

12TH MEDICA MEDICINE + SPORTS CONFERENCE

MEDICA

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CONFERENCE**

13 + 14 NOVEMBER 2024

DUSSELDORF GERMANY

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13/14 NOVEMBER 2024
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The MEDICA MEDICINE + SPORTS CONFERENCE ecosystem, was founded in 2013 at MEDICA, the world's largest medical trade show with more than 90.000 visitors and 6.000 exhibitors. The conference has been THE highlight of MEDICA for the past eleven years and will once again be held during MEDICA 2024.

The conference has established as the leading interdisciplinary exchange platform between international sports medicine experts, professional athletes and sport techies, the sporting goods and healthcare industries. The platform fosters new exchange formats, new sport medical therapies, and innovative products for performance medicine, prevention, recovery and population health management. Leading international experts present the latest innovations and approaches in professional and health sports.

SESSION 1 - Longevity – Slowing down the ageing process

Biological age – sleep and regeneration – epigenetics – inflammatory processes – food supplements – brain plasticity

SESSION 2 - Guided Innovation Tour

SESSION 3 - Performance without limits – Understanding performance, injury and movement

Peak performance – individualization – inflammatory processes

SESSION 4 - The future of sports and physical activity

SESSION 5 - Big data and AI – Preventing injuries with tech

Artificial Intelligence – digital twins – wearables – exoskeletons

SESSION 6 - Shark tank of tech innovation in sports and healthcare

Injury prevention – AI – resistance training

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Ticket Info:

- 2-day ticket, 13 + 14 November: 169 EUR (excl. VAT)

Agenda Day 1 // 13 November 2024

13:00 h	Conference welcome and keynote Moderated by Christian Stammel
13:15 h	Session 1 - Longevity – Slowing down the ageing process Biological age – sleep and regeneration – epigenetics – inflammatory processes – food supplements – brain plasticity Dr. med. Lutz Graumann - Doctor for Sports Medicine, Chiropractic & Nutritional Medicine, Author of bestselling fitness books: “ The science of ageing: Key factors influencing the biological age and the role of digital diagnostics (facts and fiction) ” Dr. med. Alen Juginovic - Postdoctoral researcher, Department of Neurobiology, Harvard Medical School, Co-Founder of Med&X and Plexus Conference: “ The impact of sleep on health and lifespan ” Prof. Dr. med. Wilhelm Bloch - Head of Department Molecular and Cellular Sports Medicine, German Sports University Cologne, former Chairman of the Scientific Council of the German Society for Sports Medicine and Prevention: “ Modulation of longevity by physical exercise - The role of epigenetic ” Dr. med. Moritz Völker-Albert - Managing Director of MOLEQLAR analytics: “ Epi-proteomic analyses in popular and competitive sports for personalised training control ”
14:45 h	Networking coffee break

Agenda Day 1 // 13 November 2024

15:00 h	<p>Session 1 - Longevity – Slowing down the ageing process Biological age – sleep and regeneration – epigenetics – inflammatory processes – food supplements – brain plasticity</p> <p>Dr. med. Wouter Vints - Medical doctor in rehabilitation medicine, Lecturer and course coordinator at the faculty of medicine, Maastricht University: “Exerkines enhance cognitive function – Unraveling the molecular pathways”</p> <p>Prof. Dr. Claudia Völcker-Rehage - Professor for neuromotor behavior and training at Münster University, Editorial board member of several publications: “The concept of brain plasticity – Key factor in understanding the process of active aging”</p> <p>Assoc. Prof. Dr. Thorben Hülsdünker - Associate Professor in Performance Neuroscience and Sport Neurophysiology, Head of the Neurophysiology and Motor Control Research Area at LUNEX in Luxembourg: “Train your brain and keep it healthy – Principles of brain training from a sport- and neuroscience perspective”</p> <p>N.N.</p>
16:30 h	<p>Session 2 - Guided Innovation Tour MEDICA SPORTS HUB & WT Wearable Technologies Show</p>
17:30 h	<p>Get-together MEDICA INNOVATION FORUM</p>
18:00 h	<p>End of day 1 of MEDICA MEDICINE + SPORTS CONFERENCE</p>

