MAKING SENSE FOR STRESS: FROM HANS SELYE'S ANIMAL STUDY TO THE MOLECULAR PHYSIOLOGY OF STRESS AND ITS PHYSIOLOGICAL CONSEQUENCES ON HEALTH AND WELL-BEING (TO 110-ANNIVERSARY FROM BIRTH OF H.SELYE)

O. Zayachkivska

Department of Physiology, Lviv National Medical University, Lviv, Ukraine, ozayachkivska@gmail.com

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Professor Hans Selye (1907, Vienna – 1982, Montreal) is one of the greatest scientists of the 20th century who stood at the cradle of studies of the manifestation of the stress and stress-related conditions. He is often named as father of "biologic stress" concept but he is still unknowing in XXI century to a wide audience. Selye's fate was closely tied to the history of region of former Austro-Hungarian empire where he was born and grow up. He graduated German Medical School in Prague, and later moved to New World where performed his influential investigations at the Université de Montréal (Canada) and where during 35 years he was a scientific mentor of more than 60 MSc and PhD students, including the Nobel Laureate Roger Guillemin (1977) as well as hundreds of visiting scientists from all over the world. H. Selye was author of about 1700 original and review articles, as well as 39 books. The first monograph with the short title "Stress" was published in 1950 in Montreal (Canada) and author supposed "stress" to be a non-specific neuroendocrine reaction of the body on two and more stressors (agents which cause stress) of different nature (physical, chemical, biologic and psychologic). Selye also distinguished three stages of stress response: alarm reaction, resistance and exhaustion and introduce term 'eustress" and "distress". It is important to note that the research of Selye was not limited to stress, but he also worked in the field pharmacology and was first who introduced term "glucocorticoids". However, Selye's groundbreaking work and ideas were done in the time when tools for investigation molecular mechanisms were unknown. His PhD students Yvette Tache and Sandor Szabo followed stress-related research and now they are recognized leading experts in neurobiology of stress and gastroenterology, as well as brain-gut interactions, the role of peptides and growth factors in the underlying mechanisms of stress-related gut dysfunction. These data provided the preclinical groundwork showing potential benefit of blocking corticotropin releasing (CRF) or angiogenesis signaling pathways in experimental models of irritable bowel syndrome. 2017 is the 110th anniversary of his birth which is internationally celebrated and it is good reason to reminder historical lessons of life story and work H.Selye on modern physiology, psychology, and medicine.

THE ROLE OF STRESS IN GERD – WHAT DO WE KNOW?

Ronnie Fass

Case Western Reserve University, Cleveland*, USA,* rfass@metrohealth.org

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Various studies evaluated the effect of stress on the gastrointestinal tract. More recent studies have focused on the relationship between stress and reported symptoms of GERD. However, when evaluating these studies, one should consider the stressors used, if the stress is acute or chronic, if the complaints are subjective or objective and, most importantly, the subjects being evaluated. There are a variety of stressors that have been used in these