



Faculty of
Sport Sciences



FACULTY OF SPORTS SCIENCES

E-BULLETIN

Future of Sports, Center of Success Istanbul Gelisim University

DECEMBER 2025

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The 2025 Alumni Reunion was held at IGU.

The 2025 Alumni Reunion, organized under the coordination of the Istanbul Gelisim University Alumni and Members Coordination Office, was held on Friday, December 19th, between 17:00 and 21:00 in the Mehmet Akif Ersoy Conference Hall.



At the event, alumni from different graduating classes gathered on campus to reminisce about their university years and share their academic and professional experiences. Networking sessions were held among the alumni, and discussions focused on strengthening university-alumni relations. The gathering, which attracted significant alumni interest, emphasized the importance of reinforcing institutional belonging and sustainably developing the alumni communication network. At the end of the event, participants were thanked, and it was stated that organizations contributing to strengthening the bond between alumni and the university would continue.

**Obstacles begin in the mind, they
are overcome through solidarity.**



**Faculty of
Sport Sciences**



*The greatest disability
is lack of love.*

December 3

International Day of **Persons with Disabilities**

Filming for the TRT Step by Step Documentary took place at our faculty.

Res. Asst. Bilgehan PEPE

The TRT Adım Adım team filmed at our faculty as part of a documentary series focusing on the campus lives, academic journeys, training, and future goals of national athletes studying on scholarships at foundation universities.

During the filming hosted by our faculty, our student from the Department of Exercise and Sports Sciences, National Wrestler Ahmet Yağın, was our guest.



The process was supported by our Faculty Dean Prof. Dr. Ali Kızılet, our Vice Deans Prof. Dr. Yusuf Can and Assoc. Dr. Mustafa Can Koç, our Faculty Secretariat, Research Assistant Bilgehan Pepe, our department heads, and our esteemed academics.

We thank the TRT Adım Adım team for their dedicated work and wish our student Ahmet Yağın success in his sports career and academic life.

Common Energy Mechanism of Depression and Anxiety Discovered

Res. Asst. Onur TOPUZ

A new study has shown that disruption of energy signals in the hippocampus, a region of the brain that plays a critical role in emotional regulation, can lead to both depression and anxiety. The study revealed that stress reduces ATP levels, which are responsible for cellular energy and communication, and that this reduction triggers behaviours associated with mood disorders.



Researchers have determined that a reduction in the protein connexin-43, which facilitates the release of ATP between brain cells, can cause depression and anxiety-like symptoms even without stress. Conversely, restoring this protein in the hippocampus normalised ATP levels, leading to behavioural improvement. The findings suggest that depression and anxiety may develop through a common biological pathway and could pave the way for new treatments targeting both conditions simultaneously in the future.

<https://www.sciencedaily.com/releases/2025/11/251126025315.htm>

The International Sports Science Congress was held in Erzurum.

Res. Asst. Onur TOPUZ

Prof. Dr. Ali KIZILET, Dean of the Faculty of Sports Sciences at IGU, Assoc. Prof. Dr. Mustafa Can KOÇ, Vice Dean, Dr. Yunus ŞAHİNLER, Deputy Head of the Department of Sports Management, and Research Assistant Muhammed Ali GÖKÇE from the Department of Exercise and Sports Sciences, participated in the 23rd Sports Sciences Congress held in Erzurum. We congratulate our professors, who served as session chairs in addition to giving online presentations, and wish them continued success in their academic careers.



Congress & Conference to be held in 2026

Res. Asst. Muhammed Ali GÖKÇE

1) International Conference on Sport Science – ICSS 2026 (Istanbul)

Date: June 29-30, 2026 Location: Istanbul

The International Conference on Sport Science (ICSS) will be held in Istanbul in the summer of 2026. The conference will include a wide range of scientific sessions on exercise science, sports nutrition, biomechanics, environmental physiology, exercise and health, and will provide a global sharing environment for both academics and research students. Participants will be able to attend presentations, posters and workshops.

