İSTANBUL GELİŞİM ÜNİVERSİTESİ 2008

Spor Bilimleri
Fakültesi

FACULTY OF SPORTS SCIENCES

E-BULLETIN

Future of Sports, Center of Success Istanbul Gelisim University

JUNE 2025

SPORBİLİMLERİ.GELİSİM.EDU.TR

Spor Faculty of Sport Sciences Graduation: July 22, 2025

Res. Asst. Fikret KAYHALAK

Assoc. Prof. Dr. Mustafa Can KOÇ Achieves Academic Performance Success

Res. Asst.Fikret KAYHALAK

As part of Istanbul Gelisim University's 2024 Academic Performance Awards, Assoc. Prof. Dr. Mustafa Can KOÇ has achieved a significant success. In the academic evaluations, Assoc. Prof. Dr. Mustafa Can KOÇ ranked 1st within the Faculty of Sport Sciences, 35th in the overall ranking of Istanbul Gelisim University, and 2nd in the category of educational activities. To commemorate this important achievement, Assoc. Prof. Dr. Mustafa Can KOÇ took a photo with the Rector, Prof. Dr. Bahri ŞAHİN, and the Vice-Rector, Prof. Dr. Necmettin MARAŞLI, expressing his gratitude for the support and value shown to him.

It is hoped that his accomplishments will continue to contribute to the academic performance of the university and the upward momentum of the Faculty of Sport Sciences.

Academic Performance Success by Assoc. Prof. Dr. Mehmet SOYAL

Res. Asst.Fikret KAYHALAK

As part of Istanbul Gelisim University's 2024 Academic Performance Awards, Assoc. Prof. Dr. Mehmet SOYAL has achieved a significant success.In the academic evaluations, Assoc. Prof. Dr. Mehmet SOYAL ranked 3rd within the Faculty of Sport Sciences, 69th in the overall ranking of Istanbul Gelisim University, and 6th in the category of educational activities.To commemorate this important achievement, Assoc. Prof. Dr. Mehmet SOYAL took a photo with Rector Prof. Dr. Bahri ŞAHİN, expressing his gratitude for the support and value shown to him.It is hoped that his accomplishments will continue to contribute to the university's academic performance and the upward momentum of the Faculty of Sport Sciences.

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Academic Performance Achievement by Asst. Prof. Dr. Deniz ŞENTÜRK

Res. Asst.Fikret KAYHALAK

As part of Istanbul Gelisim University's 2024 Academic Performance Awards, Asst. Prof. Dr. Deniz ŞENTÜRK has achieved significant success by ranking 2nd in the field of Sports Sciences and 36th in the overall university ranking.This success stands as a testament to Dr. ŞENTÜRK's continuous contribution to educational activities and academic productivity. Seen as a valuable source of motivation within the academic community, this award has also contributed to the upward momentum of the Faculty of Sport Sciences.Asst. Prof. Dr. Deniz ŞENTÜRK expressed gratitude to the university administration, especially to the Rector, Prof. Dr. Bahri ŞAHİN, and the Vice-Rector, Prof. Dr. Necmettin MARAŞLI, for the support and value shown to him.It is hoped that such meaningful achievements will continue to increase in the upcoming period.

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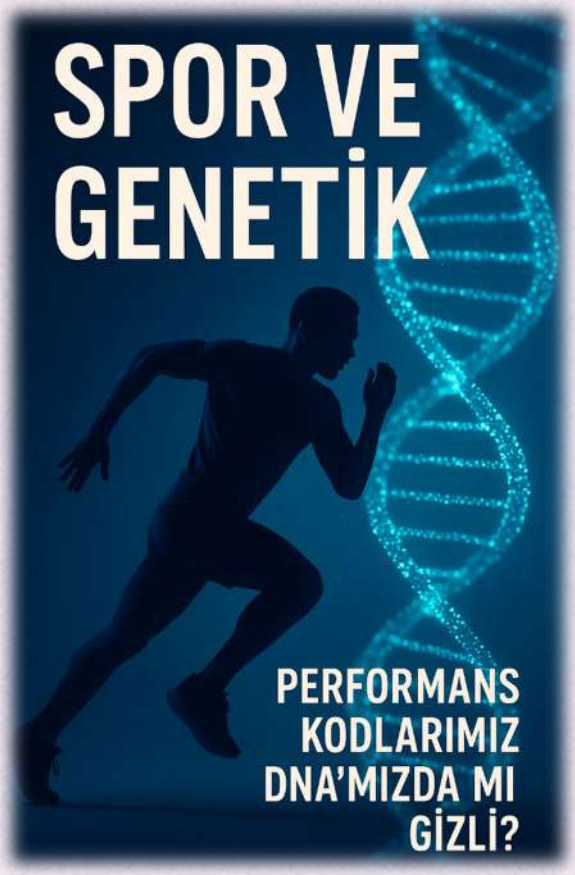
Sports and Genetics: Are Our Performance Codes Hidden in Our DNA?

