

# FACULTY NEWS

FACULTY OF HEALTH SCIENCES AND SOCIAL STUDIES

## TABLE OF CONTENTS:

### DEAN'S OFFICE

The results of the Medical and Health Sciences Section of the 35th National Scientific Students' Association - 1

DIGITUS PRIMUS award for best online lecturers - 4

We need heroes now! - ETSZK online open days - 5

Videos for the new semester too! - 6

Educatio, SZTE Online Open Day - 7

### SECTION OF APPLIED MEDICAL SCIENCES

Published Announcements - 8

### DEPARTMENT OF NURSING

COVID-19 and nursing- 11

The Prevention of burnout - 11

Our Colleague's successful PhD thesis defence - 12

Pál Bakó received the Excellence in the Profession award - 12

### DEPARTMENT OF PHYSIOTHERAPY

Smart devices, therapeutic devices, motion analysis systems - 13



## The results of the Medical and Health Sciences Section of the 35th National Scientific Students' Association

On 9 April 2021, the Medical and Health Sciences Section of the National Scientific Students' Association has finished.

After the opening (on Tuesday) of the OTDK prof. dr. Botond Roska internationally well-known neurobiologist held a presentation. Then followed the scientific presentation of Tamás Roska, which was presented this year by dr. Márió Gajdács, lecturer of the Faculty of Pharmacy of our University. The presentations were from Tuesday afternoon till Thursday afternoon. **Five hundred and twenty nominated students showed their scientific results in 77 divisions.**

The opening ceremony is available on the following link:  
<https://www.youtube.com/watch?v=4LK7G5z9S2Y>

The program of National Scientific Students' Association for high school students was organised on Thursday. Our Faculty was represented by dr. Regina Finta.

<https://www.youtube.com/watch?v=RhfnDIBXZQY>

From our Faculty the following students were participants on OTDK:

### 1. **Orsolya Beták:** *Balance in focus*

*Examination of the influence and simple measurement possibilities of static disorders of holding and foot in childhood.*

Consultant: Dr. Edit Nagy

### 2. **Imola Csőke, Enikő Tóth:** *The role of social support in smoking cessation*

Consultants: Dr. Dávid Pócs, Dr. Oguz Kelemen (SZTE ÁOK)

3. **Lili Duzsik:** *Mitigating the harmful effects of prolonged sitting through physical training and corrective maintenance based on cognitive and digital devices.*

Consultant: Dr. Regina Finta



4. Gabriella Katalin Gaál, Tamás Gergő Kis: *Examination of the incidence and risk factors of stroke in the Emergency Department of SZTE SZAKK. Study of therapeutic adherence to chronic diseases and conditions leading to cerebral vascular disease.*

Consultant: Dr. László Papp

5. Linda Katalin Kovács: *Study of the relationship between dental fear and oral health among young adults*

Consultant: Edit Magdolna Biró

6. Brigitta Mirk: *Improving neuromuscular efficiency by reactivating local stabilizers in the cervical spine - case study*

Consultant: Dr. Andrea Domján

7. Péter Pál Pigniczki : *Domestic data on patients with Myasthenia Gravis*

Consultant: Dr. Gábor Nagy-Grócz

8. Dóra Szabó-Kurucz: *Examination of the relationship of psychological factors related to oral health*

Consultant: Edit Magdolna Biró

9. Hanna Orsolya Vántus, Dóra Gabriella Veszter: *High Intensity Interval Training (HIIT): Balance in strength?*

Consultant: Dr. Regina Finta

10. Ildikó Varga: *Effect of music on running performance*

Consultants: Dr. Petrovszki Zita Hajdúné (SZTE JGYPK), Dr. Regina Finta

11. Bianka Éva Végh: *Consciously in sports, consciously in the here and now. Subtitle: Or why is it essential to develop body awareness in a physiotherapy treatment?*

Consultants: Éva Lobanov-Budai, Tamás Babicz

## Tercier prevenció, fizioterápia, rehabilitáció, ápolás és betegellátás 2.

	Szerző(k)	Témavezető(k)	Támogató
	<b>I. díj</b> Duzsik Lili SZTE - ETSZK	Finta Regina	  Szegei Tudós Akadémia
	<b>II. díj</b> Plajer Alexandra SE - ETK	Dr. Mayer Ágnes Andrea, Szendró Gabriella	
	<b>Különdíj</b> Mirk Brigitta SZTE - ETSZK	Dr. Domján Andrea	
	<b>Különdíj</b> Meher Muhammad Zeeshan PTE - ETK	Dr. Benczúr Béla, Pusztai Dorina	

