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Funding Acknowledgement

- The PREMUS 2025 Conference is funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) - Projektnummer: 568578049.
  The funding depends on the number of postgraduated participants and may be up to 31.500 €
- The PREMUS 2025 Conference is funded by the German Social Accident Insurance (Deutsche Gesetzliche Unfallversicherung e.V., DGUV) with 10.000 €

PREMUS2025
TÜBINGEN

September 9–12 in Tübingen, Germany

12th International Scientific Conference on the
Prevention of Work-Related Musculoskeletal Disorders

Preventing work-related musculoskeletal disorders in a changing world of work

www.premus2025.com

Table of Contents

Congress Information

12th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders (PREMUS2025)

Preventing work-related musculoskeletal disorders in a changing world of work

Premus2025.com

Organiser

Institute of Occupational and Social Medicine and Health Services Research,
University Hospital Tübingen, Germany
Wilhelmstr. 27 | 72074 Tübingen
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Conference Organisation

Kongress- und Kulturmanagement GmbH
Rießnerstr. 12 B | 99427 Weimar
www.kukm.de

Venue

Hörsaalzentrum Morgenstelle
Auf der Morgenstelle 16
72076 Tübingen

Map, Building 7

CONGRESS INFORMATION

CME-Certification

CME-certification has been granted by the European Accreditation Council for Continuing Medical Education (EACCME).

Opening Hours:

Registration

Tu, 09 th September	7:30 AM – 5:30 PM
We, 10 th September	7:30 AM – 5:30 PM
Th, 11 th September	7:30 AM – 5:30 PM
Fr, 12 th September	9:00 AM – 11:30 AM

Wardrobe

Tu, 09 th September	8:00 AM – 5:30 PM
We, 10 th September	8:00 AM – 5:30 PM
Th, 11 th September	8:00 AM – 5:30PM
Fr, 12 th September	9:00 AM – 11:30 AM

Media collection/check

Tu, 09 th September	8:00 AM – 5:30 PM
We, 10 th September	8:00 AM – 5:30 PM
Th, 11 th September	8:00 AM – 5:30 PM
Fr, 12 th September	9:00 AM – 10:00 AM

Photo/Video

A professional photographer will take photos during the conference, which will be made available to participants after the event. Taking photographs or filming the content during the sessions is strictly prohibited.

Online Programme

Lost & Found

The registration office kindly accepts the lost belongings and keeps them till the end of congress, if not picked up earlier.

Wardrobe

Is to find on the right wing of the entry foyer.

Gastronomy

Participants will be supplied with coffee, tea, water and snacks during the coffee breaks.
For the lunch provided by Mensa Morgenstelle the participants are able to pick a gratis voucher every day at the registration office.

CONGRESS INFORMATION

Taxi and Bus Ticket

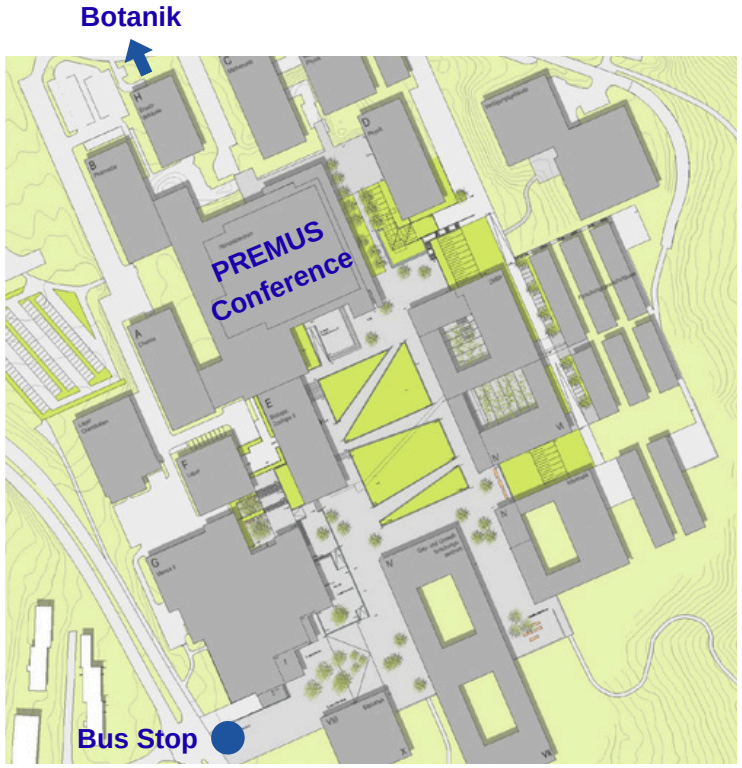
Taxi Zentrale Tübingen +49 70 71 / 920 555

Participants will receive a free bus ticket for the duration of the congress at the registration office if required.

Congress Publication

All conference abstracts are citable and published with open access at PUBLISSO:

Site Plan



Dear Colleagues,

we are very pleased to welcome you to the 12th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders (PREMUS 2025) in Tübingen, Germany. This outstanding international conference is part of the work of the International Commission on Occupational Health (ICOH), especially the ICOH Scientific Committee Musculoskeletal Disorders with contributions by the ICOH Scientific Committees Effectiveness of Occupational Health Services (EOHS) and Work Disability Prevention and Integration (WDPI). The team of the Institute of Occupational and Social Medicine and Health Services Research, University Hospital Tübingen, is proud to host the PREMUS 2025 and developed as the conference´s main topic “Preventing work-related musculoskeletal disorders in a changing world of work”. The inability to work due to musculoskeletal disorders has a significant burden on the economy, healthcare systems and the affected individuals worldwide. Despite the growing body of knowledge on the relationship between working conditions and the development of musculoskeletal disorders, as well as associated achievements in occupational health and safety, working conditions still significantly contribute to the development of work- related musculoskeletal disorders.

Changes in work due to the digitalization of work, new requirements for flexibility in terms of work place and time, as well as the availability of new technologies for risk assessment and enhancing physical and cognitive capabilities of employees

WELCOME ADDRESSES

are constantly posing new challenges and opportunities for the prevention of work-related musculoskeletal disorders. With the main theme of the conference being “Prevention of work-related musculoskeletal disorders in a Changing World of Work”, and a very comprehensive scientific program the conference will address the impact of factors affecting musculoskeletal health associated with the ever-changing world of work.

The PREMUS conference in 2025 is the first international ICOH conference on the Prevention of Work-Related Musculoskeletal Disorders to be held entirely in person since the COVID 19 pandemic to encourage networking and exchange. Therefore, the conference program is designed to ensure that the event serves as a networking platform, providing space and time for scientists and occupational practitioners or other professionals with an interest in work and health to exchange knowledge and gain inspiration for future research and improvement of working conditions as well as health management with regard to work-related musculoskeletal disorders. We look forward to follow your diverse contributions and perspectives on the prevention of work-related musculoskeletal disorders, and hope that the exchange of ideas will inspire new research. We are delighted to host this very renowned international conference at our University of Tübingen, Germany, which is one of Germany´s top universities. With the three guiding principles “Innovative. Interdisciplinary. International“, the University of Tübingen provides excellent research and teaching aimed at finding solutions to future challenges in a globalized society.

We cordially thank the members of the scientific committee of the PREMUS 2025 conference for their very valuable and constant contributions as well as all the helpers from the Institute of Occupational Medicine, Social Medicine and Health Services Research and University and University Hospital of Tübingen for their support in realizing this outstanding event. In addition, we would like to express our special thanks to the German Research Foundation (DFG) and the German Social Accident Insurance (DGUV) for their financial support.

Best regards,
Prof. Monika A. Rieger and Prof. Benjamin Steinhilber

Welcome Speech by Dr. Martin Rosemann Former member of the German Bundestag - Committee on Labor and Social Affairs

The demographic change in our society, combined with the transformation of the world of work due to digitalization and the structural transformation of our economy, requires a proactive labour market and social policy that actively and individually supports employees throughout their working lives. This applies equally to the preservation of human capital through training and to maintaining the health of employees. My guiding principle is the welfare state as a partner that provides unbureaucratic and low-threshold assistance when needed. In recent years, I have been able to contribute to starting this path in Germany. In many respects, however, we are only at the beginning. To be successful, much closer cooperation is required between the various branches of social insurance. And those affected – employees and employers alike – must also be motivated to do so. Impulses from science are both necessary and valuable for this.

Welcome Address by Prof. Dr. Dr. h.c. (Dōshisha) Karla Pollmann President of the University of Tübingen

Dear Scientists from Tübingen and around the world,
Dear international Guests,

Welcome to the 12th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders!
As President of the University of Tübingen, it is my pleasure and great honor to greet you all here today.

Let me first express my heartfelt thanks to the members of the Organizing Committee: Professor Dr. Steinhilber, Professor Rieger, Dr. Luger, Dr. Rind and Dr. Hildenbrand. Without you, this Conference would not be possible. Thank you very much for your outstanding committment!

I would also like to extend my sincere gratitude to the Chairs of the contributing Scientific Committees of the International Commission on Occupational Health. I would like to express our sincere gratitude for your great dedication to the planning of the programme and for your active participation in the conference itself. Thank you Dr. Sharan, Professor Collie, Professor Nieuwenhuijsen, and Dr. Agaba!

Our sincere gratitude is also extended to the German Social Accident Insurance and the German Research Foundation for their financial support. It is truly valuable to have such reliable partners in pursuing our ambitious and promising research initiatives — not only in material terms, but also through their strong ideational and institutional backing.
Sincere thanks are likewise owed to the International Commission on Occupational Health (ICOH), the German Society for Occupational and Environmental Medicine, the German Society for Work Science, the Federal Institute for Occupational Safety and Health and the Federal Ministry of Labor and Social Affairs. This broad base of support reflects both the high regard in which this conference is held and the wide-ranging interest it inspires.

Dear guests, this broad support is ultimately directed toward all of you — the researchers, practitioners, and experts who bring life and substance to this event. It is a great pleasure to welcome so many of you here today.
On behalf of my University, I extend a warm welcome to all speakers of this conference. Many of you have undertaken a long journey - from Denmark, Brazil, or even Australia. Thank you very much for making time in your busy schedules to contribute to this important dialogue in Tübingen!

By contributing the expertise of internationally renowned researchers and practitioners, you are significantly shaping the future of the Institute of Occupational and Social Medicine and Health Services Research at our Tübingen University Hospital. It is particularly fitting that this conference coincides with the 60th anniversary of the Institute.
Since 1965, it has been committed to developing sustainable approaches in occupational health – in research, teaching, andpractice.

As part of our Excellence Strategy at the University of Tübingen, we aim to advance our collaborative research environment, to enhance global awareness in research, training and education, and to engage more fully with society.

In this light, I especially appreciate the international and interdisciplinary character of this conference – and of the Institute itself. The conference not only addresses the pressing challenges of an evolving world of work and of demographic change – both of which are among the major societal issues of our time – but also showcases the full spectrum of research within our Faculty of Medicine: from basic science to clinical research, health services, and implementation research.

Beyond what promises to be a very stimulating exchange of different approaches, viewpoints, and experiences, you will hopefully also have the chance to explore our beautiful town and its surroundings. We hope your stay with us will be both enjoyable and memorable. May this conference be an inspiration for your further research projects – here in Tübingen and beyond.
Thank you!

Welcome Address by Bärbel Bas, Federal Minister of Labour and Social Affairs, Member of the German Bundestag

Ladies and Gentlemen,
PREMUS 2025 participants,

Welcome to the "12th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders". Even a cursory examination of the programme provides ample evidence that the topics you have chosen are at the forefront of today's concerns. The spread of digital technologies, demographic developments and other current challenges in the world of work also raise new questions in the area of occupational disorders and their prevention.

