

PERSONAL INFORMATION

Name Surname Giancarlo Colombo
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Nationality Italian
Date of Birth January 7, 1962

WORK EXPERIENCE

Period (from – to) June 1989 – October 1990
Employer's name and locality CNR Center for Neuropharmacology, Cagliari, Italy
Type of business or sector Research institution
Position Researcher
Main activities and responsibilities Research in the field of neurobiology and pharmacology of alcoholism

Period (from – to) November 1990 – October 1991
Employer's name and locality Laboratory of Physiologic and Pharmacologic Studies, National Institute on Alcohol Abuse and Alcoholism (NIAAA), Rockville, MD, USA
Type of business or sector Research institution
Position Visiting research fellow
Main activities and responsibilities Research in the field of neurobiology and pharmacology of alcoholism

Period (from – to) November 1991 – October 1992
Employer's name and locality Department of Physiology and Pharmacology, Bowman Gray School of Medicine, Wake Forest University, Winston-Salem, NC, USA
Type of business or sector Research institution
Position Research fellow
Main activities and responsibilities Research in the field of neurobiology and pharmacology of alcoholism

Period (from – to) November 1992 – December 2000
Employer's name and locality CNR Center for Neuropharmacology, Cagliari, Italy
Type of business or sector Research institution
Position Researcher
Main activities and responsibilities Research in the field of neurobiology and pharmacology of alcohol and drug dependence

Period (from – to) January 2001 – December 2001
Employer's name and locality CNR Center for Neuropharmacology, Cagliari, Italy (from July 2001: CNR Institute of Neurogenetics and Neuropharmacology, Cagliari, Italy)
Type of business or sector Research institution
Position *Primo ricercatore*
Main activities and Research in the field of neurobiology and pharmacology of

responsibilities	alcohol and drug dependence
Period (from – to)	January 2002 – July 2003
Employer’s name and locality	CNR Institute of Neurogenetics and Neuropharmacology, Cagliari, Italy
Type of business or sector	Research institution
Position	<i>Dirigente di ricerca</i>
Main activities and responsibilities	Research in the field of neurobiology and pharmacology of alcohol and drug dependence
Period (from – to)	July 2003 – today
Employer’s name and locality	CNR Neuroscience Institute, Cagliari, Italy
Type of business or sector	Research institution
Position	<i>Dirigente di ricerca</i>
Main activities and responsibilities	Research in the field of neurobiology and pharmacology of alcohol and drug dependence
Period (from – to)	July 2018 – today
Employer’s name and locality	CNR Neuroscience Institute, Cagliari, Italy
Type of business or sector	Research institution
Position	Acting director
Main activities and responsibilities	Management of the Institute activities

EDUCATION AND TRAINING

Period (from – to)	November 1982 – November 1986
Qualification awarded and education organization’s name and locality	Degree in Biology, University of Cagliari, Italy, (110/110 <i>cum laude</i>)

MOTHER TONGUE Italian

OTHER LANGUAGE English

ACADEMIC COMMITMENTS

2004: Teacher at the Master on Alcoholism and Drug Addiction, University of Cagliari, Italy

Opponent to Ph.D. Thesis:

- University of Sydney, Sydney, Australia (2005; 2009; 2010)
- Universidad Complutense, Madrid, Spain (2008)
- Karolinska Institutet, Stockholm, Sweden (2009)
- Göteborgs Universitet, Goteborg, Sweden (2011)
- Uppsala Universitet, Uppsala, Sweden (2014)

ADDITIONAL INFORMATION

Main Research Grants:

- September 1996 – August 1998: Grant no. R03 AA10998-01 from the National Institute on Alcohol Abuse and Alcoholism (NIAAA) for a research on "Selection factors in ethanol discrimination" (Grant no. R03 AA10998-01; Principal Investigator: **G. Colombo**)
- April 1998 – March 2000: Grant no. 1 R21 AA11545-01 from the National Institute on Alcohol Abuse and Alcoholism (NIAAA) for a Collaborative International Project on "Receptor basis of anxiety associated with ethanol preference" (Grant no. 1 R21 AA11545-01; Principal Investigator: K.A. Grant; Co-investigator and Foreign Investigator: **G. Colombo**)
- January 2005 – January 2007: Grant no. EA 04 01 from the European Research Advisory Board (ERAB) for a research entitled "Development of a rodent model of beer consumption: investigation on the differential contribution of gustatory and pharmacological factors to beer drinking behavior" (Principal Investigator: **G. Colombo**)
- June 2005 – May 2007: Grant no. 1 R21 AA015525-01 from the National Institute on Alcohol Abuse and Alcoholism (NIAAA) for a Collaborative International Project on "Endocannabinoids and voluntary ethanol consumption" (Principal Investigator: B. L. Hungund; Co-investigator and Foreign Investigator: **G. Colombo**)
- January 2010 – December 2012; Grant no. 2008-1151 from *Compagnia di San Paolo*, Turin, Italy, for a research entitled "Investigation on the anti-alcohol properties of the positive allosteric modulators of the GABA_B receptor" (Principal Investigator: **G. Colombo**)
- December 2011 – November 2014: Grant no. CRP 17596 from *Regione Autonoma della Sardegna*, Cagliari, Italy, for a research entitled "*Modulatori allosterici positivi del recettore GABA_B: una nuova classe di farmaci per il trattamento dell'alcolismo?*" (Principal Investigator: **G. Colombo**)
- February 2012 – January 2014: Pilot grant no. GBNEU0306A_CNR from the "Integrative Neuroscience Initiative on Alcoholism" (INIA) Consortium, for a research entitled "Setup of a Rat Model of Excessive Ethanol Consumption" (Principal Investigator: **G. Colombo**)

Awards:

- CINP Rafaelsen Fellowship Award, delivered at the 19th CINP Congress, Washington D.C., USA, June 27-July 1, 1994
- ESBRA Nordmann Award 1996, delivered at the ESBRA Award Meeting 1996, Vienna, Austria, October 17-18, 1996

Reviewer for Funding Agencies:

- European Foundation for Alcohol Research, Brussels, Belgium (2003; 2005)
- Wellcome Trust, London, United Kingdom (2005)
- Agence Nationale de la Recherche*, Paris, France (2009)
- Deutsche Forschungsgemeinschaft* (German Research Foundation), Bonn, Germany (2017)
- Medical Research Council, London, United Kingdom (2018)

Editorial and Society Assignments:

- April 1998 – today: Member of the Editorial Board of the journal *Alcohol*

January 2001 – today: Associate editor of the journal *Alcohol and Alcoholism*

September 2001 – September 2013: Member of the Board of Directors of the *European Society for Biomedical Research on Alcoholism* (ESBRA)

October 2001 – May 2004: Member of the Board of Directors of the *Società Italiana di Alcologia* (SIA)

September 2005 – September 2013: Vice-president of the *European Society for Biomedical Research on Alcoholism* (ESBRA)

January 2006 – December 2015: Member of the Editorial Board of the journal *Dipendenze Patologiche*

January 2007 – October 2010: Member of the Membership Committee of the *International Society for Biomedical Research on Alcoholism* (ISBRA)

January 2008 – March 2011: Member of the Editorial Board of the journal *Alcoholism: Clinical and Experimental Research*

November 2009 – June 2018: associate editor of the journal *Disorders Frontiers in Addictive Disorders*

2011, 2013, 2015, and 2017: Member of the Evaluation Committee of *Manfred Lautenschlaeger Award*

2012, 2014, and 2016: Member of the Evaluation Committee of *ESBRA Nordmann Award*

2016: Editor of the volume entitled "GABA_B Receptor", The Receptors 29; Springer International Publishing Switzerland; doi: 10.1007/978-3-319-46044-4; Hardcover ISBN: 978-3-319-46042-0; eBook ISBN: 978-3-319-46044-4.

Meeting Organization:

"2000 ESBRA Nordmann Award Meeting", Oliena (NU), Italy, September 14-17, 2000; Organizers: **G. Colombo** e G.L. Gessa

"2007 ESBRA Congress", Berlin, Germany, September 23-26, 2007; Member of the *International Scientific Board*

"2008 ISBRA Congress", Washington, DC, USA, June 28 – July 2, 2008; Member of the *Program Committee*

"2008 ESBRA Nordmann Award Meeting", Cagliari, Italy, September 26-27, 2008; Organizers: R. Agabio, M.A.M. Carai, **G. Colombo**, G.L. Gessa

"2010 ISBRA Congress", Paris, France, September 13-17, 2010; Member of the *Program Committee*

"2011 ESBRA Congress", Vienna, Austria, September 4-7, 2011; Member of the *Scientific Advisory Committee*

"2013 ESBRA Congress", Warsaw, Poland, September 8-11, 2013; Member of the *Scientific Advisory Committee*

"2015 ESBRA Congress", Valencia, Spain, September 13-16, 2015; Member of the *Scientific Advisory Committee*

"2018 GABA_B Receptor Conference", Cagliari, Italy, May 24-25, 2018; President of the congress

PAPERS IN SCIENTIFIC PEER-REVIEWED JOURNALS

H-Index: 56 (Google Scholar); 49 (Scopus)

- Fadda F., Mosca E., Niffoi T., **Colombo G.**, Gessa G.L. Ethanol prevents stress-induced increase in cortical DOPAC: reversal by RO 15-4513. *Physiol. Behav.* 40(3): 383-385, 1987.
- Fadda F., Mosca E., **Colombo G.**, Gessa G.L. Protection against ethanol mortality in rats by the imidazobenzodiazepine RO 15-4513. *Eur. J. Pharmacol.* 136(2): 265-266, 1987.
- Fadda F., Mosca E., **Colombo G.**, Gessa G.L. Effect of spontaneous ingestion of ethanol on brain dopamine metabolism. *Life Sci.* 44(4): 281-287, 1989.

