

# Programme

## International Conference - Fitness Doping and Public Health 2019

Thursday 24th

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12:00 - 12:30 **Registration**

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12:30 - 12:45 **Bente Skovgaard Kristensen, Deputy Permanent Secretary, Danish Ministry of Culture**  
Opening & Welcome

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12:45 - 13:00 **Michael Ask, director, Anti Doping Danmark**

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13:00 - 14:00



**Søren Østergaard, Ph.D., Director, Centre for Youth Studies**

"From individuals to situats living in a multiverse instead of a universe" - a few perspectives on youth and body as a identity marker in a performance culture.

Teenagers and young people must navigate in a world facing rapidly change, and on an individual level they must deal with a lot of ongoing transitions. Especially the development in SoMe and introduction of the smartphone has changed the structural framework around young peoples life. Being together don't necessary mean that you must be together IRL, but what are the consequences of these developments for the individual young person? How does these developments influence their relationship to instructors and "other adults"? Has it changed the importance of body as central identity marker? And how does the current transitions influence the mental health of young people?

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14:00 - 14:30



**BREAK**

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14:30 - 15:30



**Ask Vest Christiansen, Associate Professor, Aarhus University, Section for Sport Science, Department of Public Health**

Who are they? What are their motives? What are they like?

It is a basic trait in human cognition that we aim to map the landscape around us and categorize the phenomena that surrounds us. We need taxonomies and classifications to make sense of the world.

It is thus no surprise that we ask the above questions when we encounter a relatively new phenomenon like the use of IPEDs (Image and Performance Enhancing Drugs) in gym cultures. Answers to those questions are crucial if we want to understand, control, and potentially prevent doping. However, unlike most phenomena in the natural world, human behavior and cultures are not static but constantly changing and evolving. Consequently, the characterizations and profiling of those who use IPEDs has evolved from simple descriptions to complex models, theories and typologies

I will present this development and discuss some of the most consistent patterns in IPED users' motives, attitudes and behaviors, as well as the users most characteristic and conspicuous traits. By way of conclusion, I will address both drawbacks and advantages of these models and discuss how they can be applied for researchers and public authorities.

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15:30 - 16:00



**BREAK**

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16:00 - 16:30



**Maja Pilgaard, presenting data from Danish Institute of Analytics in Sports**

The fitness invasion of a nation

Pilgaard will speak about the development of fitness into the most popular form of exercise among the Danish population. The development is connected to a growing commercial sector gaining ground in comparison with more traditional club-organised sport and exercise. A special focus will be on teenagers and young adults including gender differences and the importance of body-image as well as how the changes in organisational settings during this life phase affects the character and opportunities for engaging in a social context. Pilgaard points to both opportunities and concerns within the fitness context.

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16:30 - 17:00



**Morten Brustad, Director, Danish Fitness & Health Organization**

The settling of the doping ghost by the Danish fitness industry?

Why does the fitness industry in Denmark take-on the social responsibility when it comes to doping? Is it not each individual who is responsible for his/her actions – and should a private sports actor interfere in the personal life of other people?

The answers to this may be many and Morten Brustad, Trade Director at the Danish Fitness and Health Organization (DFHO) will give you his perspectives to the question.

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17:00 - 17:45



**Caroline Kistorp, MD., Ph.D., Professor, Department of Medical Endocrinology, Rigshospitalet**

Based on the afternoon's presentations Caroline will wrap up the day by focusing on why fitness doping is a public health concern, what actions could or should be taken from various parts in society not only to prevent the use of doping substances in fitness centers but also how to treat current users.

The primary focus of Carolines research is in cardiovascular endocrinology, were the impact of and the underlying mechanisms between insulin resistance and adipocyte dysfunction and the increased risk of heart failure among abusers of anabolic steroids (AAS) and patients with type 2 diabetes being the main research areas. As PI Caroline have initiated several clinical studies on the side effects of AAS among both former and current abusers of steroids, investigating the impact on testicular function, long term fertility, and in collaboration with basic scientists on adipocyte and myocyte function.

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18:00 - 19:00



**Danish "Hygge" - bubbles and snacks**

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19:00 - 22:00



**Dinner**

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09:00 - 09:05



### **Michael Ask, Director, Anti Doping Denmark**

Opening Day 2

09:05 - 09:30



### **Jon Bjarke Rasmussen, MD, Ph.D., Department of Endocrinology, Rigshospitalet**

Cardiovascular and gonadal side-effects from illicit use of anabolic androgenic steroids in young men.

The main topic of this talk will be cardiovascular and gonadal side-effects from illicit use of anabolic androgenic steroids (AAS) among young men involved in recreational strength training. The presentation is based on a cross-sectional study conducted in the greater Copenhagen area, which involved current AAS users, former AAS users and healthy controls. All participants were young men involved in recreational strength training. In the study many clinical parameters were assessed including cardiac structure and function, 24hour blood pressure, insulin sensitivity and several hormone measurements and symptoms of male hypogonadism, all these results will be presented during the talk.

09:30 - 10:00



### **Henrik Horwitz, MD, Ph.D., Department of Clinical Pharmacology, Bispebjerg Hospital**

Health and social consequences of androgenic anabolic steroids

Androgenic anabolic steroids (AAS) provide an efficient shortcut to achieve muscle growth and have been used by bodybuilders and elite athletes for decades. Unfortunately, these drugs are not without side effects and, among others, AAS have been associated with hormonal disturbances, gynecomastia, testicular dysfunction, infertility, and cardiomyopathy. The lifetime prevalence of AAS abuse is estimated to be around 6% in males, which makes the harm related to these drugs a public health concern. However, epidemiological data are inadequate, and most of our knowledge about the adverse effects of AAS is derived from case reports and small cohort studies.