Based on the jury's decision, the following students were awarded:

**Health Sciences - Tercier Prevention, Physiotherapy, Rehabilitation, Nursing and Patient Care 2nd Grade**

1. prize: Lili Duzsik

Special prize: Brigitta Mirk

**Health Sciences - Tercier Prevention, Physiotherapy, Rehabilitation, Nursing and Patient**

Special prize: Bianka Éva Végh

**Health Sciences - Primary Prevention, Health Visitor's Prevention, Dietetics 3rd Grade**

Special prize: Linda Katalin Kovács

Several of our students have been left out of the named prize by one or two points. Congratulations to all the Students and the consultants!

We would also like to thank all colleagues and students on behalf of the faculty TDT and OTDK organizing committees for their work! In addition, to the lecturers and consultants, many colleagues participated in the jury's work, many of them as chief judges.

Our colleagues also worked importantly in the validation of the protocols, and the students supported the smooth running of the OTDK as technical assistant.

Prof. Dr. László Rovó Rector handed over the baton to Professor Béla Merkely, so the Medical and Health Sciences Section of the 36th OTDK will hold at Semmelweis University in April 2023. The next OTDK will be open to students who have won the right to advance to the local TDK in November 2021 and November 2022.

On behalf of the Organising Committee of the 35th OTDK Medical and Health Sciences Section:



**Orvos- és  
Egészségtudományi  
Szekció**

*Dr. Gábor Nagy-Grócz  
Executive Co-Chair*

*Dr. Berta Edina Héderné  
Dean*

# DIGITUS PRIMUS award for best online lecturers

The epidemiological steps/provision of the months behind us, the change to sustained hybrid education, have brought about significant changes in the lives of both teachers and students. We try to meet the requirements of the situation, both by supporting improvements in learning and by supporting the communication between parties involved in the education process.

The leadership of our faculty also awarded the DIGITUS PRIMUS Award this semester to a teacher who has excelled in the creative and informative implementation of digital education.

Here is a list of our teachers who, according to our students, have prepared the most useful and in-idea online learning materials for distance learning, thereby ensuring high-quality distance learning.

I. place (shared): **Dr. Gabriella Joó**  
**and Tamás Babicz**

II: place: Magdolna **Biró Edit**

III. place: **Dr. Andrea Domján**

Thank you to our students for the voting!



# We need heroes now! - ETSZK online open days

On Saturday, January 16, 2021, and Friday, January 29, 2021, we held an online open day for interested students to listen to the presentations of the departments through Zoom and Google Meet. At the end of the presentations, our instructors answered the questions, and joined the Secretariat of Education conference call to help answer recruitment issues. Before the lectures began, a welcome speech by Ms. Dean on YouTube was made available to the students, and the participants were able to virtually tour the Faculty buildings and halls.



On Saturday, thanks to the weekend, 70 more people visited our online open day, and Friday participants were able to request a certificate.

## Videos for the new semester too!

After the open days, the campus tour video was uploaded to YouTube, and our website in English as well. The International Schooling Office of the University of Szeged also filmed a **promotional video on the site with our international students**, showing the physiotherapy classrooms, labs, and the nursing demonstration room.

During the previous semester, our instructors choose their open lectures, which were made for high school students, available via Zoom or YouTube. From the anatomy of the skeletal system to metabolic syndrome to the role of social work, interested students could take a look at a wide range of lectures. Orsolya Tobak's **Video On Infant Care in Everyday Practice, which quickly reached 1,700 views on the video-sharing channel**, proved particularly popular.

Our students present our video series, and 2-3 students per training program talked about the Faculty, its chosen vocation, and the challenges that come with it.