- Fadda F., **Colombo G.**, Mosca E., Gessa G.L. Suppression by gamma-hydroxybutyric acid of ethanol withdrawal syndrome in rats. *Alcohol Alcohol.* 24(5): 447-451, 1989.
- Colombo G.**, Mosca E., Gessa G.L., Fadda F. Suppression of ethanol intake in ethanol preferring rats by 1,4-butanediol. *Alcohol* 7(6): 503-505, 1990.
- Fadda F., Mosca E., **Colombo G.**, Gessa G.L. Alcohol-preferring rats: Genetic sensitivity to alcohol-induced stimulation of dopamine metabolism. *Physiol. Behav.* 47(4): 727-729, 1990.
- Balakleevsky A., **Colombo G.**, Fadda F., Gessa G.L. RO 19-4603, a benzodiazepine receptor inverse agonist, attenuates voluntary ethanol intake in rats selectively bred for high ethanol preference. *Alcohol Alcohol.* 25(5): 449-452, 1990.
- Fadda F., Garau B., Marchei F., **Colombo G.**, Gessa G.L. MDL 72222, a selective 5-HT₃ receptor antagonist, suppresses voluntary ethanol consumption in alcohol-preferring rats. *Alcohol Alcohol.* 26(2): 107-110, 1991.
- Fadda F., Garau B., **Colombo G.**, Gessa G.L. Isradipine and other calcium channel antagonists attenuate ethanol consumption in ethanol-preferring rats. *Alcohol. Clin. Exp. Res.* 16(3): 449-452, 1992.
- Colombo G.**, Hansen C., Hoffman P.L., Grant K.A. Decreased performance in a delayed alternation task by rats genetically deficient in vasopressin. *Physiol. Behav.* 52(4): 827-830, 1992.
- Sanna E., Serra M., Cossu A., **Colombo G.**, Follesa P., Cuccheddu T., Concas A., Biggio G. Chronic ethanol intoxication induces differential effects on GABA_A and NMDA receptor function in the rat brain. *Alcohol. Clin. Exp. Res.* 17(1): 115-123, 1993.
- Grant K.A., **Colombo G.** Discriminative stimulus effects of ethanol: Effect of training dose on the substitution of N-methyl-D-aspartate antagonists. *J. Pharmacol. Exp. Ther.* 264(3): 1241-1247, 1993.
- Grant K.A., **Colombo G.** Substitution of the 5-HT₁ agonist trifluoromethylphenylpiperazine (TFMPP) for the discriminative stimulus effect of ethanol: effects of training dose. *Psychopharmacology* 113(1): 26-30, 1993.
- Devoto P., **Colombo G.**, Cappai F., Gessa G.L. Naloxone antagonizes ethanol- but not gamma-hydroxybutyrate-induced sleep in mice. *Eur. J. Pharmacol.* 252(3): 321-324, 1994.
- Colombo G.**, Agabio R., Lobina C., Reali R., Fadda F., Gessa G.L. Blockade of ethanol discrimination by isradipine. *Eur. J. Pharmacol.* 265(3): 167-170, 1994.
- Colombo G.**, Agabio R., Lobina C., Reali R., Fadda F., Gessa G.L. Symmetrical generalization between the discriminative stimulus effects of gamma-hydroxybutyric acid and ethanol: Occurrence within narrow dose ranges. *Physiol. Behav.* 57(1): 105-111, 1995.
- Colombo G.**, Agabio R., Lobina C., Reali R., Fadda F., Gessa G.L. Cross-tolerance to ethanol and gamma-hydroxybutyric acid. *Eur. J. Pharmacol.* 273(3): 235-238, 1995.
- Colombo G.**, Agabio R., Lobina C., Reali R., Melis F., Fadda F., Gessa G.L. Effects of the calcium channel antagonist darodipine on ethanol withdrawal in rats. *Alcohol Alcohol.* 30(1): 125-131, 1995.
- Frau M., **Colombo G.**, Marchese G., Stefanini E., Gessa G.L. Different affinity of cortical GHB binding sites in Sardinian alcohol-preferring (sP) and -non preferring (sNP) rats. *Alcohol Alcohol.* 30(1): 133-137, 1995.
- Colombo G.**, Agabio R., Lobina C., Reali R., Zocchi A., Fadda F., Gessa G.L. Sardinian alcohol-preferring rats: A genetic animal model of anxiety. *Physiol. Behav.* 57(6): 1181-1185, 1995.
- Colombo G.**, Agabio R., Bourguignon J., Fadda F., Lobina C., Maitre M., Reali R., Schmitt M., Gessa G.L. Blockade of the discriminative stimulus effects of gamma-hydroxybutyric acid (GHB) by the GHB receptor antagonist NCS-382. *Physiol. Behav.* 58(3): 587-590, 1995.
- Colombo G.**, Agabio R., Balaklievskaia N., Diaz G., Lobina C., Reali R., Gessa G.L. Oral self-administration of gamma-hydroxybutyric acid in the rat. *Eur. J. Pharmacol.* 285(1): 103-107, 1995.
- Colombo G.**, Agabio R., Balaklievskaia N., Lobina C., Reali R., Fadda F., Gessa G.L. T-maze and food-reinforcement: An inexpensive drug discrimination procedure. *J. Neurosci. Methods* 67(2): 83-87, 1996.
- Agabio R., Cortis G., Fadda F., Gessa G.L., Lobina C., Reali R., **Colombo G.** Circadian drinking pattern of Sardinian alcohol-preferring rats. *Alcohol Alcohol.* 31(4): 385-388, 1996.
- Grant K.A., **Colombo G.**, Grant J., Rogawski M.A. Dizocilpine-like discriminative stimulus effects of low-affinity uncompetitive NMDA antagonists. *Neuropharmacology* 35(12): 1709-1719, 1996.
- Lobina C., Agabio R., Diaz G., Fà M., Fadda F., Gessa G.L., Reali R., **Colombo G.** Constant absolute ethanol intake by alcohol-preferring sP rats independent of ethanol concentrations. *Alcohol Alcohol.* 32(1): 19-22, 1997.
- Colombo G.** Ethanol drinking behaviour in Sardinian alcohol-preferring rats. *Alcohol Alcohol.* 32(4): 443-453, 1997.
- Grant K.A., **Colombo G.**, Gatto G.J. Characterization of the ethanol-like discriminative

