

INTERNATIONAL SCIENTIFIC CONFERENCE „7 SPORT KINETICS 2001” TARTU (ESTONIA)

by

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An International Scientific Conference “Sport Kinetics 2001” was held on the 30.08 – 02.09 2001 in Tartu (Estonia). It was the 7th in a row of cyclically organized conferences of International Association of Sport Kinetics. Starting with 1990 the following cities were seats of the conferences: Gorzów Wlkp. (1990), Olomouc (1991), Poznań (1993), Prague (1995), Magdeburg (1997), Lubljana (1999). This time the Faculty of Exercise and Sport Science of the University of Tartu was the host of the conference. The university has a long-term tradition. It was established in 1632 by the Swedish king Gustavus II Adolphus. Hence the university is also known as Academia Gustaviana. The university had a very stormy history because after 25 years of existence it was moved to Tallinn, and in 1690 was reopened as an Academy of Gustavo-Carolina. In 1802 it was restored by Alexander I. Two years ago, in 1999 the University of Tartu was celebrating its 80th anniversary of existence in the Estonian Republic.

The subject of this year’s conference was: “Human Movement as a Science in the New Millenium”. Over 150 people from 22 countries (participants from 25 countries send in their papers) participated in the conference. For the first time representatives from the following nations took part : Botswana, (Africa), Iran, Philippines, Hungary, France, Belgium, Canada, Norway. As shown above, the number of participants of these cyclical and traditionally organized scientific meetings has considerably extended. The director of the conference

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was Toivo Jürimäe (vice-president of IASK). The Organizational Committee consisted of the following persons: Vahur Oopik, Mati Paasuke, Teet Seene, Ants Nurmekivi, Vello Hein i Tonis Matsin, Kallee Karelson, Eve Pihl, Leila Oja, Gudrun Veldre.

Naming every person contributing to the Organizational Committee is just to pay tribute to them and to show appreciation for their sacrifice, great efficiency and at the same time for their discreet work within the Committee, whose effects were sensed continuously by the conference participants. All the sessions were held in English. All the conference materials were also published in English – the program, abstracts, full papers („Acta Kinesiologiae Universitatis Tartuensis”, Vol.6 Supplement, pp.1-284, Ed. T.and J.Jürimäe).

Plenary sessions, sections and poster sessions were held in very modern and well equipped rooms (all kinds of audiovisual devices were available), in lecture halls ‘Biomedicum’ of the Medical faculty of the University of Tartu.

The outstanding rank of the conference was attributed to the Scientific Committee which consisted of W.Starosta (president of IASK) –chairman, members: J.Borms (University of Brussels), A.Hills (Queensland University of Technology, Australia), P.Komi (University of Jyväskylä, Finlandia), J.Skinner (Indiana University, USA), S.Blair (The Cooper Institute for Aerobics Research, USA), N.Armstrong (University of Exeter, UK), P.Oja (UKK Institute), A.Claessens (University of Leuven, Belgium), H.Kemper (University of Amsterdam (The Netherlands), P.Blaser (University of Magdeburg), B.Jošt (University of Ljubljana), O.Bar-Or (McMaster University, Canada), W.Osiński (University School of Physical Education in Poznań), D.Milanowič (University of Zagrzeb), K.Sudi (University of Graz), J.Jürimäe (University of Tartu).

The meetings were organized into plenary sessions (four), three parallel section sessions, two poster sessions. In total 123 very original research works were accepted by the Scientific Committee and presented at the conference. During the plenary sessions the papers of 7 invited speakers were presented. A number of world recognized authorities representing various scientific disciplines arrived to Tartu: A.L. Claessens (Belgiun), G.C.G.Kemper (The Netherlands), P.V.Komi (Finland), P.Oja (Finland), J.S.Skinner (USA), W.Starosta (Poland), P.M.Tiidus (Canada). Brief contents of the speaker’s papers were presented in alphabetical order.

A.L. Claessens, J. Bourgois, J. Vrijens (Belgium): “**The relevance of kinanthropometry to rowing performance the hazewinkel anthropometric project**”. The 1997 World Junior Rowing Championships in Hazewinkel (Belgium) were an unique opportunity for kinanthropometric profiling of junior rowing at the top level. The study was designed and set up to give coaches, trainers, and rowing athletes useful anthropometric data and criteria, which can be helpful for their training and rowing performance, and to obtain a kinanthropometric profile to be used within the identification and developmental process of young male and female talented rowers. Data were collected on 383 male and 220 female rowers, coming from 43 countries.

