

Last updated: March 10, 2025

Curriculum Vitae – Javier González-Maeso

Department of Physiology and Biophysics

Virginia Commonwealth University

School of Medicine

Richmond, Virginia, 23298

804-628-4520

javier.maeso@vcuhealth.orggonzalez-maeso-lab.org

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

2020-present Affiliate Professor, Virginia Institute for Psychiatric and Behavioral Genetics, Virginia Commonwealth University, Richmond, Virginia

2020-present Affiliate Professor, Center for Biomarker Research and Precision Medicine, Virginia Commonwealth University School of Pharmacy, Richmond, Virginia

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

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

2006 – 2008 Instructor
 Mount Sinai School of Medicine

Honors and Awards

2023 TEDx speaker in RVA – From Hallucinations to Healing: Neurobiology of Psychedelics

2023 VCU Inaugural National/International Recognition Award (NIRA)

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 *summa cum laude*. 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

2023 – 2025 Society for Neuroscience (SfN) Trainee Professional Development Award Review Committee
 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 – present (*ad hoc*) India Alliance DBT welcome
 2018 – present (*ad hoc*) Research Council of Canada
 2017 – present (*ad hoc*) Medical Research Council (UK)
 2015 – present (*ad hoc*) Ireland Health Research Board
 2015 – present (*ad hoc*) Agencia Nacional de Evaluación y Prospectiva, Spain
 2015 – present (*ad hoc*) Agence Nationale de la Recherche (France)
 2012 – present (*ad hoc*) Poland National Science Center
 2009 – present (*ad hoc*) Austrian Science Fund (FWF)

2024 The Lundbeck Foundation
 2024 American Institute of Biological Sciences (AIBS)
 2022 W.M. Keck Foundation
 2022 Danish National Research Foundation
 2020 American Heart Association
 2019 Veterans Affairs Office
 2018 NIH special emphasis panel ZRG1 BDCN-J (02)
 2017 Comisión Evaluación Juan de la Cierva (Spain)
 2017 NIH special emphasis panel (ZRG1 IFCN-C 56)
 2017 NIH special emphasis panel (ZRG1 BDCN-J)
 2016 NIH special emphasis panel (ZRG1 IFCN-L)
 2016 Swiss National Science Foundation
 2016 Promoción Científica y Tecnológica (Argentina)
 2016 Deutsche Forschungsgemeinschaft
 2015 Comisión Evaluación Ramón y Cajal (Spain)
 2014 Defense Threat Reduction Agency
 2009 NIH-NCDDG Special Emphasis Panel Review Group

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.
- 2023 One VCU Research Optimizing Health: Impacts from VCU Researchers Panel.
- 2023 Department of Physiology and Biophysics, VCU, Richmond, VA
- 2024 VCU Medical Journal Club, 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.
- 2022 Biofisika Institute (CSIC – Science Park of UPV/EHU), Bilbao, Spain.
- 2023 Brain Awareness Week at University of Mississippi, Oxford, MS.
- 2023 STEAM-H Seminar, Virginia State University, Petersburg, VA.

- 2023 Graduate Student Distinguished Lecturer, Louisiana State University, Shreveport, LA.
 2023 The Einstein Center for Neurosciences, Humboldt University of Berlin, Germany
 2024 International Society for Research on Psychedelics, New Orleans, LA.
 2024 International Narcotics Research Conference, Ann Harbor, MI.
 2025 Drexel University College of Medicine, Philadelphia, PA.
 2025 School of Plant and Environmental Sciences, Virginia Tech, Blacksburg, VA.

Publications (h-index = 46; citations = 9,565)

Preprints:

1. 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. ***Under Review and bioRxiv*** – *co-corresponding authors.
2. Saha S, González-Maeso J. Translation-independent association of mRNAs encoding protomers of the 5-HT_{2A}-mGlu2 receptor complex in living cells. ***Under Review and bioRxiv***
3. de la Fuente Revenga, González-Maeso J. Snapshot of 5-HT_{2A} receptor activation in the mouse brain via IP1 detection ***Under Review and bioRxiv***

Research papers:

