


PERSONAL INFORMATION **Alessio Squassina**

 Affiliation
(University of Cagliari, Italy)
Department of Biomedical Sciences
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 https://unica.it/unica/it/ateneo_s07_ss01.page?contentId=SHD30980

Nationality: Italy

PhD date 24/01/2008	<input type="checkbox"/> <10 years from the date of the first PhD considered for the calculation of the eligibility period is the date of phd thesis defense (Cut-off date: PhD awarded from 15 March 2012)	<input checked="" type="checkbox"/> >10 years from the date of the first PhD considered for the calculation of the eligibility period is the date of phd thesis defense Cut-off date: PhD awarded from 15 March 2012
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Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input type="checkbox"/> Full professor	<input type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist / Principal Investigator
<input type="checkbox"/> Mid-Management Level	<input checked="" type="checkbox"/> Associate Professor	<input type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

EMPLOYMENTS

- 2021-present **Associate professor**
University of Cagliari, Italy
- Research and teaching activities in the field of pharmacology/neuropsychopharmacology and psychiatric genetics. Chief of the laboratory of pharmacogenomics
Business or sector: Public University
- 2014-present **Adjunct assistant professor**
Dalhousie University, Halifax, NS, Canada
- Research activities within collaborative projects in the field of psychiatric genetics and neuropsychopharmacology. Seminars and lectures for university students and academic staff
Business or sector: Public University
- 2015-2021 **Assistant professor**
University of Cagliari, Italy
- Research and teaching activities in the field of pharmacology/neuropsychopharmacology and psychiatric genetics.
Business or sector: Public University
- 2012-2015 **Post-doctoral research fellow**
University of Cagliari, Italy
- Research activities in the field of psychiatric genetics and neuropsychopharmacology
Business or sector: Public University
- 2010-2012 **Research fellow**
University of Cagliari, Italy

- Research activities in projects aimed at exploring the genetics underpinnings of bipolar disorder and response to lithium treatment
Business or sector: Public University
- 2008-2010 **Residency program in Applied Pharmacology**
University of Cagliari, Italy
- Learning and traineeship activities as planned by the residency program. Laboratory activities in the field of psychiatric genetics and neuropsychopharmacology
Business or sector: Public University
- 2004-2008 **PhD program in Neuroscience**
University of Cagliari, Italy
- Learning and traineeship activities as planned by the PhD program. Laboratory protocols and statistical approaches applied to a project exploring the genetic bases of bipolar disorder and suicide
Business or sector: Public University
- 2002-2004 **Post graduate fellow**
Centre for Addiction and Mental Health, Neurogenetics Section, University of Toronto, Canada
- Laboratory activities within projects aimed at exploring the molecular underpinnings of ADHD.
Business or sector: Public University

EDUCATION AND ACADEMIC DEGREES

- 2008-2010 Specialty in Applied Pharmacology
University of Cagliari, Italy
- Subjects covered: genetics of response to psychotropic medications and risk of mental disorders. Skills acquired: laboratory skills in cell culturing, real-time PCR, data analysis, preparation of scientific manuscripts, preparation of grant applications
- 2005-2008 PhD in Neuroscience
University of Cagliari, Italy
- Subjects covered: molecular underpinnings of bipolar disorder and suicide. Skills acquired: laboratory skills in cell culturing, PCR, real-time PCR, data analysis, preparation of scientific manuscripts
- 2008-2010 MSc in Biology
University of Cagliari, Italy
- Subjects covered: applied biology, genetics and population genetics. Skills acquired: basic skills in laboratory techniques applied to genetics and molecular biology

ACHIEVEMENTS AND AWARD

- Awards**
- Best oral presentation award, Junior faculties, 25th Annual Research Day Department of Psychiatry, Dalhousie University, Halifax, NS, Canada (2015)
 - Travel Award and Early Career Investigator Program (ECIP) finalist, XX World Congress of Psychiatric Genetics (2012)
 - Travel Award and Early Career Investigator Program (ECIP) finalist, XIX World Congress of Psychiatric Genetics (2011)
- Editorial activity**
- Associate Editor for Frontiers in Pharmacology (section of Pharmacogenetics)
 - Associate Editor for BMC Psychiatry
 - Member of the editorial board of: The Pharmacogenomics Journal, Pharmacogenomics, Human Genomics, Frontiers in Psychiatry
 - Associate editor, Drug Development Research (2018-2023)