<https://conferenceindex.org/event/international-conference-on-sport-science-icss-2026-june-istanbul-tr>

2) IAHPEDS World Congress 2026 (Istanbul)

Date: June 25–28, 2026 Location: Marmara University, Istanbul

The IAHPEDS World Congress, organized by the International Association for Health, Physical Education, Dance and Sport (IAHPEDS), will be hosted by the Faculty of Sports Sciences at Marmara University. It is a major scientific congress that will bring together researchers, academics and professionals on a wide range of topics such as sport, health and physical education.

<https://sporbilimleri.marmara.edu.tr/notice/iahpeds-world-congress-2026-fakultemiz-onculugunde-gerceklesiyor>

3) 22nd Annual International Conference on Sport & Exercise Science (Athens)

Date: July 27–31, 2026 Location: Athens, Greece

The 22nd International Conference on Sport & Exercise Science, to be held in Athens, brings together academics and postgraduate/doctoral students. Studies will focus on sports performance, exercise physiology, educational sciences, and the sharing of applicable research results.

<https://www.conferencealert.net/eventdetail/1634000/>

4) 12th International Conference on Sports Medicine and Fitness (Zurich)

Date: June 15–16, 2026 Location: Zurich, Switzerland

Another pioneering conference in the fields of sports medicine, exercise sciences, rehabilitation, and performance optimization is planned. This event will offer an integrated program with both clinical and scientific sessions. <https://sportsmedicineworld.insightconferences.com>

Structural Transformation in Sports Broadcasting and Sponsorship: DTC Models, Platform Economy, and Fan-Subjectification

Res. Asst. Mustafa Demir

The current sports industry is being restructured around digital platforming, data-driven content production, and consumer-centric economic dynamics. This transformation is leading to the sports product ceasing to be merely broadcast content and becoming a multi-layered cultural and media ecosystem. Studies show that this process is shaped along three main axes: (1) direct-to-consumer platform models, (2) redefining value creation methods in sponsorship and advertising, and (3) positioning the fan as an emotional and identity subject. In this context, the Ligue 1+ OTT platform established by Ligue 1 in France is an experimental example of sports leagues regaining platform dominance through broadcasting. The transition to the DTC model both reduces dependence on intermediaries and restructures the revenue stream through data, the subscription economy, and content diversity. This model, while not creating financial scale matching in the short term, is considered a strategic “corporate security mechanism” in terms of generating negotiating power and institutional resilience in the long term.

The second dimension of the transformation is seen in sponsorship practices with technologies such as Virtual Product Placement.

Advertising elements added to the content later and in a personalized way are shifting the sports economy from visibility-based sponsorship to interaction and sales-oriented value production. Thus, sports content is gaining an identity not only as a broadcast product but also as a dynamic and multi-marketing interface.

The third axis is the transformation of the fan from a consumer to an emotional-cultural subject. Especially young audience groups connect with sports through athletes' personal narratives, emotional closeness, and forms of identity representation.

The rising “athlete-influencer” figure in university sports makes this trend more visible and links the field of sports to identity, belonging, and cultural capital production. This situation transforms sports broadcasting from a purely performance and score-oriented field into a narrative-based social practice.

As a result, the emerging new sports media order is positioned at the intersection of conceptual areas such as platform economy, cultural production, identity construction, and digitized fan experience. This transformation points to a multi-layered paradigm shift that redefines not only the economic structure of sport but also social forms of representation and viewer-subject relations.

Ref: <https://barcainnovationhub.fcbarcelona.com/blog/native-advertising-ott-sports-broadcasting/>

A Healthy Start to the Year: Nutrition and Exercise Support Better Sleep

Res. Asst. Ünal Can GÖKMEN

As the new year approaches, a positive development has been shared for individuals setting healthier lifestyle goals. Recent research published by the American Academy of Sleep Medicine (AASM) reveals that balanced nutrition and regular physical activity significantly improve not only physical health but also sleep quality.