Physical demands on the musculoskeletal system are essential for maintaining good health, but sometimes physical demands result in work-related disorders. Good preventative measures are required to ensure these problems do not arise. Physical demands should be limited to an intensity that activates the musculoskeletal system and keeps it healthy, but does not overtax it. Demands should always be kept to a minimum and health hazards should be avoided wherever possible.

The central instrument of prevention in Germany is risk assessment by employers. Employers must assess the risks to employees at work and determine which health and safety measures are required. This should be done together with employees or their representatives.

The accident insurance institutions and the Federal Institute for Occupational Safety and Health provide various methods for assessing musculoskeletal stress. They help employers find the right health and safety measures. Technical, organisational and finally individual measures need to be developed. Occupational health care also plays a role. Its aim is to recognise work-related disorders at an early stage and, in the best case, to prevent them.
A good example is how heavy loads are handled: For activities involving significantly increased physical strain, such as lifting, holding, carrying, pulling or pushing heavy loads, employers must actively offer employees occupational health care before they start the activity and at regular intervals thereafter.

It is not always possible to prevent work-related disorders, however, even when good measures to that end have been taken. Musculoskeletal disorders have been included in Germany's list of occupational disorders for many decades.
Since it was first published exactly 100 years ago, this list has been constantly expanded. It currently contains eleven disorders relating to work-related damage to the musculoskeletal system. Many of these disorders are widespread.

In such instances, accident insurance institutions are tasked with the challenging job of distinguishing between spinal column damage or knee joint arthrosis caused by work-related strain and that caused by other factors. In order to make this important distinction, it is helpful to use the assessment recommendations that the umbrella organisations of the statutory accident insurance institutions developed in consensus with the relevant medical associations.

WELCOME ADDRESSES

Medical expertise, whether in the form of assessment recommendations or individual expert opinions, is indispensable in the field of occupational disorders to ensure that they are recognised and compensated by the statutory accident insurance.

However, it is equally important to consider the overarching research question of whether there are other disorders that meet the criteria set out in Germany's legislation on occupational disorders. The field of epidemiological research has been generating a wealth of fresh insights in this area.

In Germany, the Medical Expert Advisory Committee on Occupational Diseases is responsible for monitoring the current state of scientific knowledge. It advises the Federal Government on the inclusion of new occupational disorders and on updating information for existing ones. On this basis, three new occupational disorders were added to the list with effect from 1 April 2025, including "lesion of the rotator cuff due to long-term intensive strain on the shoulder".

Without the input of medical experts, it is inconceivable that legislation on occupational disorders can be advanced. Over 100 years, an enormous amount of expertise has been accumulated. This expertise needs to be utilised, but also kept up to date. With this in mind, I hope you enjoy lively discussions and build lasting connections at PREMUS 2025.

Welcome Address by Prof. Dr. Thomas Kraus, MD President of the German Society for Occupational and Environmental Medicine (DGAUM)

Preventing work-related illnesses is becoming increasingly important in light of current social and health policy challenges. Facing demographic change, longer working lives, an increase in employees with reduced performance and a growing proportion of female professionals in formerly male-dominated occupations, innovative and effective prevention approaches are now more essential than ever.

Promoting healthy working conditions and maintaining employability are key tasks for society as a whole. Illnesses – regardless of whether they are work-related – have a significant impact on the entire lives of working people and thus have far-reaching effects on their private lives and on society as a whole.

As a preventive medical discipline, occupational medicine in Germany places particular emphasis on the early detection of employees at risk. Both work-related strain on the musculoskeletal system and individual factors – such as age, gender or pre-existing conditions – play a decisive role in this. Musculoskeletal disorders are the most common cause of sickness-related absences from work in Germany, with a significant proportion directly related to work and working conditions. As these disorders often develop over years of cumulative stress, the underlying risks are not always easy to identify.

The Premus Conference plays a prominent role in this context: as the most important international platform for scientific exchange on the prevention of work-related musculoskeletal disorders, it takes place under the umbrella of the International Commission on Occupational Health (ICOH). We, the German Society for Occupational and Environmental Medicine (DGAUM), very much welcome the fact that this important exchange will take place in Germany this year.

We would like to express our special thanks to the Institute for Occupational Medicine, Social Medicine and Health Services Research in Tübingen, which was founded 60 years ago and is thus one of the oldest occupational medicine institutes in Germany. It is hosting the Premus Conference this year – a testament to its many years of outstanding research work.

We would like to congratulate the institute on its 60th anniversary. The research conducted in Tübingen makes a significant contribution to the prevention of work-related illnesses – a core task of occupational medicine. Companies, employees and the healthcare system alike benefit from the research results obtained from the dedicated researchers at the Institute.

We wish you a successful congress with inspiring and constructive scientific exchange in the spirit of prevention.

Welcome Address by Dr.-Ing. Johannes Brombach President of the German Society for Ergonomics (GfA)

Dear participants of the Premus Conference 2025,
Musculoskeletal disorders (MSDs) represent one of the most prevalent work-related health issues in Europe, affecting millions of workers across various sectors. These conditions result in significant annual economic losses. Despite the increasing integration of technology and the modernization of the workplace, it cannot necessarily be assumed that working conditions have universally improved. The etiology of MSDs remains multifactorial, with both physical overexertion and insufficient physical activity. The subject continues to play a significant role. The Epidemiology of work-related musculoskeletal disorders, constrained postures and the effect of an aging workforce and great diversity of circumstances are typical focus themes. Targeted prevention and reduction of MSDs through innovative measures not only contributes to improving the health and quality of life of employees, but also leads to a reduction in sick leave and an increase in productivity. This means that investments in health protection makes sense both socially and economically. The aim is to provide a comprehensive overview of these topics and to identify directions for future research and practice. The topics of robotics and exoskeletons, risk assessment, return to work and rehabilitation, as well as wearable technologies for exposure detection and assessment, are of critical importance in the field of occupational health.
The GfA (i.e. Gesellschaft für Arbeitswissenschaft or the German Society for Ergonomics) continues to regard the prevention of work-related musculoskeletal disorders as a topic of great importance within Germany. Our network is involved in both national and international activities in the field of work design with the aim of preventing work-related musculoskeletal disorders, and these activities are the subject of ongoing current research. The Tübingen Institute, which was founded 60 years ago and is one of the oldest occupational health institutes in Germany, plays a prominent role in this field. It is therefore a pleasure and an honor for the Society for Ergonomics to contribute to the foreword of the Premus Conference. We are confident that the 12th International Conference on the Prevention of Work-Related Musculoskeletal Disorders will significantly contribute to the advancement of research in the field of musculoskeletal disorders and open up new perspectives for scientific discourse.

Welcome Address by Prof. Dr. Rolf Ellegast Director of the Institute for Occupational Safety and Health of the German Social Accident Insurance (DGUV)

Work-related musculoskeletal disorders (MSDs) are one of the most common causes of incapacity for work in Germany, resulting in significant economic costs. In 2023, for example, MSDs accounted for 19% of all days of incapacity for work, resulting in production losses of €128 billion. The prevention of MSDs therefore is economically sensible.
Yet, what is more: Tackling MSDs helps improve the lives of workers. Preventing these disorders is therefore a key priority for the statutory accident insurance institutions, their umbrella organisation DGUV und particularly its Institute for Occupational Safety and Health (IFA).
With Western workforces growing older und sedentary work being an almost unavoidable result of the progressive digitalization of the world of work, MSDs are gaining in importance.

The German accident insurance system has been involved in research on the prevention of MSDs in the workplace for almost three decades. This commitment bore and still bears fruit: There is a wide range of services to support the prevention of MSD in the workplace. These include, for example, ergonomic assessment methods and the design of human-machine interfaces, as well as guidance on age-appropriate workplace design. Practical tools, such as the MSD risk assessment checklist and the DGUV recommendation on ‘Musculoskeletal workloads, including

WELCOME ADDRESSES

vibrations’ help companies to implement occupational health and safety measures. A more recent approach in Germany the statutory accident insurance institutions and DGUV are supporting, is the so-called individual prevention. This approach targets employees with symptoms or an elevated risk of MSDs, with the aim of preventing the onset or progression of occupational diseases.

Scientific evidence is the prerequisite for any targeted prevention effort. The DGUV therefore conducts ongoing research into current and upcoming challenges, such as the physical inactivity associated with sedentary jobs, the effectiveness of exoskeletons, and the physical workload involved in working with mobile screens. One key tool in this research is the IFA’s CUELA system, which has been successfully used for many years to measure musculoskeletal workload in the workplace and which up to now has also been the subject of many international collaborations.

International cooperation and exchange, e. g. in the Partnership for European Research in Occupational Safety and Health (PEROSH), are precious and economically viable means of achieving faster and more effective research results by pooling resources and expertise. And MSDs are a global problem!

Throughout Europe alone they affect millions of workers. This is why the DGUV takes great pleasure in supporting the PREMUS 2025 conference as an excellent opportunity to foster exactly this kind of exchange.

In this context, special thanks go to the Institute of Occupational and Social Medicine and Health Services Research at the University of Tübingen, which is celebrating its 60th anniversary this year. As one of the oldest institutes of occupational medicine in Germany, it combines research and teaching to a high standard.

The fact that PREMUS 2025 is being held under its scientific leadership in Germany highlights the importance of occupational health research in our country.
The DGUV is proud to be part of this significant event and wishes all participants a fruitful exchange and valuable insights.
Let’s all join forces to advance MSD prevention in the workplace!

WELCOME ADDRESSES

Organising Committee

The 12th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders is organized by the Institute of Occupational and Social Medicine and Health Services Research.

Benjamin Steinhilber

Monika A. Rieger

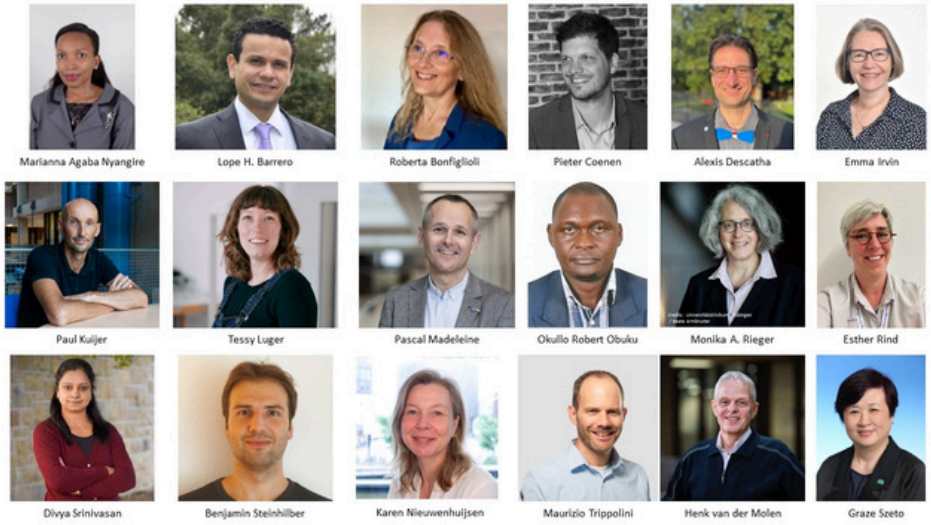
Sibylle Hildenbrand

Esther Rind

Tessy Luger

Scientific Committee of Premus 2025

The Scientific Committee supports the conference organizers in all matters relating to the scientific programme and is made up of people from different professions and nationalities who are all scientifically active in the prevention of work-related musculoskeletal disorders.