- stimulus effects of 5-HT agonists as a function of ethanol training dose. *Psychopharmacology* 133(2): 133-141, 1997.
- Colombo G.**, Agabio R., Diaz G., Fà M., Lobina C., Reali R., Gessa G.L. Sardinian alcohol-preferring rats prefer chocolate and sucrose over ethanol. *Alcohol* 14(6): 611-615, 1997.
- Colombo G.**, Agabio R., Lobina C., Reali R., Gessa G.L. Cannabinoid modulation of intestinal propulsion in mice. *Eur. J. Pharmacol.* 344(1): 67-69, 1998.
- Imperato A., Dazzi L., Carta G., **Colombo G.**, Biggio G. Rapid increase in basal acetylcholine release in the hippocampus of freely moving rats induced by withdrawal from long-term ethanol intoxication. *Brain Res.* 784(1-2): 347-350, 1998.
- Colombo G.**, Agabio R., Lobina C., Loche A., Reali R., Gessa G.L. High sensitivity to gamma-hydroxybutyric acid in ethanol-preferring sP rats. *Alcohol Alcohol.* 33(2): 121-125, 1998.
- Colombo G.**, Agabio R., Fà M., Guano L., Lobina C., Loche A., Reali R., Gessa G.L. Reduction of voluntary ethanol intake in ethanol-preferring sP rats by the cannabinoid antagonist SR 141716. *Alcohol Alcohol.* 33(2): 126-130, 1998.
- Colombo G.**, Agabio R., Diaz G., Fà M., Lobina C., Reali R., Gessa G.L. Gamma-hydroxybutyric acid (GHB) intake in ethanol-preferring sP and -non preferring sNP rats. *Physiol. Behav.* 64(2): 197-202, 1998.
- Colombo G.**, Agabio R., Diaz G., Lobina C., Reali R., Gessa G.L. Appetite suppression and weight loss after the cannabinoid antagonist SR 141716. *Life Sci.* 63(8): PL113-PL117, 1998.
- Pompei P., Angeletti S., Ciccocioppo R., **Colombo G.**, Gessa G.L., Massi M. Preprotachykinin-A gene expression in the forebrain of Sardinian alcohol-preferring and -nonpreferring rats. *Mol. Brain Res.* 56(1-2): 277-280, 1998.
- Bano S., Morgan C.J., Badawy A.A.-B., **Colombo G.**, Buckland P.R., McGuffin P., Fadda F., Gessa G.L. Tryptophan metabolism in male Sardinian alcohol-preferring (sP) and -non-preferring (sNP) rats. *Alcohol Alcohol.* 33(3): 220-225, 1998.
- Devoto P., **Colombo G.**, Stefanini E., Gessa G.L. Serotonin is reduced in the frontal cortex of Sardinian alcohol-preferring rats. *Alcohol Alcohol.* 33(3): 226-229, 1998.
- Colombo G.**, Agabio R., Lobina C., Reali R., Gessa G.L. Involvement of GABA_A and GABA_B receptors in the mediation of discriminative stimulus effects of gamma-hydroxybutyric acid. *Physiol. Behav.* 64(3): 293-302, 1998.
- Colombo G.**, Agabio R., Lobina C., Reali R., Vacca G., Gessa G.L. Stimulation of locomotor activity by voluntarily consumed ethanol in Sardinian alcohol-preferring rats. *Eur. J. Pharmacol.* 357(2-3): 109-113, 1998.
- Agabio R., **Colombo G.**, Loche A., Lobina C., Pani M.L., Reali R., Gessa G.L. Gamma-hydroxybutyric acid (GHB) reducing effect on ethanol intake: evidence in favour of a substitution mechanism. *Alcohol Alcohol.* 33(5): 465-474, 1998.
- Colombo G.**, Agabio R., Bourguignon J.-J., Lobina C., Loche A., Maitre M., Reali R., Gessa G.L. Reduction of blood ethanol levels by the gamma-hydroxybutyric acid receptor antagonist, NCS-382. *Alcohol* 17(2):93-95, 1999.
- Poggioli R., Vitale G., **Colombo G.**, Ottani A., Bertolini A. Gamma-hydroxybutyrate increases gastric emptying in conscious rats. *Life Sci.* 64(23): 2149-2154, 1999.
- Ciccocioppo R., Angeletti S., **Colombo G.**, Gessa G.L., Massi M. Autoradiographic analysis of 5-HT_{2A} binding sites in the brain of Sardinian alcohol-preferring and -nonpreferring rats. *Eur. J. Pharmacol.* 373(1): 13-19, 1999.
- Colombo G.**, Agabio R., Lobina C., Reali R., Morazzoni P., Bombardelli, Gessa G.L. *Salvia miltiorrhiza* extract inhibits alcohol absorption, preference and discrimination in sP rats. *Alcohol* 18(1): 65-70, 1999.
- Ciccocioppo R., Panocka I., Froidi R., **Colombo G.**, Gessa G.L., Massi M. Antidepressant-like effect of ethanol revealed in the forced swimming test in Sardinian alcohol-preferring rats. *Psychopharmacology* 144(2): 151-157, 1999.
- Fadda P., Tronci S., **Colombo G.**, Fratta W. Differences in the opioid system in selected brain regions of alcohol preferring (sP) and alcohol non preferring (sNP) rats. *Alcohol. Clin. Exp. Res.* 23(8): 1296-1305, 1999.
- Lobina C., Agabio R., Reali R., Gessa G.L. and **Colombo G.** Contribution of GABA_A and GABA_B receptors to the discriminative stimulus produced by gamma-hydroxybutyric acid. *Pharmacol. Biochem. Behav.* 64(2): 363-365, 1999.
- Barbaccia M.L., Affricano D., Trabucchi M., Purdy R.H., **Colombo G.**, Agabio R., Gessa G.L. Ethanol markedly increases "GABAergic" neurosteroids in alcohol-preferring rats. *Eur. J. Pharmacol.* 384(2-3): R1-2, 1999.
- Agabio R., Carai M.A.M., Lobina C., Pani M., Reali R., Bourov I., Gessa G.L., **Colombo G.** Dissociation of ethanol and saccharin preference in sP and sNP rats. *Alcohol. Clin. Exp. Res.* 24(1): 24-29, 2000.
- Colombo G.**, Agabio R., Carai M.A.M., Lobina C., Pani M., Reali R., Addolorato G., Gessa G.L. Ability of baclofen in reducing alcohol intake and withdrawal severity: I – Preclinical evidence. *Alcohol. Clin. Exp. Res.* 24(1): 58-66, 2000.
- Addolorato G., Caputo F., Capristo E., **Colombo G.**, Gessa G.L., Gasbarrini G. Ability of baclofen in reducing alcohol craving and intake: II – Preliminary clinical

- evidence. *Alcohol. Clin. Exp. Res.* 24(1): 67-71, 2000.
- Colombo G.**, Agabio R., Carai M.A.M., Lobina C., Pani M., Reali R., Gessa G.L. Characterization of the discriminative stimulus effects of GHB as a means for unravelling the neurochemical basis of GHB actions and its similarities with those of ethanol. *Alcohol* 20(3): 237-245, 2000.
- Gessa G.L., Agabio R., Carai M.A.M., Lobina C., Pani M., Reali R., **Colombo G.** Mechanism of the anti-alcohol effect of gamma-hydroxybutyric acid (GHB). *Alcohol* 20(3): 271-276, 2000.
- Agabio R., Carai M.A.M., Lobina C., Pani M., Reali R., Vacca G., Gessa G.L., **Colombo G.** Development of short-lasting alcohol deprivation effect (ADE) in Sardinian alcohol-preferring rats. *Alcohol* 21(1): 59-62, 2000.
- Quertemont E., Lallemand F., **Colombo G.**, De Witte P. Taurine and ethanol preference: a microdialysis study using Sardinian alcohol-preferring and non-preferring rats. *Eur. Neuropsychopharmacol.* 10(5): 377-383, 2000.
- Colombo G.**, Gessa G.L. Gamma-hydroxybutyric acid in alcohol preference, dependence and withdrawal. *Addict. Biol.* 5(4): 389-403, 2000.
- Colombo G.**, Agabio R., Carai M.A.M., Lobina C., Pani M., Reali R., Vacca G., Gessa G.L. Different sensitivity to ethanol in ethanol-preferring sP and -non preferring sNP rats. *Alcohol. Clin. Exp. Res.* 24(11): 1603-1608, 2000.
- Saba L., Porcella A., Congeddu E., **Colombo G.**, Peis M., Pistis M., Gessa G.L., Pani L. The R100Q mutation of the GABA_A α_6 receptor subunit may contribute to voluntary aversion to ethanol in the sNP rat line. *Mol. Brain Res.* 87(2): 263-270, 2001.
- Agabio R., Carai M.A.M., Lobina C., Pani M., Reali R., Vacca G., Gessa G.L., **Colombo G.** Alcohol stimulates motor activity in selectively bred Sardinian alcohol-preferring (sP), but not in Sardinian alcohol-nonpreferring (sNP), rats. *Alcohol* 23(2): 123-126, 2001.
- Colombo G.**, Lobina C., Agabio R., Brunetti G., Diaz G., Littera M., Melis S., Pani M., Reali R., Serra S., Vacca G., Carai M.A.M., Gessa G.L. Selective breeding of two rat lines differing in sensitivity to GHB and baclofen. *Brain Res.* 902(1): 127-130, 2001.
- Mancinelli R., Fabrizi A., Del Monaco S., Azzena G.B., Vargiu R., **Colombo G.**, Gessa G.L. Inhibition of peristaltic activity by cannabinoids in the isolated distal colon of mouse. *Life Sci.* 69(1): 101-111, 2001.
- Lobina C., **Colombo G.**, Brunetti G., Diaz G., Melis S., Pani M., Serra S., Vacca G., Gessa G.L., Carai M.A.M. Procedure of bidirectional selective outbreeding for production of two rat lines differing in sensitivity to the sedative/hypnotic effect of γ -hydroxybutyric acid. *Brain Res. Protoc.* 8(1): 74-81, 2001.
- Nava F., Carta G., **Colombo G.**, Gessa G.L. Effects of chronic Δ^9 -tetrahydrocannabinol treatment on hippocampal extracellular acetylcholine concentration and alternation performance in the T-maze. *Neuropharmacology* 41(3): 392-399, 2001.
- Agabio R., **Colombo G.**, Carai M.A.M., Gessa G.L. Novel pharmacotherapies and patents for alcohol abuse and alcoholism 1998-2001. *Expert Opin. Ther. Pat.* 11(10): 1497-1521, 2001.
- Carai M.A.M., **Colombo G.**, Brunetti G., Melis S., Serra S., Vacca G., Mastinu S., Pistuddi A.M., Solinas C., Cignarella G., Minardi G., Gessa G.L. Role of GABA_B receptors in the sedative/hypnotic effect of γ -hydroxybutyric acid. *Eur. J. Pharmacol.* 428(3): 315-321, 2001.
- Serra S., Carai M.A.M., Brunetti G., Gomez R., Melis S., Vacca G., **Colombo G.**, Gessa G.L. The cannabinoid receptor antagonist SR 141716 prevents acquisition of drinking behaviour in alcohol-preferring rats. *Eur. J. Pharmacol.* 430(2-3): 369-371, 2001.
- Colombo G.**, Melis S., Brunetti G., Serra S., Vacca G., Carai M.A.M., Gessa G.L. GABA_B receptor inhibition causes locomotor stimulation in mice. *Eur. J. Pharmacol.* 433(1): 101-104, 2001.
- Casu M.A., **Colombo G.**, Gessa G.L., Pani L. Reduced TH-immunoreactive fibers in the limbic system of Sardinian alcohol-preferring rats. *Brain Res.* 924(2): 242-251, 2002.
- Colombo G.**, Serra S., Brunetti G., Gomez R., Melis S., Vacca G., Carai M.A.M., Gessa G.L. Stimulation of voluntary ethanol intake by cannabinoid receptor agonists in ethanol-preferring sP rats. *Psychopharmacology* 159(2): 181-187, 2002.
- Addolorato G., Caputo F., Capristo E., Janiri L., Bernardi M., Agabio R., **Colombo G.**, Gessa G.L., Gasbarrini G. Rapid suppression of alcohol withdrawal syndrome by baclofen. *Am. J. Med.* 112(3): 226-229, 2002.
- Serra S., **Colombo G.**, Melis S., Vacca G., Carai M.A.M., Gessa G.L. Gamma-hydroxybutyric acid versus alcohol preference in Sardinian alcohol-preferring rats. *Alcohol* 37(2): 128-131, 2002.
- Carai M.A.M., Agabio R., Lobina C., Reali R., Vacca G., **Colombo G.**, Gessa G.L. GABA_B-receptor mediation of the inhibitory effect of γ -hydroxybutyric acid on intestinal motility in mice. *Life Sci.* 70(25): 3059-3067, 2002.
- Carai M.A.M., **Colombo G.**, Reali R., Serra S., Mocchi I., Castelli M.P., Cignarella G., Gessa G.L. Central effects of 1,4-butanediol are mediated by GABA_B receptors

