# Online PAL lectures Spring semester 2021

## "Combined lifestyle interventions in Covid-19 times"

As part of our online PAL module we will have guest speakers from five European countries to lecture about topics related to lifestyle factors as physical activity, stress reduction and nutrition. They will talk about the difficulties of changing your behavior and your role as a Physical activity and lifestyle professional.

The sessions will be hosted on Teams and you will find the link in this flyer.

## Offered by PHYSICAL ACTIVITY AND LIFESTYLE NETWORK



## Description of the lectures

| Friday     | 10.00-11.30 | Acute adaptations of  | Physical activity    | <u>Link</u> |  |
|------------|-------------|-----------------------|----------------------|-------------|--|
| 16-04-2021 | (Amsterdam  | skeletal muscles to   | and mental health in |             |  |
|            | time)       | inactivity            | university students  |             |  |
|            |             | (Aivaras Ratkevicius, | (Hege Randi Eriksen, |             |  |
|            |             | Lithuania)            | Norway)              |             |  |
|            |             |                       |                      |             |  |

Acute adaptations of skeletal muscles to inactivity (Aivaras Ratkevicius, Lithuania). The lecture will introduce to biology of skeletal muscles which is relevant for better understanding of consequences of reduced physical activity as well as injuries. We will discuss muscle fibre type composition and sarcopenia which is the term used to describe ageing-related loss of muscle mass. We will also review molecular mechanisms that are involved in regulation of muscle mass in health and disease. Students will learn how to apply muscle exercise interventions aimed at reducing negative effects of muscle disuse in different age groups.

Physical activity and mental health in university students (Hege Randi Eriksen, Norway). The association between physical exercise and mental health will be introduced and discussed. The possible causal direction will be discussed, and the influence of coping will be introduced.

| Wednesday  | 15.00-16.30 | Breathing and the  | Stress and how to cope | <u>Link</u> |
|------------|-------------|--------------------|------------------------|-------------|
| 21-04-2021 | (Amsterdam  | nervous system     | with it                |             |
|            | time)       | (Kris Zwemmer, The | (Ans Kremer, The       |             |
|            |             | Netherlands)       | Netherlands)           |             |
|            |             |                    |                        |             |

Breathing and the nervous system (Kris Zwemmer, The Netherlands)

During the lecture we'll discuss the autonomic nervous system and how you can influence the system with breathing. Furthermore we take dive into the phylogenetic order of the nervous system and the different states. Finally, we discuss how a combination of breathing and physical activity can be matched.

Stress and how to cope with it (Ans Kremer, The Netherlands)

The lecture will be an introduction to the characteristics of stress and why it is so important to consider when dealing with lifestyle issues, especially in times of Corona. The spotlight will be on the underlying physiological mechanisms and coping strategies. Offered in a combined theoretical and practical way.

| Wednesday  | 10.00-11.30 | Body composition and | Applied sports nutrition | <u>Link</u> |
|------------|-------------|----------------------|--------------------------|-------------|
| 28-04-2021 | (Amsterdam  | Asthma               | (Michal Kumstat,         |             |
|            | time)       | (Nuno Pimenta,       | Czeck Republic)          |             |
|            |             | Portugal)            |                          |             |

### Body composition and Asthma (Nuno Pimenta, Portugal)

The lecture will focus on the interconnections between body composition and Asthma. We will start by presenting the fundamentals of the study of body composition. From this, we will proceed to explain the biological pathways for the connection between different body components and Asthma etiology and management. Some implications for clinical and intervention settings will be highlighted at the end of this lecture.

#### Applied sports nutrition (Michal Kumstat, Czeck Republic)

The course will introduce the particular field of sports nutrition science. The course will present some of the nutritional strategies that attracted athletes and are currently of great scientific interest, e.g. periodized nutrition based on the "train-low, compete high" concept. Students will learn how to work with the current recommendations and apply them to real sports practice.