

Presentation of the scientific objectives of the event

An important goal of the World Rowing Sports Medicine, Science and Coaches Conference is the result of basic research into applied fields of sports medicine and sports sciences. We have put together a program with international renowned and very well-publishing speakers from basic research, but also from applied research, who deal with current physiological, biochemical, molecular, psychological and biomechanical problems in relation with sport. This focus facilitates scientific discourse, as experience shows.

Rowing is a sport which, due to its character as a team sport and its highly intensive strain, places physiological, energetic and psychological demands over a competition distance of 2000 metres. For this reason, from the end of the 19th century rowing was scientifically studied with individual physiological, biomechanical and training questions, especially in Great Britain, Germany and Scandinavia.

After the Second World War, the "Ratzeburg School" (1958-1962) and then the DDR from 1966-1976 gave a great boost to innovation in rowing in biomechanical and intensive interval training and in extensive endurance training and strength endurance training. Both scientific theories were linked with the application and implemented according to theory, each with great sporting success. Despite few publications, these two groups stimulated international scientific interest considerably, first and foremost, which has led to a large number of scientific papers by renowned groups from all over the world.

At the same time, rowing takes place in an environment of historical tradition and philosophical-ethical values, which is best characterized by the fact that the organizational form of the Royal Henley Regatta with a self-selecting, independent body committed only to inner values was ultimately taken over by the International Olympic Committee. Dealing with the values of the sport and its cultural ethical and moral roots and boundaries is traditionally strong.

The respective scientific discourse characterizes the sport as a whole, which also has academic roots to a large extent. In 1988 we held the 4th symposium of the section "Science and Teaching" of the German Association of Sports Physicians in Ulm under the title "Rowing" with 52 contributions of national and international working groups and about 500 participants (conference proceedings published by Springer).

The World Rowing Federation (FISA) is the international democratically organized top organization for world rowing with 153 member federations. It regulates international competitions independent of political and commercial influences.

The dissemination of knowledge in this highly technical and complex sport is important for the increasing globalisation of the sport. Therefore, international "Coaches Conferences" have been held for about 50 years. Scientists are invited to these conferences, with the focus on applications.

For this reason, the FISA Sports Medical Commission has repeatedly held topic-related meetings in order to reflect scientific progress and promote scientific discourse. In 2015, the first Rowing Sports Science and Medicine Conference was held in Marlow, UK, attracting over 150 scientists and young scientists from all over the world. In two and a half days an extremely interesting and varied scientific

picture of the sport and its problems as well as the implementations was presented. The conference was published in an abstract volume in the British Journal Sports Medicine.

<https://bmcportsscimedrehabil.biomedcentral.com/articles/supplements/volume-7-supplement-1>

Following this success, the World Rowing Federation FISA asked the German Rowing Association and the University of Ulm to organize such a second international conference. It is for the benefit of the event that the applicant Prof. Steinacker has a scientific profile in the field of rowing sports medicine and is elected chairman of the sports medicine commission of the FISA and thus also maintains a variety of scientific connections throughout the world.

The scientific committee of the congress also includes internationally renowned scientists, who succeeded in attracting other internationally renowned scientists to give lectures.