1. Sierra S, Herz SM, On D, Dozmorov MG, Damaj MI, González-Maeso J. Upregulation of the neuropeptide receptor calcitonin receptor-like in the spinal cord via MLL2 in a mouse model of paclitaxel-induced peripheral neuropathy. ***Molecular Pain*** (accepted for publication).
2. Martin-Guerrero SM, Martin-Estebane M, Lara-Ordoñez A, Canovas M, Martin-Oliva D, González-Maeso J, Cutillas PR, Lopez-Gimenez JF. Maternal immune activation imprints translational dysregulation and differential MAP2 phosphorylation in descendant neural stem cells. ***Molecular Psychiatry*** (accepted for publication)
3. Gaitonde S, Shahraki A, de la Fuente Revenga M, Morales Pastor A, Talagayev V, Robledo R, Kolb P, Selent J, González-Maeso J, Bouvier M. Pharmacological fingerprint of antipsychotic drugs at the serotonin 5-HT_{2A} receptor. ***Molecular Psychiatry*** 29:2753-2764 (2024).
4. Takaba R, Ibi D, Yoshida K, Hosomi E, Kawase R, Kitagawa H, Achiwa M, Mizutani K, Maede K, González-Maeso J, Kitagaki S, Hiramatsu M. Ethopharmacological evaluation of antidepressant-like effect of serotonergic psychedelics in C57BL/6J mice. ***Naunyn-Schmiedeberg's Archives of Pharmacology*** 397:3523 (2024).
- *5. Zhu B, Ainsworth RI, Wang Z, Liu Z, Sierra S, Deng C, Callado LF, Meana JJ, Wang W*, Lu C*, González-Maeso J*. Antipsychotic-induced epigenomic reorganization in

frontal cortex samples of individuals with schizophrenia. **eLife** 12: RP92393 (2024) – *co-corresponding authors.

This is the first article showing cell-specific genome-wide histone modifications in postmortem brain samples of schizophrenia subjects.

6. Zhang Q, Ma S, Liu Z, Zhu B, Zhou Z, Li G, Meana JJ, **González-Maeso J**, Lu C. Droplet-based bisulfite sequencing for high-throughput profiling of single-cell DNA methylomes. **Nature Communications** 14:4672 (2023).
7. 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).
8. 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).
9. 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).
10. 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.

11. 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).
12. 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.

13. 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).
14. 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.

- *15.** 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
- 16.** 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).
- 17.** 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)
- 18.** 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
- 19.** 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)
- 20.** 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).
- 21.** Toneatti R, Jong JM, Shah UH, Mayer CR, Saunders JM, Fribourg M, Arsenovic PT, Janssen WG, Sealfon SC, Lopez-Gimenez JF, Benson DL, Conway DE, **González-Maeso J**. Interclass GPCR heteromerization affects localization and trafficking. *Science Signaling* 13(654):eaaw3122 (2020)
- *22.** 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
- 23.** Saunders JM, Moreno JL, Ibi D, Sikaroodi M, Kang DJ, Muñoz-Moreno R, Dalmet 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)

24. 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)
25. 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).
26. 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)
27. 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).
28. 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).
29. 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).
- *30. 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
31. 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).
32. 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)
33. 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)
34. 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)
35. 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)
36. 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)
37. 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)
38. 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)
39. 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)
40. 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).
- *41. 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.

42. 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)
 43. 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).
 - *44. 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 affect 5-HT_{2A} receptor-dependent function.
45. Younkin J, Gaitonde SA, Ellaithy 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)
 46. 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)
 47. 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).
 48. 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).
 49. 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).
 50. Kurita M, Moreno JL, Holloway T, Kozlenkov A, Mocci 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

51. 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).
52. 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).
Cover article
Comment by Ronald S. Duman in ***Nature Medicine*** 19:267-268 (2013).
Research Highlights in ***Nature Reviews Neuroscience*** (doi: 10.1038/nrn3471)
53. Holloway T, Moreno JL, Umali A, Rayannavar V, Hodes GE, Russo SJ, **González-Maeso J**. Prenatal stress induces schizophrenia-like alterations of 5-HT_{2A} and mGlu2 receptors in the adult offspring: Role of maternal immune system. ***Journal of Neuroscience*** 33:1088-1098 (2013).
54. Moreno JL, Holloway T, Umali A, Rayannavar V, Sealfon SC, **González-Maeso J**. Long-lasting effects of chronic clozapine on the psychosis-like states induced by LSD in mice. ***Psychopharmacology*** 225:217-226 (2013).
55. Williams A, Ingram WM, Levine S, Resnik J, Kamel C, Lish JR, Elizalde DI, Janowski SA, Shoker J, Kozlenkov A, **González-Maeso J**, Gallitano AL. Reduced levels of serotonin 2A receptors underlie resistance of *Egr3*-deficient mice to locomotor suppression by clozapine. ***Neuropsychopharmacology*** 37:2285-2298 (2012).
- *56. Moreno JL, Muguruza C, Umali A, Mortillo S, Holloway T, Pilar-Cuellar F, Mocci G, Hanks J, Seto J, Callado LF, Milligan G, Sealfon SC, Lopez-Gimenez JF, Meana JJ, Benson DL, **González-Maeso J**. Identification of three residues essential for 5-hydroxytryptamine 2A-metabotropic glutamate 2 (5-HT_{2A}-mGlu2) receptor heteromerization and its psychoactive behavioral function. ***Journal of Biological Chemistry*** 287:44301-44319 (2012).