- via its conversion into γ -hydroxybutyric acid. *Eur. J. Pharmacol.* 441(3): 157-163, 2002.
- Barbaccia M.L., **Colombo G.**, Affricano D., Carai M.A.M., Vacca G., Melis S., Purdy R.H., Gessa G.L. GABA_B receptor-mediated increase of neurosteroids by γ -hydroxybutyric acid. *Neuropharmacology* 42(6): 782-791, 2002.
- Brunetti G., Carai M.A.M., Lobina C., Melis S., Serra S., Vacca G., Gessa G.L., **Colombo G.** Differences in ethanol-induced conditioned taste aversion in Sardinian alcohol-preferring and Sardinian alcohol-nonpreferring rats. *Alcohol* 26(3): 167-172, 2002.
- Serra S., Brunetti G., Pani M., Vacca G., Carai M.A.M., Gessa G.L., **Colombo G.** Blockade by the cannabinoid CB₁ receptor antagonist, SR 141716, of alcohol deprivation effect in alcohol-preferring rats. *Eur. J. Pharmacol.* 443(1-3): 95-97, 2002.
- Vacca G., Serra S., Brunetti G., Carai M.A.M., Gessa G.L., **Colombo G.** Boosting effect of morphine on alcohol drinking is suppressed not only by naloxone but also by the cannabinoid CB₁ receptor antagonist, SR 141716. *Eur. J. Pharmacol.* 445(1-2): 55-59, 2002.
- Carai M.A.M., Brunetti G., Lobina C., Serra S., Vacca G., Minardi G., **Colombo G.**, Gessa G.L. Proconvulsive effect of the GABA_B receptor antagonist, SCH 50911, in rats undergoing ethanol withdrawal syndrome. *Eur. J. Pharmacol.* 445(3): 195-199, 2002.
- Colombo G.**, Serra S., Brunetti G., Atzori G., Pani M., Vacca G., Addolorato G., Froestl W., Carai M.A.M., Gessa G.L. The GABA_B receptor agonists baclofen and CGP 44532 prevent acquisition of alcohol drinking behaviour in alcohol-preferring rats. *Alcohol Alcohol.* 37(5): 499-503, 2002.
- Addolorato G., Caputo F., Capristo E., Domenicali M., Bernardi M., Janiri L., Agabio R., **Colombo G.**, Gessa G.L., Gasbarrini G. Baclofen efficacy in reducing alcohol craving and intake – A preliminary double-blind randomised controlled study. *Alcohol Alcohol.* 37(5): 504-508, 2002.
- Casu M.A., Dinucci D., **Colombo G.**, Gessa G.L., Pani L. Reduced DAT- and DBH-immunostaining in the limbic system of Sardinian alcohol-preferring rats. *Brain Res.* 948(1-2): 192-202, 2002.
- Vacca G., Serra S., Brunetti G., Carai M.A.M., Samson H.H., Gessa G.L., **Colombo G.** Operant self-administration of ethanol in Sardinian alcohol-preferring rats. *Alcohol. Clin. Exp. Res.* 26(11): 1678-1685, 2002.
- Brunetti G., Serra S., Vacca G., Lobina C., Morazzoni P., Bombardelli E., **Colombo G.**, Gessa G.L., Carai M.A.M. IDN 5082, a standardized extract of *Salvia miltiorrhiza*, delays acquisition of alcohol drinking behavior in rats. *J. Ethnopharmacol.* 85(1): 93-97, 2003.
- Tedeschi L., Carai M.A.M., Frison G., Favretto D., **Colombo G.**, Ferrara S.D., Gessa G.L. Endogenous γ -hydroxybutyric acid is in the rat, mouse and human gastrointestinal tract. *Life Sci.* 72(22): 2481-2488, 2003.
- Colombo G.**, Serra S., Brunetti G., Vacca G., Carai M.A.M., Gessa G.L. Suppression by baclofen of alcohol deprivation effect in Sardinian alcohol-preferring (sP) rats. *Drug Alcohol Depend.* 70(1): 105-108, 2003.
- Colombo G.**, Vacca G., Serra S., Brunetti G., Carai M.A.M., Gessa G.L. Baclofen suppresses motivation to consume alcohol in rats. *Psychopharmacology* 167(3): 221-224, 2003.
- Vacca G., **Colombo G.**, Brunetti G., Melis S., Molinari D., Serra S., Seghizzi R., Morazzoni P., Bombardelli E., Gessa G.L., Carai M.A.M. Reducing effect of *Salvia miltiorrhiza* extracts on alcohol intake: influence of vehicle. *Phytother. Res.* 17(5): 537-541, 2003.
- Serra S., Brunetti G., Vacca G., Lobina C., Carai M.A.M., Gessa G.L., **Colombo G.** Stable preference for high ethanol concentrations after alcohol deprivation in Sardinian alcohol-preferring (sP) rats. *Alcohol* 29(2): 101-108, 2003.
- Leggio B., Masi F., Grappi S., Nanni G., Gambarana C., **Colombo G.**, De Montis M.G. Sardinian alcohol-preferring and non-preferring rats show different reactivity to aversive stimuli and a similar response to a natural reward. *Brain Res.* 973(2): 275-284, 2003.
- Brunetti G., Serra S., Vacca G., Lobina C., Curreli T., Carai M.A.M., **Colombo G.**, Gessa G.L. Long-term exposure to a sweetened alcoholic solution does not alter genetic aversion to ethanol in Sardinian alcohol-non preferring (sNP) rats. *Alcohol* 30(1): 29-34, 2003.
- Serra S., Vacca G., Tumatis S., Carrucciu A., Morazzoni P., Bombardelli E., **Colombo G.**, Gessa G.L., Carai M.A.M. Anti-relapse properties of IDN 5082, a standardized extract of *Salvia miltiorrhiza*, in alcohol-preferring rats. *J. Ethnopharmacol.* 88(2-3): 249-252, 2003.
- Lobina C., **Colombo G.**, Gessa G.L., Carai M.A.M. Completion by the 10th generation of the bidirectional selective breeding of GHB-sensitive and GHB-resistant rats. *Brain Res. Protoc.* 13(1): 53-56, 2004.
- Colombo G.**, Serra S., Vacca G., Gessa G.L., Carai M.A.M. Suppression by baclofen of the stimulation of alcohol intake induced by morphine and WIN 55,212-2 in alcohol-preferring rats. *Eur. J. Pharmacol.* 492(2-3): 189-193, 2004.