According to the study, 59% of adults stated that balanced nutrition improved their sleep quality, while 42% of participants indicated that morning exercise and 46% said that evening exercise positively contributed to sleep. Individuals in the 25-34 age group showed the highest percentage of positive feedback regarding healthy eating and evening physical activity helping them sleep better.

AASM spokesperson Dr. Kin Yuen emphasized that sleep, nutrition, and physical activity are three fundamental components of healthy living, and that improvements in one area can positively impact the others. It was noted that sufficient and quality sleep reduces the risk of many chronic diseases such as obesity, heart disease, depression, and anxiety.

Experts recommend establishing regular sleep hours, incorporating physical activity into daily life, maintaining a balanced diet, and limiting the use of electronic devices before bedtime as fundamental recommendations for healthy sleep habits. Research findings once again demonstrate that New Year's resolutions don't have to be independent goals; nutrition, exercise, and sleep are interconnected and support each other.

Evening Exercise

How Does it Affect Sleep Quality?

Res. Asst. Ünal Can GÖKMEN

Recent scientific studies have challenged long-held beliefs about the effects of evening exercise on sleep. New findings indicate that low to moderate intensity evening exercise does not disrupt sleep for most individuals, but high-intensity activities require careful planning.

While past sleep guidelines warned that intense exercise before bedtime could make it difficult to fall asleep, current studies show this approach is not valid for everyone. It is noted that when activity intensity is kept under control, evening physical activity is less likely to disrupt sleep patterns.

Dr. Christopher Tanayan, a sports cardiologist at Northwell Health, states that exercises such as evening walks, light cycling, and stretching promote relaxation by reducing stress levels. He emphasizes that these types of activities can facilitate falling asleep by increasing the release of hormones that help the body relax.

On the other hand, it is noted that intense aerobic exercise and heavy resistance training can negatively affect the sleep cycle due to increased body temperature and stress hormone levels. Experts recommend that such high-intensity workouts be completed at least three hours before bedtime, emphasizing the need for sufficient time for the body to enter rest mode. Research shows that the effectiveness of evening exercise depends on individual differences, and that intensity and timing are key factors in sleep quality.

Why might one long walk be better than many short walks?

Res. Asst. Yalçın MARAŞLI

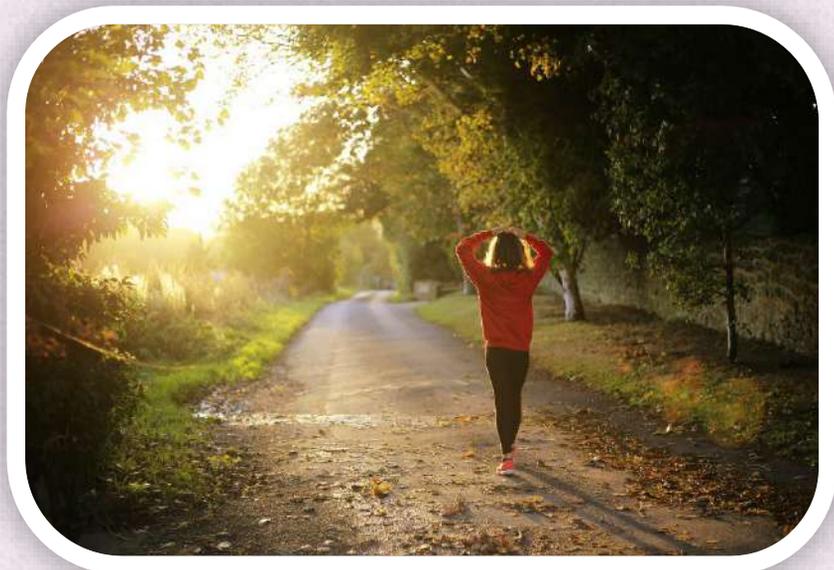
The impact of a walk on health may be directly related to the duration and continuity of the walk rather than the number of steps taken.

Research conducted in the UK on over 33,000 adults with low activity levels revealed that longer, uninterrupted walks significantly reduced the risk of premature death and cardiovascular disease.