This is the first article showing behavioral relevance of a GPCR heteromeric complex.

57. Moreno JL, Holloway T, Albizu L, Sealfon, SC, **González-Maeso J**. Metabotropic glutamate receptor mGlu2 is necessary for the pharmacological and behavioral effects induced by hallucinogenic 5-HT_{2A} receptor agonist. ***Neuroscience Letters*** 493:76-79 (2011).
- *58. Kurita M, Holloway T, Garcia-Bea A, Kozlenkov A, Friedman AK, Moreno JL, Heshmati M, Golden S, Kennedy PJ, Takahashi N, Dietz DM, Mocci G, Gabilondo AM, Hanks J, Umali A, Callado LF, Gallitano AL, Neve RL, Shen L, Buxbaum JD, Han MH, Nestler EJ, Meana JJ, Russo SJ, **González-Maeso J**. HDAC2 regulates atypical antipsychotic responses through the modulation of *mGlu2* promoter activity. ***Nature Neuroscience*** 15:1245-1254 (2012).

Cover article

Comment by Steven E. Hyman in *Nature Neuroscience* 15:1180-1181 (2012)

Research Highlights in *Nature Reviews Neuroscience* (doi: 10.1038/nrn3333)

Research Highlights in *Nature Medicine* (doi: 10.1038/nm2950)

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).

59. Albizu L, Holloway T, **González-Maeso J**, Sealfon SC. Functional crosstalk and heteromerization of serotonin 5-HT_{2A} and dopamine D₂ receptors. *Neuropharmacology* 61:770-777 (2011).

*60. Moreno JL, Kurita M, Holloway T, Lopez J, Cadagan R, Martinez-Sobrido L, Garcia-Sastre A, **González-Maeso J**. Maternal influenza viral infection causes schizophrenia-like alterations of 5-HT_{2A} and mGlu₂ receptors complex in the adult offspring. *Journal of Neuroscience* 31:1863-1872 (2011).

Cover article

This week in the journal article: *Journal of Neuroscience* 31:i-i (2011).

Evaluated by *Faculty of 1000 Biology*: <http://f1000.com/prime/8251956>

This article validates in mouse models of maternal adverse life events during pregnancy biochemical alterations previously reported in postmortem human brain of schizophrenic subjects. The main conclusion of this manuscript has been validated in at least eight publications by independent research groups.

61. Valdizan EM, Diez-Alarcia R, **González-Maeso J**, Pilar-Cuellar F, Garcia-Sevilla J, Meana JJ, Pazos A. α_2 -adrenoceptor functionality in postmortem frontal cortex of depressed suicide victims. *Biological Psychiatry* 68:869-872 (2010).

*62. Fribourg M, Moreno, JL, Holloway T, Provasi D, Baki L, Mahajan R, Park G, Adney SK, Hatcher C, Eltit JM, Ruta JD, Albizu L, Li Z, Umali A, Shim J, Fabiato A, MacKerrell AD, Brezina V, Sealfon SC, Filizola M, **González-Maeso J***, Logothetis DE*. Decoding the signaling of a GPCR heteromeric complex reveals the mechanism of action of antipsychotic drugs. *Cell* 147:1011-1023 (2011).

*co-corresponding authors

Cover article

Comment by Mari Kondo and Akira Sawa in *Cell* 147:946-965 (2011)

Research Highlights in *Nature Genetics* (doi: 10.1038/ng.1063)

Evaluated by *Faculty of 1000 Biology*: <http://f1000.com/prime/13409956>

This is the first article with biochemical assay that predicts antipsychotic responses.

*63. **González-Maeso J***, Ang R, Yuen T, Chan P, Weisstaub NV, Lopez-Gimenez J, Zhou M, Okawa Y, Callado LF, Milligan G, Gingrich JA, Meana JJ, Sealfon SC*. Identification of a glutamate/serotonin receptor complex implicated in psychosis. *Nature* 452:93-97 (2008).