- Carai M.A.M., **Colombo G.**, Gessa G.L. Rapid tolerance to the intestinal prokinetic effect of cannabinoid CB₁ receptor antagonist, SR 141716 (Rimonabant). *Eur. J. Pharmacol.* 494(2-3): 221-224, 2004.
- Carai M.A.M., Vacca G., Serra S., **Colombo G.**, Froestl W., Gessa G.L. Suppression of GABA_B receptor function in vivo by disulfide reducing agent, DL-dithiothreitol (DTT). *Psychopharmacology* 174(2): 283-290, 2004.
- Colombo G.**, Vacca G., Serra S., Carai M.A.M., Gessa G.L. Suppressing effect of the cannabinoid CB₁ receptor antagonist, SR 141716, on alcohol's motivational properties in alcohol-preferring rats. *Eur. J. Pharmacol.* 498(1-3): 119-123, 2004.
- Carai M.A.M., **Colombo G.**, Gessa G.L. Protection by the GABA_B receptor antagonist, SCH 50911, of γ -hydroxybutyric acid-induced mortality in mice. *Eur. J. Pharmacol.* 503(1-3): 77-80, 2004.
- Colombo G.**, Addolorato G., Agabio R., Carai M.A.M., Pibiri F., Serra S., Vacca G., Gessa G.L. Role of GABA_B receptor in alcohol dependence: Reducing effect of baclofen on alcohol intake and alcohol motivational properties in rats and amelioration of alcohol withdrawal syndrome and alcohol craving in human alcoholics. *Neurotox. Res.* 6(5): 403-414, 2004.
- Carai M.A.M., **Colombo G.**, Froestl W., Gessa G.L. *In vivo* effectiveness of CGP7930, a positive allosteric modulator of the GABA_B receptor. *Eur. J. Pharmacol.* 504(3): 213-216, 2004.
- Colombo G.**, Serra S., Vacca G., Carai M.A.M., Gessa G.L. Effect of the combination of naltrexone and baclofen on acquisition of alcohol drinking behavior in alcohol-preferring rats. *Drug Alcohol Depend.* 77(1): 87-91, 2005.
- Gessa G.L., Serra S., Vacca G., Carai M.A.M., **Colombo G.** Suppressing effect of the cannabinoid CB₁ receptor antagonist, SR147778, on alcohol intake and motivational properties of alcohol in alcohol-preferring sP rats. *Alcohol Alcohol.* 40(1): 46-53, 2005.
- Lobina C., **Colombo G.**, Gessa G.L., Carai M.A.M. Different sensitivity to the motor incoordinating effects of γ -hydroxybutyric acid (GHB) and baclofen in GHB-sensitive and GHB-resistant rats. *Brain Res.* 1033(1): 109-112, 2005.
- Lobina C., **Colombo G.**, Orrù A., Maccioni P., Gessa G.L., Carai M.A.M. GHB-C rats: the control line of GHB-sensitive (GHB-S) and GHB-resistant (GHB-R) rats. *Brain Res. Protoc.* 15(1): 1-5, 2005.
- Colombo G.**, Lobina C., Maccioni P., Mascia M.F., Orrù A., Gessa G.L., Carai M.A.M. Suppression of acquisition of alcohol drinking behavior by the concurrent availability of saccharin in Sardinian alcohol-preferring rats. *Alcohol* 35(1): 27-33, 2005.
- Colombo G.**, Lobina C., Maccioni P., Mascia M.F., Orrù A., Gessa G.L., Carai M.A.M. Suppression of maintenance of alcohol drinking behavior by the concurrent availability of saccharin in Sardinian alcohol-preferring rats. *Alcohol* 35(1): 35-41, 2005.
- Carai M.A.M., **Colombo G.**, Gessa G.L. Resuscitative effect of a GABA_B receptor antagonist on γ -hydroxybutyric acid (GHB) mortality in mice. *Ann. Emerg. Med.* 45: 614-619, 2005.
- Colombo G.**, Serra S., Vacca G., Carai M.A.M., Gessa G.L. Endocannabinoid system and alcohol addiction: pharmacological studies. *Pharmacol. Biochem. Behav.* 81(2): 369-380, 2005.
- Carai M.A.M., Quang L.S., Atzeri S., Lobina C., Maccioni P., Orrù A., Gessa G.L., Maher T.J., **Colombo G.** Withdrawal syndrome from γ -hydroxybutyric acid (GHB) and 1,4-butanediol (1,4-BD) in Sardinian alcohol-preferring rats. *Brain Res. Protoc.* 15(2): 75-78, 2005.
- Carai M.A.M., **Colombo G.**, Gessa G.L. Rimonabant: the first therapeutically relevant cannabinoid antagonist. *Life Sci.* 77: 2339-2350, 2005.
- Barbaccia M.L., Carai M.A.M., **Colombo G.**, Lobina C., Purdy R.H., Gessa G.L. Endogenous γ -aminobutyric acid (GABA)_A receptor active neurosteroids and the sedative/hypnotic action of γ -hydroxybutyric acid (GHB): A study in GHB-S (sensitive) and GHB-R (resistant) rat lines. *Neuropharmacology*, 49(1): 48-58, 2005.
- Castelli M.P., Pibiri F., Piras A.P., Carboni G., Orrù A., Gessa G.L., Carai M.A.M., **Colombo G.** Differential G-protein coupling to GABA_B receptor in limbic areas of alcohol-preferring and -non preferring rats. *Eur. J. Pharmacol.* 523(1-3): 67-70, 2005.
- Orrù A., Lai P., Lobina C., Maccioni P., Piras P., Scanu L., Froestl W., Gessa G.L., Carai M.A.M., **Colombo G.** Reducing effect of the positive allosteric modulators of the GABA_B receptor, CGP7930 and GS39783, on alcohol intake in alcohol-preferring rats. *Eur. J. Pharmacol.*, 525(1-3): 105-111, 2005.
- Maccioni P., Serra S., Vacca G., Orrù A., Pes D., Agabio R., Addolorato G., Carai M.A.M., Gessa G.L., **Colombo G.** Baclofen-induced reduction of alcohol reinforcement in alcohol-preferring rats. *Alcohol* 36(3): 161-168, 2005.
- Carai M.A.M., **Colombo G.**, Quang L.S., Maher T.J., Gessa G.L. Resuscitative treatments on 1,4-butanediol mortality in mice. *Ann. Emerg. Med.* 47(2): 184-189, 2006.