Marianna Agaba Nyangire

Dr. Marianna Agaba Nyangire is an Assistant Lecturer of Occupational Health and Safety in the Department of Disease Control and Environmental Health at Makerere University School of Public Health. She also serves as the ICOH National Secretary for Uganda. Marianna is currently pursuing her PhD studies in Public Health at Makerere University. Her research topic is on 'Occupational injury prevention among manufacturing industrial production workers in Kampala's Industrial Business Parks using a Behaviour Based Safety approach'.

Research Interests:

- Behaviour modification in MSD prevention
- Ergonomic hazard management in manufacturing industries
- MSD work place-based rehabilitation programs for injured workers

Lope H. Barrero

Professor of Industrial Engineering at Pontificia Universidad Javeriana, Bogotá. He has a master degree and a doctoral degree in Environmental Health with an emphasis Industrial Safety and Ergonomics from Harvard University, Boston, MA, USA. He has served as chair of the department of Industrial Engineering (2012-2018) and is currently the dean of the School of Engineering at Javeriana (2018-2024). He was editor of the journal Ingenieria y Universidad - Engineering for Development (Scopus) and have participated in numerous projects in occupational health and ergonomics in agriculture, mining, oil&gas, health industry, construction, among others.

Research interests:

- Injury prevention
- Cognitive ergonomics in the digital world
- Occupational epidemiology

Roberta Bonfiglioli

Roberta Bonfiglioli MD is Associate Professor of Occupartional Medicine at the University of Bologna and Staff Physician at the Unit of Occupational Medicine Sant'Orsola Malpighi University Hospital in Bologna. Prof. Bonfiglioli has been Chair of the "Scientific Committee on Musculoskeletal Disorders " of the International Commission on Occupational Health (ICOH) for the triennium 2018-2021, Chair of the Emiliano-Romagnola branch of the Italian Society of Occupational Medicine 2019-2024 and currently degree programme Director-First Cycle Degree Programme in Environment and Workplace Prevention Techniques at the University of Bologna.

Research interests:

- Diagnosis and prevention of work-related musculoskeletal disorders and peripheral neuropathy
- Occupational risk factors in the health care setting
- Wearable sensors for assessing biomechanical exposure and human-cobot interaction

Pieter Coenen

Dr. Pieter Coenen is senior researcher at the Department of Public and Occupational Health in Amsterdam UMC, the Netherlands. He is human movement scientist and epidemiologist by training. In his research and teaching, Pieter likes to focus on what we can do for workers with physically demanding jobs to live healthy working lifes.

Research interests:

- Epidemiological research and ethiology and impact of WRMSDs
- Prevention of WRMSDs
- Interventions for return to work after WRMSDs

Alexis Descatha

Alexis Descatha is Professor of Occupational Health in France (Paris, now Angers). His research focuses on the epidemiology of work disorders, musculoskeletal and other chronic diseases. In addition to his clinical duties (emergency toxicology at CHU Angers), he is involved of developing epidemiological research at Ester team (Irset Lab, Inserm Univ Angers). He is the editor in chief of Archives des maladies professionnelles et de l'environnement (Elsevier, in French). He is also collaborating with USA, and was appointed Clinical Professor of Occupational Medicine, Epidemiology and Prevention at Hofstra/ Northwell, NY.

Research interests:

- Job Exposure Matrices (JEM) for exposure evaluation
- Systematic review and level of evidence
- Health And Safety Workforces

Emma Irvin

Emma Irvin is the director of Research Operations at the Institute for Work & Health (IWH), where she oversees research planning, research operations, information systems and the internal library. She also has an adjunct appointment with the Department of Rehabilitation Sciences at the University of Toronto.
Irvin also oversees the Evidence Synthesis Program at IWH, one of the Institute's key research programs. Her research focuses on the methodology and conduct of literature reviews, from scoping to systematic. She teaches systematic review methods in a number of forums.

Research Interests:

- Evidence syntheses
- Evidence to practice
- Workplace studies

COMMITTEES

Paul Kuijer

Paul Kujier works at the Department of Public and Occupational Health at the Amsterdam UMC, Amsterdam, the Netherlands. In his research, teaching and patient care, he tries to enhance work-integration care and prevention among workers with musculoskeletal disorders in physically demanding jobs.

Research interests:

- Work-integration care and prevention
- workers with knee and hip osteoarthritis and low back pain
- Occupational disease assessments

Tessy Luger

Tessy Luger is head of the "Work Physiology Laboratory" as part of the research unit "Work-related Exposures – Work Design" of the Institute of Occupational and Social Medicine and Health Services Research, University Hospital Tübingen, Germany. She received her PhD in Human Movement Sciences in 2016 from the VU University of Amsterdam, the Netherlands.

Research interests:

- Load change design including work breaks in (repetitive) physical work
- Understanding (individual) risks and intervention responses by physiological and biomechanical parameters
- Exoskeletons for supporting physical work

Pascal Madeleine

Pascal Madeleine is a professor in Sports and Ergonomics at the Faculty of Medicine at Aalborg University, Denmark. He holds a PhD and DSc from Aalborg University. He is currently the head of the graduate school at the Faculty of Medicine.

Research interests:

- Individualized interventions targeting the musculoskeletal system
- Exoskeletons for sustainable physical activity
- Biomechanical field assessments using wearables

Karen Nieuwenhuijsen

Karen Nieuwenhuijsen is an associate professor at the department of Public and Occupational Health, Amsterdam UMC (the Netherlands). As principal educator at the medical faculty, she works on protecting the mental health of medical students. She has been secretary of the ICOH-WDPI Scientific Committee since 2022.

Research interests:

- Prevention of mental health problems of workers & students
- Menopause and work
- Return to work of workers with mental health problems.

Okullo Robert Obuku

Dr. Okullo Robert Obuku is an Occupational Medical Practitioner at Work Health Consult Limited, a private company that provides occupational health services to various organizations and companies in the energy, service, transport and manufacturing sectors in Uganda. He obtained his postgraduate diploma in Occupational Health from the University of Cape Town (UCT).

Research interests:

- Work-related musculoskeletal disorders and rehabilitation
- Occupational health effects in Call Centres
- Mental ability and demands in the workplace

Monika A. Rieger

Monika A. Rieger is head and medical director of the Institute of Occupational and Social Medicine and Health Services Research, University Hospital Tübingen, Germany, and professor for occupational and social medicine at the University of Tübingen, Germany. She is a medical doctor and occupational health physician by training. In 2019, Monika A. Rieger was awarded the Joseph-Rutenfranz-Medaille by the German Society for Occupational and Environmental Medicine for her scientific work in the field of work physiology.

Research interests:

- Evidence-based occupational health with focus on work-related musculoskeletal and psychosocial stress and strain
- Health services research with focus on work ability and work participation
- Professional identity and competencies of occupational health physicians

COMMITEES

Esther Rind

Esther Rind is head of the research unit ‘Health Care for People of Working Age’ at the Institute of Occupational and Social Medicine and Health Services Research, University Hospital Tübingen, Germany. She received her PhD in 2012 from the University of East Anglia, School of Environmental Sciences, UK. She is currently pursuing her postdoctoral qualification (habilitation) in ‘occupational health services research’ at the Eberhard Karls University, Tübingen, Germany.

Research interests:

- Determinants of worker health and well-being
- Work-related psychosocial demands, stressors and resources
- Reducing social and health inequalities

Divya Srinivasan

Dr. Divya Srinivasan is a Professor of Industrial Engineering and BioEngineering at Clemson University in USA. She directs the occupational biomechanics and physical ergonomics laboratories at Clemson. Her research is broadly focused on assessing risk factors for work-related MSDs, and evaluating interventions targeted to improve human health and performance in occupational settings. Her current work spans across several domains of work health and safety, including basic biomechanical assessments of the neck-shoulder, low-back, and lower-limb regions in diverse occupational tasks; effects of neuromuscular impairments on movement control; muscle loading and performance; and mixed-methods evaluations of benefits and risks of emerging robotics technologies such as exoskeletons.

Benjamin Steinhilber

Benjamin Steinhilber is head of the research unit ‘Work-related Exposures – Work Design’ of the Institute of Occupational and Social Medicine and Health Services Research, University Hospital Tübingen, Germany. He received his PhD in Sports Science in 2013 from the Technical University of Chemnitz, Germany and his postdoctoral qualification (habilitation) in work physiology and ergonomics in 2020 from the Eberhard Karls University Tübingen, Germany.

Research interests:

- Health hazards due to prolonged standing at work
- Exoskeletons for supporting physical work
- Load changes and their effect on the musculoskeletal-system

Grace Szeto

Prof. Szeto is the Acting Dean, School of Medical & Health Sciences and Programme Leader of BSc. (Physiotherapy) in Tung Wah College, Hong Kong. She has been actively involved in research on ergonomics and biomechanics for over thirty years.

Research interests:
- Motor control mechanisms for neck pain
- Maladaptive posture and muscle activity in office workers and smartphone users
- Biofeedback interventions vs exercise interventions for neck pain

Maurizio Trippolini

Maurizio Trippolini is lecturer and scientist at the Department of Health Professions of the Bern University of Applied Science and works in the Insurance Competence Center of the AEH Corporate Health Experts in Bern, Switzerland. He leads the research unit "Work Disability Prevention" which focuses on research on evaluation of and interventions for workers with musculoskeletal injury in compensable settings. He was trained as physiotherapist (2000) and holds a PhD s.o. (2014) in medical sciences from the Department of Rehabilitation Medicine, University of Groningen in the Netherlands. He is board member of the Swiss Insurance Medicine (SIM). Dr. Trippolini brings a broad professional experience as a rehabilitation clinician, research scientist, educator, and health care leader. Dr. Trippolini studied and worked in Switzerland, the Netherlands, and the United States.

Research interests:
- Work capacity evaluation measures
- Interventions for injured workers in compensable settings

Henk van der Molen

Henk F. van der Molen is a human movement scientist / epidemiologist and has a PhD regarding implementation of ergonomic measures, MSc in epidemiology, BAA in physical therapy. He is working as chair of the section clinical occupational medicine & occupational diseases, head of the Netherlands Center for Occupational Diseases and principal investigator at the department of Public and Occupational Health, all part of the Amsterdam UMC.

Research interests:
- Occupationial epidemiology
- Prevention of work-related diseases
- Etiology of occupational diseases

Invitation to the business meeting of the Scientific Committee Musculoskeletal Disorders of the International Commission of Occupational Health

Wednesday - September 10, 2025 - 5:30 to 7:00 PM – Location: N1

We hereby cordially invite you to the business meeting of the Scientific Committee Musculoskeletal Disorders (SC MSD) of the International Commission of Occupational Health (ICOH) as part of the Premus 2025 conference.

Focus and aim of the SC MSD:
- To contribute to science on the topic of musculoskeletal disorders and occupational health
- To develop consensus criteria on relevant issues for the prevention and managing of musculoskeletal disorders in the occupational setting, feasible at international level.

Get-Together

8th September 2025 at the Alte Aula / Entry from 5:30 PM
Address: Münzgasse 30 | 72070 Tübingen
The participants of the Get-Together will be able to pick up the congress badge at the venue.

Opening Ceremony

9th September 2025 at 8:30 AM in Room N6
With welcome addresses from

- Monika A. Rieger, Co-Chair of the Premus Conference
- Karla Pollmann, President of the University of Tübingen
- Martin Rosemann, Former Member of the German Bundestag - Committee on Labor and Social Affairs
- Deepak Sharan, Chair of the ICOH Scientific Committee Muskuloskeletal Disorders
- Benjamin Steinhilber, Co-Chair of the Premus Conference

60 Year Anniversary of the Institute of Occupational and Social Medicine and Health Services Research, University Hospital Tübingen

11th September 2025 at the “Botanic” building in Rooms N10/N11

Gala Dinner

11th September 2025 at the Restaurant 1821 / Entry from 7:00 PM
Address: Wilhelmstraße 3 | 72074 Tübingen
Web: https://www.1821tuebingen.de/
If you are interested in taking part at the Gala Dinner, the registration office will be happy to assist you.

