **Science Signaling** 13(654):eaaw3122 (2020)
 - *16. Urjita UH, Toneatti R, Gaitonde SA, Shin JM, **González-Maeso J**. Site-specific incorporation of genetically encoded photo-crosslinkers locates the heteromeric interface of a GPCR complex in living cells. **Cell Chemical Biology** 27:1308-1317 (2020).
- This is the first article using photoactivatable unnatural amino acids in GPCR complexes
17. Saunders JM, Moreno JL, Ibi D, Sikaroodi M, Kang DJ, Muñoz-Moreno R, Dalmat SS, Garcia-Sastre A, Gillevet PM, Dozmorov MG, Bajaj JS, **González-Maeso J**. Gut microbiota manipulation during the prepubertal period shapes behavioral abnormalities in a mouse neurodevelopmental disorder model. **Scientific Reports** 10:4697 (2020)

18. Sierra S, Lippold KM, Stevens DL, Poklis JL, Dewey WL, **González-Maeso J**. Adjunctive effect of the serotonin 5-HT_{2C} receptor agonist lorcaserin on opioid-induced antinociception in mice. *Neuropharmacology* 167:107949 (2020)
19. de la Fuente Revenga M, Vohra HZ, **González-Maeso J**. Automated head-twitch behavior response in mice via ear tag reporter coupled with biphasic detection. *Journal of Neuroscience Methods* 334:108595 (2020).
20. Osterbog TB, On DM, Oliveras I, Rios-Alamos C, Sanchez-Gonzalez A, Tapias-Espinosa C, Tobeña A, **González-Maeso J**, Fernandez-Teruel A, Aznar S. Metabotropic glutamate receptor 2 and dopamine receptor 2 gene expression predict sensorimotor gating response in the genetically heterogenous NIH-HS rat strain. *Molecular Neurobiology* 57:1516-1528 (2020)
21. Ruso-Julve F, Pompero A, Pilar-Cuellar F, Garcia-Diaz N, Garcia-Lopez R, Juncal-Ruiz M, Castro E, Lopez-Gimenez J, Major F Jr, Valdizan E, Meana JJ, **González-Maeso J**, Martinez S, Vaque JP, Crespo-Facorro B. Dopaminergic control of ADAMTS2 expression through cAMP/CREB and ERK: molecular effects of antipsychotics. *Translational Psychiatry* 9:306 (2019).
22. Garcia-Bea A, Miranda-Azpiazu P, Muguruza C, Marmolejo-Martinez-Astesero S, Diez-Alarcia R, Gabilondo AM, Callado LF, Morentin B, **González-Maeso J**, Meana JJ. Serotonin 5-HT_{2A} receptor expression and functionality in postmortem frontal cortex of subjects with schizophrenia: Selective biased agonist via G_{αi1}-proteins. *European Neuropsychopharmacology* 29: 1453-1463 (2019).
23. Bajaj JS, Sikaroodi M, Fagan A, Heuman D, Gilles H, Gavis EA, Fuchs M, **González-Maeso J**, Nizam S, Gillevet PM, Wade JB. Posttraumatic stress disorder is associated with altered gut microbiota that modulates cognitive performance in veterans with cirrhosis. *American Journal of Physiology - Gastrointestinal and Liver Physiology* 317:G661-G669 (2019).
- *24. de la Fuente Revenga M, Shin JM, Vohra HZ, Hideshima KS, Schneck M, Poklis JL, **González-Maeso J**. Fully automated head-twitch detection system for the study of 5-HT_{2A} receptor pharmacology in vivo. *Scientific Reports* 9:14247 (2019)
This article provides describes the first fully automated system to assay head-twitch “psychosis-like” behavior induced by psychedelics in mice
25. Liu R, Kang JD, Sartor RB, Sikaroodi M, Fagan A, Gavis EA, Zhou H, Hylemon PB, Herzog JW, Li X, Lippman RH, **González-Maeso J**, Wade JB, Ghosh S, Gurley E, Gillevet PM, Bajaj JS. Neuroinflammation in murine cirrhosis is dependent on gut microbiome and is attenuated by fecal transplant. *Hepatology* 71:611-626 (2019).
26. Shah HU, Gaitonde U, Moreno JL, Glennon RA, Dukat M, **González-Maeso J**. Revised pharmacophore model for 5-HT_{2A} receptor antagonists derived from the atypical antipsychotic agent risperidone. *ACS Chemical Neuroscience* 10:2318-2331 (2019)
27. Hideshima KS, Hojati A, Saunders JM, On DM, de la Fuente Revenga M, Sanchez-Gonzalez A, Dunn CM, Pais AB, Pais AC, Miles MF, Wolstenholme JT, **González-Maeso J**. Role of mGlu2 in the 5-HT_{2A} receptor-dependent antipsychotic activity of clozapine in mice. *Psychopharmacology* 235:3149-3165 (2018)

