

SCIENTIFIC DISCIPLINARY AREA: BIOLOGY

**RESEARCH PROGRAM NO. 26**

**The assessment criteria for the qualifications and the interview will be affixed on 28.2.2017 at 9.00** in Dipartimento di Farmacia (DIFAR), Viale Cembrano 4, Genova.

**The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on 28.2.2017 at 12.30** in Dipartimento di Farmacia (DIFAR), Viale Cembrano 4, Genova.

**The interview will be held on 28.2.2017 at 15.30** in in Dipartimento di Farmacia (DIFAR), Viale Cembrano 4, Genova.

**Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.**

*As regards candidates, who are not resident or domiciled in Italy, and those, who are resident or habitually domiciled at a distance of more than 300 Km from the selection centre, the interview, if requested, can also be held by electronic means (SKYPE video conference call), promptly contacting Prof.ssa Anna Maria Pittaluga telefonicamente on the phone number +39 010 353 2049 or via the email address: pittalug@difar.unige.it.*

**Scientific coordinator:** Prof.ssa Anna Maria PITTALUGA

**NO.1 research fellowship - Duration: 2 year – Annual pre-tax amount: € 19.367.00**

**Title:** Pharmacological and functional characterization of the mGlu2/3 – 5HT2A receptor-receptor interaction in the central nervous system of mammals.

**Description:** Chemical transmission in the central nervous system (CNS) is assured by the transmitter released from the presynaptic component that moves to the postsynaptic side at chemical synapsis. Its efficiency depends on the amount of transmitter presynaptically released, an event that is finely tuned by presynaptic mechanisms of control of transmitter release. Data are available showing the existence of presynaptic mGlu2/3 autoreceptors and 5HT2A heteroreceptors on glutamatergic nerve endings, the activation of which modulate glutamate exocytosis. The aim of our project is to evaluate whether these receptors colocalize in glutamatergic nerve terminals and in the positive to evidenced the impact of the mGlu2/3- 5HT2A receptor-receptor interaction in different regions of the CNS.

**Scientific disciplinary sector:** BIO/14 PHARMACOLOGY

**Place:** Dipartimento di Scienze della terra, dell'ambiente e della vita (DIFAR)

**Required degree:**

Dottorato di Ricerca in Farmacologia e Tossicologia; Dottorato in Medicina Sperimentale

**Subjects of the interview:**

The job interview will deal on the organization and the function of the glutamatergic and serotonergic systems, with particular attention onto the available techniques allowing : i) the functional and pharmacological characterization of glutamatergic and serotonergic receptors in the central nervous system (CNS); ii) the study of their role in controlling the excitatory and inhibitory central transmission; iii) to determine whether serotonergic and glutamatergic receptors could colocalize on the same neurons to express heterodimeric assemblies; iv) to evaluate the impact of receptor-receptor colocalization and functional cross-talk in the CNS..

The candidate will need to prove his/her knowledge of the English language.