Guided City Tour Tübingen

Tuesday, 09.09.2025, starting at 6:30 PM
Duration: 1,5 hours
Meeting Point: Tourist & Ticket-Center, An der Neckarbrücke 1, 72072 Tübingen

Guided Tour at the Hohentübingen Castle Museum

Tuesday, 09.09.2025, starting at 6:30 PM
Duration: 1 hour
Meeting Point: Alte Kulturen | Sammlungen im Schloss Hohentübingen, Burgsteige 11, 72070 Tübingen

Guided City Tour Tübingen

Wednesday, 10.09.2025, starting at 6:30 PM
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Guided Tour at the Hohentübingen Castle Museum

Wednesday, 10.09.2025, starting at 6:30 PM
Duration: 1 hour
Meeting Point: Alte Kulturen | Sammlungen im Schloss Hohentübingen, Burgsteige 11, 72070 Tübingen

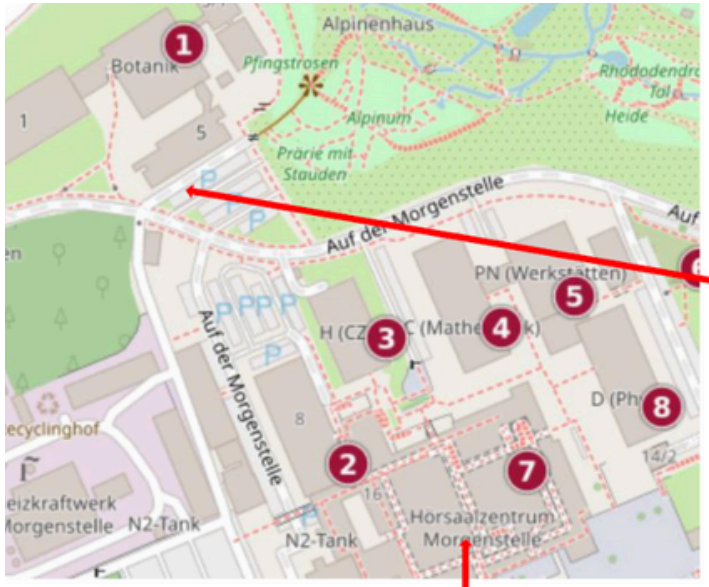
Factory visit Ritter Sport

Friday, 12.09.2025
Starting at 1 PM from the Congress Venue, Returning at 6 PM at Tübingen Central Station

Factory visit Porsche

Friday, 12.09.2025
Starting at 1 PM from the Congress Venue, Returning at 6 PM at Tübingen Central Station

Meeting point information for factory visits:

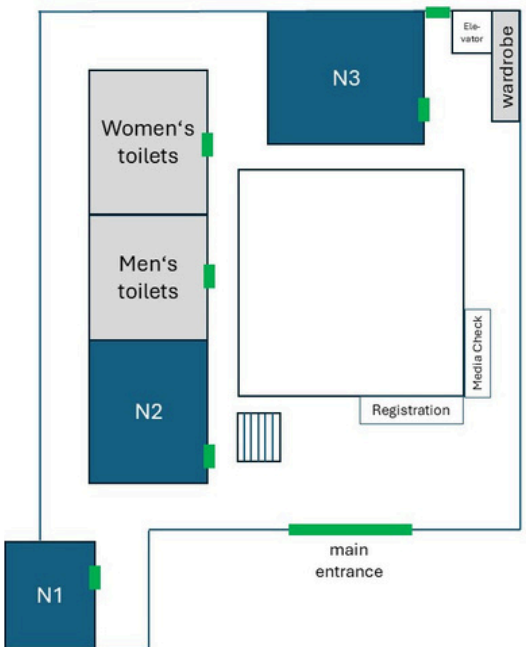


2. About here the bus is waiting

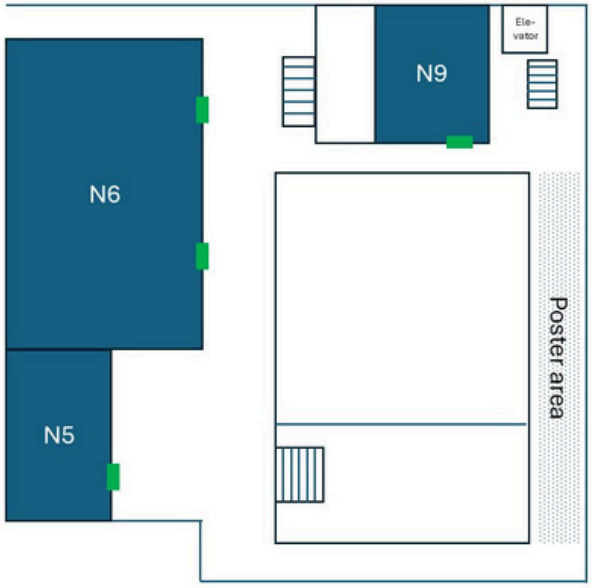
1. You are here:
"Hörsaalzentrum Morgenstelle"

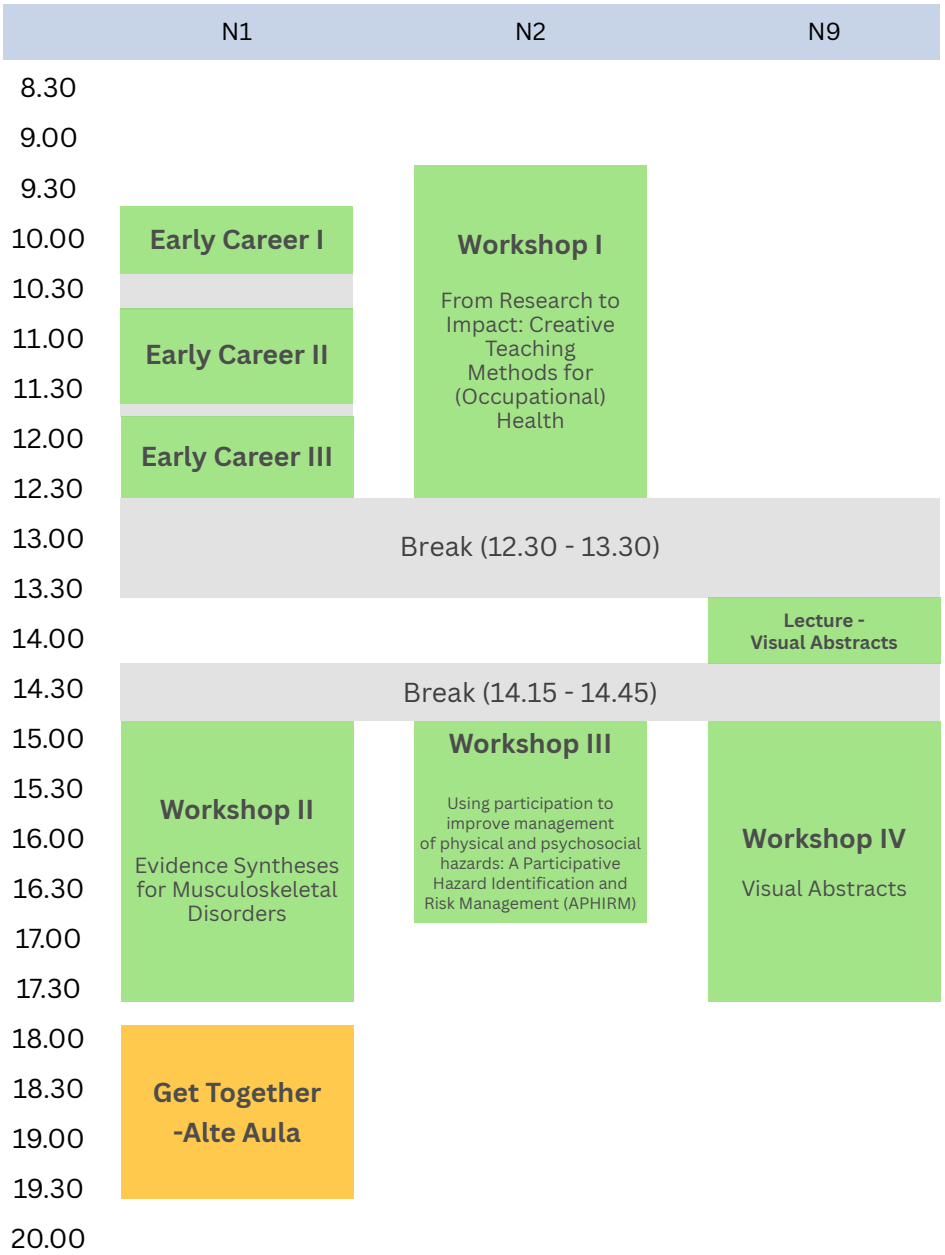
Room Plan

First Floor



Second Floor





Workshops N1

9.45 - 10.30	Early Career I - Funding and Research Opportunities in Germany of the German Academic Exchange Service (DAAD) - Grants for work/study in Germany *Speakers: Ingy Nafie (Germany), Theresa Strohe (Germany)*
10.45 - 11.30	Early Career II - Resilience: The immune system of the soul - Interactive talk *Speaker: Andrea Wittich (Germany)*
11.45 - 12.30	Early Career III - Meet the editor: Insights into SWJEH *Speaker: Paul Kuijer (Netherlands)*
14.45 - 17.45	Workshop II - Evidence Syntheses for Musculoskeletal Disorders *Speakers: Dwayne Van Eerd (Canada), Emma Irvin (Canada)*

Workshops N2

9.15 - 12.30	Workshop I - From Research to Impact: Creative Teaching Methods for (Occupational) Health *Speakers: Karen Nieuwenhuijsen (Netherlands), Bart Cillekens (Netherlands)*
14.45 - 16.45	Workshop III - Using participation to improve management of physical and psychosocial hazards: A Participative Hazard Identification and Risk Management (APHIRM) toolkit *Speaker: Jodi Oakman (Australia)*

