CURRICULUM VITAE

Stefano Puglisi-Allegra

Full professor of Psychobiology at Sapienza University of Rome, Italy, where is chief of the Behavior Genetics Laboratory of Dept. of Psychology.

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Professional and Academic Career

Ph.D. in Neuroscience (Doctorat d'Etat ès Sciences), University Louis Pasteur, Strasbourg, France, 1984.

Researcher (full position) at the Istituto di Psicobiologia e Psicofarmacologia of the National Research Council of Italy (CNR), Rome, Italy, 1977-1991.

Full Professor of Psychobiology, Faculty of Psychology, University of Rome "La Sapienza" Italy, 1991 to present.

Director of the Department of Psychology, University of Rome "La Sapienza" 1995-2003.

Chief of the Laboratory of Behavioral Neurobiology at Fondazione Santa Lucia, IRCCS, Rome, Italy, 2000 to present.

Dean of the 1st Faculty of Psychology, University of Rome "La Sapienza", 2003 to 2009.

Director Research Center of Neurobiology “Daniel Bovet”, Sapienza University of Rome, 2009 to present.

Research Topics

Research is focused on: neural mechanisms of learning and memory, emotion and motivation, with particular emphasis on neurotransmission and neuroplasticity in mesocorticolimbic and mesocorticostriatal systems; preclinical models of psychopathologies such as stress, addiction, and depression; translational models of Phenylketonuria to envisage genetic and environmental susceptibility factors.

The main research topics in which he gave the most significant contributions were:

- The role of brain GABAergic system in agonistic behavior: the research activity carried out through an ethopharmacolgical, neurochemical and pharmacogenetic approach and showed for the first time that GABAergic transmission in cortical and subcortical areas is a factor of susceptibility and control of aggressive behavior which expression can be modulated by psychopharmacological intervention.

- The role of mesocorticolimbic catecholamine transmission in the stress response and in coping outcomes showing for the first time that fluctuations of tonic levels characterize the mesoaccumbens dopamine stress response. Thus, in novel unescapable/uncontrollable stressful conditions dopamine in the accumbens show an initial increase followed by a decrease below pre-stress levels that lasts as long as the stressful situation. This biphasic response fits with the dynamics of the primary and secondary appraisal of a stressor that cannot be removed, escaped or controlled by the organism. Moreover, he showed that the fluctuations in the accumbens are controlled by dopamine and norepinephrine interplay in the medial pre-frontal cortex, which is involved in stress appraisal.

- The role of a prefrontal cortical/accumbens system in the attribution of motivational salience: He offered the first evidence that prefrontal cortical norepinephrine transmission is a necessary condition for motivational salience attribution to highly salient stimuli, through modulation of dopamine in the nucleus accumbens, a brain area involved in all motivated behaviors. Moreover, the prefrontal-accumbal catecholamine systemdetermines approach or avoidance responses to both reward- and aversion-related stimuli only when the salience of the unconditioned stimulus is high enough to induce sustained catecholamine activation, thus affirming that this systemprocesses motivational salience attribution selectively to highly salient events.

Professional Academic Activities:

1998-2013. Reviewer, National Institute of Health (NIH/USA), Italian Ministry of University and Research, Biological Psychiatry, Journal of Neuroscience, Journal of Neurochemistry, Int J Neuropsychopharmacology, Behav Brain Res, Neuroscience Biobehavioral Reviews, Psychopharmacology, Pharmacology Biochemistry and Behavior, Pediatric Research, Behavioural Pharmacology, Synapse, European Journal of Neuroscience, Neuropharmacology, Neuropsychopharmacology.

Memberships

Society for Neuroscience; European Behavioural Pharmacology Society (where at the moment he is member of the society Committee); International Behavioral Neuroscience Society; Società Italiana di Neuroscienze; Associazione Italiana di Psicologia.

H-index: Scopus= 43. ISI= 44.

Publications

He is author of more than 150 articles on international scientific journals.

Representative recent Publications:

Puglisi-Allegra S, Andolina D (2015) Serotonin and Stress Coping Behav Brain Res, 277: 58-67.

Latagliata EC, Valzania A, Pascucci T, Campus P, Cabib S, Puglisi-Allegra S (2014) Stress-induced activation of ventral tegmental mu-opioid receptors reduces accumbens dopamine tone by enhancing dopamine transmission in the medial pre-frontal cortex. Psychopharmacology, 231(21): 4099-4108.

Andolina D, Maran D, Valzania A, Conversi D, Puglisi-Allegra S (2013). *Prefrontal/amygdalar system determines stress coping behavior through 5-HT/GABA connection*. Neuropsychopharmacology, 38(10): 2057-2067

Cabib S, Puglisi-Allegra S. (2012) [*The mesoaccumbens dopamine in coping with stress*.](http://www.ncbi.nlm.nih.gov/pubmed/21565217) Neurosci Biobehav Rev. 36(1):79-89.

Puglisi-Allegra, S., Ventura, R. (2012) *Prefrontal /accumbal catecholamine system processes emotionally driven attribution of motivational salience.* Reviews in the Neurosciences. 23(5-6):509-526.

Costa C, et al. (2012) [*Mechanisms underlying the impairment of hippocampal long-term potentiation and memory in experimental Parkinson's disease*.](http://www.ncbi.nlm.nih.gov/pubmed/22561640) Brain. 1884-1899.

Pascucci T, Giacovazzo G, Andolina D, Conversi D, Cruciani F, Cabib S, Puglisi-Allegra S. (2012) [*In vivo catecholaminergic metabolism in the medial prefrontal cortex of ENU2 mice: an investigation of the cortical dopamine deficit in phenylketonuria.*](http://www.ncbi.nlm.nih.gov/pubmed/22447154) J Inherit Metab Dis. 35(6):1001-9.