*co-corresponding authors

Comment by Solomon H. Snyder in *Nature* 452:38-39 (2008)

Evaluated by *Faculty of 1000 Biology*: <http://f1000.com/prime/1103365>

Research Highlights in *Nature Clinical Practice Neurology* 4:292 (2008)

Research Highlights in *Nature Medicine* (doi: 10.1038/nm0308-252)

Research Highlights in *Nature Reviews Drug Discovery* (doi: 10.1038/nrd2555)

Research Highlights in *Nature Reviews Neuroscience* (doi: 10.1038/nrn2362)

This is the first article that shows heteromerization between GPCRs that belong to two different families and are coupled to different heterotrimeric G proteins.

***64. González-Maeso J**, Weisstaub NV, Zhou M, Lira A, Bradley-Moore M, Chan P, Ivic L, Ge Y, Zhou Q, Sealton SC, and Gingrich JA. Hallucinogens Recruit Specific Cortical 5-HT_{2A} Receptor-Mediated Signaling Pathways to Affect Behavior. *Neuron* 53:439-452 (2007).

Comments on Scientific American, CBS News, Washington Post, and ABC, among others.

This is the first article showing functional selectivity (biased agonism) in vivo, using as a model the mechanism of action of hallucinogens such as LSD in mice.

65. Nair VD, McNaught, KP, González-Maeso J, Sealton SC, Olanow CW. p53 Mediates non-transcriptional mediated cell death in dopaminergic cells in response to proteasome inhibition. *Journal of Biological Chemistry* 281:39550-39560 (2006).

66. Weisstaub NV, Zhou M, Lira A, Lambe E, González-Maeso J, Hornung JP, Sibille E, Underwood M, Itohara S, Dauer WT, Ansorge MS, Morelli E, Mann JJ, Toth M, Aghajanian G, Sealton SC, Hen R, Gingrich JA. Cortical 5-HT_{2A} receptor signaling specifically modulates anxiety-related behaviors in mice. *Science* 313:536-540 (2006).

Evaluated by Faculty of 1000 Biology: <http://f1000.com/prime/1033654>

67. Chan P, Yuen T, Ruf F, González-Maeso J, Sealton SC. Method for multiplex cellular detection of mRNAs using quantum dot fluorescent in situ hybridization. *Nucleic Acid Research* 33:e161 (2005).

68. Chan P, González-Maeso J, Ruf F, Bishop DF, Hof PR, Sealton SC. Epsilon-sarcoglycan immunoreactivity and mRNA expression in mouse brain. *Journal of Comparative Neurology* 482:50-73 (2005).

***69. González-Maeso J**, Yuen T, Ebersole BJ, Wurmbach E, Lira A, Zhou M, Weisstaub N, Hen R, Gingrich JA, Sealton SC. Transcriptome Fingerprints Distinguish Hallucinogenic and Nonhallucinogenic 5-Hydroxytryptamine 2A Receptor Agonist Effects in Mouse Somatosensory Cortex. *Journal of Neuroscience* 23:8836-8843 (2003).

This was one of the first articles using oligonucleotide microarray assays in native tissue samples.

70. González-Maeso J, Wise A, Green A, Koenig JA. Agonist-induced desensitization and endocytosis of heterodimeric GABA_B receptors in CHO-K1 cells. *European Journal of Pharmacology* 481:15-23 (2003).

*corresponding author.

These experiments were carried out during a three-month PhD rotation at the University of Cambridge.

71. Wurmbach E, **González-Maeso J**, Yuen T, Ebersole BJ, Mastaitis JW, Mobbs CV, Sealfon SC. Validated genomic approach to study differentially expressed genes in complex tissues. *Neurochemical Research* 27:1027-1033 (2002).
72. **González-Maeso J**, Torre I, Rodriguez-Puertas R, Garcia-Sevilla JA, Guimon J, Meana JJ. Effects of age, postmortem delay and storage time on receptor-mediated activation of G-proteins in human brain. *Neuropsychopharmacology* 26:468-478 (2002).
73. **González-Maeso J***, Rodriguez-Puertas R, Meana JJ. Quantitative stoichiometry of G-proteins activated by μ -opioid receptors in postmortem human brain. *European Journal of Pharmacology* 452:21-33 (2002).

*corresponding author.