As demonstrated by the results, junior rowers of both sexes show, on average, specific morphological characteristics, and differences according to rowing style, boat category and competition level. The study provided a better understanding of the relationships between morphology and rowing in young male and female rowers and provide the starting point for further studies and projects.

H.C.G. Kemper (The Netherlands): “**The fitness and activity paradox: are we fit because we are active? Or are we active because we are fit?**” Positive relationships between physical activity and physical fitness in children as well as in adults are often demonstrated by significant correlations in cross sectional studies. However in these studies the correlations do not indicate the direction of the relationship. One way to come out of this dilemma is to do a prospective observational study in a population and to compare fitness and in subpopulation of relative active with relative less active subjects. In the Amsterdam Growth and Health Longitudinal Study ca. 300 boys and 300 girls at age 13 years, were followed over a period of almost 25 years till age 36. The aerobic fitness between 13 and 36 years of age is independently and positively related to daily physical activity in both sexes. However, a relatively high increase in the weighted physical activity level over a period of 25 years resulted in a relatively small increase in VO_{2max} . This may indicate that the genetic factors are more important for aerobic fitness than environmental factors such as a daily physical activity.

P.V. Komi (Finland): “**Recent advances in the study of neuromuscular function in vivo**”. Information on the forces produced by individual skeletal

muscles, tendons and ligaments is important to the understanding of muscle mechanics, muscle physiology, musculoskeletal mechanics, neurophysiology and motor control. The methods applied to measure these forces have been both direct and indirect. The study presented buckle transducer technique, optic fiber technique and direct in – vivo forces during normal locomotion. The direct in vivo technique measures reliably the forces in the tendon (and ligament), but the obtained results and relationships cannot, however, be used to generate simultaneously information about the change in length of the muscle fibers, the change in the fiber orientation with the line of force application, and the change in length of the tendons compartment.

P. Oja (Finland): **“New perspectives for the assessment of physical activity and fitness”**. Health – enhancing physical activity and health – related fitness are new concepts developed primarily in the 1990’s based on accumulating research evidence on the relationship between physical activity, fitness and health. These concepts pose new challenges for the research community to develop relevant assessment methodology. The study presented new concepts, perspectives and an overview of methods using in assessing physical activity and fitness. The new conceptually consistent and scientifically sound assessment methods provide necessary tools for their evaluation and monitoring as part of health promotion practices and strategies.

J.S. Skinner (USA): **“Genetics, health and training”**. A person’s health and fitness can be affected by many genetic and non – genetic factors. Examples of non – genetic factors include the environment and a person’s lifestyle. The genotype has an effect on a person’s physical activity, on his fitness and on his health. The study include basic concepts of genetics, general influence of genetic factors, and relationships between genetics and fitness, health and training. The attention of author is focused on genetic influence on VO_2 max and obesity. As is the case with obesity, the majority of health problems today are associated with lifestyle and not heredity. Genetic factors play a major role in how people are and how they respond to training. However, it is practically impossible to predict how a particular individual will respond to a given level or type of training.

W. Starosta (Poland) in his paper entitled **“Science of Human Movements – meaning, name, directions of developments”** presented a

review of literature dealing with the subject. According to the author of the paper, the theory and practice on the science and movement assumes an increasing importance in contemporary life. The aim of the work elaborated on the literature available and on his own experience was to : 1. Define the importance of movement in man's life and in his sport activity. 2. Present the genesis of the development of the science on movement. 3. Present the investigations aiming at the appropriate naming of the science on movement. 4. The attempt to define the reasons for establishing an international organization assembling specialist in the science of movement. According to W.Starosta the last quarter of the 20th century brought an intensification of the research conducted on various issues of this very extensive problem of the science dealing with human movement. Gradually the name of this new, however previously known scientific discipline, has also taken shape. More and more authors are inclined to choose such synonymous notions as: human kinanthropology and kinesiology. The creation of the International Association of Sport Kinetics in year 1990 has significantly accelerated the development of the science which deals with human movement and also has increased the circle of people who are interested in the problem and who indicate the course of research.