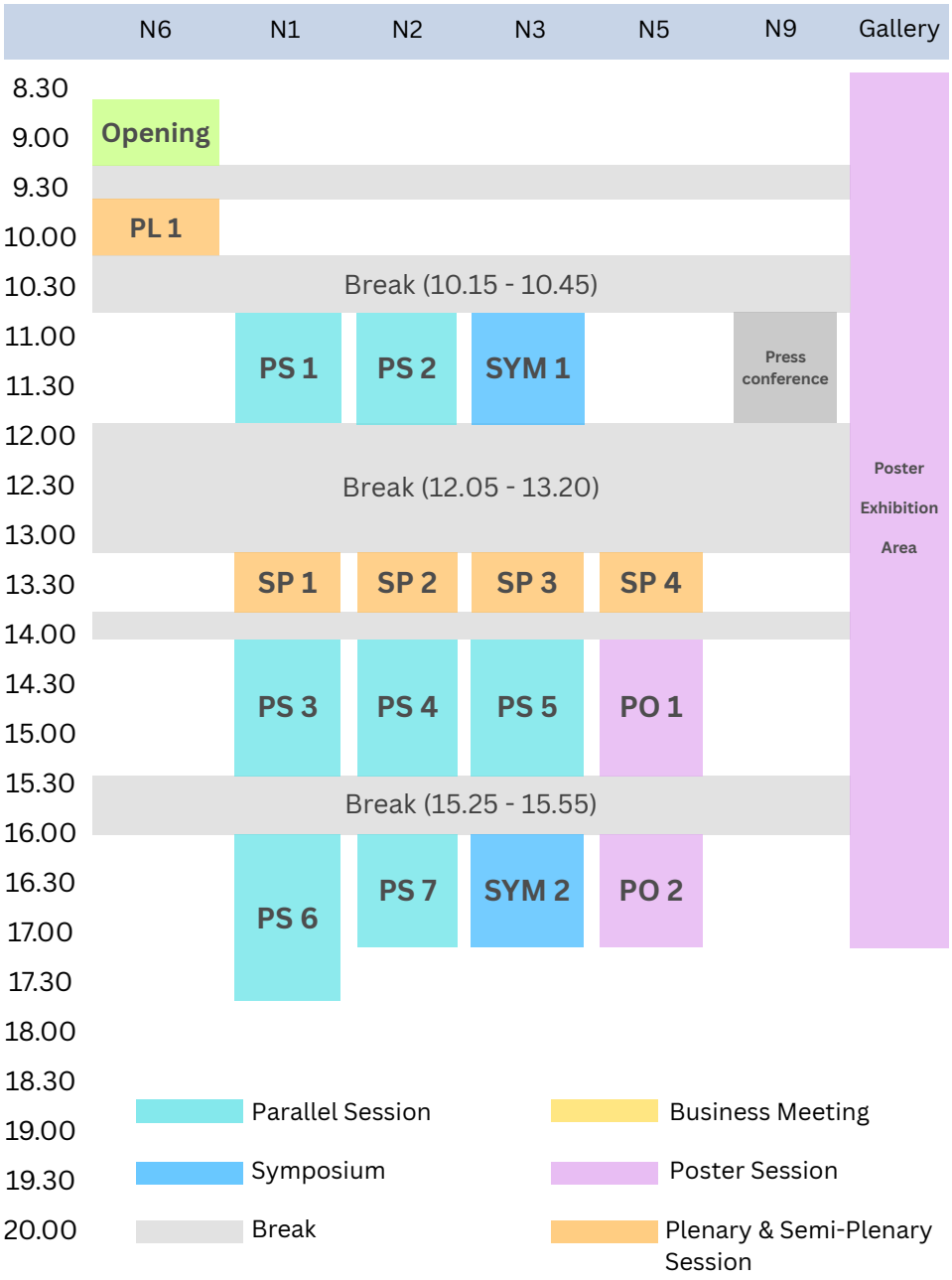
Workshops N9

13.30 - 14.15	Lecture - Visual Abstracts *Speaker: Michael Pelzer (Germany)*
14.45 - 17.45	Workshop IV - Visual Abstracts - Workshop *Speaker: Michael Pelzer (Germany)*

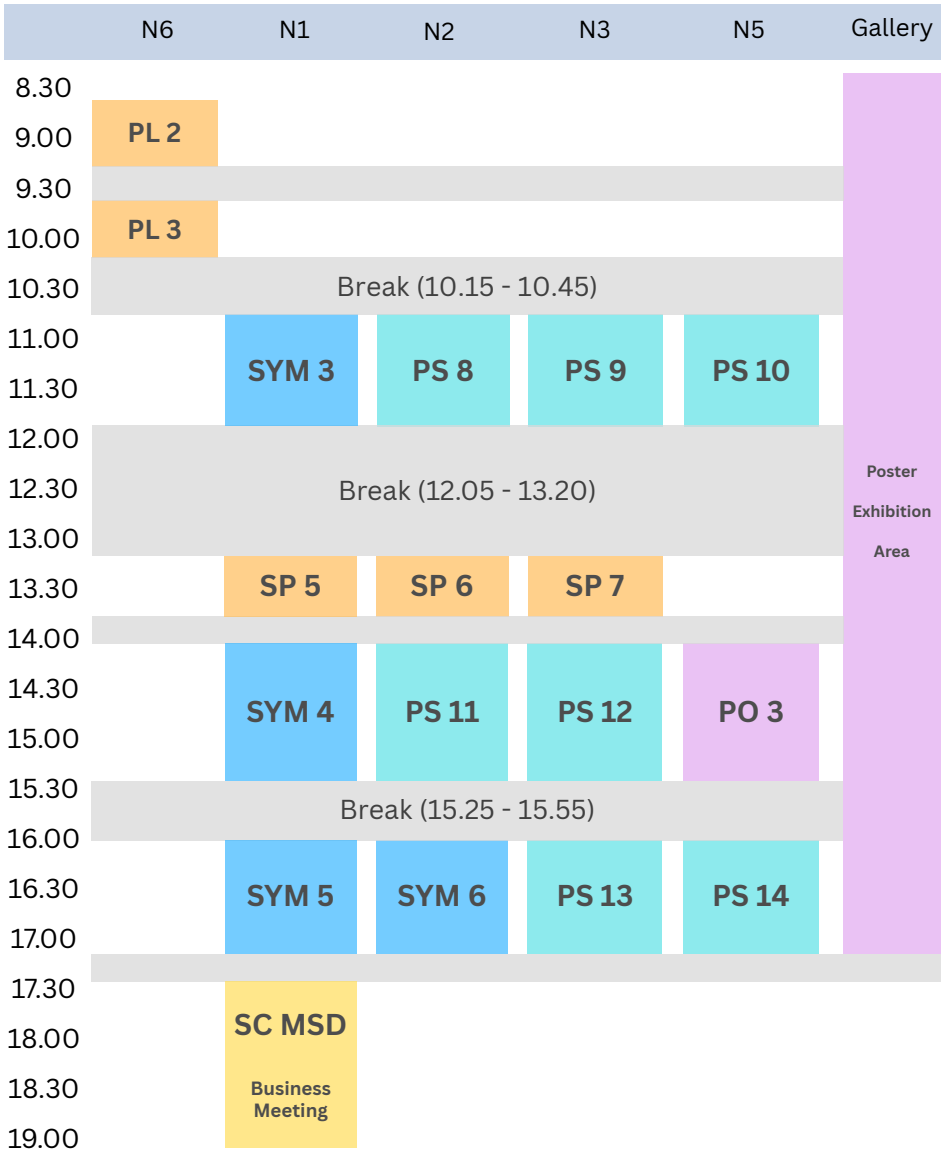
Get Together

18.00 - 20.00	**Get Together - Alte Aula (Old Lecture Hall)** *Münzgasse 30, 72070 Tübingen*

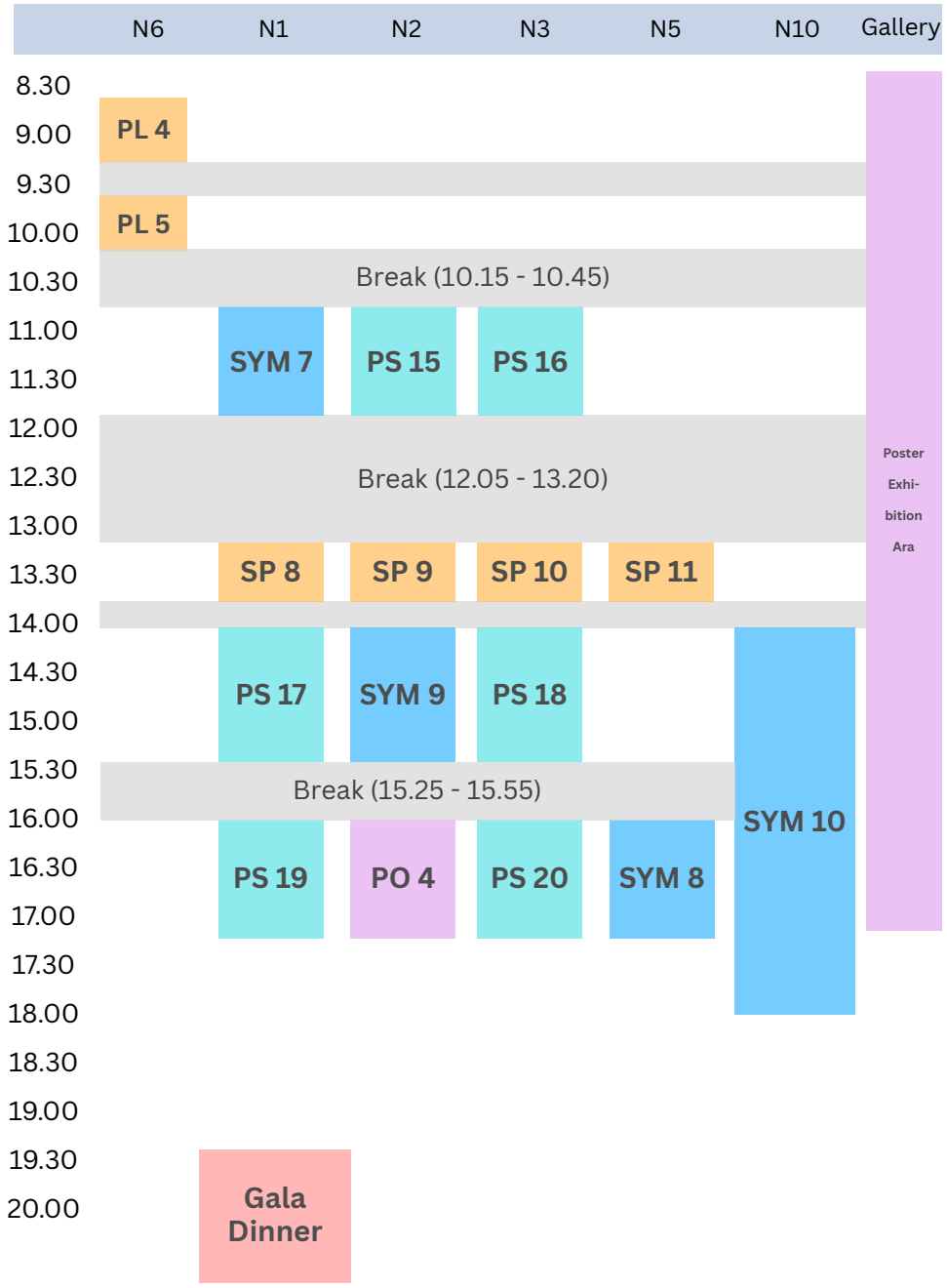
TUESDAY, 9 SEPTEMBER 2025



WEDNESDAY, 10 SEPTEMBER 2025



THURSDAY, 11 SEPTEMBER 2025



FRIDAY, 12 SEPTEMBER 2025

8.30 - 9.15 **Opening Ceremony (N6)**
Chairs: Monika A. Rieger (Germany), Benjamin Steinhilber (Germany)

Plenary Session

9.30 - 10.15 — Evolving perspectives of prevention of work related musculoskeletal pain over the last three decades
PL 1, Room N6 — *Speaker: Karen Søgaard (Denmark)*

Semi-plenary Session

13.20 - 13.50 — Implementation research and work-related injuries: Challenges for primary and secondary prevention
SP 1, Room N1 — *Speaker: Dwayne Van Eerd (Canada)*

13.20 - 13.50 — Lost Working Years: A metric for assessing the burden of work-related musculoskeletal disorders in social insurance systems
SP 2, Room N2 — *Speaker: Alex Collie (Australia)*

13.20 - 13.50 — Exoskeletons in the workplace: Potential for reducing physical demands and preventing musculoskeletal disorders in workers
SP 3, Room N3 — *Speaker: Tessy Luger (Germany)*