## Educatio, SZTE Online Open Day

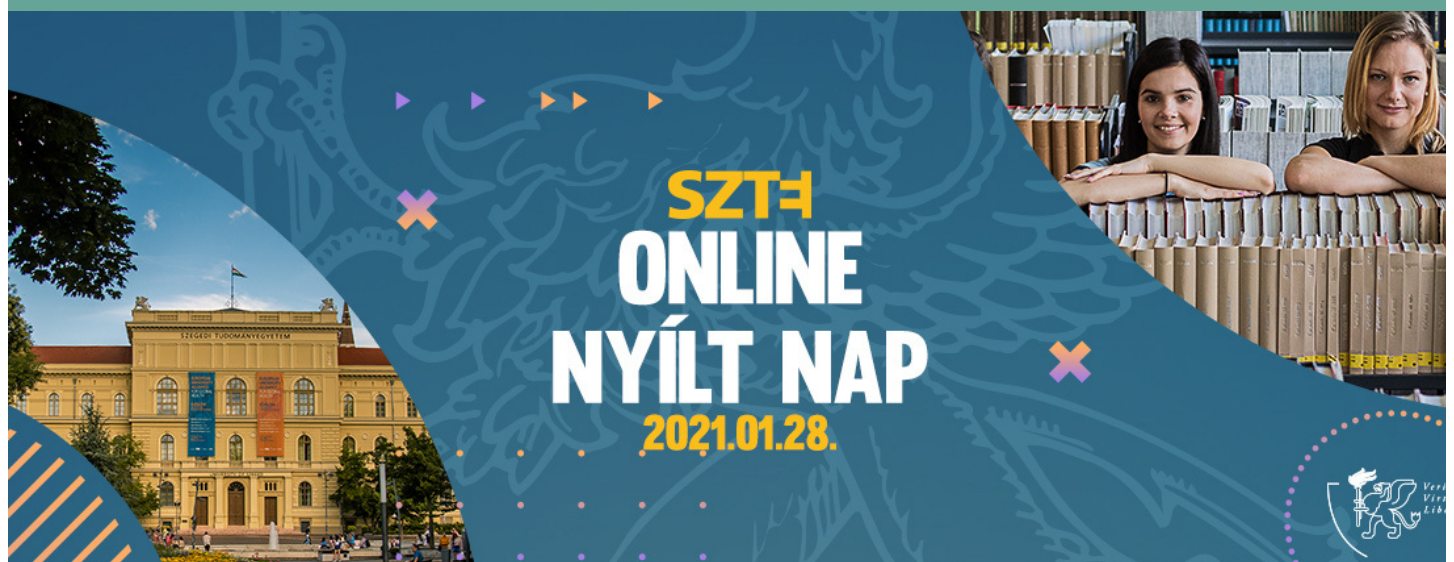
Between 21st and 23rd January 2021, the Educatio - International Education Fair was attended by the University of Szeged, including our Faculty, in an unusual online form this year.

Students were able to contact our colleagues and support students via chat in the online meeting room, **providing information on training, admissions, dormitory accommodation, and student life.**



Photos: [u-szeged.hu](http://u-szeged.hu)

The University of Szeged also organized an open day. Participation of the Faculty was implemented through Google Meet and Zoom **in the form of an online Q&A**. The students who checked in received answers from the Secretariat of Education and a marketing colleague for more general training questions.



## Published Announcements

In her research topic of examining **the connection between the basal ganglia loops and associative learning**, Gabriella Dr. Nagyné Dr. Eördögh published a divided first author's article about children with the obsessive-compulsive disorder during the fall. (Frontiers in Psychiatry IF: 2.849).

<https://doi.org/10.3389/fpsy.2020.571053>

According to their results, the obsessive-compulsive disorder affects the working of the basal ganglia loops; however, it does not cause performance differences in visual and multisensory-guided associative learning in childhood.



### ORIGINAL RESEARCH ARTICLE

Front. Psychiatry. 26 November 2020 | <https://doi.org/10.3389/fpsy.2020.571053>



## Maintained Visual-, Auditory-, and Multisensory-Guided Associative Learning Functions in Children With Obsessive-Compulsive Disorder

Ákos Pertich<sup>1†</sup>, Gabriella Eördegh<sup>2†</sup>, Laura Németh<sup>3</sup>, Orsolya Hegedüs<sup>3</sup>, Dorottya Öri<sup>3</sup>, András Pusztai<sup>1†</sup>, Péter Nagy<sup>3</sup>, Szabolcs Kéri<sup>1</sup> and Attila Nagy<sup>1\*</sup>

<sup>1</sup>Department of Physiology, Faculty of Medicine, University of Szeged, Szeged, Hungary

<sup>2</sup>Faculty of Health Sciences and Social Studies, University of Szeged, Szeged, Hungary

<sup>3</sup>Vadaskert Child and Adolescent Psychiatric Clinic, Budapest, Hungary

As a result of a previous research collaboration a further paper of our colleague was published. . (Diabetes Therapy IF: 3.179 <https://link.springer.com/article/10.1007/s13300-020-00933-8>). In the research, **the connection between smoking, periodontal disease, and diabetes mellitus** was assessed and compared to healthy controls. They found that smoking harms the periodontium of both healthy people and people with diabetes. However, this effect is more pronounced in smokers who have diabetes, although the effect of diabetes on periodontal diseases alone is relatively mild.