Res. Asst.Ayşe Demet KARADAĞ



Why can some athletes reach explosive speeds while others race with seemingly endless endurance? Is it just training, or is there a deeper reality behind it? Science gives a clear answer: genetic makeup is one of the fundamental building blocks of performance in sports.

Genes That Shape Performance: ACE and ACTN3

Research shows that certain genes play a decisive role in athletes' physical capabilities. The most notable among them include:ACE Gene: Individuals with the "I" variant tend to have higher cardiovascular endurance. Most marathon runners have the "I/I" form of this gene (Montgomery et al., 1998).

ACTN3 Gene: The "R" variant enables muscles to generate explosive power. A significant majority of Olympic sprinters possess the "RR" genotype (Yang et al., 2003). If you have the "X" variant, your body may perform better in endurance-based activities!

Genetic Testing: The Future of Sports?With genetic testing, it is now possible to predict which sports an athlete may be more inclined towards, what types of training they respond best to, and which injuries they may be more susceptible to. This is ushering in a new era of personalized training in sports.

🎯 For example, while high-volume cardio loading may be ideal for an athlete with the ACE I/I genotype, explosive strength training can maximize performance for someone with the ACTN3 RR genotype.

The Human Genome and the Evolution of Sports

The completion of the Human Genome Project in 2003 revolutionized this field. Since then, genetics-based individualization in sports has been gradually becoming widespread. Today, some elite sports clubs around the world are developing training loads, recovery protocols, and nutrition plans by taking athletes' genetic profiles into account (Pitsiladis et al., 2016).

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AI Hits the Field: University of Pittsburgh Leads a Sports Science Revolution

Res. Asst. Ayşe Demet KARADAĞ

Sports analytics is no longer just about statistics; it is now entrusted to artificial intelligence! In the United States, the University of Pittsburgh has launched a data-driven transformation in sports with its Open Cloud Innovation Center for Health Sciences and Sports Analytics, established in partnership with Amazon Web Services (AWS).At this newly established center, athletes' performance can be analyzed in real time during training sessions, marking a new era in sports data analytics.

Data such as speed, power output, fatigue levels, and movement patterns are tracked through AI-powered systems, providing coaches with instant feedback.Artificial intelligence not only evaluates performance but also predicts injury risks. AI-based analyses can report potential injury probabilities in advance by examining an athlete's balance issues, load levels, and movement deficiencies. This enables the optimization of training content tailored specifically to the individual athlete.The center also has a strong educational dimension, where students work directly with cloud computing, big data, and AI systems, transforming their theoretical knowledge into practical experience and becoming industry-ready graduates.Another striking aspect of the center is its impact beyond sports, providing effective solutions in the health sector as well. Under a $10 million project in collaboration with Leidos, the University of Pittsburgh is using AI systems for cancer screening and the early detection of cardiovascular diseases.This center demonstrates that digital competence is becoming as important as physical capability in sports science. This development, which serves as a major source of inspiration for students and coaches, also sets a strong example for sports faculties in our country in the near future..

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https://www.axios.com/local/pittsburgh/2025/04/24/ai-takes-the-field-at-pitt

Fenerbahçe Beko Crowned EuroLeague Champions for the Second Time

Res. Asst. Bilal GÖK

In the final match of the Turkish Airlines EuroLeague, Europe's leading basketball tournament, Fenerbahçe Beko defeated Monaco to become the champions of Europe.The yellow-navy team secured an 81-70 victory in Abu Dhabi, claiming the EuroLeague title for the second time in the club's history. Fenerbahçe had previously won the EuroLeague championship in the 2016-17 season.Monaco, which ended a 32-year wait for French teams to reach the final, finished the first quarter ahead at 20-18 against Fenerbahçe. However, the Turkish side widened the gap over the next three quarters.Fenerbahçe, winning the match by an 11-point margin, lifted the trophy as team captain Melih Mahmutoğlu made a gesture by handing the cup to Marko Guduric, allowing the Serbian player to raise the trophy in celebration.The final match, held at the Etihad Arena in Abu Dhabi, United Arab Emirates, saw the stands fully packed, with Fenerbahçe supporters filling most of the arena