74. Irazusta J, Larrinaga G, **González-Maeso J**, Gil J, Meana JJ, Casis L. Distribution of prolyl endopeptidase activities in rat and human brain. *Neurochemistry International* 40:337-345 (2002).
- *75. **González-Maeso J**, Rodriguez-Puertas R, Meana JJ, Garcia-Sevilla JA, Guimon J. Neurotransmitter receptor-mediated activation of G-proteins in brains of suicide victims with mood disorders: selective supersensitivity of α_2 -adrenoceptors. *Molecular Psychiatry* 7:755-767 (2002).

This is the first article showing functional alterations in receptor-G protein coupling in postmortem human brain samples.

76. Rodriguez-Puertas R, **González-Maeso J**, Meana JJ, Pazos A. Autoradiography of receptor-activated G-proteins in post mortem human brain. *Neuroscience* 96:169-180 (2000).
77. Meana JJ, **González-Maeso J**, Garcia-Sevilla JA, Guimon J. μ -Opioid receptor and α_2 -adrenoceptor agonist stimulation of [35 S]GTP γ S binding to G-proteins in postmortem brains of opioid addicts. *Molecular Psychiatry* 5:308-315 (2000).
78. **González-Maeso J**, Rodriguez-Puertas R, Gabilondo AM, Meana JJ. Characterization of receptor-mediated [35 S]GTP γ S binding to cortical membranes from postmortem human brain. *European Journal of Pharmacology* 390:25-36 (2000).

Reviews and Commentaries:

79. González-Maeso J. Psychedelics for mental health: a biochemical perspective. *The Biochemist* 46:3-5 (2024).
80. Jaster AM, González-Maeso J. Mechanisms and molecular targets surrounding potential therapeutic effects of psychedelics. *Molecular Psychiatry* 28:3595-3612 (2023)
81. Saha S, González-Maeso J. The crosstalk between 5-HT $_2A$ R and mGluR2 in schizophrenia. *Neuropharmacology* 230:109489 (2023)

Special Issue: The receptor-receptor interaction as a new target for therapy

82. Meana JJ, González-Maeso J. Serotonin 5-HT_{2A} receptors in schizophrenia: reflections on an unfinished story. ***European Neuropsychopharmacology*** 74:89-91 (2023)
83. Jaster AM, **González-Maeso J**. An upside-down binding mode to treat psychosis. ***Nature Neuroscience*** 25:4-6 (2022)
84. Jaster AM, de la Fuente Revenga M, **González-Maeso J**. Molecular targets of psychedelic-induced plasticity. ***Journal of Neurochemistry*** 162:80-88 (2022).
85. Ferre S, Ciruela F, Dessauer CW, **González-Maeso J**, Hebert TE, Jockers R, Logothetis DE, Pardo L. G protein-coupled receptor-effector macromolecular membrane assemblies (GEMMAs). ***Pharmacology & Therapeutics*** 231:107977 (2022).
86. Fernandez-Teruel, Cañete A, Oliveras I, Rio-Alamos C, Tapias-Espinosa C, Sampedro-Viana D, Sanchez-Gonzalez A, Sunna F, Torrubia R, **González-Maeso J**, Driscoll P, Torres C, Aznar S, Tobeña A, Lorda MG, Giorgi O. Neurobehavioral and neurodevelopmental profiles of a heuristic genetic model of differential schizophrenia- and addiction-relevant features: the RHA vs RLA rats. ***Neuroscience & Biobehavioral Reviews*** 131:597-617 (2021).
87. Ellaithy A, **González-Maeso J**, Logothetis DA, Levitz J. Structural and biophysical mechanisms of class C G protein-coupled receptor function. ***Trends in Biochemical Sciences*** 45:1049-1064 (2020)
88. Saunders JM, **González-Maeso J**, Bajaj US. The Toll of Hyperammonemia on the Brain. ***Cellular and Molecular Gastroenterology and Hepatology*** 8:649-650 (2019)
89. Shah UH, **González-Maeso J**. Serotonin and glutamate interactions in preclinical schizophrenia models. ***ACS Chemical Neuroscience*** 10:3068-3077 (2019)
Special Issue: 2018 International Society for Serotonin Research Meeting
90. Gaitonde SA, **González-Maeso J**. Contribution of heterometization to G protein-coupled receptor function. ***Current Opinion in Pharmacology*** 32:23-31 (2016)
91. Ellaithy A, Younkin J, **González-Maeso J***, Logothetis DE*. Positive allosteric modulators of metabotropic glutamate 2 receptors in schizophrenia treatment. ***Trends in Neurosciences*** 38:506-516 (2015).
*co-corresponding authors
92. Ibi D, **González-Maeso J**. Epigenetic signaling in schizophrenia. ***Cellular Signaling*** 27:2131-2136 (2015).
93. Holloway T, **González-Maeso J**. Epigenetic mechanisms of serotonin signaling. ***ACS Chemical Neuroscience*** 6:1099-1109 (2015).
Special Issue: 2014 International Society for Serotonin Research Meeting.
94. Hatcher-Solis C, Fribourg M, Spyridaki K, Younkin J, Ellaithy A, Xiang G, Liapakis G, **González-Maeso J.**, Zhang H, Cui M, Logothetis DE. G protein coupled receptor signaling in *Xenopus* oocytes. ***Current Pharmaceutical Biotechnology*** 15:987-995