Original Research | Open Access | Published: 25 September 2020

## Periodontal Disease in Diabetes Mellitus: A Case–Control Study in Smokers and Non-Smokers

Emese Battancs, Dorottya Gheorghita, Szabolcs Nyiraty, Csaba Lengyel, Gabriella Fördégh, Zoltán Baráth, Tamás Várkonyi & Márk Antal

*Diabetes Therapy* 11, 2715–2728(2020) | [Cite this article](#)

873 Accesses | 1 Altmetric | [Metrics](#)

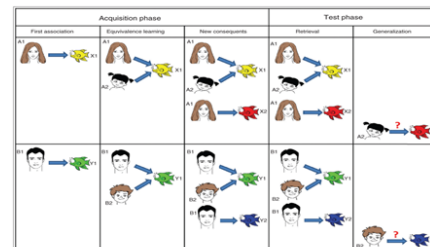
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ISSN 0333-1024 (Print)  
ISSN 1468-2982 (Online)

# Cephalalgia

An International Journal of Headache

The Cephalalgia, the leading journal of headache research, chose the diagram of their article in print on its cover which has been published recently. It was a special honor for the colleagues of the Laboratory of Sensorimotor Research.



Paradigm used for testing visually guided associative learning in pediatric and adult migraine. Adapted from *Cephalalgia* 41/2, 176–184, Z Giricz et al.

- Predicting the response to a triptan in migraine using deep attack phenotyping: A feasibility study  
*M Viana et al.*
- A potential role for two brainstem nuclei in craniovascular nociception and the triggering of migraine headache  
*AS Zagami et al.*
- The relation between the placebo response, observed treatment effect, and failure to meet primary endpoint: A systematic review of clinical trials of preventative pharmacological migraine treatments  
*K Evans et al.*
- Plasma levels of vasoactive neuropeptides in pediatric patients with migraine during attack and attack-free periods  
*F Hanci et al.*

Full table of contents on page 133



International Headache Society

[www.ihs-headache.org](http://www.ihs-headache.org)  
[journals.sagepub.com/home/cep](http://journals.sagepub.com/home/cep)



In March 2021, The Journal of Headache and Pain scientific journal (impakt faktor: 4,797, Q1) accepted the compiled manuscript with co-author Dr. Nagy-Grócz Gábor for communication.

'We activated the trigeminal system, which is also involved in the migraine, in the rat by stimulating their dura mater.' The substance used for stimulation was a mixture called 'inflammatory soup', which triggers the trigeminal activation by the inflammatory substance (e.g., serotonin, histamine). We tested the effect of a known medicine (sumatriptan) and kynurenic acid on migraine. The drug that is also applied **in the treatment of migraine** was able to reduce the immunohistochemical changes as the result of the inflammatory process. Based on our results, kynurenic acid, which was also used in the experiment, blocked inflammation successfully.

The experimental results establish that **the kynurenic acid** can be a promising drug candidate molecule for the subsequent examinations.

The scientific announcement is available free of charge on the following page:  
<https://thejournalofheadacheandpain.biomedcentral.com/articles/10.1186/s10194-021-01229-3>



## The Journal of Headache and Pain

Home About [Articles](#) Submission Guidelines

Research article | [Open Access](#) | Published: 31 March 2021

### Effect of dural inflammatory soup application on activation and sensitization markers in the caudal trigeminal nucleus of the rat and the modulatory effects of sumatriptan and kynurenic acid

[Eleonóra Spekker](#), [Kludia Flóra Laborc](#), [Zsuzsanna Bohár](#), [Gábor Nagy-Grócz](#), [Annamária Fejes-Szabó](#), [Mónika Szűcs](#), [László Vécsei](#) & [Árpád Párdutz](#)

*The Journal of Headache and Pain* **22**, Article number: 17 (2021) | [Cite this article](#)

1 Altmetric | [Metrics](#)

## COVID-19 and nursing

The Nursing Working Committee of the Medical Sciences Commission of the Szeged Regional Committee of the Hungarian Academy of Sciences held its scientific meeting on 19th April, 2021 where the topic was *"THE COVID-19 pandemic from the viewpoint of nursing and nurse training"*.

