



TUESDAY (12/09/2023)

Time	Title	Presenter or Chair	Room
08:45 to 09:00	Welcome and Introductions	Organising Committee	Main
09:00 to 09:15	Opening	Brigadier Tony Finn	Main
09:15 to 09:45	Keynote 1	General Sir Patrick Sanders	Main
09:45 to 10:30	Keynote 2	Professor Mihaela van der Schaar	Main
10:30 to 11:00	Coffee Break		
11:00 to 12:30	Thematic Sessions 1 to 4		
	Thematic 1: Measuring and modelling performance and musculoskeletal effects of load carriage	Pinata Sessoms	Main
	Thematic 2: Soldier combat ensemble considerations for women	Nicola Armstrong	1
	Thematic 3: Soldiers at high altitude	Beth A Beidleman	2
	Thematic 4: Human-machine teaming	Jitu Patel	3
12:30 to 13:15	Lunch		
12:45 to 13:15	Lunchtime Talk : Capt Preet Chandi 'Polar Preet', Polar Explorer and World Record Holder	Capt Preet Chandi	Main
13:15 to 14:45	Oral Communication 1: Physical Training; Chair: Professor Brad Nindl		Main
	A pilot study on the efficacy and efficiency of CURATE.AI-guided endurance training	Alexandria Remus	Main
	12-week maximal strength training period during military service	Tommi Ojanen	Main
	Generating resilience to injuries through training (GRIT)	Eric Robitaille	Main
	Effects of high-intensity functional training on serum testosterone, cortisol and IGF-1 levels during military service	Joonas Helén	Main
	Group and individual endogenous hormonal responses to acute resistance exercise and load carriage workouts	Barney Wainwright	Main
	Oral Communication 2: Musculoskeletal Injury and Physiology; Chair Dr Jo Fallowfield		1
	Disorganized Achilles tendon structure is related to lower neuromuscular ability and ankle impairments in recruits	Nili Steinberg	1
	The association between neuromuscular performance and chronic ankle instability in pre-recruitment infantry soldiers	Jeremy Witchalls	1
	Daily rating of perceived exertion, wellness and injury risk during Army basic military training	Neil Gibson	1
	Association between embedded injury prevention experts in U.S. Army initial entry training and early discharges from service	Daniel Clifton	1
	Perceived health and self-regulation are associated with on-time graduation: the Initiation of Marine Physiological Assessment of Combat Training (IMPACT) study	Sarah J de la Motte	1
	Pain sensitivity and processing in high performance combatant craft crewman: an early indicator of injury risk?	Karen R Kelly	1
	Oral Communication 3: Cognitive Performance; Chair: Dr Graham Fordy		2
	Cognitive genomics: mapping the genetic architectures of cognitive fitness	Scott Clark	2
	Relationship between habitual caffeine consumption, attentional performance and individual alpha frequency during total sleep deprivation	Michael Quiquempoix	2
	Towards digital and standardised measures of close-quarters battle tactical performance using virtual reality	Annemarie Landman	2
	Combined cognitive and physical training; a more efficient and tolerable means of enhancing cognitive and physical performance: preliminary findings from a randomised controlled trial with young healthy adults	Amanda Scott	2
	Effect of total sleep deprivation and ammonia inhalants on reaction time in military personnel	Jan Malecek	2
	Salivary biomarkers in fighter pilots during a four-day military flying exercise	Tuomas Honkanen	2
	Oral Communication 4: Environmental Stressors, Exposures, and Injuries; Chair: Prof Jason Lee		3
	Secure the future soldier's readiness through the brain-body connection using a neuroscience-informed approach	Charles Verdonk	3
	Negative effect of sleep restriction on heat tolerance to even mild hyperthermia induced by passive exposure	Pierre-Emmanuel Tardo-Dino	3
	Effectiveness of a short-term isothermal heat acclimation protocol in a military population	Koen Levels	3
	Urinary metabolites measured at sea level predict altitude-induced acute mountain sickness outcome	Camilla A Mauzy	3
	Protective effect of a high heat capacity mattress on sleep during heat exposure	Fabien Sauvet	3
13:15 to 14:45	Posters 1		Posters
	Data Analytics and Predictive Modelling		
	Military occupational injury risk analysis using machine learning decision trees	Joseph R Pierce	Board 1
	The Probability of becoming an Operator given specific Test resultS P(O)TS): design and preliminary acceptance results of the physical testing part of a nationwide study	Alain Doessegger	Board 2
	Upper respiratory tract infection detection with wearable technology	Christina Young	Board 3
	Development and implementation of an onboard physical load monitoring and feedback system for high-speed craft operators	Lotte Linssen	Board 4
	New data analytics approach to marksmanship training	Paddy Little	Board 5
	Ergonomic fit evaluation of personal protective equipment using 3D scan technology	Laura Ahsmann	Board 6
	Development of early warning systems: how to assess one's physiological individual baseline information	Theresa Schweizer	Board 7
	Finite element modeling framework for evaluating the effectiveness of protective plates in minimising tissue damage resulting from a non-penetrating ballistic impact	Yoram Epstein	Board 8
	Physical Performance		
	A smartphone application tests your physical performance - How accurately does the 4-minute all out run measure your endurance performance? A pilot study	Regina Oeschger	Board 9
	Soldier strength responses to prolonged load carriage during a 72-hour mission	Maria Talarico	Board 10
