

the international research scene is well known and recognized^{15,16}.

CONFLICTS OF INTERESTS

None.

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Iván Pavlov Cardiovascular Psychophysiology Research Grant: a commitment to the development of Cardiosciences

Beca de Investigación en Psicofisiología Cardiovascular Iván Pavlov:

una apuesta al desarrollo de las cardiociencias

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To the Editor:

Between August 6 and 10, 2018, the authors had the great honor to be joining one of the events that, since the launch of the call, attracted the attention of most of the students of Medical Sciences in Cuba, especially, of those interested in Cardiosciences. We refer to the I Research Grant in Cardiovascular Psychophysiology Ivan Pavlov 2018, which was held at the Faculty of Medical Sciences No.1 in Santiago de Cuba¹.

The characteristics of the event and the fact of being dedicated to the awarded Nobel Prize of Medicine of 1904, which was an unusual genius² –who contributed with his discoveries to arouse interest in the study of the autonomic influence on the body systems, including the cardiovascular– motivated us to write to the prestigious *CorSalud* journal; in addition to highlighting the importance of the events destined to clarify and increase the understanding of the pathophysiology of cardiovascular diseases, which are currently the most frequent causes of death globally and in Cuba³.

The issues included as objectives gave the workdays peculiar characteristics, since special attention was devoted to the psychophysiological approach of the circadian variations of the arterial rigidity, the features of the pulse wave, theoretical-basic elements of ambulatory electrocardiographic monitoring (Holter) and two separate discussions on the heart rate variability as a non-invasive evaluation method of the autonomous nervous system's activity on the sinus node, as an indicator parameter of cardiovascular health.

The experience obtained during the working hours in the Basic Biomedical Sciences Laboratory, with the advice of professors of the Department of Advanced Physiological Studies, allowed to guide

several models of research and contrast different hypotheses about the influence, to the cardiovascular system, of cardiovascular stress stimulus as the Stroop color test and arithmetic calculation, the systematic physical exercise, basal body temperature changes and the presence of comorbidities like diabetes mellitus. For all that, it was necessary to work with research primary data and evaluate the heart rate variability using linear and nonlinear parameters, combined with the assimilation of the precepts of new research applied to cardiovascular physiology, where there are theories on the classical model of homeostasis to explain, for example, that in the absence of disturbing stimuli to the heart, the cardiac rhythm, analyzed beat to beat, presents, physiologically, a chaotic, irregular dynamics with a fractal nature⁴. The results obtained during the grant stay were presented at the First Symposium on Cardiovascular Psychophysiology Iván Pavlov 2018.

We want to thank all the people who welcomed us with hospitality, to whom gave their time to instruct us and professionals who, excited by the idea of what the grant meant, made room in their schedules to join us in working hours.

The authors believe that the I Research Grant in Cardiovascular Psychophysiology Ivan Pavlov 2018, due to the elements raised and the opportunity to contribute to the development of science from undergraduate –at approaching us to a vision, for us new, of the cardiovascular system, and the novelty of the topics discussed that break with the traditional focus of student events–, honors Cuban Cardiology, and we could not pass up the opportunity to acknowledge it, and aspire that this Research Grant will become in the future, a space of confluence, exchange and updating of experiences among neuroscientists, internists, physiologists, cardiologists and students.

CONFLICTS OF INTERESTS

None.

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Iván Pávlov research grant: open science for learning and research in cardiovascular psychophysiology

Beca Iván Pávlov: ciencia abierta para el aprendizaje y la investigación en psicofisiología cardiovascular

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To the Editor:

Undergraduate scientific research occupies an important place in the training of professionals of Medical Sciences in Cuba, which has generated new learning forms. Considering this, some authors have referred to the initiative of the Henrich Quincke Research Grant, developed by the Central Laboratory of Cerebrospinal Fluid of the Universidad de Ciencias Médicas de La Habana and the need to create similar spaces, that it promotes new ways of acquiring knowledge among students of Medical Sciences¹.

As a response to the initiative of Dorta-Contreras², the research team of Dr. Miguel Enrique Sánchez Hechavarría, from the Laboratory for Basic Biomedical Sciences, Faculty of Medicine N° 1, Universidad de Ciencias Médicas de Santiago (Cuba), have called, for the first time, the International Research

Grant in Cardiovascular Psychophysiology Ivan Pavlov, held between August 6 and 10, 2018 (**Figure**).

This space, which has the name of the Nobel Prize in Physiology and Medicine in 1904, for his discoveries about the conditional reflex (on the occasion in this year 2019 of his 170th birth anniversary), brought together 21 students from around the country to do 2.0 science.

Cardiac autonomic regulation, hemodynamic parameters, heart rate (HR) variability and the response to certain stimuli such as physical exercise, mental stress and dynamic weight-bearing test, were the main aspects to be analyzed.

The Grant, entirely, comprised five moments:

1. Promotion: where the call was spread through social networks and Cuba's health telematics network, Infomed. The call was officially launched in the III National Student Scientific Event of Internal