- Addolorato G., Leggio L., Abenavoli L., Agabio R., Caputo F., Capristo E., **Colombo G.**, Gessa G.L., Gasbarrini G. Baclofen in the treatment of alcohol withdrawal syndrome: a randomized comparative study versus diazepam. *Am. J. Med.* 119: 276.e13-276.e18, 2006.
- Gessa G.L., Orrù A., Lai P., Maccioni P., Lecca R., Lobina C., Carai M.A.M., **Colombo G.** Lack of tolerance to the suppressing effect of rimonabant on chocolate intake in rats. *Psychopharmacology* 185(2): 248-254, 2006.
- Colombo G.**, Serra S., Vacca G., Orrù A., Maccioni P., Morazzoni P., Bombardelli E., Riva A., Gessa G.L., Carai M.A.M. Identification of miltirone as active ingredient of *Salvia miltiorrhiza* responsible for the reducing effect of root extracts on alcohol intake in rats. *Alcohol. Clin. Exp. Res.* 30(5): 754-762, 2006.
- Addolorato G., Leggio L., Agabio R., **Colombo G.**, Gasbarrini G. Baclofen: a new drug for the treatment of alcohol dependence. *Int. J. Clin. Pract.* 60(8): 1003-1008, 2006.
- Carai M.A.M., **Colombo G.**, Gessa G.L., Yalamanchili R., Basavarajppa B.S., Hungund B.L. Investigation on the relationship between cannabinoid CB₁ and opioid receptors in gastrointestinal motility in mice. *Br. J. Pharmacol.* 148(8): 1043-1050, 2006.
- Colombo G.**, Lobina C., Carai M.A.M., Gessa G.L. Phenotypic characterization of genetically selected Sardinian alcohol-preferring (sP) and -non preferring (sNP) rats. *Addict. Biol.* 11(3-4): 324-338, 2006.
- Carai M.A.M., **Colombo G.**, Maccioni P., Gessa G.L. Efficacy of rimonabant and other cannabinoid CB₁ receptor antagonists in reducing food intake and body weight: preclinical and clinical data. *CNS Drug Rev.* 12(2): 91-99, 2006.
- Colombo G.**, Serra S., Vacca G., Carai M.A.M., Gessa G.L. Baclofen-induced suppression of alcohol deprivation effect in Sardinian alcohol-preferring (sP) rats exposed to different alcohol concentrations. *Eur. J. Pharmacol.* 550(1-3): 123-126, 2006.
- Maccioni P., Orrù A., Korkosz A., Gessa G.L., Carai M.A.M., **Colombo G.**, Bienkowski P. Cue-induced reinstatement of ethanol seeking in Sardinian alcohol-preferring rats. *Alcohol* 41(1): 31-39, 2007.
- Maccioni P., Pes D., Orrù A., Froestl W., Gessa G.L., Carai M.A.M., **Colombo G.** Reducing effect of the positive allosteric modulator of the GABA_B receptor, GS39783, on alcohol self-administration in alcohol-preferring rats. *Psychopharmacology* 193(2): 171-178, 2007.
- Colombo G.**, Orrù A., Lai P., Cabras C., Maccioni P., Rubio M., Gessa G.L., Carai M.A.M. The cannabinoid CB₁ receptor antagonist, rimonabant, as a promising pharmacotherapy for alcohol dependence: preclinical evidence. *Mol. Neurobiol.* 36(1): 102-112, 2007.
- Orrù A., Lobina C., Maccioni P., Gessa G.L., Carai M.A.M., **Colombo G.** Repeated exposure to alcoholic beer does not induce long-lasting changes in alcohol self-administration and intake in Sardinian alcohol-preferring (sP) and -non preferring (sNP) rats. *Alcohol Alcohol.* 42(6): 513-524, 2007.
- Carai M.A.M., Lobina C., Maccioni P., Cabras C., **Colombo G.**, Gessa G.L. GABA_B receptor-mediation of different *in vivo* effects of γ -butyrolactone. *J. Pharmacol. Sci.* 106(2): 199-207, 2008.
- Maccioni P., Pes D., Fantini N., Carai M.A.M., Gessa G.L., **Colombo G.** γ -Hydroxybutyric acid (GHB) suppresses alcohol's motivational properties in alcohol-preferring rats. *Alcohol* 42(2): 107-113, 2008.
- Maccioni P., Bienkowski P., Carai M.A.M., Gessa G.L., **Colombo G.** Baclofen attenuates cue-induced reinstatement of alcohol-seeking behavior in Sardinian alcohol-preferring (sP) rats. *Drug Alcohol Depend.* 95(3): 284-287, 2008.
- Maccioni P., Pes D., Carai M.A.M., Gessa G.L., **Colombo G.** Suppression by the cannabinoid CB₁ receptor antagonist, rimonabant, of the reinforcing and motivational properties of a chocolate-flavoured beverage in rats. *Behav. Pharmacol.* 19(3): 197-209, 2008.
- Maccioni P., Fantini N., Froestl W., Carai M.A.M., Gessa G.L., **Colombo G.** Specific reduction of alcohol's motivational properties by the positive allosteric modulator of the GABA_B receptor, GS39783 – Comparison with the effect of the GABA_B receptor direct agonist, baclofen. *Alcohol. Clin. Exp. Res.* 32(9): 1558-1564, 2008.
- De Palma A., Rossi R., Carai M.A.M., Cabras C., **Colombo G.**, Arnoldi L., Fuzzati N., Riva A., Morazzoni P., Mauri P.L. Pharmaceutical and biomedical analysis of terpene constituents in *Salvia miltiorrhiza*. *Curr. Pharm. Anal.* 4(4): 249-257, 2008.
- Melis M., Pillolla G., Perra S., **Colombo G.**, Muntoni A.L., Pistis M. Electrophysiological properties of dopamine neurons in the ventral tegmental area of Sardinian alcohol-preferring rats. *Psychopharmacology* 201(4): 471-481, 2009.
- Maccioni P., Fantini N., Carai M.A.M., Gessa G.L., **Colombo G.** Suppressing effect of the cannabinoid CB₁ receptor antagonist, rimonabant, on alcohol self-administration in alcohol-preferring rats. *Open Neuropsychopharmacol. J.* 2: 40-44, 2009.
- Maccioni P., Carai M.A.M., Kaupmann K., Guery S., Froestl W., Leite-Morris K.A.,

- Gessa G.L., **Colombo G.** Reduction of alcohol's reinforcing and motivational properties by the positive allosteric modulator of the GABA_B receptor, BHF177, in alcohol-preferring rats. *Alcohol. Clin. Exp. Res.* 33(10): 1749-1756, 2009.
- Silvestri R., Ligresti A., La Regina G., Piscitelli F., Gatti V., Brizzi A., Pasquini S., Lavecchia A., Allarà M., Fantini N., Carai M.A.M., Novellino E., **Colombo G.**, Di Marzo V., Corelli F. Synthesis, cannabinoid receptor affinity, molecular modeling studies and *in vivo* pharmacological evaluation of new substituted 1-aryl-5-(1*H*-pyrrol-1-yl)-1*H*-pyrazole-3-carboxamides. 2. Effect of the 3-carboxamide substituent on the affinity and selectivity profile. *Bioorg. Med. Chem.* 17: 5549-5564, 2009.
- Carai M.A.M., Fantini N., Loi B., **Colombo G.**, Riva A., Morazzoni P. Potential efficacy of preparations deriving from *Phaseolus vulgaris* in the control of appetite, energy intake, and carbohydrate metabolism. *Diabetes Metab. Syn. Obes. Targ. Ther.* 2: 145-153, 2009.
- Roman E., **Colombo G.** Lower risk taking and exploratory behavior in alcohol-preferring sP rats than in alcohol non-preferring sNP rats in the multivariate concentric square field™ (MCSF) test. *Behav. Brain Res.* 205(1): 249-258, 2009.
- Fantini N., Cabras C., Lobina C., **Colombo G.**, Gessa G.L., Riva A., Donzelli F., Morazzoni P., Bombardelli E., Carai M.A.M. Reducing effect of a *Phaseolus vulgaris* dry extract on food intake, body weight, and glycemia in rats. *J. Agric. Food Chem.* 57: 9316-9323, 2009.
- Maccioni P., **Colombo G.**, Carai M.A.M. Blockade of the cannabinoid CB₁ receptor and alcohol dependence: preclinical evidence and preliminary clinical data. *CNS Neurol. Disord. Drug Targets* 9(1): 55-59, 2010.
- Maccioni P., Thomas A.W., Carai M.A.M., Gessa G.L., Malherbe P., **Colombo G.** The positive allosteric modulator of the GABA_B receptor, *rac*-BHFF, suppresses alcohol self-administration. *Drug Alcohol Depend.* 109: 96-103, 2010.
- Maccioni P., **Colombo G.**, Riva A., Morazzoni P., Bombardelli E., Gessa G.L., Carai M.A.M. Reducing effect of a *Phaseolus vulgaris* dry extract on operant self-administration of a chocolate-flavoured beverage in rats. *Br. J. Nutr.* 104(5): 624-628, 2010.
- Maccioni P., Flore P., Carai M.A.M., Mugnaini C., Pasquini S., Corelli F., Gessa G.L., **Colombo G.** Reduction by the positive allosteric modulator of the GABA_B receptor, GS39783, of alcohol self-administration in Sardinian alcohol-preferring rats exposed to the "sipper" procedure. *Front. Psychiatry* 1:20. doi:10.3389/fpsy.2010.00020, 2010.
- Silvestri R., Ligresti A., La Regina G., Piscitelli F., Gatti V., Lavecchia A., Brizzi A., Pasquini S., Allarà M., Fantini N., Carai M.A.M., Bigogno C., Rozio M.G., Sinisi R., Novellino E., **Colombo G.**, Di Marzo V., Dondio G., Corelli F. Synthesis and biological evaluation of new *N*-alkyl 1-aryl-5-(1*H*-pyrrol-1-yl)-1*H*-pyrazole-3-carboxamides as cannabinoid receptor ligands. *Eur. J. Med. Chem.* 45(12): 5878-5886, 2010.
- Loi B., Lobina C., Maccioni P., Fantini N., Carai M.A.M., Gessa G.L., **Colombo G.** Increase in alcohol intake, reduced flexibility of alcohol drinking, and evidence of signs of alcohol intoxication in Sardinian alcohol-preferring rats exposed to intermittent access to 20% alcohol. *Alcohol. Clin. Exp. Res.* 34(12): 2147-2154, 2010.
- Fantini N., **Colombo G.**, Giori A., Riva A., Morazzoni P., Bombardelli E., Carai M.A.M. Evidence of glycemia-lowering effect by a *Cynara scolymus L.* extract in normal and obese rats. *Phytother. Res.* 25(3): 463-466, 2011.
- Carai M.A.M., Fantini N., Loi B., **Colombo G.**, Gessa G.L., Riva A., Bombardelli E., Morazzoni P. Multiple cycles of repeated treatments with a *Phaseolus vulgaris* dry extract reduce food intake and body weight in obese rats. *Br. J. Nutr.* 106(5): 762-768, 2011.
- Zhou Y., **Colombo G.**, Carai M.A.M., Ho A., Gessa G.L., Kreek M.J. Involvement of arginine vasopressin and V1b receptor in alcohol drinking in Sardinian alcohol-preferring rats. *Alcohol. Clin. Exp. Res.* 35(10): 1876-1883, 2011.
- Piscitelli F., Ligresti A., La Regina G., Gatti V., Brizzi A., Pasquini S., Allarà M., Carai M.A.M., Novellino E., **Colombo G.**, Di Marzo V., Corelli F., Silvestri R. 1-Aryl-5-(1*H*-pyrrol-1-yl)-1*H*-pyrazole-3-carboxamide: an effective scaffold for the design of either CB₁ or CB₂ receptor ligands. *Eur. J. Med. Chem.* 46: 5641-5653, 2011.
- Lobina C., Carai M.A.M., Froestl W., Mugnaini C., Pasquini S., Corelli F., Gessa G.L., **Colombo G.** Activation of the GABA_B receptor prevents nicotine-induced locomotor stimulation in mice. *Front. Psychiatry* 2:76. doi: 10.3389/fpsy.2011.00076, 2011.
- Roman E., Stewart R.B., Bertholomey M.L., Jensen M.L., **Colombo G.**, Hyytiä P., Badia-Elder N.E., Grahame N.J., Li T.-K., Lumeng L. Behavioral profiling of multiple pairs of rats selectively bred for high and low alcohol intake using the MCSF test. *Addict. Biol.* 17(1): 33-46, 2012.
- Vinod K.Y., Maccioni P., Garcia-Gutierrez M.S., Femenia T., Xie S., Carai M.A.M., Manzanares J., Cooper T.B., Hungund B.L., **Colombo G.** Innate difference in the endocannabinoid signaling and its modulation by alcohol consumption in alcohol-preferring sP rats. *Addict. Biol.* 17(1): 62-75, 2012.