Volleyball Updates: Foreign Player Rule Revised

Res. Asst.Bilal GÖK

For the 2025-2026 season, clubs competing in Turkey's Sultanlar League and Efeler League will be allowed to include five foreign players in their 14-player match roster, with a maximum of three foreign players on the court at the same time.3+3 RuleStarting from the 2026-2027 season, clubs in the Sultanlar League and Efeler League will be allowed to include six foreign players in their 14-player match roster, while still maintaining the rule of a maximum of three foreign players on the court simultaneously.2+1 Rule in the 1st LeagueFor the 2025-2026 season, clubs competing in Turkey's 1st League will be allowed to register three foreign players. Within a 14-player match roster, they may include three foreign players, with a maximum of two foreign players on the court at the same time.

How a Belgian Lab Is Driving Football's Data Revolution

Res. Asst.Bilgehan PEPE

The Sports Analytics Lab at KU Leuven in Belgium is pioneering groundbreaking work in understanding in-game decision-making in modern football through the power of data analytics and artificial intelligence. Led by Prof. Jesse Davis, the team is developing analyses using big data and machine learning algorithms to interpret shot-taking decisions, ball progression choices, threat creation potential, and spatial utilization on the pitch.The team goes beyond simple statistics, seeking to predict, for example, why a player opts to pass instead of taking a shot from 20 meters out, or chooses to retain possession and attempt a risky dribble in tight spaces. The models aim to explain the mathematics behind these decisions based on the ball's location, opponent defensive structure, and teammates' positions.These studies are not confined to academia alone. Red Bull Leipzig, Club Brugge, and the national teams of Belgium and the United States actively use KU Leuven's advanced data analytics models within their performance departments. By leveraging these models, clubs are not only analyzing current performances but also structuring player recruitment, tactical preparations, and training content based on these scientific foundations.Additionally, the lab produces open-source software, allowing data scientists, coaches, and academics to access these tools, thereby promoting the democratization and widespread adoption of technology and science within the football world.At a time when data-driven models are increasingly replacing intuition-based decisions in football, KU Leuven's work is making significant contributions not only to on-field performance but also to the broader sports science literature.

References: The Belgian lab shaping modern soccer's data revolution, The Guardian, 3 June 2025

A Transparency Move in Sports Science: Global Impact from Barry University

Res. Asst.Bilgehan PEPE

The Human Performance Laboratory at Barry University has launched a comprehensive replication project to highlight reliability issues within sports science. Led by Dr. Zacharias Papadakis, this initiative aims to reassess the reproducibility of existing findings by retesting some of the most cited and widely used studies in the field.As part of the project, over 20 high-impact publications were re-examined following rigorous scientific protocols. The results were striking: only 28% of the studies produced results consistent in direction and magnitude with the original findings. In a significant portion of the remaining studies, the effect sizes were found to be, on average, 75% lower than initially reported.This outcome has once again highlighted the long-standing yet insufficiently addressed “replication crisis” in sports science. The findings emphasize the need to reassess the reliability of classic studies on topics such as caffeine and exercise performance, mental toughness, reaction time, and similar areas.One of the most notable aspects of the project was the active involvement of undergraduate and graduate students in the research process. Through this initiative, Barry University not only provided high-quality research experience within education but also pioneered the development of a transparent, participatory, and critically minded research culture in sports science.According to Dr. Papadakis, this initiative will not only conduct retests but will also contribute to bringing core scientific principles back into the spotlight within the sports science community, including methodology, sample size, validity of measurement tools, and statistical power.

Enhanced Games: Doping-Permitted Alternative Olympics on the Agenda

Res. Asst.Muhammed Ali GÖKÇE

Planned to launch in 2026, the “Enhanced Games” is drawing attention as a competition that permits the use of genetic engineering, performance-enhancing drugs, and biotechnology in athletes. Contrary to traditional anti-doping rules, the goal of this event is to test the scientific limits of human performance. The organization’s investors include Silicon Valley figures such as Peter Thiel. However, the World Anti-Doping Agency (WADA) and many scientists emphasize that this event could lead to serious health and ethical issues.

A Marketing Guide for Sports Events: Focusing on the Audience

Res. Asst.Mustafa DEMİR

Connecting with Fans: The Foundation of Sports Marketing Brands increase ticket sales, licensed merchandise revenue, and digital income by building emotional connections with fans.

The Power of Short Videos Platforms like TikTok, Instagram Reels, and Shorts drive high engagement with 7–30 second videos. Consistent posting significantly boosts reach.

SEO and Helpful Content Google now prioritizes content that answers real audience questions. A "helpful content" strategy has become increasingly important.