In 2006, Anti Doping Denmark initiated a doping control program in fitness centres across Denmark. Today, approximately 1200 persons have been sanctioned due to use of AAS.

We have used data from these 1200 doping offenders to investigate the social and health-related consequences AAS use, and this talk will summarize our findings.

10:00 - 10:30



### **Ebbe Eldrup, MD, Department of Endocrinology, Herlev Hospital**

Aetiology, pathogenesis and treatment of hypercalcemia after cosmetic paraffin oil injections

An increased use of non-medical, invasive cosmetic treatments has been observed within recent years without consideration of possible health risks. Injection of large amounts of paraffin oil into muscles are used by young males and can lead to foreign body reactions with granuloma formation. Granulomas are rich in CYP27B1-expressing macrophages like in sarcoidosis and may cause hypercalcemia through production of 1,25(OH)2D3. Examples of this behaviour, bigorexia, will be presented.

In 60 males who injected 500-10.000 ml paraffin oil between 2011-2016 we investigated vitamin D and calcium homeostasis. One third of patients had developed pronounced hypercalcemia, whereas the remaining patients were normocalcemic, but could be separated into a group with suppressed parathyroid hormone (PTH) and a group with normal PTH.

All men – even those with normocalcemia – had high urinary calcium excretion, and the frequency of nephrolithiasis ranged from 21% in normocalcemic patients with normal PTH, to 54% in hypercalcemic men. 1,25(OH)2D3 was significantly higher in males with hypercalcemia, but was below the upper normal reference.

To investigate if production of 1,25(OH)2D3 is responsible for the hypercalcemia we cultured granuloma tissue surgically removed from two of the patients, using an ex vivo culture approach. Tissue was cultured for 48 and 72 hours and we found that CD68-positive macrophages expressing CYP27B1 were present together with CD4- and CD8-positive lymphocytes. 1,25(OH)2D3 measured in the media from the tissue cultures proved CYP27B1 activity, and addition of 25OHD to the cultures significantly increased formation of 1,25(OH)2D3. We tested the ability of 14 different drugs to suppress formation of 1,25(OH)2D3 in granuloma tissue cultures and found that Ciclosporin, Ketoconazole, Plaquenil and Dexamethasone were the most potent inhibitors of CYP27B1. Moreover, we found a higher ability to generate 1,25(OH)2D3 in granulomas, than in healthy human kidney tissue.

Obviously, these data cannot be extrapolated directly into an in vivo setting, as the investigated drugs will also influence enzyme activity and organ functions at other sites.

Observational data from different pharmacological treatments of hypercalcemia caused by paraffin oil injections will be presented.

In conclusion, we have demonstrated that high production of 1,25(OH)2D3 is the cause for hypercalcemia in men who have injected paraffin oil and we have identified possible treatment options that should be examined in controlled clinical trials.

10:00 - 11:00

### **Breakout session for Danish Municipalities (For kommuner)**

Hvilke konkrete udfordringer relateret til ungekultur, kropsidealer og doping oplever I ude i kommunerne? Og hvordan kan vi i fællesskab blive bedre til at forebygge, at unge bruger doping som en genvej i jagten på "den perfekte krop"?

Mød Anti Doping Danmark og andre kommuner, og vær med til at indlede dialogen om, hvordan vi på baggrund af erfaringerne fra projektet 'Antidoping-kommuner i Danmark', konferencens konklusioner og jeres erfaringer sammen kan tage de første skridt i indsatsen for at forebygge brug af fitnessdoping blandt unge.

10:30 - 11:00

## BREAK - Poster sessions



11:05 - 13:00

### Track 1 (Preventive Intervention)

11.05 - 11.20 David Müller, Head of Information and Education, NADA Austria  
11.20 - 11.35 Malene Radmer Johannisson, Senior Manager, Anti Doping Denmark  
11.35 - 11.50 Jukka Koskelo, Project Coordinator, a-klinikka (Dopinglinkki)

11.50 - 13.00 Workshop

#### Linked documentation

[Track\\_1\\_layout.pdf](#)

11:05 - 13:00

### Track 2 (Misuse and treatment)

11.05 - 11.20 Jim McVeigh, Director, Public Health Institute, Liverpool John Moores University  
11.20 - 11.35 Danny Reving, MD, Consultant Psychiatrist, KABS  
11.35 - 11.50 Astrid Bjørnebekk, Steroid Project, TSB Oslo, Oslo University Hospital

11.50 - 13.00 Workshop

#### Linked documentation

[Track\\_2\\_layout.pdf](#)

13:00 - 14:00



## LUNCH

14:00 - 15:00



### John McLaughlin, Investigator, National Crime Agency (NCA)

ALPHAMALE- The rise and fall of an 'untouchable' Steroids Kingpin

John was the lead officer in the world's largest ever criminal investigation into the global supply of illicit anabolic androgenic steroids (AAS), which concluded in 2019 at the Old Bailey Court, London. Operation ITALICI was an investigation by the UK's National Crime Agency (NCA), which was focused on the activities of Danish national Jacob Sporon-Fiedler, his Mumbai produced ALPHA-PHARMA branded AAS products and his criminal associates. An explanation on the growth in demand for these products, expanding marketplaces, potential profitability and the attractiveness of AAS supply to the intelligent criminal.

A unique opportunity to hear about modern criminal distribution networks for AAS, current methodologies and trends which will explain how AAS products move from manufacture to the illegal marketplace and ultimately to end users. Special focus will be on the effectiveness of co-operation between not only international law enforcement agencies, but a full range of non-traditional stake-holders.

15:00 - 15:30



### Michael Ask, Director, Anti Doping Denmark

Closing. See you in 2021