- Loche A., Simonetti F., Lobina C., Carai M.A.M., **Colombo G.**, Castelli M.P., Barone D., Cacciaglia R. Anti-alcohol and anxiolytic properties of a new chemical entity, GET73. *Front. Psychiatry* 3:8. doi: 10.3389/fpsy.2012.00008, 2012.
- Castelli M.P., Casu A., Casti P., Lobina C., Carai M.A.M., **Colombo G.**, Solinas M., Giunta D., Mugnaini C., Pasquini S., Tafi A., Brogi S., Gessa G.L., Corelli F. Characterization of methyl 2-(1-adamantanecarboxamido)-4-ethyl-5-methylthiophene-3-carboxylate (COR627) and methyl 2-(cyclohexanecarboxamido)-4-ethyl-5-methylthiophene-3-carboxylate (COR628), two novel positive allosteric modulators of the GABA_B receptor. *J. Pharmacol. Exp. Ther.* 340(3): 529-538, 2012.
- McBride W.J., Kimpel M.W., McClintick J.N., Ding Z.-M.; Hyytiä P., **Colombo G.**, Edenberg H.J., Lumeng L., Bell R.L. Gene expression in the ventral tegmental area of 5 pairs of rat lines selectively bred for high or low ethanol consumption. *Pharmacol. Biochem. Behav.* 102: 275-285, 2012.
- Agabio R., Maccioni P., Carai M.A.M., Gessa G.L., Froestl W., **Colombo G.** The development of medications for alcohol-use disorders targeting the GABA_B receptor system. *Recent Pat. CNS Drug Discov.* 7(2): 113-128, 2012.
- Bell R.L., Sable H.J.K., **Colombo G.**, Hyytiä P., Rodd Z.A., Lumeng L. Animal models for medications development targeting alcohol abuse using selectively bred rat lines: neurobiological and pharmacological validity. *Pharmacol. Biochem. Behav.* 103(1): 119-155, 2012.
- Maccioni P., Zaru A., Loi B., Lobina C., Carai M.A.M., Gessa G.L., Capra A., Mugnaini C., Pasquini S., Corelli F., Hyytiä P., Lumeng L., **Colombo G.** Comparison of the effect of the GABA_B receptor agonist, baclofen, and the positive allosteric modulator of the GABA_B receptor, GS39783, on alcohol self-administration in three different lines of alcohol-preferring rats. *Alcohol. Clin. Exp. Res.* 36(10): 1748-1766, 2012.
- Colombo G.**, Carai M.A.M., Gessa G.L. Suppression by γ -hydroxybutyric acid of "alcohol deprivation effect" in rats: Preclinical evidence of its *anti*-relapse properties. *Front. Psychiatry* 3:95. doi: 10.3389/fpsy.2012.00095, 2012.
- Loi B., Maccioni P., Lobina C., Carai M.A.M., Gessa G.L., Thomas A.W., Malherbe P., **Colombo G.** Reduction of alcohol intake by the positive allosteric modulator of the GABA_B receptor, *rac*-BHFF, in alcohol-preferring rats. *Alcohol* 47(1): 69-73, 2013.
- Zhou Y., **Colombo G.**, Niikura K., Carai M.A.M., Femenía T., García-Gutiérrez M.S., Manzanares J., Ho A., Gessa G.L., Kreek M.J. Voluntary alcohol drinking enhances proopiomelanocortin (POMC) gene expression in nucleus accumbens shell and hypothalamus of Sardinian alcohol-preferring rats. *Alcohol. Clin. Exp. Res.* 37(S1): E131-E140, 2013.
- Loi B., Fantini N., **Colombo G.**, Gessa G.L., Riva A., Bombardelli E., Morazzoni P., Carai M.A.M. Reducing effect of an extract of *Phaseolus vulgaris* on food intake in mice – Focus on highly palatable foods. *Fitoterapia* 85: 14-19, 2013.
- Loi B., Fantini N., **Colombo G.**, Gessa G.L., Riva A., Bombardelli E., Morazzoni P., Carai M.A.M. Reducing effect of a combination of *Phaseolus vulgaris* and *Cynara scolymus* extracts on food intake and glycemia in rats. *Phytother. Res.* 27(2): 258-263, 2013.
- Mugnaini C., Pedani V., Casu A., Lobina C., Casti A., Maccioni P., Porcu A., Giunta D., Lamponi S., Solinas M., Dragoni S., Valoti M., **Colombo G.**, Castelli M.P., Gessa G.L., Corelli F. Synthesis and pharmacological characterization of 2-(acylamino)thiophene derivatives as metabolically stable, orally effective, positive allosteric modulators of the GABA_B receptor. *J. Med. Chem.* 56: 3620-3635, 2013.
- Zaru A., Maccioni P., Riva A., Morazzoni P., Bombardelli E., Gessa G.L., Carai M.A.M., **Colombo G.** Reducing effect of a combination of *Phaseolus vulgaris* and *Cynara scolymus* extracts on operant self-administration of a chocolate-flavoured beverage in rats. *Phytother. Res.* 27: 944-947, 2013.
- Zaru A., Maccioni P., **Colombo G.**, Gessa G.L. The dopamine β -hydroxylase inhibitor, nopicastat, suppresses chocolate self-administration and reinstatement of chocolate seeking in rats. *Br. J. Nutr.* 110(8): 1524-1533, 2013.
- Ferraro L., Loche A., Beggiato S., Tomasini M.C., Antonelli T., **Colombo G.**, Lobina C., Carai M.A.M., Porcu A., Castelli M.P., Clerici F., Borrelli A.C., Cacciaglia R., Tanganelli S. The new compound GET73, N-[(4-trifluoromethyl)benzyl]4-methoxybutyramide, regulates hippocampal aminoacidergic transmission possibly via an allosteric modulation of mGlu5 receptor. Behavioural evidence of its "anti-alcohol" and anxiolytic properties. *Curr. Med. Chem.* 20(27): 3339-3357, 2013.
- Zhou Y., **Colombo G.**, Gessa G.L., Kreek M.J. Effects of voluntary alcohol drinking on corticotropin-releasing factor and preprodynorphin mRNA levels in the central amygdala of Sardinian alcohol-preferring rats. *Neurosci. Lett.* 554: 110-114, 2013.
- Lobina C., Gessa G.L., **Colombo G.** Anxiolytic effect of voluntarily consumed alcohol in Sardinian alcohol-preferring rats exposed to the social interaction test. *J. Alcoholism Drug Depend.* 1(6): 132, 2013.