(2014).

95. **González-Maeso J.** Family A GPCR heteromers in animal models. *Frontiers in Pharmacology* 5:226 (2014).
96. Moreno JL, **González-Maeso J.** Preclinical models of antipsychotic drug action. *The International Journal of Neuropsychopharmacology* 16:2131-2144 (2013)
Special Section: Preclinical models of schizophrenia.
97. Kurita M, Holloway T, **González-Maeso J.** HDAC2 as a new target to improve schizophrenia treatment. *Expert Review of Neurotherapeutics* 13:1-3 (2013).
98. Hanks JB, **González-Maeso J.** Animal models of serotonergic psychedelics. *ACS Chemical Neuroscience* 4:33-42 (2013)
Special Issue: Celebrating 25 years of the serotonin club.
99. **González-Maeso J,** Sealton SC. Functional selectivity in GPCR heterocomplexes. *Mini-Reviews in Medicinal Chemistry* 12:851-855 (2012).
100. **González-Maeso J.** GPCR oligomers in pharmacology and signaling. *Molecular Brain* 4:20-26 (2011).
101. Albizu L, Moreno JL, **González-Maeso J,** Sealton SC. G protein-coupled receptor heterodimers and novel drug targets. *CNS & Neurological Disorders—Drug Targets* 9:636-650 (2010).
102. **González-Maeso J.** Anxious interactions *Nature Neuroscience* 13:524-526 (2010).
103. Moreno JL, Sealton SC, **González-Maeso J.** Group II metabotropic glutamate receptors and schizophrenia. *Cellular and Molecular Life Sciences* 66:3777-3785 (2009).
104. **González-Maeso J,** Sealton SC. Psychedelics and schizophrenia. *Trends in Neurosciences* 32:225-232 (2009).
105. **González-Maeso J,** Sealton SC. Agonist-signaling trafficking and hallucinogens. *Current Medicinal Chemistry* 16:1017-1027 (2009).
106. Sealton SC, **González-Maeso J.** Receptor pair for schizophrenia. *Pediatric Research* 64:1 (2008).
107. **González-Maeso J,** Meana JJ. Heterotrimeric G proteins: Insights into the Neurobiology of Mood Disorders. *Current Neuropharmacology* 4:127-138 (2006).

Book Chapters:

108. Jaster AM, González-Maeso J.
Automated detection of psychedelic-induced head twitch response in mice
In: *Methods in Molecular Biology – Schizophrenia*
Edited by Leyre Urigüen and Rebeca Diaz-Alarcia
Springer (2023)
ISSN: 1064-3745
109. Shah U, Pincas H, Sealton SC, **González-Maeso J.**
Structure and function of serotonin GPCR heteromers

In: *Handbook of the Behavioral Neurobiology of Serotonin*
Edited by Christian Muller and Kathryn Cunningham
Elsevier (2020)
ISBN: 978-0-444-64125-0