The study included individuals who walked 8,000 steps or less per day. The results showed that those who walked in sessions of 15 minutes or more had a lower risk of both all-cause mortality and heart disease compared to those who walked in short bursts.

It was emphasized that longer walks are much more protective for health, especially for individuals who move less than 5,000 steps a day.

Experts suggest that for individuals who find it difficult to increase their daily step count, longer, uninterrupted walks may be more beneficial for their health than short walks.



Flywheel Training Improves Jumping and Speed Performance.

Res. Asst. Ayşe Demet KARADAĞ

The methods used in strength training are crucial not only for increasing muscle strength but also for determining how that strength is transferred to the field. In this regard, flywheel resistance training, a method that has been attracting increasing attention in sports science literature in recent years, has come back into the spotlight with current scientific studies. Flywheel training systems have a different working principle than classic free weight or machine-based strength training. In these systems, the load is based on the rotational inertia of a disc or drum instead of fixed weights dependent on gravity. The athlete accelerates the disc during the concentric phase of the movement; the disc stores this energy and releases it during the eccentric phase of the movement. Thus, the muscles are forced to be highly activated not only when lifting the weight but also when braking the load. Thanks to this mechanism, flywheel training creates high mechanical stress, especially during the eccentric contraction phase, subjecting the neuromuscular system to a strong stimulus. Research shows that eccentric loading provides significant adaptations in muscle strength, tendon endurance, and power production capacity. A comprehensive systematic review and meta-analysis study published in 2024 revealed that flywheel resistance training has significant positive effects on jumping performance, speed-force relationship, and change of direction ability. The study emphasized that flywheel systems increase neuromuscular adaptation, especially in sports requiring explosive power.

According to the research, flywheel training offers a more variable and sport-specific loading model to the muscle-tendon system compared to classical weight training. The fact that the load is not constant, but increases and decreases depending on the force produced by the athlete, requires constant control and coordination during movement. This is considered a significant advantage that facilitates the transfer of strength gains to field performance.

Considering that actions such as jumping, acceleration, deceleration, and change of direction, which are frequently encountered in sports such as basketball, football, and athletics, require eccentric control, it is stated that flywheel training can be an effective tool for these sports. The researchers state that the flywheel method supports not only strength development but also speed, agility, and movement control. Current literature shows that flywheel resistance training, when used with proper planning and appropriate load selection, can gain an important place within modern strength training approaches. In this respect, flywheel systems stand out as a subject that should be carefully examined by sports science students in terms of both training science and neuromuscular adaptations.

References:

Beato, M., & König, D. K. (2024). Current guidelines for the implementation of flywheel resistance training in sports. *Sports Medicine*.

Shimizu, T., Tsuchiya, Y., Tsuji, K., Ueda, H., Izumi, S., & Ochi, E. (2024). Flywheel resistance training improves jump performance: A systematic review and meta-analysis. *International Journal of Sport and Health Science*, 22, 61–75

The Turkish National Olympic Committee's Sports Culture and Recreation Working Group met with leading NGOs in Turkey.

Res. Asst.Sinan DEMİRCİ

The Turkish National Olympic Committee (TMOK) held the first evaluation meeting of its Sports Culture and Recreation Working Group, established to spread sports culture to all segments of society and ensure sustainable social transformation, at the Olympic House. The meeting brought together representatives from civil society organizations and universities operating in the fields of education, health, volunteerism, environmental awareness, and sports. It was emphasized that the main goal of the working group is to create lasting and sustainable collaborations that will ensure the spread of sports culture throughout society, starting from pre-school, by combining the knowledge and social impact of the institutions. **“We Must Make a Stronger Voice Together”**

In his opening speech, TMOK President Ahmet Gülüm stated that sports culture in Turkey is not yet at the desired level and drew attention to the fact that the impact to be created in this area can only be achieved through joint action. Stating that sports are not only a physical activity but also a large industry and a way of life on a global scale, Gülüm emphasized that sports culture should be supported by scientific foundations. Stating that institutions alone cannot create sufficient impact, Gülüm pointed out the importance of joining forces. **“We Will Awaken the Sleeping Heroes”**

Semra Demirer, the Head of the Turkish National Olympic Committee (TMOK) Sports Culture and Recreation Working Group, stated in her speech that sports have a transformative power, especially in the lives of children. Demirer stated that they aim to reveal the potential of children through sports, and that this structure established under the umbrella of TMOK aims to produce social benefits through sports.