Major invited presentations

- Invited speaker at the education day, 2020 World Congress of Psychiatric Genetics (WCPG) (virtual). Title of the lecture: "The Promises and Hurdles of Pharmacogenetics in Psychiatry: The Case of Lithium". October 16-20, 2020
- Program Chair of the 2020 World Congress of Psychiatric Genetics (WCPG). October 16th-20th, 2020
- Keynote speaker, 2nd Zayed Center for Health Sciences Workshop on Genomic Medicine and Pharmacogenomics & 21st Golden Helix Pharmacogenomics Day. Title of the lecture: "Pharmacogenomics of mood stabilizers in the treatment of bipolar disorder". Al Ain, United Arab Emirates. February 2-3, 2019
- Keynote speaker, 8th Clinical Epigenetics International Meeting. Title of the Lecture: "Recent trends on the role of epigenomics and noncoding RNAs in mood stabilizing treatments". Dusseldorf, Germany, March 8th – 9th, 2018
- Keynote speaker, 19th Golden Helix Pharmacogenomics Day, Nicosia, Cyprus. Title of the lecture: "Pharmacogenomics and Personalized Medicine: The example of mood stabilizers". November 4th, 2017
- Invited lecturer, Golden Helix Summer School "Cancer Genomics and Individualized Therapy", Syros, Greece. September 22-26, 2016
- Invited lecturer, Golden Helix Summer School "Pharmacogenomics and genomic Medicine: bridging Research and The Clinic", Aegina Island, Greece. September 11-15, 2014
- Invited speaker, Serbordinn & Golden helix Symposium. Title of the lecture: "Cluster headache and bipolar disorder: is there a link?". Belgrade, Serbia. October 30- November 1, 2014
- Invited speaker, Golden Helix, V Pharmacogenomics Day. Title of the lecture: "Pharmacogenomics of mood stabilizers in the treatment of Bipolar Disorder". La Valletta, Malta. December 3, 2011
- Invited lecturer, 25th Annual Research Day Department of Psychiatry, Dalhousie University. Title of the lecture: "The neurobiology of suicide: focus on the Polyamine system". Halifax (Canada). September 23, 2011
- Invited speaker, Golden Helix Symposia. Title of the lecture: "Pharmacogenomics of the response to mood stabilizers in bipolar disease", Athens, Greece. October 15-17, 2009
- Invited speaker, Golden Helix V Pharmacogenomics Day, La Valletta, Malta. Title of the lecture: "Pharmacogenomics of mood stabilizers in the treatment of Bipolar Disorder". December 3, 2011.

Active Grants

- Title: EXosome MicroRNA ProfilIng to identify biosignatures of mood disorders and treAtment Response (EXEMPLAR). Funding body: MUR. Call: Bando Prin 2022. Total amount granted: € 194.922.00. Role: member of research unit
- Title: Understanding the risk of suicide in people with bipolar disorder. Funding body: Dalhousie medical Research Foundation (DMRF, Canada). Total amount granted: \$ 375.000,00 (CAD). Role: Co-investigator
- Title: Psych-STRATA - A Stratified Treatment Algorithm in Psychiatry: A program on stratified pharmacogenomics in severe mental illness. Funding body: European Commission. Funding call: HORIZON- HLTH-2021-STAYHLTH-01 (Staying Healthy (2021)). Total amount granted: € 10.831.370. Role: member of research unit and co-leader of working package task
- Title: Toward PrecisiOn Medicine for the Prediction of Treatment response in major depressive disorder through stratification of combined clinical and -omics signatures (PROMPT). Funding body: European Commission. Funding call: ERAPerMED (2020). Total amount granted: € 1.115.055. Role: collaborator
- Title: PNRR – EI- e.INS Ecosystem of innovation for next generation Sardinia. Code: MUR ECS00000038. Role: member of research unit. Funding: € 4.000.000
- Title: NeurOmic.DataNet.. Funding source: Ministero della Salute; call: Piano Operativa Salute, Personalized and rigenerative medicine. Project ID: Project ID C33C22000370001. Role: member of research unit; Funding: € 3.000.000

Patents

- method for the assessment of pharmacogenetic response to treatment with lithium salts in bipolar disorder". Publication date: 02/02/2013. Patent number: wo2013017661a1