13.20 - 13.50 — The importance of properly quantifying biomechanical exposures in workplaces
SP 4, Room N5 — *Speaker: Stephen Bao (United States)*

Parallel Session

10.45 - 12.05 — Implementation research and work-related musculosketal disorders: challenges along the prevention process
PS 1, Room N1
Chairs: Dwayne Van Eerd (Canada), Andreas Holtermann (Denmark)

- From symptoms to surgery - A case for secondary prevention in occupational health (Jens Wahlström)
- Muscular Strain When Using Different Bed Movers Compared to Manual Movement of Hospital Beds (Hendrik Ludewig)
- Reduction of musculoskeletal strain on caregivers with an electrically motorised castor on hospital beds (Alina Bola)
- When the manager is an algorithm: How to create a positive working environment at the warehouse with new technology. (Rúni Bláfoss)

10.45 - 12.05 — Epidemiology of work-related musculoskeletal disorders I / Global and national burdern of diseases studie: insights
PS 2, Room N2
Chairs: Alex Collie (Australia), Janice Hegewald (Germany)

- The risk of sick leave before and after hip and knee replacement surgery. A Survey of the Swedish Population (Kristin Gustafsson)
- Do cumulative work exposures affect the risk of knee meniscus surgery? A study of the CONSTANCES cohort. (Bradley Evanoff)
- Perceived safety climate and work conditions in relation to patient handling and movement. A multicentre cross-sectional study in hospital care units and nursing homes (Charlotte Wåhlin)

14.05 - 15.25 — Risk assessement for prevention of work-related musculoskeletal disorders I
PS 3, Room N1
Chairs: Marco Hoozemans (Netherlands), Nicolas Vignais (France)

- Ergonomic risk assessment for work related musculoskeletal disorders in an Paediatric orthopedic surgery team (Deepak Sharan)
- Ooch, My Hand! Hand-Intensive Work: Do Females and Males Performing Identical Tasks Have the Same Wrist Velocity and Muscular Activity? (Gunilla Dahlgren)
- Association of muscle activity of the elbow extensor muscles and the load change ratio - results of an exploratory study at a mean load level realistic in manual work (Florestan Wagenblast)
- Semi-Quantitative Risk Assessment of Occupational Back Pain and Its Associated Risk Factors among Electronics Assembly Workers (Sunisa Chaiklieng)

14.05 - 15.25 — Robotics and exoskeletons in an occupational setting I
PS 4, Room N2
Chairs: Markus Due Jakobsen (Denmark), Yadrianna Acosta-Sojo (United States)

- The Impact of 24 Weeks of Back-Support Exoskeleton Use on Biomechanics, Workload, and Discomfort in Logistics: A Randomized Controlled Trial (Lasse Jakobsen)
- Exoskeletons as technological support for physical workers with musculoskeletal disorders; towards a sustainable system approach, beyond biomechanics and marketing (André Bieleman)
- Side effects of exoskeletons - excessive caution or serious potential risks? - Discussion based on two selected examples: Knee joint stress and Sitting Stability. (Robert Seibt)
- Effects of different supporting torque levels of a passive back-support exoskeleton on low back load and contact stress (Jeong Ho Kim)

14.05 - 15.25 — Epidemiology of work-related muskuloskeletal disorders II
PS 5, Room N3
Chairs: Charlotte Lewis (Sweden), Henk van der Molen (Netherlands)

- Healthcare Workers' Perspectives on Work Environment, Prevalence of Musculoskeletal Pain and Impact on Work Performance (Emma Nilsing-Strid)
- Development of a gender-specific European job exposure matrix (EuroJEM) for physical workload and its application to work-related musculoskeletal disorders. (Bradley Evanoff)
- The association between evisceration line speed, task rate, and ergonomic hazard among US Poultry Processing workers. (Carisa Harris Adamson)

15.55 - 17.35
PS 6, Room N1

Constrained postures and work-related musculosketal disorders

Chairs: Erwin Speklé (Netherlands), Grace Szeto (Hong Kong)

- Does sitting represent an opportunity to recover from too much time on feet among eldercare workers? (Nestor Lögdal)
- Cross effect of working postures and pointing devices on energy expenditure, muscular activity and task performance (Kévin Desbrosses)
- Targeting sitting at work: Short-term effects of work-related physical activity interventions on health related outcomes (Anne de Vries)
- Physical workload among window cleaners (Giulio Tan)
- Too much standing, too little sitting? Associations between closeness to the EU-OSHA guideline for occupational physical activity and need for recovery among eldercare workers (Leticia B Januario)

15.55 - 17.35
PS 7, Room N2

Robotics and exoskeletons in an occupational setting II

Chairs: Stephen Bao (United States), Maria Pia Cavatorta (Italy)

- Shoulder Exoskeletons in Aircraft Assembly: A Field Study on Potential Long-Term Effects (Kai Heinrich)
- Evaluating the Static, Dynamic, and Cognitive Fit of Three Passive Shoulder Exoskeletons (Yadrianna Acosta-Sojo)
- Exploring Passive Exoskeleton User Preference and Their Relationship to Physical and Cognitive Demands (Yadrianna Acosta-Sojo)
- Analysis of the relief of the lumbar spine by different back-support exoskeletons during lifting and holding (Ulrich Glitsch)

Symposia

10.45 - 12.05
SYM 1, Room N3

Simulated and XR evironments for ergonomics and physical assistance

Chairs: Charles Pontonnier (France), Pascal Madeleine (Denmark)

- Personalizing the assistive law of an upper-limb exoskeleton based on simulation and experimental data (Nicolas Vignais)
- A preventive and participatory approach to ergonomics through simulated and immersive environments (Maria Pia Cavatorta)
- Improving human posture through a vibration landscape generated by a robotic exoskeleton (Dorian Verdel)
- Biomechanical impact of a passive shoulder exoskeleton through musculoskeletal simulation and indirect interface forces measures: a pilot study (Charles Pontonnier)
- Physics-based simulation for motion prediction in active exoskeleton control (Pauline Maurice)

15.55 - 17.15
SYM 2, Room N3

Prevention of work-related musculosketal disorders in surgery

Chairs: Pascal Madeleine (Denmark), Benjamin Steinhilber (Germany)

- Musculoskeletal Health Benefits of Physical Activity Interventions for Surgeons: A Systematic Review and Meta-Analysis (Claus Kjærgaard)

- Reducing ureteroscope weight to meet user wishes and improve ergonomics (Dr Veronica Bessone)
- Ergonomic Comparison of Robotic-Assisted vs. Laparoscopic Inguinal Hernia Repair: A Study on Surgical Assistants (Philip Wolfgang)
- Influence of Intraoperative Active and Passive Breaks in Simulated laparoscopic Procedures on Surgeons' Perceived Discomfort, Performance and Workload (Rosina Bonsch)
- Prevention and rehabilitation of musculoskeletal pain among abdominal and pelvic surgeons: Protocol for a multicenter randomized controlled trial of Intelligent Physical Exercise Training (IPET) and intraoperative ergonomic recommendations (Good Ergonomics) (Helle Joon Christiansen)

Poster Session

14.05 - 15.25
PO 1, Room N5

Postersession I

Chairs: Steve Fischer (Canada), Karen Søgaard (Denmark)

- Analysis of kinematics and muscle activation on the shoulders during net gun shooting using immersive technology : Effect of expertise and fatigue (Marc-Antoine Pepin)
- Low-cost improvement analysis on the effectivness of lumbar overload reduction and its impact on productive effeciency in the textile industry (Olavo Leal Silvério)
- Accelerometer-based assessment of occupational standing time and its association with varicose veins – results of a cross-sectional field study (Benjamin Steinhilber)
- Occupational physical behaviours and knee pain in eldercare workers: A prospective accelerometer study (Sebastian Venge Skovlund)
- Effects of typing on curved keyboard in standing versus sitting posture (Grace Szeto)
- Maximal vs. submaximal voluntary contractions: what is the best way to normalize the surface electromyography activity of the trapezius muscle during a computer task? (Kévin Desbrosses)
- Experimental protocol for determining safe handling loads for workers with low back pain (Philippe Corbeil)
- Firefighter Performance and Injury Prevention: Validating RepOne for Velocity-Based Monitoring (Marcus Thrane Leth)
- Study protocol for evaluating the reliability of blood inflammatory markers at constant real-life workloads over time (Tessy Luger)
- Reproducibility of ultrasound measurement for the assessment of venous diseases of the legs (Benjamin Steinhilber)
- Occupational mechanical exposures and osteoarthritis of the shoulder and elbow: two systematic reviews (Alexander Jahn)

15.55 - 17.15
PO 2, Room N5

Postersession II

Chairs: Suzanne Merkus (Norway), Esther Rind (Germany)

- Ergonomic Risk Assessment in Slaughterhouse Work: A Comparison Between Observation and IMU-based Continuous Measurement (Philip Wolfgang)

- Assessing the level of support of a lower back exoskeleton among landscaping workers in real-world working conditions (Étienne Groleau)
- The impact of using occupational exoskeletons on acute physical stress and strain: An updated systematic review and meta-analysis (Pourya Ahmadi Jalaldehi)
- Biopsychosocial Influences on Occupational Exoskeleton Use: Placebo and Nocebo Effects in a SCED Approach (Daniek van Laar)
- Physical Exposure Assessment in Automobile Industry: Insights Toward Efficient DataProcessing and Export using Xsens MVN Software (Javad Sarvestan)
- Biomechanical and Physiological Effects of a Passive Upper-Body Exoskeleton During Load-Carrying Tasks Across Various Conditions (Gabriela Garcia)
- Activity recognition with a single body-fixed sensor in the military (Pablo Stegerhoek)
- The Effects of a Musculoskeletal-Focused Tailored Intervention on Physical Function Recovery and Quality of Life among Older Korean Farmers (Ki-Soo Park)
- Paddy Farmers Perspective on Foot care and their modalities for prevention of foot injuries (Manish Taywade)
- Towards an initial characterization of the occupational wear and tear syndrome in the CONSTANCES cohort (Gwladys Morvan)
- Exoskeleton efficacy for reducing muscle load: Diverging outcomes in carpenters and masons (Sandra Schade Jacobsen)

Room N9

10.45 - 11.45	**Press conference**

Gallery

8.30 - 17.15	**Poster exhibition area**

Plenary Session

8.30 - 9.15 **PL 2, Room N6**	Creating sustainable working conditions: Challenges and strategies for MSD prevention in a rapidly changing world *Speaker: Jodi Oakman (Australia)*
9.30 - 10.15 **PL 3, Room N6**	Contemporary work and WRMSD prevention: Challenges *Speaker: Maria do Carmo Baracho Alencar (Brazil)*

Semi-plenary Session

13.20 - 13.50 **SP 5, Room N1**	Ageing at work – What do we know about physical demanding jobs? *Speaker: Pascal Madeleine (Denmark)*
13.20 - 13.50 **SP 6, Room N2**	Are we on the way to evidence-based occupational diseases *Speaker: Andreas Seidler (Germany)*
13.20 - 13.50 **SP 7, Room N3**	Workplace-based prevention of musculoskeletal disorders: Effective interventions and future potentials *Speaker: Emil Sundstrup (Denmark)*

