**Symposium abstract:** Innovations in Physical Activity (PA) Promotion New physiological, technological and behavioural innovations for clinical practice

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**Hosted by:** EUNAAPA, IPTOP & HEPA.

**Chair:** Jennifer Bottomley

**Co-Chair:** Ellen Freiberger
(Ellen Freiberger is currently working as an Associated Professor at the Institute for Biomedicine of Aging at the University of Erlangen-Nürnberg. She is member of the Steering Committee of EUNAAPA since 2006. Her research area is the development and implementation of exercise intervention program for older persons with the special focus on fall prevention.)

**Symposium Program and Target Audience:** In contrast to the demographic changes, the increase in longevity is not accompanied by an increase in healthy life years. Maintenance of functional health in older people is an important challenge to researchers, politicians and public health care. Despite evidence of positive impact of physical activity, a huge proportion of older people do not fulfill the required amount of physical activity to gain positive health or functional effects. This symposium addresses issues of motivation and promotional materials for increasing physical activity in older age and will target a wide audience, ranging from clinicians to researchers to health care professionals.

**Rationale for the Symposium:** Nowadays ageing is accompanied by chronic health conditions such as diabetes, sarcopenia and heart failure. The pathway to declining function in older age is further encouraged by an increasingly sedentary lifestyle. Almost 60% of older adult's reported sitting for more than 4 h per day. Promoting physical activity seems mandatory to prevent further declines in physiological and structural systems typically seen with the ageing process. However, research on promotion of physical activity programmes demonstrated that just promoting PA is often accompanied by an increase in sedentary time periods when not active, suggesting that activities to maintain the energy level demonstrate the challenge in physical activity promotion. The symposium will target important aspects for physical activity promotion in the health care system, including the need for training of different professions coming into contact with older people and the need to consider the environment as a barrier to PA participation.

**Learning Objectives:** After this symposium participants will be able:

- To understand the importance of precise and targeted physical activity promotion (Jennifer Bottomley)
- Gain competence in technological aspects in physical activity promotion (Hans Busmann)
- Understand the importance of educational issues for physical activity promotion (Dawn Skelton)
- Increase expertise in interaction of professions involved in physical activity promotion (Bob Laventure)
Presentation outlines:

1. **Introduction, Jennifer Bottomley** – Chair IPTOP. The introduction will lead into the importance of physical activity and it’s positive effects. It will also comment on the declining physical activity level in older age groups thus setting the stage for the next speakers.

2. **Technology to address Physical Activity, Hans Bussmann** – For efficient and effective promotion of physical activity is the addition of e-health and quantified self-devices an interesting option given the rise in older persons and decline in potential professional and informal care takers. However the reliability and validity of most commercial devices is questionable and can be even of danger if they are used in frail elderly. So what devices are good to use in the elderly population, when to use and when not. Research must focus on the clinometric properties of these devices. The presentation will give valuable information on technical support for PA promotion.

3. **Educational Aspects in Physical Activity promotion, Dawn Skelton** – ProFouND EU Project This talk will discuss the research behind the need for appropriately trained professionals delivering exercise and physical activity promotion to older people with a range of abilities. Safety and effectiveness of activity in frailer older people requires a skill set which must be equipped with knowledge and expertise on tailoring activity options to suit the needs and preferences of older people, whereas referring people for exercise or physical activity programmes requires knowledge of the appropriate skills of the provider of activities. It will introduce training standards in the UK and the roll out of Cascade Training for exercise to prevent falls across Europe (EU project ProFouND).

4. **Implementation of Behavioural innovations and the interaction with health professionals, Bob Laventure**, Chair HEPA Issues of effective Implementation to increase physical activity in older persons: the challenge of interdisciplinary collaboration. The heterogeneity increases in older persons due to the increase of diverse co-morbidities. Most often mobility problems increases and activity level decreases due to a wide variety of health problems. This implies that different health professionals are likely to be involved in the same case. The knowledge about the efficacy of physical activity is well documented however the implementation in health care and in the general society is still problematic.

5. **Discussion, Nico van Meeteren** -Chair EUNAAPA Setting the challenges towards Horizon 2020