Wide Participation, Common Goal

The meeting, held at the Olympic House, was attended by representatives from numerous established civil society organizations and universities operating in the fields of sports, education, health, and the environment. At the meeting, a common will was expressed to implement projects that will make a difference in society as a whole, especially for children and young people, through the unifying power of sports, and to establish a sustainable line of cooperation between institutions. The meeting concluded with the goal of developing joint projects aimed at spreading sports culture.

Integration of Wearable Technologies into Cardiac Rehabilitation and Their Impact on Physical Activity in Elderly Patients

Res. Asst. Şevval ÖZKAN

Cardiac rehabilitation is a comprehensive treatment approach that increases exercise capacity, reduces symptoms, and improves long-term prognosis in individuals with cardiovascular disease. However, the hospital-based nature of these programs, along with geographical conditions, transportation difficulties, and physical or psychological barriers, results in low participation rates, especially in elderly patients. Therefore, there is a need for digital tools that can increase motivation and manage exercise load more safely in out-of-hospital rehabilitation processes.

Although mobile health technologies have been shown to positively influence exercise habits in recent years, the effectiveness of using wearable devices in conjunction with hospital-based cardiac rehabilitation in elderly cardiac patients is not sufficiently known. This study was conducted to investigate the effect of wearable smartwatch (Fitbit Versa 3) support on physical activity and exercise capacity in cardiovascular patients aged 60 and over.

The randomized controlled trial included 39 patients. Participants were divided into two groups: those using wearable watches and those receiving standard care. Patients in the wearable watch group were instructed to monitor their heart rate via the device during exercise and adjust their activity according to the target heart rate determined in the cardiopulmonary exercise test. Assessments were conducted over 12 weeks, and physical activity level was measured using the International Physical Activity Questionnaire. The results showed a significant increase in physical activity level in the group using wearable technology. This increase was expressed as a marked rise in MET-minutes/week values. Significant improvements were also observed in this group in parameters reflecting exercise capacity, such as 6-minute walking distance, peak oxygen consumption (VO_{2peak}), peak MET value, and anaerobic threshold. In contrast, no significant improvement was observed in these variables in the group receiving standard care over the 12-week period. These findings suggest that wearable smartwatch support can increase participation in cardiac rehabilitation, strengthen patient motivation, and enable them to exercise safely outside of the hospital. Especially in elderly individuals, integrating technology into clinical applications can significantly contribute to maintaining physical activity and improving exercise capacity. This study highlights the potential benefits of adding wearable technologies to traditional cardiac rehabilitation programs and provides an important foundation for larger-scale research in the future..

From the International Paralympic Committee Global Impact Strategy

Res. Asst.Selim AKMAN



The International Paralympic Committee (IPC) has published its first “Impact Strategy” document, aimed at strengthening the link between disability and sport. The strategy aims to demonstrate the role of parasport in social change and global inclusion in a measurable, data-driven, and systematic way. In parallel with this strategy, the IPC also released the IPC Impact Insights Catalogue, a global data and best practice catalog.

The new strategy is structured around four main focus areas:

1. Parasport Development – Increasing opportunities for sport and physical activity at all levels for individuals with disabilities,
2. Paralympic Games Legacy – Increasing the social impact of the Games and promoting inclusion,
3. Partnerships and Global Advocacy – Supporting policy change and promoting inclusive practices,
4. Evidence-Based Data – Strengthening data collection, analysis, and research to demonstrate the impact of sport.

IPC officials emphasized that the strategy is a significant step in raising the levels of social participation, awareness, and equality for individuals with disabilities through sport.

<https://www.paralympic.org/news/ipc-launches-new-impact-strategy>



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