- 110.** Sierra S, Toneatti S, **González-Maeso J.**
Class A GPCR heteromerization: Reasons of controversy
In: *GPCRs: Structure, Function and Drug Discovery.*
Edited by Beata Jastrzebska and Paul Park
Elsevier (2020)
ISBN: 978-0-12-816228-6
- 111.** Moreno JL, **González-Maeso J.**
Crosstalk between 5-HT_{2A} and mGlu2 receptors: Implications in schizophrenia and its treatment
In: *5-HT_{2A} receptors in the central nervous system.*
Edited by Brunno Guuiard and Giuseppe Di Giovanni
Springer (2018).
ISBN: 978-3-319-70472-2
- 112.** Pincas H, **González-Maeso J**, Ruf-Zamojski F, Sealfon SC.
G protein-linked receptors
In: *Principles of Endocrinology and Hormone Function.*
Edited by Antonino Belfiore and Drek LeRoith.
Springer (2017)
ISBN: 978-3-319-44674-5
- 113. González-Maeso J.**
Metabotropic glutamate 2 (mGlu2) receptors and schizophrenia treatment.
In: *mGLU Receptors.*
Edited by Ferdinando Nicotelli, Richard Ngomba, Giuseppe Battaglia and Giuseppe Di Giovanni.
Humana Press (2017)
ISBN: 978-3-319-56168-4
- 114.** Lopez-Gimenez JG, **González-Maeso J.**
Hallucinogens and serotonin 5-HT_{2A} receptor-mediated signaling pathways.
In: *Behavioral Neurobiology of Hallucinogens, Entactogens and Psychotomimetics.*
Edited by Adam L. Halberstadt, David E. Nichols and Franz X. Vollenweider.
Springer (2017).
ISBN: 1866-3370
- 115.** Hanks JB, **González-Maeso J.** Hallucinogens: Circuits, behavior and translational models.
In: *The Neuropathology of drug addiction and substance misuse.*
Edited by Victor R. Preedy.
Elsevier (2016)
ISBN: 978-0-12-800212-4
- 116.** Hanks JB, **González-Maeso J.**
Molecular and cellular basis of hallucinogenic drug action.

In: *The Neuropathology of drug addiction and substance misuse*.
Edited by Victor R. Preedy.
Elsevier (2016)
ISBN: 978-0-12-800212-4

- 117.** Kurita M, Garcia-Bea A, **González-Maeso J**.
Novel targets for Drug Treatment in Psychiatry.
In: *The Medical Basis of Psychiatry (Fourth Edition)*.
Edited by S. Hossein Fatemi and Paula J. Clayton.
Humana Press (2015).
ISBN: 978-1-4939-2527-8
- 118.** Moreno J, Seto J, Hanks JB, **González-Maeso J**.
Techniques to the study of GPCR heteromerization in living cells and animal models.
In: *Neuromethods (Serotonin receptor technologies)*.
Edited by Wolfgang Blenau and Arnd Baumann.
Springer (2015).
ISBN: 978-1-4939-2187-4
- 119.** Moreno JL, Holloway T, **González-Maeso J**.
G protein-coupled receptor heterocomplexes in neuropsychiatric disorders.
In: *Progress in Molecular Biology and Translational Science (Oligomerization in Health and Disease)*.
Edited by Jesus Giraldo and Francisco Ciruela.
Elsevier (2013).
ISBN: 978-0-12-386931-9
- 120.** Kozlenkov A, **González-Maeso J**.
Animal models and hallucinogenic drugs.
In: *The Neuroscience of Hallucinations*.
Edited by Renaud Jardri, Arnaud Cachia, Pierre Thomas and Delphine Pins.
Springer (2012)
ISBN: 978-1-4614-4120-5
- 121.** Lopez-Gimenez J, **González-Maeso J**.
Oligomerization of G protein coupled-receptors.
In: *Therapeutic Targets: Modulation, Inhibition, and Activation*.
Edited by Luis M. Botana and Mabel Loza.
John Wiley & Sons (2012).
ISBN: 978-0470587195
- 122.** **González-Maeso J**, and Sealfon S.C.
Hormone Signaling via G-protein coupled receptors.
In: *Endocrinology 6th Edition*.
Edited by J. Larry Jameson and Leslie J. De Groot.
Elsevier (2010).
ISBN: 978-1-4160-5583-9
- 123.** **González-Maeso J**, Sealfon SC.
Hormone Signaling via G-protein coupled receptors.
In: *Endocrinology 5th Edition*.