Agenda Day 2 // 14 November 2024

10:00 h	<p>Session 3 - Performance without limits – Understanding performance, injury and movement</p> <p>Peak performance – individualization – inflammatory processes</p> <p>Eric Leidertsdorf - Director of Biomechanics at P3, California: “Peak performance project - Optimizing performance based on the experience of working with +800 NBA players” (tbc)</p> <p>Dr. med. Christian Schneider - Head physician of the German Bobsleigh and Luge Federation, Chairman of the Association of German Physicians & Prof. Dr. Oliver Werz - Chair of Pharmaceutical/Medical Chemistry, University Jena: “A new understanding of inflammation and the role of Tr14 in achieving peak performance”</p> <p>Prof. Dr. rer. nat. Patrick Wahl - the Head of the Section “Exercise Physiology” at the German Sport University Cologne (GSU), member of the “German Research Center for Elite Sport (momentum)”: “On the way to individualization – A comprehensive approach to metabolic and neuromuscular profiling of swimmers”</p>
12:00 h	<p>Session 4 - The future of sports and physical activity</p> <p>Prof. Dr. Sascha Schmidt - Chair of Sports and Management at WHU, Academic Director of the European Sports Business Program, Lecturer Massachusetts Institute of Technology (MIT) Sports Entrepreneurship Bootcamp: “The future of sport”</p> <p>Dr. Fiona Bull (tbc) - Head of Physical Activity, Dept of Health Promotion at World Health Organization:</p>
13:00 h	Networking Lunch Break

Agenda Day 2 // 14 November 2024

14:00 h	<p>Session 5 - Big data and AI – Personalizing diagnostics, training and injury prevention</p> <p>Artificial Intelligence – digital twins – wearables – exoskeletons</p> <p>Prof. Dr. Yael Nets - Academic College Wingate, Israel, President of the European Group for Research on Aging and Physical Activity: “Personalized exercise programs based upon remote assessment of motor fitness using smartphone technology – A randomized controlled study among older adults”</p> <p>Prof. Dr. Patrick Wahl - Head of the Section “Exercise Physiology” at the German Sport University Cologne, member of the “German Research Center for Elite Sport (momentum)”: “On the way to decision support and digital twins – Diagnostics, monitoring and training in the age of artificial intelligence”</p> <p>Prof. Dr. Moritz Schumann - Head of the Department of Sports Medicine and Exercise Therapy, Chemnitz University of Technology: “The transparent patient – Establishing an ecosystem for wearable-based real time monitoring of remote exercise sessions”</p> <p>Prof. Dr. Bettina Wollesen - Human Movement Scientist, University of Hamburg; Vice President of the German Sports Science Association (dvs): “Adaptable and age-appropriate exoskeletons”</p>
15:30 h	<p>Session 6 - Shark tank of tech innovation in sports and health-care</p> <p>Injury prevention – AI – resistance training</p> <p>Natalie Kerres - CEO and Founder of Scaled: “Protecting superhumans of tomorrow by preventing injuries today”</p> <p>Dr. Daniel Seebacher - Lead Developer and Senior Data Analyst at Subsequent GmbH: “Humans through the eyes of the computer: The revolutionary impact of artificial intelligence on markerless movement analysis”</p> <p>Ass. Prof. Ola Eriksrud (tbc) - Assistant professor at the Norwegian School of Sport Sciences in biomechanics and motor control, 1080Motion: “Portable resistance training”</p> <p>N.N.</p>
16:45 h	Summary and closing remarks
17:00 h	End of the 12th MEDICA MEDICINE + SPORTS CONFERENCE

SPEAKERS & EXPERT COMMITTEE



Prof. Dr. med. Wilhelm Bloch

Speaker

Prof. Dr. med. Wilhelm Bloch is a professor at the German Sport University and the head of the Department of Molecular and Cellular Sport Medicine at the Institute of Cardiovascular Research and Sport Medicine. A recipient of the Venia Legendi for Anatomy and Cell Biology, University of Cologne 2000 (best habilitation 2000 at the medical faculty of the University of Cologne), Prof. Dr. Bloch derived the additional membership of the Medical Faculty of the University of Cologne 2005. He has served as a member of the scientific board of the German Society of Prevention and Sport Medicine since 2008 and from 2011-2018, chairman of this scientific board. Together with this, Prof. Dr. Bloch has been the Vice President of the German Sport Medicine Society 2011 -2018, and a member of the Scientific Committee European College of Sport Science ECSS from 2012-2016. Since 2020 he is editor in chief of the new journal "Translational Medicine and Exercise Prescription".