28. de la Fuente Revenga M, Ibi D, Cuddy T, Toneatti R, Kurita M, Ijaz MK, Miles MF, Wolstenholme JT, **González-Maeso J**. Chronic clozapine treatment restrains via HDAC2 the performance of mGlu2/3 agonism in a rodent model of antipsychotic activity. *Neuropsychopharmacology* 44:443-454 (2019)
29. de la Fuente Revenga M, Ibi D, Saunders JM, Cuddy T, Ijaz MK, Toneatti R, Kurita M, Holloway T, Shen L, Seto J, Dozmorov MG, **González-Maeso J**. HDAC2-dependent antipsychotic-like effects of chronic treatment with the HDAC inhibitor SAHA in mice. *Neuroscience* 388:102-117 (2018)
30. Mato S, Pilar-Cuellar F, Valdizan EM, **González-Maeso J**, Rodriguez-Puertas R, Meana JJ, Salles J, Crespo-Facorro B, Pazos A. Selective up-regulation of cannabinoid CB₁ receptor coupling to G_o-proteins in suicide victims with mood disorders. *Biochemical Pharmacology* 157:258-265 (2018)
31. Ma S, de la Fuente Revenga M, Sun Z, Sun C, Murphy TW, Xie H, **González-Maeso J**, Lu C. Cell-type-specific brain methylomes profiled via ultralow-input microfluidics. *Nature Biomedical Engineering* 2:183-194 (2018)
Comment by Feng-Mao Lin, Shun Chien and Zhen Chen in *Nature Biomedical Engineering* 2:147-148 (2018)
32. Mitchell AC, Javidfar B, Pothula V, Ibi D, Shen EY, Peter CJ, Bicks LK, Fehr T, Jiang Y, Brennand KJ, Neve RL, **González-Maeso J**, Akbarian S. MEF2C transcription factor is associated with the genetic and epigenetic risk architecture of schizophrenia and improves cognition in mice. *Molecular Psychiatry* 23: 123-132 (2018)
33. Fomsgaard L, Moreno JL, de la Fuente Revenga M, Brudek T, Adamsen D, Rio-Alamos C, Klein AB, Canete T, Bazquez G, Tobena A, Fernandez-Teruel A, **González-Maeso J**, Aznar S. Differences in 5-HT_{2A} and mGlu2 receptor expression levels and repressive epigenetic modifications at the 5-HT_{2A} promoter region in the Roman low (RLA) and High (RHA) avoidance rat strains. *Molecular Neurobiology* 55:1998-2012 (2018)
34. Lopez-Gimenez JF, de la Fuente Revenga M, Ruso F, Sanders JM, Moreno JL, Crespo-Facorro B, **González-Maeso J**. Validation of schizophrenia gene expression profile in a preclinical model of maternal infection during pregnancy. *Schizophrenia Research* 189: 217-218 (2017).
- *35. Ibi D, de la Fuente Revenga M, Kezunovic N, Muguruza C, Gaitonde SA, Saunders JM, Moreno JL, Ijaz M, Santosh V, Kozlenkov A, Holloway T, Seto J, Garcia-Bea A, Kurita M, Mosley GE, Jiang Y, Christoffel DJ, Russo SJ, Dracheva S, Lopez-Gimenez JF, Ge Y, Escalante CR, Meana JJ, Akbarian S, Huntley GW, **González-Maeso J**. Antipsychotic-induced Hdac2 transcription via NF-κB leads to synaptic remodeling and cognitive side effects. *Nature Neuroscience* 20:1247-1259 (2017).
Science Signaling Editors' Choice: Protecting cognition from antipsychotics (doi: 10.1126/scisignal.aap9121)

This article provides the first signaling mechanism by which chronic administration of atypical antipsychotic medications induces maladaptive effects on synaptic structure and cognition.