ADDITIONAL INFORMATION

Publications total number of publications in peer-review journals as in Scopus: 169
total number of citations: 7391
H index: 36 (Scopus)

Complete bibliography:

<https://www.ncbi.nlm.nih.gov/myncbi/alessio.squassina.1/bibliography/public/>

10 selected publications

1. Bellenguez C, Küçükali F, ..., **Squassina A**, ..., Lambert JC. New insights into the genetic etiology of Alzheimer's disease and related dementias. *Nat Genet.* 2022; 54(4):412-436
2. Pisanu C, Severino G, ..., **Squassina A**. Transcriptional biomarkers of response to pharmacological treatments in severe mental disorders: A systematic review. *Eur Neuropsychopharmacol.* 2022; 55:112-157
3. Pisanu C, Congiu D, ..., **Squassina A**. Investigation of genetic loci shared between bipolar disorder and risk-taking propensity: potential implications for pharmacological interventions. *Neuropsychopharmacology.* 2021; 46(9):1680-1692
4. Manchia M, Fontana A, ..., **Squassina A**, Carpiniello B. Involvement of Gut Microbiota in Schizophrenia and Treatment Resistance to Antipsychotics. *Biomedicines.* 2021; 9(8):875
5. **Squassina A**, Manchia M, ..., Carpiniello B. Telomere attrition and inflammatory load in severe psychiatric disorders and in response to psychotropic medications. *Neuropsychopharmacology.* 2020;45(13):2229-2238
6. **Squassina A**, Niola P, ..., Del Zompo M. MicroRNA expression profiling of lymphoblasts from bipolar disorder patients who died by suicide, pathway analysis and integration with postmortem brain findings. *Eur Neuropsychopharmacol.* 2020;34:39-49
7. Pisanu C, Merkouri Papadima E, ..., **Squassina A**. Whole Genome Expression Analyses of miRNAs and mRNAs Suggest the Involvement of miR-320a and miR-155-3p and their Targeted Genes in Lithium Response in Bipolar Disorder. *Int J Mol Sci.* 2019; 20(23):6040.
8. Hou L, Heilbronner U, ..., **Squassina A**, ..., Schulze TG. Genetic variants associated with response to lithium treatment in bipolar disorder: a genome-wide association study. *Lancet.* 2016; 387(10023):1085-1093
9. **Squassina A**, Manchia M, ..., Del Zompo M. Differential effect of lithium on spermidine/spermine N1-acetyltransferase expression in suicidal behaviour. *Int J Neuropsychopharmacol.* 2013;16(10):2209-18
10. **Squassina A**, Costa M, ..., Del Zompo M. Insulin-like growth factor 1 (IGF-1) expression is up-regulated in lymphoblastoid cell lines of lithium responsive bipolar disorder patients. *Pharmacol Res.* 2013;73:1-7

Other relevant information

Member of Scientific Committees and Advisory Boards

Member of the scientific advisory board of the Genomic Medicine Alliance; Member of the International Consortium on Lithium Genetics (ConLiGen); Member of the Pharmacogenomics Working Group of the Global Genomic Medicine Collaborative (G2MC); Member of the thematic networks "Pharmacogenomics and transcriptomics" and "Bipolar Disorder" of the European College of Neuropsychopharmacology; Member of the scientific program of the World Congress for Psychiatric Genetics (2014,2015, 2022)

Brief track record

Dr. Squassina is associate professor of Pharmacology at University of Cagliari (Italy), adjunct Assistant Professor at the Department of Psychiatry, Dalhousie University (Halifax, Canada), and Chief of the Laboratory of Pharmacogenomics of the Department of Biomedical Sciences at University of Cagliari. Dr. Squassina is a pharmacologist and molecular biologist, with extensive expertise in the genomics and pharmacogenomics of mental disorders. He trained as a pharmacologist and molecular biologist in Italy and Canada. His research activity has been mainly focused on the investigation of the genetic bases of mood disorders, suicide, and response to psychotropic medications. Dr Squassina is involved in many ongoing international efforts aimed at disentangling the biological underpinnings of psychiatric disorders and clinical outcomes of pharmacological interventions. He is engaged in educational activities in the field of neuropsychopharmacology and pharmacogenomics, both nationally and internationally. Dr Squassina has published 8 book chapters and more than 160 papers in peer reviewed journals.