Parallel Session

10.45 - 12.05 **PS 8, Room N2**	Psychosocial dimensions of work-related musculoskeletal disorders *Chairs: Jodi Oakman (Australia), David Hallman (Sweden)* • Work-Related Musculoskeletal Disorder prevention within Kampala Industrial and Business Park, Namanve -Uganda: The effectiveness of participatory toolbox talks as a behaviour change intervention. (Marianna Agaba) • Psychosocial Factors on Musculoskeletal Disorders among Healthcare Workers in Developing Countries: A Scoping Review of Global Evidence (Edward Wilson Ansah) • Effects on Physical Behaviors of a Workplace Intervention Aiming at Promoting Recovery in Office Workers with Flexible Work (Johanna Edvinsson)
10.45 - 12.05 **PS 9, Room N3**	Risk assessement for prevention of work-related musculoskeletal disorders II *Chairs: André Klußmann (Germany), Roberta Bonfiglioli (Italy)* • Concurrent validity of automated computer vision-based ergonomic risk assessments using the revised NIOSH lifting equation (Dennis Larson) • Development of the PIPA Method: An Employee-Centered Tool for Preventing Musculoskeletal Disorders (Kristina Eliasson)

- Evaluation of trunk posture and moments from video data in childcare workers: a feasibility study (Adriana Savescu)
- Workplace risk assessment of physical workload with the Key Indicator Methods – current status of the tool and future challenges (Mike Schmidt)

10.45 - 12.05
PS 10, Room N5

Work-related musculoskeletal disorder prevention: from scientific evidence to public policy

Chairs: Bradley Evanoff (United States), Alex Collie (Australia)

- Preventing work-related musculoskeletal disorders: evaluating reach and impact of company specific risk communication (Henk van der Molen)
- A National Evidence-Based Guide for Safe Patient Handling: From Research to Policy and Practice in Preventing Work-Related Musculoskeletal Disorders (Charlotte Wåhlin)
- Correlations of WMSD rates reported by registry studies of the construction sector (Andrew Pinder)

14.05 - 15.25
PS 11, Room N2

Work-related musculoskeletal disorders prevention and complex interventions I

Chairs: Tina Dalager (Denmark), Markus Koch (Norway)

- The effect on multisite pain of a 12 weeks Intelligent Physical Exercise Training (IPET) program as an add on to an ergonomic training course among dental care professionals. An RCT study. (Karen Søgaard)
- Cost analysis comparing guideline-oriented biopsychosocial management to usual care for low-back pain: a cluster-randomized trial in occupational health primary care (Maija Paukkunen)
- Biopsychosocial education modifies workers' low back pain beliefs in a meatpacking plant: implications for MSD prevention (Nathan Roger)

14.05 - 15.25
PS 12, Room N3

Risk assessement for prevention of work-related musculoskeletal disorders III

Chairs: Marjolein Douwes (Netherlands), Stephen Bao (United States)

- Risk Assessment of Workers' Exposure to Physical Load in Patient Handling and Movement at Healthcare Workplaces (Charlotte Wåhlin)
- Modelling the risk of venous disease in the lower extremities due to occupational standing (Robert Seibt)
- Electromyography of the Forearm Muscles during Physical Therapy Tasks: Evaluation and Comparison of Normalization Methods (Theresa Braun)

15.55 - 17.15
PS 13, Room N3

Risk assessement for prevention of work-related musculoskeletal disorders IV

Chairs: Charlotte Wåhlin (Sweden), Charles Pontonnier (France)

- Agreement between perceived physical workload and REBA scores in the automotive industry (Rui B. Melo)
- Evaluation of biomechanical constraints on the use of a prototype three-position stretcher during emergency evacuation simulations. (Étienne Groleau)
- The 'Aitchison dispersion index': a new metric for assessing between-days variability in compositional data (Svend Erik Mathiassen)
- Three year cumulative occupational hand exposure and carpal tunnel syndrome: A Danish nationwide cohort study (Annett Dalbøge)

15.55 - 17.15
PS 14, Room N5

Aging workforce and work-related musculoskeletal disorders

Chairs: Elke Ochsmann (Germany), Tessy Luger (Germany)

- Upper arm postures and movements among older workers in physically demanding occupations (Charlotte Lewis)
- Barriers and success factors for a prolonged working life in physically demanding jobs – a qualitative study (Viktoria Wahlström)
- Trapezius muscle activity during moderate or low force hand tracking combined with two different cognitive load levels in older and younger male and female subjects (Thomas Läubli)

Symposia

10.45 - 12.05
SYM 3, Room N1

Field measurements of physical workload assessement procedures for continuous exposure data

Chairs: Christoph Schiefer (Germany), Rolf Ellegast (Germany)

- Proposal for sensor-based assessment of physical activity and sedentary behavior at the workplace (Britta Weber)
- Development and Application of a Risk Assessment Approach for Lumbar Spine Workload (Christoph Schiefer)
- A Measurement-Based Approach to Shoulder Load Assessment in Occupational Settings (Kai Heinrich)
- Development and validation of a risk assessment approach for hand and wrist workload (Elisabeth Ibenthal)

14.05 - 15.25
SYM 4, Room N1

Variation at work- a challenge!

Chairs: Jackson Jennie (Sweden), Nidhi Gupta (Denmark)

- Is there evidence that job rotation can increase physical exposure variability? Results of a systematic review (Jackson Jennie)
- Exposure Variation Analysis (EVA) in Ergonomics and Health: A Review of Applications, Methods, and Future Directions (Luiz Augusto Brusaca)
- Variation at (shoulder) work: do sex and handedness matter? (Julie Côté)
- Associations of trunk motor variability with fatigue and low-back pain in repetitive lifting (Divya Srinivasan)
- Quantifying task diversity in slaughterhouse work: Development of an exposure score for optimizing job rotation (Mikkel Brandt)
- Panel discussion

15.55 - 17.15
SYM 5, Room N1

German forum of occupational physiology

Chairs: André Klußmann (Germany), Julia Krabbe (Germany)

- Development of a real-time kinetic-kinematic model to determine the load in the lumbosacral joint (Jörg Peter)
- Muscular, subjective and cardiovascular strain when pushing a hand truck – results of a laboratory study (Falk Liebers)
- Use of virtual reality in the risk assessment of work-related musculoskeletal exposures (Mirjam Jost)
- Changes in musculoskeletal pain among 1,064 computer workers before and after the pandemic - Results of an online survey (Swaantje Casjens)

15.55 - 17.15
SYM 6, Room N2

Sedentary behavior at work and musculosketal complaints

Chair: Claudia Brendler (Germany)

- Physical activity and sedentary behaviour during hybrid working - combination of sensor and survey data (Konstantin Wechsler)
- Working from home and physical behavior among office workers: An Ambulatory Assessment study (Svenja Sers)
- Sedentary and physical activity behavior of office workers working at the office and from home – compositional data analysis of accelerometer data from the cross-sectional SITFLEX Study (Martha Sauter)
- Active Breaks during Sedentary Work on Muscle Activity and Cognitive Functions: Rapid Review and Experimental Study Design (Marion Freyer)
- Work, Sit, Repeat: Sitting at Work and the Musculoskeletal Complaints - Results from the Study on Mental Health at Work (S-MGA) (Janice Hegewald)

Poster Session

14.05 - 15.25
PO 3, Room N5

Poster Session III

Chairs: Yvonne van Zaanen (Netherlands), Falk Liebers (Germany)

- Novel manual materials handling training with augmented feedback (Xavier Robert-Lachaine)
- Development of a Mobile Health App for Active Monitoring of Work-Related Musculoskeletal Complaints (Nathan Roger)
- Effect of Supportive Orthoses on Quality of Life, Sleep Quality and Sedentary Behavior in Elderly Workers with Hyperkyphosis (Javad Sarvestan)
- Ergonomic Interventions and Change Management - A Scoping Review (Annamari Mäki-Ullakko)
- Implementation of a 4-day workweek with monitoring and stimulation of regular physical activity in workers in Brazil in relation to their general health, correlated with economic benefits for Companies and the State: A study protocol (Alexandher Negreiros)
- Applicability of Data Science in Manipulating Absenteeism Indicators Among Public Sector Workers in Brazil for the Creation of Smart Dashboards (Power BI): A Case Study. (Karolline Lyra)
- Evaluation and Monitoring of General Health through Smartphone Applications in Public Sector Administrative Employees in Brazil: A Study Protocol (Alexandher Negreiros)
- Implementation of Physical Exercise in the Workplace via Remote Platform for Public Sector Employees in Brazil Working Remotely (Home Office): A Study Protocol. (Karolline Lyra)
- Kinematic Changes in Gait in Workers With and Without Low Back Pain and Lumbar Hyperlordosis Under Barefoot and Shod Conditions (Javad Sarvestan)
- Implementation of an Ergonomic Assessment via Telehealth for Administrative Workers in the Public Sector Working Remotely: A Study Protocol. (Alexandher Negreiros)
- Hand forces, ground reaction and task duration when pushing a hand truck - results of a laboratory study (Mike Schmidt)

Room N1

17.30 - 19.00	**SC MSD Business Meeting**

Gallery

8.30 - 17.15	**Poster exhibition area**

Plenary session

8.30 - 9.15
PL 4, Room N6
Rethinking Work Participation in Musculoskeletal Care
Speaker: Paul Kuijer (Netherlands)

9.30 - 10.15
PL 5, Room N6
Work-related musculoskeletal disorder prevention: From scientific evidence to practice
Speaker: Pierre Berastegui (Spain)

Semi-plenary Session

13.20 - 13.50
SP 8, Room N1
Current approaches in diagnosis and management of occupational diseases of the musculoskeletal system
Speaker: Roberta Bonfiglioli (Italy)

13.20 - 13.50
SP 9, Room N2
Musculoskeletal disorders in the informal sector: The past, the present and the future
Speaker: Acran Salmen-Navarro (United States)

13.20 - 13.50
SP 10, Room N3
Individual prevention of work-related musculoskeletal disorders
Speaker: Rolf Ellegast (Germany)

13.20 - 13.50
SP 11, Room N5
Consideration of demographic factors in the risk assessment of physical work tasks – Discussion of different perspectives
Speaker: André Klußmann (Germany)

Parallel Session

10.45 - 12.05
PS 15, Room N2
Risk assessment for prevention of work-related musculoskeletal disorders V
Chairs: Kai Heinrich (Germany), Laura Punnett (United States)

- Transmissibility of Single Shock Exposures on the Hand-Arm System – a Randomized Controlled Experiment (Elke Ochsmann)
- Motion Analysis in Virtual Work Environments for Ergonomic Risk Analysis (Robin Grießel)
- Development of a Simple Instrument for Assessing Lifting and Carrying Based on ISO 11228-1 (Reinier Könemann)
- Identification of Heavy Lifting using simple wearables (LiftID): Development and Evaluation

10.45 - 12.05
PS 16, Room N3
Work-related musculoskeletal disorders prevention and complex interventions II
Chairs: Andreas Seidler (Germany), Emma Nilsing-Strid (Sweden)

- Evaluation of manual material handling training based on practical exercises and enhanced feedback for novice handlers (Philippe Corbeil)

- Development of the multicomponent GLAD@work intervention to reduce musculoskeletal pain in workers with physically demanding work. (Maja Schønheyder)
- From Strain to Strength: Reducing musculoskeletal complaints in ironworkers through integration of physical training within work rotations (Kristina Eliasson)
- Reinforcement of auxiliary staff in inpatient wards: a comparison study (Shlomo Moshe)

14.05 - 15.25
PS 17, Room N1
Diversity and wrmsd risk/prevention; musculoskeletal disorders in the informal sector / wrmsd risk due to new ways of work
Chairs: Julie Côté (Canada), Leticia B Januario (Sweden)

- Eye and musculoskeletal complaints when working from home with a visual display terminal in the last four weeks (Britta Weber)
- The effects of hybrid work on musculoskeletal pain and physical activity in office workers – a scoping review (Floor Gerrits)
- Evaluation of Ergonomic Interventions for the Prevention of Musculoskeletal Disorders among Informal Sectors' workers in West Bengal, India (Somnath Gangopadhyay)
- Exposure to biomechanical risk factors for occupational wear and tear in women and men in the CONSTANCES cohort (Gwladys Morvan)