Dr. med. Lutz Graumann

Expert Committee & Speaker

Dr. med. Lutz Graumann is a specialist in Sports Medicine, Nutrition and Chirotherapy with focus on performance enhancement. He is President of the International Association of Performance Medicine, founder of Sportmedizin Rosenheim and Quest Vitality, head of education at Blackroll, author of the bestselling books „REGENERATION“, "Functional Fascial Training with Blackroll" and „GET FIT TO RUN“, and lecturer at the German Armed Forces Leadership Academy in Hamburg. From 2015 till 2021 he was team physician and Chief Medical Officer for the German Icehockey Federation. He integrates sports and military medicine and cutting-edge technology to create data-based movement, nutrition, recovery and mindset strategies for work and play.



Assoc. Prof. Dr. Thorben Hülsdünker

Speaker

Assoc. Prof. Dr. Thorben Hülsdünker is Associate Professor in Performance Neuroscience and Sport Neurophysiology, Program Leader of the Master Degree in Sport and Exercise Science and Head of the Neurophysiology and Motor Control Research Area at LUNEX in Luxembourg. As a Sport and Neuroscientist, his research focuses on the interrelation between exercise and the brain to develop diagnostics and training supporting health and sport performance.



Dr. med. Alen Juginović

Speaker

Dr. med. Alen Juginović is a medical doctor and postdoctoral researcher at Harvard Medical School's Department of Neurobiology, researching the repercussions of poor sleep quality on health. Additionally, he is an instructor at Harvard Faculty of Arts and Sciences, where he teaches "Neurobiology of Emotions and Mood Disorders." Alen also leads the Organizing Committee for award-winning international conferences, such as the Plexus Conference, which gathered over 2400 participants worldwide, 10 Nobel laureates and prominent leaders in science and medicine to Croatia, his home country, since 2017. He leads a team of physicians and scientists dedicated to researching the impact of sleep quality on athlete performance and facilitating comprehensive sleep quality optimization programs for players.



Prof. Dr. Yael Netz

Speaker

Prof. Dr. Yael Netz is a gerontologist specializing in physical activity in old age. Her research has focused on exercise and cognition, mainly the acute effect of exercise on cognitive and motor inhibition, and personalized exercise programs. She has been the Principal Investigator of a research project granted by the Israeli Ministry of Science and Technology on "Personalized exercise programs for older adults – a digital user-friendly application," collaborating with Hadassah Hospital Jerusalem, and Montfort Brain Monitor. She is currently the President of the European Group for Research on Aging and Physical Activity (EGRAPA), Co-editor-in-Chief of the European Review of Aging and Physical Activity (EURAPA), and Action Vice-Chair of a COST (European Cooperation in Science & Technology) Action titled "Network on evidence-based physical activity in old age."

SPEAKERS & EXPERT COMMITTEE



Dr. Daniel Seebacher

Speaker

Dr. Daniel Seebacher is Lead Developer and Senior Data Analyst at Subsequent GmbH since 2021 with a special focus on interdisciplinary collaboration and the conceptual design and implementation of customer projects based on optical tracking technologies in the health domain (for example, motion assessment, gait analysis). He received his PhD from the University of Konstanz in 2021 on the topic „Visual Analytics of Spatial Events: Methods for the Interactive Analysis of Spatio-Temporal Data Abstractions“. He is involved in over 30 peer-reviewed publications with over 700 citations, additionally he is a reviewer for „IEEE Transactions on Visualization and Computer Graphics“ and the „Eurographics Conference on Visualization“.