Influencers and User-Generated Content Even nano-influencers build trust. Influencer content can be easily integrated into advertising campaigns.

Esports and Virtual Reality Esports, VR, NFTs, and Metaverse technologies offer fans new avenues for unique experiences.

The Impact of Documentaries Sports documentaries help organizations attract large, engaged fan bases.

Participatory Fan Models with DAOsBlockchain-based models like DAOs increase loyalty by including fans in decision-making processes.

Ethical and Purpose-Driven Sponsorships Social and environmental sensitivity strengthens brand loyalty among today's fans.

Reference Porter Wills Sports Marketing Guide

2025 Hybrid Half Marathon!

Res. Asst.Onur TOPUZ

The half marathon held in Beijing, China, on April 19, 2025, became a unique convergence of technology and sports. Alongside over 12,000 human runners, 21 humanoid robots also participated in the event. The robots ran on a separate course, showcasing advancements in both engineering and artificial intelligence.Many of the robots faced various challenges during the race; some fell, overheated, or lost their sense of direction. However, a robot named "Tiangong Ultra," developed by the Beijing Humanoid Robot Innovation Center, drew significant attention by completing the 21-kilometer course in 2 hours and 40 minutes. This performance was seen as a notable improvement compared to the robot's previous attempts.The event was organized to demonstrate China's progress in humanoid robot technology and to raise awareness in this field. Organizers emphasized that the race was not merely a spectacle but also an opportunity to test how robots perform under real-world conditions.This historic race revealed that humanoid robots still have a long way to go in terms of physical endurance and environmental adaptability, while also highlighting the promising potential for future advancements in this area.

Exercise and Sport Sciences in Disability: Leading the Future with Social Awareness and Scientific Responsibility

Res. Asst.Selim AKMAN

The Department of Exercise and Sport Sciences for Individuals with Disabilities is a unique academic discipline that aims to maximize individuals' movement potential while integrating the principles of social equality and inclusivity.This department not only equips students with knowledge of exercise and training but also aims to train professionals who will contribute to the physical, psychological, and social empowerment of individuals.

Today, ensuring that sports are accessible to everyone is an indispensable part of sustainable health policies. At this point, systematic exercise practices and scientifically based training programs aimed at improving the quality of life of individuals with disabilities are increasing the demand for professionals specialized in this field.Students in our department gain comprehensive knowledge through a multidisciplinary approach, taking courses such as anatomy, biomechanics, exercise physiology, adaptive physical activity, and sports in special education, while also having the opportunity to apply their theoretical knowledge in real-life settings through field practices.Graduates of the department have a wide range of employment opportunities, including special education institutions, rehabilitation centers, sports clubs, municipalities, federations, and public institutions, and they make a difference in many professional areas, including academic career opportunities.We invite all prospective students who wish to raise societal awareness and promote the concept of sports for all, and who are ready to act with both scientific and human values, to join the Department of Exercise and Sport Sciences for Individuals with Disabilities. Because we are aware of the importance of making sports possible for everyone.

English Football League Goes Green: “Green Club” Era Kicks Off

Res. Asst.Selim AKMAN

The English Football League (EFL) has launched the “Green Club” initiative to improve clubs’ performance in environmental sustainability. Under this system, clubs in the league will be evaluated based on criteria such as carbon emissions, energy consumption, waste management, and environmentally friendly infrastructure practices.As part of the program, the EFL aims to reduce greenhouse gas emissions by 50% within five years. To achieve this, clubs are expected to transition to renewable energy sources, promote public transportation, develop zero-waste policies, and adopt eco-friendly solutions in matchday operations.EFL Chairman Rick Parry stated:“Football needs to lead not only on the pitch but also in its responsibility towards nature. The Green Club initiative will be a significant step in this transformation.”This move is seen as an important development in bringing the sustainability vision pioneered by the low-carbon model of the Paris 2024 Olympics into the football field. The UK’s pioneering step is also expected to set an example for other leagues across Europe.

NASA and ESA Launch Historic Project: Sports in Space to Begin in 2025!

Res. Asst.Sinan DEMİRCİ

USA – Starting in 2025, the International Space Station (ISS) will implement the "Zero-G Fitness" project to protect astronauts' health. Developed in partnership between NASA and the European Space Agency (ESA), the project aims to prevent muscle loss, bone density reduction, and circulation problems during long-duration missions.Under the new system, astronauts will be able to exercise in a way similar to on Earth using magnetic resistance training equipment. Additionally, with virtual reality modules developed by ESA, astronauts will experience activities like running on a beach or climbing a mountain in a zero-gravity environment using VR headsets. Real-time health monitoring will be conducted using 3D ultrasound and bone density measurements.The project could pave the way for zero-gravity gyms alongside the rise of space tourism. Companies like Blue Origin and SpaceX are planning to integrate these technologies into space hotels.NASA official Dr. Emily Sanchez stated:"This project will help keep astronauts fit during missions to Mars."

