

## EDITORIAL

The integrative power of kinesiology lies in the upgrade and linking of knowledge of various disciplines that provide the basis and explain the fundamental natural laws, from which kinesiology originates. The comprehensive, studied and stable laws of nature present the core of questions and the search for answers on the specialties of human functioning during exercise and training, the person's adaptation and optimization of motoric efficiency. Less stable and changeable laws, determined by man, should follow the laws of nature, and they should focus the activity and work, equipment, tools and rules of functioning on good, comfortable and pleasant functioning of individuals as well as on their well being. Unfortunately, this is not always the case. Despite exceptionally rational principles of human organism's functions we have managed to establish various norms, rules and structures during the social development, which in a very irrational way set the individual of today in many traps of the modern society.

In physical meaning, we can, for instance, determine the implementation of any simple movement, movement task as a specific manner of overcoming the force of gravity in the dimension of time, in which each individual is able to implement the movement at the simultaneous impact of the environment and equipment. The quality of movement and its impact greatly depends on the energy ability of the subject and vice versa. The more the movement is harmonized with the functioning and overcoming the forces, against which the individual is acting, the more the movement will be rational, the consumption of energy will be lower and fatigue will be delayed. This is relatively simple, until the human and his laws – rules, challenges and interests interfere. That is why apparently very simple questions remain open, unanswered and very current even today.

Hippocrates warned already 480 BC that the lack of nutrition and exercise leads to disease, in this way he obliged us to study and search for knowledge about the "physical constitution, the power of nutrition and effects of exercise". The greatness of research, which Santorio had introduced later in the future by implementing an experimental approach in introducing measurement in monitoring the changes in human organism, is incomprehensible. When Nicolas Dally merged all these questions for the first time in the embrace of kinesiology (cinesiologie), the path of new science, which we walk on today with numerous open questions, has begun. Knowing history enables us to make more appropriate decisions today. It offers an insight in the fields of work and questions that are especially interesting for us. Based on findings, comparisons, research conducted in the past, we can now learn about the current structure of physical/motor/sport activity. In this way we can establish a view in the future and in preliminary research build new, more appropriate perspectives of kinesiology – a very interdisciplinary and integrative science.

The writings of experts, foreign and local authors, who will expose and explain some very current problems, also complete and continue the path of great researchers. Numerous scientific meetings, conferences and most of all, the most contemporary literature, present a significant contribution to the science of kinesiology. The awareness of the greatness of the pioneers and the enforcement of continuity and tradition is what the third issue of Annales Kinesiologiae encompasses. The dedication to our Honourable Doctor Professor Pietro Enrico Di Prampero and the encouragement for new, younger generations of students reflected in granting the special Santorio Santorio award also prove this awareness.

Prof. Dr. Rado Pišot

## UVODNIK

Integrativna moč kineziološke znanosti je v nadgradnji in povezovanju znanj različnih disciplin, ki ji dajejo osnovo in pojasnjujejo temeljne naravne zakone, v katerih se rojeva. Veliko bolj dorečeni, preučeni in stabilni zakoni narave so izhodišče vprašanj in iskanja odgovorov o posebnostih delovanja človeka med vadbo in treningom, njegovega prilaganja in optimiziranja njegove gibalne učinkovitosti. Manj stabilni in spremenljivi zakoni, ki jih določa človek, naj bi sicer sledili zakonom narave ter aktivnost in delo, opremo, pripomočke ter pravila delovanja usmerjali v človekovo dobro, udobno in prijazno delovanje in dobro počutje. Žal ni vedno tako. Navkljub izredno racionalnim principom delovanja človekovega organizma smo uspeli skozi družbeni razvoj vzpostaviti različne norme, pravila in strukture, ki današnjega človeka na izredno iracionalen način postavlajo pred številne pasti sodobne družbe.

V fizikalnem pomenu lahko, na primer, izvedbo kateregakoli enostavnega gibanja, gibalne naloge opredelimo kot specifičen način premagovanja sile gravitacije v dimenziji časa, v katerem je posameznik zmožen gibanje izvesti ob hkratnem vplivu okolja in opreme. Pri tem sta seveda kakovost izvedbe in njen učinek v veliki meri odvisna od energijske zmožnosti subjekta in obratno. Bolj kot je gibanje usklajeno z delovanjem ali zoperstavljanjem sil, proti katerim deluje, bolj bo racionalno, manjša bo poraba energije, poznejša utrujenost. Zelo enostavno, dokler se ne vmeša človek s svojimi zakoni – pravili, izzivi, interesi. In ravno zato ostajajo še danes nekatera na videz zelo enostavna vprašanja še vedno odprta, neodgovorjena in zelo sodobna.

Hipokrat je že 480 let p.n.š. opozoril, da pomanjkanje prehrane in vadbe vodi v bolezen, in nas zavezal k preučevanju in iskanju znanja o »telesni konstituciji, moči prehrane in učinkih vadbe«. Nepojmljive so veličine raziskav, ki jih je veliko pozneje z eksperimentalnim pristopom in uvedbo merjenja v spremljanje sprememb v človeškem organizmu uvedel Santorio. In ko je Nicolas Dally prvič združil vsa ta vprašanja v objem kineziologije (cinesiologie), se je začela pot nove znanosti, po kateri s številnimi odprtimi vprašanji hodimo še danes. Poznavanje zgodovine nam omogoča sprejemanje ustreznejše odločitve danes. Nudi pogled nazaj na področja in vprašanja, ki nas posebej zanimajo. Na osnovi ugotovitev, primerjav in raziskav pred časom lahko spoznamo, kako je današnja obravnava gibalne/športne aktivnosti strukturirana. Tako lahko izluschimo pogled naprej in na predhodnih raziskavah gradimo nove ustreznejše perspektive kineziologije – izredno interdisciplinarne in integrativne vede.

Prispevki strokovnjakov, tujih in domačih avtorjev, ki vam bodo v nadaljevanju osvetlili nekatere še vedno sodobne probleme, dopolnjujejo in nadaljujejo pot velikih raziskovalcev. Pomemben prispevek kineziološki znanosti predstavljajo tudi številna znanstvena srečanja, konference in vsekakor najsvetobnejša literatura. Predvsem pa je zavedanje veličine predhodnikov in uveljavljanje kontinuitete ter tradicije tisto, kar

spremlja tudi tretjo revijo *Annales Kinesiologiae*. Poklon našemu častnemu doktorju prof. dr. Pietru Enricu Di Pramperu in spodbuda novim, mladim generacijam študentov z oblikovanjem posebne nagrade Santorio Santorio to dodatno dokazuje.

prof. dr. Rado Pišot