Prof. Dr. Moritz Schumann

Speaker

Prof. Dr. Moritz Schumann leads the Department of Sports Medicine and Exercise Therapy at Chemnitz University of Technology, Germany. He received his PhD in Biology of Physical Activity from the University of Jyväskylä, Finland, and did post-doctoral studies at Shanghai Jiao Tong University, China. In 2016, he joined the German Sport University Cologne, completing his habilitation and receiving the *venia legendi* in Clinical Exercise Physiology in 2022. Dr. Schumann co-founded the European INTERLIVE®-Network, developing standards for wearable device validation. He is involved in EU-funded projects enhancing wearable technology in sports and healthcare. He has authored over 90 peer-reviewed publications, seven textbooks, and more than 70 conference abstracts.



Dr. med. Christian Schneider

Speaker

Dr. med. Christian Schneider is an internationally renowned specialist in orthopaedic surgery, sports medicine, and physical therapy. Since 2017, he has led the Orthopädie Zentrum Theresie in Munich, treating patients and athletes worldwide. Previously, he was Chief Physician at the Sports Orthopaedic Institute of the Schön Klinik Munich, focusing on conservative therapy and spinal pathology. He holds several key positions, including Chairman of the Interfederal Commission of FIMS and Chief Medical Officer of the German Bobsleigh and Luge Association. Named "Sports Doctor of the Year 2018," he has co-authored several publications and is a member of the National Research Network for Medicine in Spine and Exercise (MiSpEx).



Christian Stammel

Expert Committee

Christian Stammel is founder and CEO of WT Wearable Technologies Group and Navispace AG. Born in 1969, he successfully enables innovation and cooperation in the Internet of Things and wearables sector. Christian had already founded his first IT company during his university years, which went public in 2000. He is one of the digital pioneers with a track record of over 20 years in IoT and has created some world's firsts including an ECG shirt in 2002. He advises some of the biggest tech companies and organizes with his teams important networking platforms in the US, Europe, Asia and Australia.



Dr. med. Wouter Vints

Speaker

Dr. med. Wouter Vints works as a medical doctor in rehabilitation medicine and is a PhD student at Maastricht University, the Netherlands and Lithuanian Sports University, Lithuania. His research focusses on unraveling the mechanisms underlying the positive effects of physical exercise on cognitive functions, specifically in older adults and persons with spinal cord injury. Being in the fourth year of his PhD, he has already published around 20 articles. Additionally, Wouter set up several international collaborations aiding the research field forward. He won several awards, including the prestigious Livit Trofee for the Dutch resident in rehabilitation medicine with the greatest research impact on the field. Finally, he has mentored several bachelor and master students and works as a lecturer and course coordinator at the faculty of medicine in Maastricht University.



Dr. Moritz Völker-Albert

Speaker

Dr. Moritz Völker-Albert is Managing Director of MOLEQLAR Analytics GmbH and thereby developing robust and insightful analytical platforms to decipher the actual health condition of individuals. Altogether, the company's products are designed to monitor the molecular lifestyle of a person and to improve healthspan based on personalised training data. Before joining MOLEQLAR, Dr. Moritz Völker-Albert was CEO and Co-founder of EpiQMAx GmbH, an innovative epigenetics spin-off from LMU university, Germany, from where he obtained a PhD in biochemistry.



Prof. Dr. rer. nat. Patrick Wahl

Speaker

Prof. Dr. rer. nat. Patrick Wahl is the Head of the Section "Exercise Physiology" at the German Sport University Cologne (GSU) since April 2022 and member of the "German Research Center for Elite Sport (momentum)". He is also Head of the Master-Program „Leistung, Training und Coaching im Spitzensport" at the GSU. From 2020 to 2022 he was Professor for "Exercise Physiology and Training Science" at the MSH Medical School Hamburg. His scientific work focuses on Metabolic performance diagnostics, Development of sport-specific diagnostic camps, Identification of performance determinants, Individualisation in training, Training Load quantification (e.g. using biomarkers), and Development of a physiological-based load control.