Outdoor Recreation: A New Driver of Economic Growth

Res. Asst.Sinan DEMİRCİ

Recent research and reports in the field of recreation reveal that, in addition to its positive impacts on individual health, outdoor recreation is increasingly contributing to economic growth. Outdoor recreation encompasses nature-based sports activities as well as ecotourism, camping, hiking, cycling, water sports, and nature observation. It not only benefits individuals' physical and mental health but also makes significant contributions to economic sustainability.According to 2023 data published by the U.S. Bureau of Economic Analysis (BEA), the outdoor recreation industry has reached multi-billion-dollar economic volumes in many states. For example, in the state of Colorado, the total economic impact of outdoor sports reached $17.2 billion in 2023, accounting for 3.2% of the state's total economic output. The same report noted that the sector provided direct employment to 132,500 people. In Arizona, outdoor recreation generated an economic value of $14 billion, creating approximately 111,000 direct jobs. In Utah, the sector reached $9.5 billion, representing 3.4% of the state's economy while providing employment to 71,900 people.These statistics prove that outdoor recreation is not just a lifestyle but also a growing economic sector. Particularly in the post-pandemic period, the shift toward nature, the preference for physically distanced activities, and the trend toward healthy living have significantly increased the demand for outdoor activities. This increase has transcended the individual level, evolving into an institutional dimension with investments supported by municipalities, the private sector, and educational institutions.Outdoor recreation contributes to local development while also holding strategic importance for promoting tourism in rural areas, encouraging the use of eco-friendly transportation, and supporting sustainable living practices. Especially around bike paths, hiking trails, national parks, and nature conservation areas, the development of recreational infrastructure contributes to raising environmental awareness while also strengthening the concept of sustainable tourism.

A Vital Call for Today's Youth Leaders: Prioritize Vigorous Physical Activity!

Res. Asst.Ünal CAN GÖKMEN

Research Warns: Sports Act as a Shield for Young MindsRecent scientific studies published in 2025 reveal that regular and vigorous physical activity during childhood and adolescence protects not only the body but also the mind.According to a longitudinal study conducted in Sweden, children who were physically active at age 11 had over 20% lower risk of developing depression and anxiety disorders by the age of 18.Experts emphasize that these findings serve as an important warning for the new generation of youth guides—teachers, coaches, and youth workers. The issue is no longer simply about ensuring participation; there is a need to support young people in developing sustainable and vigorous physical activity habits.A striking aspect of the research is that physical activity contributes not only to mental health but also to social cohesion, self-confidence, and cognitive functions. Young people who move regularly take stronger steps both in their studies and in their social relationships.Experts state:"Anyone guiding youth should view physical activity not as an option but as a necessity."The focus of new youth programs should underline that sports are not just a class or a hobby, but the most natural shield for a healthy mind.

Want to Burn Fat and Build Muscle? Workout Order Matters!

Res. Asst. Yalçın MARAŞLI

Recent scientific studies reveal that workout order directly impacts performance for individuals aiming for fat loss and muscle gain.In a three-month study conducted on 45 overweight young men, participants performed 30 minutes of resistance (weight) training followed by 30 minutes of cardio, three times a week, and the outcomes of different workout orders were examined.

What Do the Research Findings Say?

The group that performed weight training first, followed by cardio, showed the highest improvements in body fat percentage, total fat mass, and muscle endurance. The group that started with cardio and then moved on to resistance training also experienced benefits but lagged behind the first group. According to experts, starting resistance training with fresh energy provides a stronger stimulus to the muscles.

What the Experts Say

“Prioritizing resistance training allows individuals to work at a higher intensity.” — Dr. E. Todd Schroeder“Starting with weights means you begin resistance training charged up, which provides a stronger stimulus.” — Dr. Nicholas Mortensen

How Generalizable Are the Findings?

The study is noted to be limited to young, overweight men. Therefore, more data is needed for different age groups and female participants.

Recommendations for Those Following a Training Program

✓ If your goal is fat loss and muscle gain: Do weight/resistance training first, followed by cardio.

✓ If you’re focusing on endurance: Starting with cardio can be a good choice.

✓ Consistency matters: A sustainable program is always the best program.

✓ Keep your body guessing: Occasionally changing the order can create different muscle stimuli.