Fundación Ortega-Marañón

INTERNATIONAL INTERNSHIPS

FOM INTERNATIONAL PROGRAMS IN SPAIN (MADRID)

Type of activity: Seminars, practical cases, and problems

Title: Neuroscience of emotions and brain neurotransmitters

Professor: Fernando Bandrés Director of the Gregorio Marañón Study Center; Professor at the Faculty of Medicine of the Complutense University, Madrid

Language: Spanish

Number of students: 10-15

Location: Seminar Room of the Department of Legal Medicine, Psychiatry and Pathology, Faculty of Medicine, Complutense University, Madrid.

Summary:

The knowledge regarding biochemical nature and molecular structure of brain transmitters presents one of the greatest advances in neuroscience research. From the point of view of neurology and psychiatry, neurotransmitters are increasingly associated with neurological and psychiatric disorders and diseases, as well as other pathologies of a neurohormonal nature. Behavioral psychobiology related to emotions is one of the most relevant multidisciplinary research areas in neuroscience. Research into brain neurotransmitters is associated with psychosomatic medicine, sleep disorders, personality disorders, drug addiction, and even mental illnesses, among many others. The future of advances in neuroscience is linked to a better understanding of the biochemical relationships between neurons through the language of neurotransmitters. The prevention and future medical treatments of diseases of the nervous system are linked to a detailed knowledge of our brain neurotransmitters and within the framework of the new psycho-neuropathology.

Activities:

The students will analyze and study two practical clinical cases with the following objectives:

• To acquire knowledge and skills related to the analysis of the case, evaluation of signs and symptoms, anatomy and neurophysiology applied in each case, as well as interpretation of the instrumental techniques used for the investigation, and medical diagnosis of each along with the analytical techniques. and instrumentation applied in the investigation of brain neurotransmitters.

• To acquire practical skills in the interpretation of results and their applications in medical diagnosis, especially in the field of neuroscience, and its neuropsychic effects.

• To perform an evaluation and comparison of the analyzes carried out with the results of the working group. Critical analysis of the bibliography used in each case.

• The students will use clinical histories and documentation of real cases.