Prof. Dr. Bettina Wollesen

Expert Committee & Speaker

Prof. Dr. Bettina Wollesen (Human Movement Scientist) developed within her cross-disciplinary research of the past ten years methods and measurements to evaluate training interventions that reduce cognitive-motor interference (CMI) while walking in daily situations with the focus on biomechanics at the University of Hamburg. Within her work on CMI she got an expertise about the taxonomy of different cognitive-motor task settings and their influence on motor performance. She also integrated her knowledge into framework for understanding CMI in technology development. Moreover, she conducted health promotion programs at the workplace, for example with a special focus on ergonomics and technical development eg. for stress reduction. In addition to that she is the Vize President of the German Sports Science Association (dvs) responsible for the health resort.



Prof. Dr. med. Herbert Löllgen

Expert Committee

Prof. Dr. med. Herbert Löllgen FACC, FAHA, F.FIMS, F.UEMS Education in medicine and sports sciences with State Doctorate MD 1968, Bonn, Germany. Specialist training in internal medicine, occupational and sports medicine at Universities of Mainz, Copenhagen (Bengt Saltin) and German Sports University, Cologne. Qualifications in Internal Medicine, Cardiology 1978 (European Cardiologist), Preventive Medicine, Echocardiography, Lecturer: Gutenberg-University, Mainz (PhD). Vice head cardiology dept. Freiburg Univ., Head of Department of Internal Medicine, Remscheid (1985-2008): Interventional Cardiology, Intensive Care Medicine, Pneumology, Sports Medicine. Space Medicine Consultant for DLR, ESA, and NASA, Houston. Private practice since 2008 (Internal Medicine, Cardiology, Sports Cardiology).



Prof. Dr. med. Rüdiger Reer

Scientific Head of Program & Expert Committee

Prof. Dr. med. Rüdiger Reer is the Secretary General of the German Sports Medicine Association DGSP (Deutsche Gesellschaft für Sportmedizin und Prävention) and Deputy Director of exercise science of Hamburg University, Germany. He is member of the DGSP, American College of Sports Medicine, the European College of Sport Science and Hamburg Sports Medicine Association. Focus of his research is on spiroergometry of swimmers in performance diagnostics, exercise therapies for different disease patterns. In 2000, he won the International Science Award (ICSSPE) in Clinical Sciences in Brisbane, Australia.

SPEAKERS & EXPERT COMMITTEE



Prof. Dr. Ansgar Schwitz

Expert Committee

Prof. Dr. Ansgar Schwitz is professor since 2002 for biomechanics in Sports at the Technical University Munich. He has been Dean of the Faculty of Sports and Health Sciences there since October 2013. After completing his postgraduate and doctoral studies at the DSHS in Cologne, Schwitz received his doctorate in "Movement Technology and Muscular Coordination in Cross-Country Skiing". Since 2019 he is the president of DVS, the German association for sport science.



Prof. Dr. med. Jürgen Steinacker

Expert Committee

Prof. Dr. med. Jürgen Steinacker, Dr. h.c., FACSM, FECSS, is Professor at Ulm University and head of the division of Sports and Rehabilitation Medicine. The division provides outpatient care in cardiology and sports medicine, rehabilitation services for cardiac and cancer patients, a physiology and performance center for top athletes, and a molecular muscle biology laboratory. He was international rower from 1973-84, team doctor of German rowing since 1989, and member of International Rowing Federation (FISA) Sports Medicine Commission since 2000 (since 2017 Chair). Among others, he is Chair of Exercise is Medicine Europe, Chief Editor of the German Journal of Sports Medicine, and vice chair of the Scientific Committee of the German Society of Sports Medicine. He has published 301 original and review papers in peer reviewed journals and is editor of 13 books or special editions.

Conference Venue



Messe Düsseldorf

Congress Center Düsseldorf Süd /
CCD South / Conference Room 2

Stockumer Kirchstraße 61/ 40474
Düsseldorf / Germany

**MEDICA MEDICINE + SPORTS
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Congress Center South,
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**SAVE THE DATE 2025
13TH MEDICA MEDICINE + SPORTS CONFERENCE
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WEARABLE TECHNOLOGIES



Venue

Congress Center Düsseldorf Süd / CCD South / Conference Room 2
Stockumer Kirchstraße 61 / Düsseldorf / Germany

Registration and information at www.medica.de/mmsc2

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