14.05 - 15.25
PS 18, Room N3
Return to work and rehabilitation after work-related musculoskeletal disorders
Chairs: Karen Nieuwenhuijsen (Netherlands), Acran Salmen-Navarro (United States)

- The effectiveness of the Back At work After Surgery (BAAS) care pathway on return to work for patients receiving knee arthroplasty: a one year controlled trial of matching multicenter cohorts in the Netherlands (Daniel Strijbos)
- Enhancing Return to Daily Life Activities after Total and Unicompartmental Knee Arthroplasty with a Personalized eHealth Care Program - Results of the Multicentre ACTIVE Randomized Controlled Trial (A. Carlien Straat)
- Telerehabilitation for people with musculoskeletal diseases or traumata of the upper extremity: A systematic review (Charlotte Pietzsch)
- Back on Track: A computer-assisted occupational reintegration protocol for occupational health professionals to guide workers with musculoskeletal disorders: a register-based study (Jantine Maarleveld)

15.55 - 17.15
PS 19, Room N1
Occupational diseases of the musculoskeletal system
Chairs: Paul Kuijer (Netherlands), Deepak Sharan (India)

- Could an imbalance in the activity of the upper trapezius muscles during work contribute to neck pain? (Markus Koch)
- Association between occupational exposures and lesions of the rotator cuff of the shoulder - A meta-review of current systematic reviews (Ulrich Bolm-Audorff)
- Early commencement of physical therapy is associated with a shorter duration of work disability: Findings from a retrospective cohort study of occupational low back pain (Tesfaye Mekonnen)
- Thresholds for musculoskeletal damage caused by hand-arm vibrations in rotator cuff structures remote from the site of impact (Bernd Hartmann)

15.55 - 17.15
PS 20, Room N3

Problems observed in occupational practice / Epidemiology of work-related musculoskeletal disorders III

Chairs: Gisela Sjøgaard (Denmark), Thomas Behrens (Germany)

- Manual handling training: the physiological cost of 'safe lifting' (Mark Boocock)
- Prevention of Work-Related Musculoskeletal Disorders - Problems observed in occupational practice. The case of Zimbabwe. (Tawanda Nherera)
- Carpal tunnel syndrome and occupational hand exposures: a Danish nationwide cohort study (Sorosh Tabatabaeifar)
- Use of a Job Exposure Matrix to study both recent and past work exposures on the incidence of carpal tunnel release surgery in the CONSTANCES cohort. (Bradley Evanoff)

Symposia

10.45 - 12.05

SYM 7, Room N1

Combined ergonomic exposures- development, insights, and challenges

Chairs: Nidhi Gupta (Denmark), Luiz Augusto Brusaca (Denmark), Fredrik Lohne (Denmark)

- Moving beyond single exposure: a new perspective on combined co-occurring ergonomic exposures (Luiz Augusto Brusaca)
- Describing complex compositions of co-occurring ergonomic work exposures (Fredrik Lohne)
- From isolated physical and psychosocial work exposures to understanding their co-dependency and co-occurrence in time (Nidhi Gupta)
- Self-Perceived work demands and patterns of device measured physical activity in hospital workers with and without musculoskeletal pain (Ellen Marie Bardal)
- Is the combination of physical activity behaviours and psychosocial factors at work important for pain in eldercare workers? (David Hallman)
- Panel discussion

15.55 - 17.15

SYM 8, Room N5

The goldilocks paradigm designing work for individual and organizational resiliency

Chairs: Jackson Jennie (Sweden), Suzanne Merkus (Norway), Gemma Ryde (United Kingdom), Chappel Stephanie (Victoria), Emil Sundstrup (Denmark)

- Goldilocks Work – a maturing paradigm to enhance worker health (Andreas Holtermann)
- Evaluating the effectiveness of a job rotation intervention inspired by the Goldilocks Work paradigm on improving muscle activity variability and health (Jackson Jennie)
- Hand-in-hand: a work environment intervention for improved health in early child education and care - a study protocol (Suzanne Merkus)
- Developing a Goldilocks Work Intervention in Home Health Care organized in a self-governing structure (Kathrine Schmidt)
- Developing a Goldilocks Work dialogue tool to map and design 'Just Right' work environment for better health (Trine Fuhr Nielsen)

14.05 - 15.25
SYM 9, Room N2

Occupational diseases of the musculoskeletal system

Chair: Rolf Ellegast (Germany)

- Occupational Musculoskeletal Diseases in Germany (Dirk Ditchen)
- Current exposure prevalence of musculoskeletal workload in Germany – results of the BiBB/BAuA Employment Survey 2024 (Falk Liebers)
- MSD occupational medicine and prevention in Germany (MSD health rule – AMR 13.2) (Rolf Ellegast)
- DGUV Recommendations on occupational medicine "Musculoskeletal workloads, including vibration" (Britta Weber)

Botanik N10 / N11

14.05 - 18.00
SYM 10

Healthy work in Transition: Perspectives form Research, Practice and Politics
60-year Anniversary of the Institute of Occupational and Sozial Medicine and Health Services Reaserch

Chair: Monika A. Rieger (Germany)

- Exoskeletons for preventing work-related musculoskeletal disorders – update of the German medical guideline (Tessy Luger)
- "They are all grown men" - leadership and patchy prevention of work-related musculoskeletal disorders in agriculture and the construction industry. An ethnographic study in Germany (Esther Rind)
- Forearm flexor muscular strain during isometric wrist contractions depends on wrist position and torque (Katja Witzel)
- Existing but rarely mentioned: work-related musculoskeletal stress in the context of digital transformation in pathology (Christine Preiser)
- Introducing a new risk assessment approach for standing workplaces (Benjamin Steinhilber)

Poster Session

15.55 - 17.15
PO 4, Room N2

Poster Session IV

Chairs: Jens Wahlström (Sweden), Jangwhon Yoon (South Korea)

- Reliability and validity of expert assessments of hand-wrist physical exposures (Jane Frølund Thomsen)
- Occupational arm movements and risk of prospective neck-shoulder pain: An evaluation of a novel assessment method (Anders Frost)
- Occupational exposure to hand-arm vibrations, repetitive movements of the hands, or force exertion or impact force on the hands as a risk factor for osteoarthritis of the wrist or finger joints: a systematic review with meta-analysis (Laura Köcher)
- Multisite pain and associated risk factors among Danish dental care professionals. (Louise Fleng Sandal)

- Designing a Stair Chair as a Multi-Dimensional System to Address Musculoskeletal Disorders in Emergency Medical Technicians (Jennifer Nieto)
- Association Between Physical Workload and Musculoskeletal Disorders in Korean Farmers (Ki-Soo Park)
- Validity of an expert-based job exposure matrix of hand-wrist physical exposures and their prospective associations with carpal tunnel syndrome (Jonathan Aavang Petersen)
- Association of prolonged occupational standing and varicose veins of the lower extremities: a systematic review and meta-analysis (Benjamin Steinhilber)
- Predictive Validity of the Work, Osteoarthritis, or Joint Replacement Questionnaire (WORQ) for Work Ability and Return to Work after Total Knee Arthroplasty (Yvonne van Zaanen)
- Epidemiological study of musculoskeletal diseases of the upper limbs among plumbers of the Bogotá Water Company and proposal for mitigating their incidence and prevalence (Bernardo Hernández Castillo)

Gallery

8.30 - 17.15	**Poster exhibition area**

19.30 - 22.00	**Gala Dinner - Restaurant 1821 Tübingen** *Museumgesellschaft (Museum Society), Wilhelmstraße 3, 72074 Tübingen*

Semi-plenary Session

9.30 - 10.00 **SP 12, Room N1**	Population diversity and mechanisms of MSD: What do we know, what don't we know, and where do we go? *Speaker: Julie Côté (Canada)*
9.30 - 10.00 **SP 13, Room N2**	Work-related musculoskeletal disorders and ethical considerations in the era of digital interventions *Speaker: Fuat Ince (Turkey)*
9.30 - 10.00 **SP 14, Room N3**	Poor sleep versus exercise: A duel to decide whether pain resolves or persists after repetitive overuse injury *Speaker: Mary Barbe (United States)*
9.30 - 10.00 **SP 15, Room N5**	Wearable motion capture devices for the prevention of work-related musculoskeletal disorders in ergonomics — Applications, challenges, and future opportunities *Speaker: Carl Lind (Sweden)*

Parallel Session

10.15 - 11.35 **PS 21, Room N2**	Digital interventions for prevention work-related musculoskeletal disorders *Chairs: Fuat Ince (Turkey), Mark Boocock (New Zealand)* • Effects of angle of capture and computer vision approach on trunk inclination and shoulder elevation angles estimated from single camera computer vision software relative to a multi-camera lab system (Dennis Larson) • Effectiveness of a personalized AI-based health assistant to reduce musculoskeletal complaints and improve health-related behaviors in the workplace (Karolin Schmid) • Inspiration tool Inclusive Technologies - what innovative technologies can make work more accessible for people with physical limitations? (Maaike Huysmans) • Feasibility of digital human modeling to inform ergonomics for interventional MR image-guided therapies (Justin Davidson)
10.15 - 11.35 **PS 22, Room N3**	Biology and physiology of work-related musculoskeletal disorders *Chairs: Mary Barbe (United States), Thomas Läubli (Switzerland)* • Tools' modification and know-how: what are the challenges in MSDs prevention? (Martine Annie Gilles) • Effects of firefighter helmet on neck muscles during dynamic tasks (Jangwhon Yoon) • Determinations of human muscle mass from F. W. Theile 1884 to the present for the prevention of work-related musculoskeletal diseases (Bernd Hartmann)

10.15 - 11.35 Wearable technologies for exposure detenction and assessement

PS 23, Room N5 *Chairs: Annett Dalbøge (Denmark), Ulrich Glitsch (Germany)*

- Force-Estimating Insoles as a Mobile Solution for Measuring Ground Reaction Forces and Center of Pressure in Occupational Tasks (Justin Davidson)
- Measurement-based assessment of the load on the distal upper extremity during manual therapy techniques in physiotherapy
- Reduction of physiological loading using pedelecs in express delivery services (Omar El-Edriss)

Symposia

10.15 - 11.35 Physical exercise interventions at work: health effects, economics evaluations, and future directions

SYM 11, Room N1 *Chairs: Mette Jensen Stochkendahl (Denmark), Louise Fleng Sandal(Denmark)*

- Health-enhancing physical exercise training at work with a focus on musculoskeletal health effects. Results from a systematic literature review. (Anne Faber Hansen)
- Return on Investment (ROI) from a workplace-based exercise intervention reducing neck pain (Tina Dalager)
- Cost-utility and cost-benefit analysis of a multi-component intervention (NEXpro) for neck-related symptoms in Swiss office workers. (Gisela Sjøgaard)
- Economic evaluations of physical exercise at work: a scoping review (Mette Jensen Stochkendahl)

11.50 - 12.50 **Closing Ceremony (N5)**
Speaker: Monika A. Rieger (Germany), Benjamin Steinhilber (Germany)

Excursions and Citizen Afternoon

13.00 - 18.00 **Excursions to Porsche & Ritter Sport**

15.30 - 18.00 **Citizen Afternoon - in German - at the Institute of Occupational and Social Medicine and Health Services Research**
Back, joints, etc. - How can I stay healthy at work?
Chairs: Esther Rind (Germany), Monika A. Rieger (Germany), Benjamin Steinhilber (Germany)
Address: Wilhelmstr. 27, 72074 Tübingen