

## ABSTRACTS

## Invited Speakers

## IS01

**Stress and the endocrine system**

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Stress as a state of unbalanced homeostasis, triggered by intrinsic or extrinsic agents that affect physiologic and behavioral responses aiming to get optimal body balance. Stress affects all systems of the body, as well as endocrine glands. The main parts of the endocrine system involved in the response to stress are the hypothalamic-pituitary-adrenal axis and the autonomic nervous system which interact with other parts of the central nervous system and peripheral organs. The catecholamine hormones epinephrine and norepinephrine reacted rapidly to stress being secreted from the adrenal medulla. They have numerous effects on behaviour, metabolism, and the cardiovascular system and their response is commonly termed the fight-or-flight-or-freeze response. The glucocorticoid hormones are released from the adrenal cortex interacting with intracellular receptors and initiating gene transcription. It means that glucocorticoids have a delayed, but more sustained effect than catecholamines. The glucocorticoids orchestrate a wide array of responses to the stressor. They have direct effects on behavior, metabolism and energy exchange, reproduction, growth, and the immune system. Stress can also lead to changes in the serum level of many other hormones like growth hormone and prolactin. Numerous endocrine disorders can be caused and/or worsened by stressors like gonadal dysfunction, psychosexual dwarfism, and obesity. Exposure to endogenous or exogenous stress can also alter the clinical status of many preexistent endocrine disorders such as precipitation of adrenal crisis and thyroid storm. The aim of hormonal response to stress is to pull together adaptive responses against the specific agent that triggers tension. If a response to stress is deficient or excessive it can result in psychological pathology and alerted endocrine response. Even more, under conditions of long-term stress, the glucocorticoid-mediated effects become maladaptive and can lead to disease. Long-term exposure to common stress in experimental animals showed epigenetic changes in DNA influencing how genes that control mood and behaviour are expressed.

## IS02

**Psycho-oncology: yesterday, today, tomorrow**

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Modern knowledge about the psychosocial and psychobiological dimensions of oncological diseases, resulting from clinical experiences and numerous types of research, led to the intensive development of psycho-oncology, which is characterized by a strong integration between several professional disciplines (oncology, psychiatry, psychological and social sciences, neuroscience, family medicine, palliative medicine, etc.). Psychosocial aspects of oncological diseases have attracted a lot of attention during the last few decades due to the high prevalence and mortality of oncological diseases, but also because of the development of psycho-neuro-endocrine-immunology and novel insights about the interconnectedness of soul and body in the whole of medicine. In this presentation, the historical development of psycho-oncology will be shortly discussed, followed by a review of the current state of psycho-oncology in the world and in the Republic of Croatia. Special emphasis will be placed on the clinical presentations of the most common psychiatric disorders in oncology and the discussion of individual therapeutic interventions (psychotherapy, psychopharmacotherapy, sociotherapy, the role of art in therapy, etc.), but also on the importance of promoting various preventive activities. Psychiatric/psychological support helps the patient's cooperation in all phases of treatment, with the aim of the "oncology patient" retaining their personhood with their usual life challenges, responsibilities, and pleasures. Communication skills in oncology are extremely important, so the latest knowledge about the most common communication "challenges" will be presented, such as telling bad news, discussing the prognosis and risks of certain forms of treatment, conversations related to the end of life, conducting family meetings, etc. How to promote person-centered medicine and people-centered health care in psycho-oncology? How to educate health professionals, patients, and the general public about this area? How to use new technologies in psycho-oncology? What can we expect in the future? The presentation will try to answer these questions, but it is even more important to stimulate the discussion and thoughts of other participants with the aim of faster development of psycho-oncology in the Republic of Croatia and a better understanding of "mind-body" medicine in this century, which we proudly call the century of the mind.