36. Fribourg M, Logothetis DE, **González-Maeso J**, Sealfon SC, Galocha-Iragüen B, Las-Heras Andres F, Brezina V. Elucidation of molecular kinetic schemes from macroscopic traces using system identification. *PLoS Computational Biology* 13(2):e1005376 (2017)
37. Oliveras I, Sanchez-Gonzalez A, Sampedro-Viana D, Piludu MA, Rio-Alamos C, Giorgi O, Corda MG, Aznar S, **González-Maeso J**, Gerboles C, Bazquez G, Canete T, Tobena A, Fernandez-Teruel A. Differential effects of antipsychotic and propsychotic drugs on prepulse inhibition and locomotor activity in Roman High (RHA) and Low Avoidance (RLA) rats. *Psychopharmacology* 234:957-975 (2017).
- *38. Moreno JL, Miranda-Azpiazu P, Garcia-Bea A, Cui M, Kozlenkov A, Fakira AK, Georgakopoulos A, Moron JA, Milligan G, Lopez-Gimenez JF, Robakis NK, Logothetis DE, Meana JJ, **González-Maeso J**. Mechanistic insights into the allosteric crosstalk between mGlu2 and 5-HT_{2A} receptors acting as an altered heteromer in schizophrenia. *Science Signaling* 9(410):ra5 (2016)
 Editor's summary in *Science Signaling: One to bind, one to signal*
Science Signaling Podcast: <http://stke.sciencemag.org/content/9/410/pc2>
 Comments on VCU News and MedicalXpress, among others.
- This article unravels the relative structural orientation of the two mGlu2 promoters within an mGlu2 homodimer that affects 5-HT_{2A} receptor-dependent function.
39. Younkin J, Gaitonde SA, Ellaihy A, Vekariya R, Baki L, Moreno JL, Shah S, Drossopoulos P, Hideshima KS, Eltit JM, **González-Maeso J**, Logothetis DE, Dukat M, Glennon RA. Reformulating a pharmacophore for 5-HT_{2A} serotonin receptor antagonists. *ACS Chemical Neuroscience* 7:1292-1299 (2016)
40. Baki L, Fribourg M, Younkin J, Eltit JM, Moreno JL, Park G, Vysotskaya Z, Narahari A, Sealfon SC, **González-Maeso J**, Logothetis DE. Cross-signaling mechanisms in metabotropic glutamate 2 and serotonin 2A receptor heteromers in mammalian cells. *Pflugers Archiv* 468:775-793 (2016)
41. Muguruza C, Miranda-Azpiazu P, Diez-Alarcia R, Morentin B, **González-Maeso J**, Callado LF, Meana JJ. Evaluation of 5-HT_{2A} and mGlu2/3 receptors in postmortem prefrontal cortex of subjects with major depressive disorder: effect of antidepressant treatment. *Neuropharmacology* 86:311-318 (2014).
42. Gatch MB, Kozlenkov A, Huan RQ, Yang W, Nguyen JD, **González-Maeso J**, Rice KC, France CP, Dillon GH, Forster MJ, Schetz JA. The HIV antiretroviral drug efavirenz has LSD-like properties. *Neuropsychopharmacology* 38:2373-2384 (2013).
43. Moreno JL, Holloway T, Rayannavar V, Sealfon SC, **González-Maeso J**. Chronic treatment with LY341495 decreases 5-HT_{2A} binding and hallucinogenic effects of LSD in mice. *Neuroscience Letters* 536:69-73 (2013).
44. Kurita M, Moreno JL, Holloway T, Kozlenkov A, Mocchi G, Garcia-Bea A, Neve R, Nestler EJ, Russo SJ, **González-Maeso J**. Repressive epigenetic changes at the *mGlu2* promoter in frontal cortex of 5-HT_{2A} knockout mice. *Molecular Pharmacology* 86:1166-1175 (2013).
 Among the top ten articles viewed by *Molecular Pharmacology's* readership

45. Muguruza C, Moreno JL, Umali A, Callado LF, Meana JJ, **González-Maeso J**. Dysregulated 5-HT_{2A} receptor binding in postmortem frontal cortex of schizophrenic subjects. *European Neuropsychopharmacology* 23:852-864 (2013).
46. Golden SA, Christoffel DJ, Hodes GE, Heshmati M, Magida J, Davis K, Cahill ME, Dias C, Ribeiro E, Ables JL, Kennedy PJ, Robinson AJ, **González-Maeso J**, Neve RL, Turecki G, Ghose S, Tamminga CA, Russo SJ. Epigenetic regulation of synaptic remodeling in stress disorders. *Nature Medicine* 19:337-344 (2013).
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Comment by Ronald S. Duman in *Nature Medicine* 19:267-268 (2013).
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Comments on The Scientist, Psychiatric News, and Medscape, among others. This article shows the epigenetic mechanism through which drugs that inhibit histone deacetylases (HDACs) induce antipsychotic responses. Our results provided the rationale for a recent post-hoc analysis of schizophrenia clinical studies that validates the translational potential of this preclinical work (doi:10.1016/j.biopsych.2015.03.016).

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