- McBride W.J., Kimpel M.K., McClintick J.N., Ding Z.-M., Hyytia P., **Colombo G.**, Liang T., Edenberg H.J., Lumeng L., Bell R.L. Gene expression within the extended amygdala of 5 pairs of rat lines selectively bred for high or low ethanol consumption. *Alcohol* 47: 517-529, 2013.
- Colombo G.**, Maccioni P., Acciaro C., Lobina C., Loi B., Zaru A., Carai M.A.M., Gessa G.L. Binge drinking in alcohol-preferring sP rats at the end of the nocturnal period. *Alcohol* 48(3): 301-311, 2014.
- Loi B., **Colombo G.**, Maccioni P., Carai M.A.M., Franconi F., Gessa G.L. High alcohol intake in female Sardinian alcohol-preferring rats. *Alcohol* 48(4): 345-351, 2014.
- Agabio R., **Colombo G.** GABA_B receptor ligands for the treatment of alcohol use disorder: preclinical and clinical evidence. *Front. Neurosci.* 8:140. doi:10.3389/fnins.2014.00140, 2014.
- Lobina C., Carai M.A.M., Loi B., Gessa G.L., Riva A., Cabri W., Petrangolini G., Morazzoni P., **Colombo G.** Protective effect of *Panax ginseng* in cisplatin-induced cachexia in rats. *Future Oncol.* 10(7): 1203-1214, 2014.
- Rosas M., Zaru A., Sabariego M., Giugliano V., Carboni E., Colombo G., Acquas E. Differential sensitivity of ethanol-elicited ERK phosphorylation in nucleus accumbens of Sardinian alcohol-preferring and -non preferring rats. *Alcohol* 48(5): 471-476, 2014.
- Maccioni P., Vargiolu D., Falchi M., Morazzoni P., Riva A., Cabri W., Carai M.A.M., Gessa G.L., **Colombo G.** Reducing effect of the Chinese medicinal herb, *Salvia miltiorrhiza*, on alcohol self-administration in Sardinian alcohol-preferring rats. *Alcohol* 48(6): 587-593, 2014.
- Melis M., Sagheddu C., De Felice M., Casti A., Madeddu C., Spiga S., Muntoni A.L., Mackie K., Marsicano G., **Colombo G.**, Castelli M.P., Pistis M. Enhanced endocannabinoid-mediated modulation of rostromedial tegmental nucleus drive onto dopamine neurons in Sardinian alcohol-preferring rats. *J. Neurosci.* 34(38): 12716-12724, 2014.
- Colombo G.**, Maccioni P., Vargiolu D., Loi B., Lobina C., Zaru A., Carai M.A.M., Gessa G.L. The dopamine β -hydroxylase inhibitor, nopicastat, reduces different alcohol-related behaviors in rats. *Alcohol. Clin. Exp. Res.* 38(9): 2345-2353, 2014.
- Maccioni P., Vargiolu D., Thomas A.W., Malherbe P., Mugnaini C., Corelli F., Leite-Morris K.A., Gessa G.L., **Colombo G.** Inhibition of alcohol self-administration by positive allosteric modulators of the GABA_B receptor in rats: Lack of tolerance and potentiation of baclofen. *Psychopharmacology* 232(10): 1831-1841, 2015.
- Agabio R., **Colombo G.** GABA_B receptor as therapeutic target for drug addiction: from baclofen to positive allosteric modulators. *Psychiatr. Pol.* 49(2): 215-223, 2015.
- Karlsson O., **Colombo G.**, Roman E. Low copulatory activity in selectively bred Sardinian alcohol- nonpreferring (sNP) relative to alcohol-preferring (sP) rats. *Upsala J. Med. Sci.* 120(3): 181-189, 2015.
- Maccioni P., Lorrain I., Marras M.F., Contini A., Capra A., Piras G., Caboni P., Gessa G.L., **Colombo G.** Elevated reinforcing and motivational properties of alcohol at the end of the nocturnal period in sP rats. *Psychopharmacology* 232(19): 3585-3595, 2015.
- Colombo G.**, Lobina C., Maccioni P., Carai M.A.M., Lorrain I., Zaru A., Contini A., Mugnaini C., Corelli F., Gessa G.L. Anxiety-like behaviors at the end of the nocturnal period in sP rats with a "history" of unpredictable, limited access to alcohol. *Alcohol* 49(7): 707-712, 2015.
- Saba L.M., Flink S.L., Vanderlinden L.A., Israel Y., Tampier L., **Colombo G.**, Kianmaa K., Bell R.L., Printz M.P., Flodman P., Koob G., Richardson H.N., Hoffman P.L., Tabakoff B. The sequenced rat brain transcriptome, its use in identifying networks predisposing alcohol consumption. *FEBS J.* 282(18): 3556-3578, 2015.
- Carai M.A.M., **Colombo G.**, Loi B., Zaru A., Riva A., Cabri W., Morazzoni P. Hypoglycemic effects of a standardized extract of *Salvia miltiorrhiza* roots in rats. *Phcog. Mag.* 11: 545-549, 2015.
- Vallöf D., Maccioni P., **Colombo G.**, Mandrapa M., Jörnulf J.W., Egecioglu E., Engel J.A., Jerlhag E. The glucagon-like peptide 1 analogue liraglutide attenuates the reinforcing properties of alcohol in rodents. *Addict. Biol.* 21(2): 422-437, 2016.
- Lorrain I., Maccioni P., Gessa G.L., **Colombo G.** R(+)-baclofen, but not S(-)-baclofen, alters alcohol self-administration in alcohol-preferring rats. *Front. Psychiatry* 7:68. doi: 10.3389/fpsy.2016.00068, 2016.
- Lorrain L., Piga V., Carai M.A.M., Riva A., Morazzoni P., Gessa G.L., **Colombo G.**, Maccioni P. A *Phaseolus vulgaris* extract reduces cue-induced reinstatement of chocolate seeking in rats. *Front. Pharmacol.* 7:109. doi: 10.3389/fphar.2016.00109, 2016.
- Maccioni P., Lorrain I., Carai M.A.M., Riva A., Morazzoni P., Mugnaini C., Corelli F., Gessa G.L., **Colombo G.** Reducing effect of saikosaponin A, an active ingredient of *Bupleurum falcatum*, on alcohol self-administration in rats: Possible involvement of the GABA_B receptor. *Neurosci. Lett.* 621: 62-67, 2016.
- Zaru A., Maccioni P., **Colombo G.**, Gessa G.L. Disulfiram inhibits chocolate self-

- administration and reinstatement to chocolate seeking in rats. *Pharmacol. Biochem. Behav.* 148: 119-127, 2016.
- Lorrai L., Maccioni P., Carai M.A.M., Capra A., Castelli M.P., Riva A., Morazzoni P., Gessa G.L., **Colombo G.** Suppressing effect of saikosaponin A, an active ingredient of *Bupleurum falcatum*, on chocolate self-administration and reinstatement of chocolate seeking in rats. *Neurosci. Lett.* 638: 211-217, 2017.
- Wood C., Nicolas C., Choi S.-L., Roman E., Nylander I., Fernandez-Teruel A., Kiianmaa K., Bienkowski P., de Jong T., **Colombo G.**, Chastagnier D., Wafford K., Collingridge G.L., Wildt S.J., Conway-Campbell B.L., Robinson E.S.J., Lodge D. Prevalence and influence of cys407* *Grm2* mutation in Hannover-derived Wistar rats: mGlu2 receptor loss links to alcohol intake, risk taking and emotional behaviour. *Neuropharmacology* 115: 128-138, 2017.
- Colombo G.**, Lobina C., Lorrai I., Acciaro C., Maccioni P., Gessa G.L. Binge drinking and anxiety at the end of the nocturnal period in alcohol-preferring sP rats. *Alcohol* 63: 27-32, 2017.
- Maccioni P., **Colombo G.**, Lorrai I., Zaru A., Carai M.A.M., Gessa G.L., Brizzi A., Mugnaini C., Corelli F. Suppressing effect of COR659 on alcohol, sucrose, and chocolate self-administration in rats: Involvement of the GABA_B and cannabinoid CB₁ receptors. *Psychopharmacology* 234(17): 2525-2543, 2017.
- Cabras T., D'Alessandro A., Serrao S., Isola R., Iavarone F., Vincenzoni F., **Colombo G.**, Ekström J., Messina I., Castagnola M. Marked differences in the submandibular salivary proteome between Sardinian alcohol-preferring and Sardinian alcohol-non preferring rats revealed by an integrated top-down/bottom-up proteomic platform. *J. Proteome Res.* 17: 455-469, 2018.
- Haass-Koffler C.L., Goodyear K., Loche A., Long V.M., Lobina C., Tran H.H., Cacciaglia R., Swift R.M., **Colombo G.**, Leggio L. Administration of the mGluR5 allosteric modulator GET 73 with alcohol: a translational study in rats and humans. *J. Psychopharmacol.* 32(2): 163-173, 2018.
- Contini A., Sanna F., Maccioni P., **Colombo G.**, Argiolas A. Comparison between male and female rats in a model of self-administration of a chocolate-flavored beverage: behavioral and neurochemical studies. *Behav. Brain Res.* 344: 28-41, 2018.
- Lobina C., **Colombo G.**, Gessa G.L., Carai M.A.M., Allegrini P., Morazzoni P., Riva A. Anxiolytic effect of an extract of *Salvia miltiorrhiza* roots in rats. *J. Chin. Med. Assoc.* 81: 390-397, 2018.
- Maccioni P., Lorrai I., Contini A., Leite-Morris K., **Colombo G.** Microinjection of baclofen and CGP7930 into the ventral tegmental area suppresses alcohol self-administration in alcohol-preferring rats. *Neuropharmacology* 136: 146-158, 2018.
- Maccioni P., **Colombo G.**, Lorrai I., Fara F., Carai M.A.M., Gessa G.L., Brizzi A., Mugnaini C., Corelli F. Anti-addictive properties of COR659 – Additional pharmacological evidence and comparison with a series of novel analogues. *Alcohol*, in press, 2018.
- Maccioni P., Fara F., Lorrai I., Acciaro A., Mugnaini C., Corelli F., **Colombo G.** Suppressing effect of CMPPE, a new positive allosteric modulator of the GABA_B receptor, on alcohol self-administration and reinstatement of alcohol seeking in rats. *Alcohol*, in press, 2018.

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July 2, 2018

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