The invited lecturers presented the challenges besides the patient's bed beyond the general COVID situation and the necessary changes in nurse training. Moreover, changing the student's life and developing the practical part of the education were presented.

Everyone who was interested was welcome!



## The Prevention of burnout



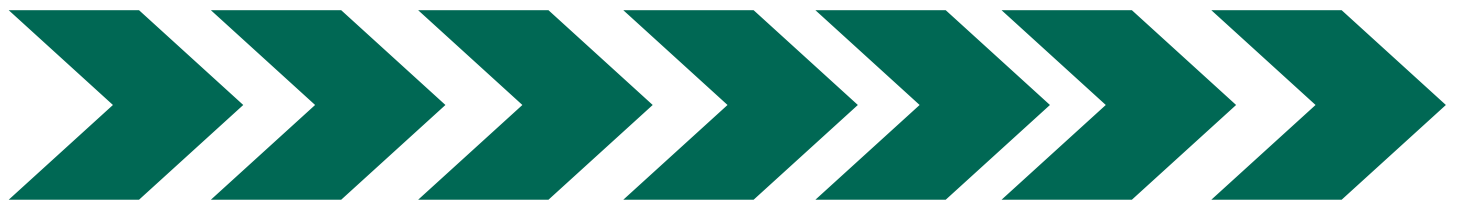
On 6th and 7th May 2021, the Nursing Department held an **OBLIGATORY PROFESSIONAL GROUP FURTHER TRAINING** in the topic of the Prevention of burnout in the form of distance education for the professional groups in the field of Nursing and care of adult patients, Nursing, and care of children, and Emergency care.

All the participants who completed the training received 30 points of further training.

## Our Colleague's successful Ph.D. thesis defence

Angelika Szatmári, the lecturer at the Department of Nursing, **successfully defended her Ph.D. thesis** on 3rd December, 2020 in the theoretical medicine branch of the medical and health sciences of the Doctoral School of Interdisciplinary Medicine in the Faculty of Medicine, University of Szeged..

The title of her doctoral dissertation was *"Impact of paramedical counseling on infertile male patients' coping strategies and care satisfaction"*. With this, our colleague earned a doctoral (Ph.D.) degree Summa cum laude.



## Pál Bakó received the Excellence in the Profession award

Pál Bakó, a master instructor at the Faculty of Health Sciences and Social Studies, University of Szeged, received **the Excellence of the Profession Award** of the Csongrád - Csanád County Organization of the Hungarian Chamber of Health Care Professionals on the Day of Hungarian Nurses. It was emphasized that his vocation in his work was unquestionable.

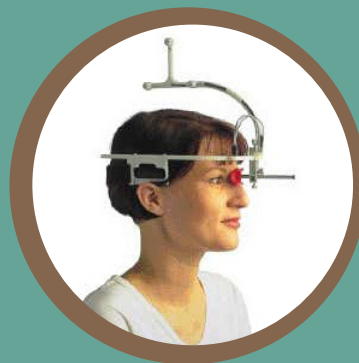


He does quality professional work, and his colleagues consider him an example to follow. By teaching the trainees and new employees in the ward, he participates in the training of the next generation. He completed his master's degree while working. He is one of those that can be looked up to from both a professional and human perspective.

## Smart devices, therapeutic devices, motion analysis systems

Following the handover of the demonstration rooms for developing advanced nursing skills, the Faculty of Health Sciences and Social Studies of the University of Szeged significantly expanded its physiotherapy equipment, financed partly from a tender and partly by the institution. The acquired devices open up new perspectives for students and lecturers in both education and research fields, and now several rare devices enrich the Faculty's stock.