P.M. Tiidus (Canada): **“Is massage an effective therapeutic or ergogenic intervention in athletic settings?”** Therapeutic massage is widely practiced on athletes. The study is a review, which look at some of the common benefits claimed by massage therapy, its suggested mechanisms related to healing and recovery from muscular work, and what limited scientific data there currently are to support or refute these claims. It is obvious that much more high quality research is necessary to establish the efficacy of massage in influencing muscle repair and recovery from exercise. The limited evidence currently available does not yet support the use of massage as an important therapeutic intervention in repair of exercise – induced muscle damage, long term muscle relaxation or, in preparation for, or recovery from exercise. Lack of conclusive evidence for the beneficial effects of massage on muscle repair and comfort does not necessarily mean that massage is totally ineffective.

50 of the works presented during the parallel sessions dealt with the following subjects: sport kinetics (part I and II), exercise physiology, combat

sports, the science of coaching and social science. During the two poster sessions a total of 69 works were presented.

Traditionally, during the conference, a General Reporting and Election Assembly of IASK was held. The meeting was divided into a part with the president's and the treasurer's report comprising the two year period (since 1999) and an election part of the IASK presidium for the term lasting to 2003. During the first part those present were informed that IASK numbers about 300 members from 35 countries from all the continents. Due to the Jubilee – 10th anniversary of the Association- the report was of a rather summing-up character. IASK members demonstrated an outstanding activity by organizing 30 international scientific conferences of various extend and by publishing conference materials in different languages (English, Russian, Italian, German, Czech, Slovakian), by creating a special IASK website (www.sportkinetics.com), by publishing course-books about human movement science and sport kinesiology, as well as by editing a journal (i.e. “Anthropomotrics” and later – “Journal of Human Sciences” – J. Szopa). The most active members of the IASK were awarded special diplomas (among other: A.Cicchella, F.Francecchetii, M.Belej, P.Blaser, P.Hirtz, T.Jürimäe, W.Osiński, J.Szopa; K.Anioł-Strzyżewska; MA T.Pawłowa-Starosta). The president, the presidium and the treasurer were granted a vote of acceptance. At the same time a new IASK Presidium was elected for the new term, composed of W.Starosta (president); P.Blaser, P.Hirtz, T.Jürimäe, D.Milanovič (vice-presidents); W.Osiński (general secretary); Dr. med. K.Anioł-Strzyżewska (treasurer); A.Cicchella, B.Jość, V.Ljach, J.Kasa (members), Control Commission: R.Szeklicki, F.Merni, M.Čoh. The members of the Association decided that the place for the next conference “8. Sport Kinetics 2003” will be Bologna – Rimini (Italy) and the host will be the Faculty of Movement Science of the University of Bologna (A. Cicchella will be the director of the conference). It is worth mentioning that the University of Bologna is the oldest establishment of this type in the world, and was set up in 1088. The members of the General Meeting, after a motion proposed by the IASK president, awarded a membership of honor to the outstanding experts in the science of movement: Paavo Komi (Finland) and James Skinner (USA). The newly elected members supplemented the ten-person hitherto existing team G.Schnabel, S.Celikovski,

L.Chkhaidze, H.Rieder, R.Schmidt, R.Trzeźniowski, F.Fetz, H.Kemper, R.Malina, V.Zaciorski During the closing ceremony, awards for the outstanding papers prepared and presented by the young research workers (not possessing any scientific degree yet), were handed. The International Jury headed by P.Hirtz awarded prizes and special IASK diplomas to the following persons: W.Biliński, S.Czyż, K.Kisiel, M.Supińska (University School of Physical Education in Wrocław); J.Konarski (University School of Physical Education in Poznań); V.Brzenczek (University School of Physical Education in Poznan – Institute of Physical Education in Gorzow); Z.Witkowski (University School of Physical Education in Katowice); S.Lucky-Mavrek (University of Pecs, Hungary), J.Maestu (University Tartu, Estonia).

The international conference “7.Sport Kinetics 2001” organized in Tartu was considered as one of the most prestigious and representative scientific event of the Association (in the hierarchy 1-2 place together with the conference organized in Magdeburg). That was not only because representatives of 22 world countries attended (papers from 25 countries), but mainly because both the Scientific Committee of the conference and the speakers of the plenary sessions included world –known experts in the field of human movement. The high substantial standard was achieved by imposing strict requirements concerning papers. Papers sent were subject to severe selection disposed into three qualifying stages: preliminary, abstracts, entire papers. The discipline was dictated by the high standard of the university journal “Acta Kinesiologiae” indexed in the Sport Discus Database and aspiring to a higher international qualification level. Within this context the conference in Tartu will come down to history as one of the best held, and not solely organized by the members of the Association.. There are many indications, however, that the conference “8. Sport Kinetics 2003” organized in Bologna- Rimini may also achieve records in many aspects.