Edited by J. Larry Jameson and Leslie J. De Groot.
Elsevier (2006).
ISBN: 0721603769

- 124. González-Maeso J**, Sealfon SC.
Structure of G-protein coupled receptors.
In: *Encyclopedia of Hormones*.
Edited by Henry H and Anthony W Norman.
Academic Press (2003).
ISBN: 978-0123411037

Reviews and Book Chapters in Spanish:

- 125. González-Maeso J**, López-Giménez JF. Psicodélicos. ¿el futuro de la psiquiatría o solo un mito renovado? ***Muy Interesante*** (2025).
- 126. González-Maeso J**. Arquitectos de la comunicación celular. ***Investigación y Ciencia — Scientific American*** 474:54-62 (2016).
- 127.** Fribourg M, Moreno JL, **González-Maeso J**. Baremo para los fármacos antipsicóticos. ***Mente y Cerebro (Investigación y Ciencia — Scientific American)*** 68:18-19 (2014).
- 128.** Meana JJ, Miranda-Azpiazu P, Muguruza C, Diez-Alarcia R, Callado LF, **González-Maeso J**. Diferentes propiedades farmacológicas de ketanserina y altanserina sobre los receptores 5-HT_{2A} en cerebro humano postmortem: Interés en estudio de esquizofrenia. ***Actualidad en Farmacología y Terapéutica*** 12:59-63 (2014).
- *129.** Moreno JL, Fribourg M, **González-Maeso J**. Bases bioquímicas de la esquizofrenia. ***Mente y Cerebro (Investigación y Ciencia — Scientific American)*** 44:18-27 (2010).
Chosen as one of the best 10 articles of the last 10 years.
Translated to Italian (*Mente & Cervello*) and German (*Gehirn und Geist*).
- 130. González-Maeso J**, Meana JJ. Implicación de los adrenoceptores alfa 2 en depresión endógena y transtorno bipolar.
In: Avances neurocientíficos y realidad clínica: El espectro bipolar.
Eds. Palomo T., Beninger R.J., Jimenez-Arriero M.A. and Huertas E. Fundación Cerebro y Mente (2002)
ISBN: 84-921848-7-6
- 131. González-Maeso J**, Rodríguez-Puertas R, Meana JJ, García-Sevilla JA, Guimón J. *Actividad funcional de los adrenoceptores alfa 2 en cerebro postmortem de sujetos suicidas con depresión y transtorno bipolar.*
In: *Diagnóstico diferencial y racionalización del tratamiento psicofarmacológico*. Ed. Pichot P.
Aula Médica Ediciones. (2001)
ISBN: 84-7885-264-6

Public outreach and Interviews:

- 2023 *TEDx speaker* in Richmond, VA
- 2023 Interviewed for *abc News – 13NewsShow*
- 2023 Interviewed for *With Good Reason radio*
- 2023 Interviewed for *VCU Magazine* article “The Magical Mystery receptor”
- 2019 Interviewed for *The Sun* article “Magic mushrooms could one day cure depression, scientists claim”
- 2017 Interviewed for *El País* article “Setas alucinógenas para reducir la depresión en enfermos terminales”
- 2017 Interviewed for *La Vanguardia* article “Nuevas estrategias para el tratamiento de la esquizofrenia”
- 2016 Interviewed for *Neuroscience News* article “An alternative treatment target for schizophrenia”
- 2016 Interviewed for *MedicalXpress* article “Medical Express News: Alternative treatment target for schizophrenia”
- 2013 Interviewed for *Drug Development* article “A vital new path for schizophrenia treatment”
- 2012 Interviewed for *Psychiatry News* article “Enzyme Inhibitor Might Benefit Schizophrenia Patients”
- 2012 Interviewed for *The Scientist* article “Boosting Antipsychotic Drugs”
- 2012 Interviewed for *MedPage* article “Epilepsy Drug Boosts Memory”
- 2012 Interviewed for *El Diario Vasco* article “Descubren la razón de la resistencia a los fármacos contra la esquizofrenia”
- 2011 Interviewed for *RTVE* article “Desarrollan un método para predecir si un fármaco es antipsicótico”
- 2008 Interviewed for *CNN* article “Descubren una vía para el desarrollo de fármacos contra la esquizofrenia”
- 2008 Interviewed for *El Correo* article “Científicos de la UPV descubren una nueva vía para combatir la esquizofrenia”
- 2008 Interviewed for *EiTB* article “Hallan un nuevo tratamiento contra la esquizofrenia”
- 2008 Interviewed for *La Razón* article “Alucinógenos contra la esquizofrenia”
- 2008 Interviewed for *SciBX* article “Schizophrenia develops a complex”
- 2007 Interviewed for *ABC* article “Descubren la manera en la que los alucinógenos actúan sobre el cerebro”
- 2007 Interviewed for *Clarín* article “Descubren por qué el LSD es alucinógeno”
- 2007 Interviewed for *Washington Post* article “LSD Study Probes Hallucinogen's Effect on Brain”
- 2007 Interviewed for *Scientific American* article “How Hallucinogens Play Their Mind-Bending Games”