The Zebris CMS-10 ultrasonic measuring system provides a **three-dimensional recording and analysis of posture and spinal movements**. The system can analyze the position, geometry, mobility, and coordination of the spine using the WinSpine Pointer add-on. It is excellent for studying the origin of chronic pain in the lumbar or cervical spine. These problems are becoming more common, already affecting the young adult age group. Dr. Andrea Domján, College Associate Professor studies cervical spine instability. As for the advantages of the newly acquired measuring system, she said that the dysfunction of the sensorimotor control of the cervical spine is also responsible for the development of headaches and dizziness of cervical origin, in addition to local pain. The tool provides the opportunity to analyze the position of the neck and head. Moreover, on an ultrasound basis, it enables the record of the complex functioning of spinal stabilizer structures and control systems, thereby identifying problems of cervical origin and developing an optimal treatment program.



Photos: [WinSpine](#)

Postural control parameters and the gait can also be examined with the POSTUROMED® device, which is part of the system.

Instructors have started using four more new devices in the electrotherapy unit. In this semester, **physiotherapist students are also able to get acquainted with the newly acquired devices.**

The **PHYSIOMED DEEP OSCILLATION®** Personal device **creates resonant vibration on the treated skin** via electrostatic attraction and friction. It has pain reliever, anti-inflammatory, and muscle relaxation effects. Moreover, it helps to reduce and prevent fibrosis, and lymphatic problems.



During treatment, the patient is connected to the device with a neutral titanium element. The other connection surface is a handheld applicator or a special glove.

The instructors of the Department of Physiotherapy, Andrea Korom, and Blanka Bernadett Kasza, demonstrated the working of **PHYSIOMED PHYSIOIMPACT shockwave therapy device**. It stimulates tissues, thereby generating a healing process for diseases, such as tendinitis, golfer's and tennis elbows, or avascular osteonecrosis.



The shock waves directed at the problematic body region mechanically stimulate the tissues, the intensity of the treatment can be adjusted at 25 levels.





Using the **PHYSIOMED IONOSON Expert combined electrotherapy device**, several low and medium frequency treatments can be performed, such as diadynamic current, interference current, medium frequency muscle training, ultrasound, TENS, or Kots muscle training. The device can also be used for suction wave therapy by adding the **PHYSIOVAC** vacuum therapy device.

*The device, combined with vacuum electrodes, facilitates therapy, and due to the adhesion, treatment is also possible in regions that are difficult to access and fix.*



Finally, the purchase of an **OPTIKOP PHYSIO CLASSIC laser device** was also completed. The clinical effects of laser treatment as a physiotherapy treatment include pain relief, reduction of edema, acceleration of wound healing, and reduction of muscle tension. This treatment can be used in sports medicine, traumatology, rheumatology, orthopedics, neurology, otolaryngology, dermatology, dentistry, gastroenterology, urology, and acupuncture.



*High-performance desktop device with diode laser treatment head, as well as with laser shower, goggles, selectable dose, and power control.*

Several recently acquired devices have already proven in the field of research and education. Last semester there was an opportunity to use smartwatches, a breathing trainer, and a mobile spirometer and, at the same time, to study the effects of their use.

*- The use of POWERbreathe K3 is becoming more widespread in healthcare, and has so far been used mainly in pulmonary patients and athletes. However, during my research, I examine the effect of diaphragm training on other torso stabilizing muscles in persons with chronic low back pain - Regina Finta PhD, college associate professor, presented the possibilities of the ten-centimeter digital device. It is suitable not only for training but for examinations, the patient performs deep inhalations through the mouthpiece; thus we can get an idea of the condition of the inhaling muscles.*

Combined with a heart rate monitor smartwatch and chest straps, the Polar Team can monitor the training of up to ten patients at once. - *In the case of uneven trainings, such as strength training or gym workouts, we have not been able to monitor the subject's heart rate continuously,* - Mária Barnai PhD, head of the Department of Physiotherapy, outlined the benefits of the system. *With by Polar Team device, several patients 'performances can be observed on the screen at the same time. It also provides an opportunity to record remarks and notes relating to the movement program.*

- *We have also increased our technical preparedness with a mobile spirometer. The device monitors the amount of oxygen uptake and carbon dioxide emission even in the field due to its portability* - the head of the department continued.



*The Polar Team system allows continuous monitoring of the heart frequency of up to ten athletes / patients at a time. Photo: [elfutbolytecnologia](http://elfutbolytecnologia)*

In addition to the tools presented above, two new treadmills, two stair climbers and a bicycle ergometer will help future generations of physiotherapists studying undergraduate and master's degree to become acquainted with expanded practical possibilities beyond theoretical knowledge.