

KINESIOLOGY

International Journal of Fundamental and Applied Kinesiology

PUBLISHED BY FACULTY OF KINESIOLOGY UNIVERSITY OF ZAGREB, CROATIA

Editor-in-Chief

DRAGAN MILANOVIĆ (University of Zagreb, Croatia)

Editors

Stjepan Heimer (University of Zagreb, Croatia), Chief Executive Editor
Milan Čoh (University of Ljubljana, Slovenia)
Vladimir Medved (University of Zagreb, Croatia)
Daniel Bok (University of Zagreb, Croatia), Junior Editor

Editorial Board

Mirna Andrijašević (Zagreb, Croatia)
Branislav Antala (Bratislava, Slovak Republic)
Vadim Balsevich (Moscow, Russia)
Mato Bartoluci (Zagreb, Croatia)
Petr Blahuš (Prague, Czech Republic)
Alfonso Blanco (Barcelona, Spain)
Katarina T. Borer (Ann Arbor, MI, USA)
Gunnar Breivik (Oslo, Norway)
Gerd-Peter Brüggemann (Cologne, Germany)
Gudrun Doll-Tepper (Berlin, Germany)
Marcello Faina (Rome, Italy)
Vladimir Findak (Zagreb, Croatia)
Tetsuo Fukunaga (Saitama, Japan)
Ken Hardman (Worcester, UK)
Vladimir Hellebrandt (Bratislava, Slovak Republic)
Anita Hökelmann (Magdeburg, Germany)
Mike Hughes (Cardiff, UK)
Zdenko Jajčević (Zagreb, Croatia)
Slobodan Jarić (Newark, DE, USA)
Bojan Jošt (Ljubljana, Slovenia)
Toivo Jürimäe (Tartu, Estonia)
Vassilis Klissouras (Athens, Greece)
Paavo V. Komi (Jyväskylä, Finland)
Ronnie Lidor (Netanya, Israel)
Robert M. Malina (Austin, USA)
Joachim Mester (Cologne, Germany)
Marjeta Mišigoj-Duraković (Zagreb, Croatia)
Erich Müller (Salzburg, Austria)
Aleksandar Naumovski (Skopje, Macedonia)
Benno Nigg (Calgary, Canada)
Vladimir Platonov (Kiev, Ukraine)
Ivan Prskalo (Zagreb, Croatia)
Izet Rađo (Sarajevo, Bosnia and Herzegovina)
Roland Renson (Leuven, Belgium)
Antanas Skarbalius (Kaunas, Lithuania)
James S. Skinner (Bloomington, USA)
Claude Sobry (Lille, France)
Emanuel Johannes Spamer (Potchefstroom, SAR)
Włodzimierz Starosta (Warsaw, Poland)
Janko Strel (Ljubljana, Slovenia)
József Tihanyi (Budapest, Hungary)
Dinko Vuleta (Zagreb, Croatia)
Tsvetan Zhelyazkov (Sofia, Bulgaria)

Section Editors

Sport and Sports Activities

M. Čoh, I. Hmelošek, T. Reilly, A. Skarbalius, J. Viitasalo, D. Vuleta

Physical Education

V. Findak, D. Frankl, K. Hardman, J. Labudova, I. Prskalo, J. Strel

Recreation / Leisure

M. Andrijašević, M. Bartoluci, J. Borms, J. Hrčka, C. Sobry

Kinesiological Anthropology

P. Blahuš, K. T. Borer, V. Klissouras, M. Mišigoj-Duraković, W. Starosta, A. Wit

Training Methods

J. Mester, D. Milanović, E. Müller
V. Platonov, I. Rađo, T. Zhelyazkov

Sports Medicine and Physiology of Sport

S. Heimer, T. Jürimäe, P. V. Komi, J. S. Skinner

Biomechanics

G. P. Brüggemann, R. J. Gregor, V. Medved, J. Tihanyi, V. Zatsiorsky

History of Sport

G. Breivik, Z. Jajčević, R. Renson

Book Reviews

N. Vođinac

Indexed in:

American Psychological Abstracts: PsycLIT and PsycINFO

EBSCO Publishing Inc., Current Abstracts

Focus-On: Sports Science & Medicine

Index Copernicus

Science Citation Index Expanded

SCOPUS

Social Science Citation Index

Sociedad Iberoamericana de Información Científica (SIIC) - Argentina

SPORTDiscus Full-Text

Advisory Board

Vihren Bachev (Sofia, Bulgaria), Jan Borms (Brussels, Belgium), Maria Bulatova (Kiev, Ukraine), Robert J. Gregor (Atlanta, GA, USA), Daniel Frankl (Los Angeles, CA, USA), Antony Carl Hackney (Chapel Hill, NC, USA), Nikola Hadjieva (Sofia, Bulgaria), Ivica Hmelošek (Sarajevo, Bosnia and Herzegovina), Wilder Hollmann (Cologne, Germany), Smiljka Horga (Zagreb, Croatia), Jozef Hrčka (Bratislava, Slovak Republic), Jela Labudova (Bratislava, Slovak Republic), Radovan Medved (Zagreb, Croatia), Mladen Mejovšek (Zagreb, Croatia), Janos Meszaros (Budapest, Hungary), Bengt Saltin (Copenhagen, Denmark), Stanislovas Stonkus (Kaunas, Lithuania), Kenneth L. Swalgren (York, PA, USA), Stanko Tonković (Zagreb, Croatia), Jukka Viitasalo (Jyväskylä, Finland), Ilkka Vuori (Tampere, Finland), Andrzej Wit (Warsaw, Poland), Vladimir Zatsiorsky (York, PA, USA)

Proof Editors

Renata Barić, Marija Rakovac

Language Editors

(English, Croatian)

Željka Jaklinović-Fressl, Darija Omrčen

Language Adviser

Elizabeth Harrison Paj

Secretary

Marija Rakovac

Technical Editor/Layout

Srećko Sertić

Printed in 750 copies

Editorial Office

KINESIOLOGY

Faculty of Kinesiology

Horvaćanski zavoj 15, 10000 Zagreb, CROATIA

Tel: +385 1 3658 622; 3658 742; 3658 670

fax: +385 1 3634 146

e-mail: kinesiology.office@kif.hr

URL: <http://www.kif.hr>

Kinesiology (ISSN 1331-1441) is an international journal published twice a year. The annual subscription (2 issues in the English language) is 20 US\$ for Europe and 50 US\$ for overseas. Account number is 2500009-1101232805 by Hypo Alpe-Adria Bank d.d., Zagreb, Croatia. Publishing of the Journal is granted by the Ministry of Science, Education and Sport of the Republic of Croatia and by the Zagreb Sports Association.