	Functional movement screen performance of US Army active-duty light infantry soldiers	Maria Talarico	Board 11
	The physiological demands of helicopter winch rescue in water and over land	Ben Meadley	Board 12
	Alterations in gait markers during a timed ruck march using single inertial measurement unit	Vanessa J Ramirez	Board 13
	Association of blood biomarkers to force-on-force engagement, small unit lethality, and in-field performance	Jason Soares	Board 14
	Weighted counter movement jump braking force variables in response to military specific load carriage	Christopher Vine	Board 15
	The relationship between isometric mid-thigh pull force-time characteristics and 2-km load carrying performance in trained British Army soldiers	Jonpaul Nevin	Board 16
	Impact of combat equipment on respiratory muscle power during load carriage performance	Mark T White	Board 17
	A comparison between different military ranks' performance in a 3.2 km loaded march test	José Mauricio Magraner	Board 18
	Performance of British Army personnel in a swimming representative military task	Sarah Needham-Beck	Board 19
	The effect of marching speed on approximated centre-of-mass vertical movement during treadmill marching	Jonathan Wheat	Board 21
	Temporal effect of backpacking on isokinetic variables in the knee joint after a 12 km simulated military road march: a pilot study	Fabio Alves Machado	Board 22
	Associations among body composition, performance, and military occupational demands	Runer A Marson	Board 23
	A new categorisation tool for physical fitness (CT-PF): efficient and valid assessment of physical performance in personnel recruitment and military medical assessments	Ulrich Rohde	Board 26
	Repeated prolonged bouts of load carriage impact walking stability of soldiers	Aaron Likens	Board 27
	Effects of head borne loads on helmet stability during a simulated tactical shooting task	Brian Higginson	Board 28
	The effect of muscle activity on shooting accuracy	Jemma Coleman	Board 29
	Training and education on fitting and adjusting body armour: implications for body armour fit	Celeste Coltman	Board 30
	Accuracy of mission specific military variant wearable ECG monitor compared to existing clinical and commercial monitors	Bryndan Lindsey	Board 31
	U.S. Army Medical Research and Development Command Military Operational Medicine Science and Technology Research Program overview	Malena Rone	Board 32
	Psychophysiological changes observed during military tasks in a training subterranean compound	Mickey Scheinowitz	Board 33
	Evaluation of the physical demands of logistic soldiers in the Swedish Armed Forces	Lena Norrbrand	Board 34
	Using heart rate within a squad to predict squad cohesion	Victoria G Bode	Board 35
	Oxygen uptake (VO ₂) and pulmonary ventilation (VE) during military surface fin swimming in a swimming flume: effects of surface immersion	Olivier Castagna	Board 36
	Evaluating sleep patterns and perceptions of sleep quality between British Army basic training programmes	Alex J Rawcliffe	Board 45
	Futures Science and Technology		
	Energy expenditure during operational circumstances: an approach using and improving available monitoring systems recently trialled in units of the Dutch Armed Forces	Marc Duineveld	Board 37
	Using a novel multi-array facial electromyography for fatigue evaluation during an anaerobic exercise test	Itay Ketko	Board 38
	A mixed-reality environment for the assessment of situational awareness of the dismounted soldier	Ivo Stuldreher	Board 39
	Emerging methods for quantifying human-system performance with automatic small arms platforms	Frank Morelli	Board 40
	The development of a flight sensing shirt to monitor the physiological status of military pilots and prevent unexplained physiological events	Kaj Gijbsbertse	Board 46
	Markerless motion capture can detect meaningful changes in joint angles at the shoulder when wearing body armour	Ayden McCarthy	Board 47
	Human Augmentation		
	Investigating the potential of non-invasive brain stimulation to augment cognitive functioning	Yvonne Fonken	Board 41
	Development of a method to effectively implement exoskeletons in a military context	Minke Geerts	Board 42
	Cortical neural dynamics track adaptation when walking with an ankle exoskeleton	Courtney Haynes	Board 43
	'RAS-EVAC' – the feasibility of Robotics and Autonomous Systems for military medical evacuation	Trevor Dobbins	Board 44
15:00 to 16:30	Thematic Sessions 5 to 8		
	Thematic 5: Nutrition as a military capability to deliver human advantage: more people, more ready, more of the time	Joanne L Fallowfield	Main
	Thematic 6: Human impact exposure in terrain military vehicles and onboard high-speed boats compromises combat readiness and causes severe and permanent injuries	Neil Mansfield	1
	Thematic 7: A multi-institution, multi-nation approach to develop a biomarker-based, machine learning model to identify injury risk and performance in military personnel	Tim Doyle	2
	Thematic 8: Recommendations for military leadership, trainers, clinicians, and researchers on preventing injuries	Thomas Karakolis	3
16:30 to 17:00	Coffee Break		
17:00 to 18:00	Oral Communication 5: Musculoskeletal Injury and Physiology; Chair: Prof Julie Greeves		Main
	Musculoskeletal injury prevalence during Army basic training	Andrew Roberts	Main
	Helmet worn mass and implications for the neck - analysis of helmet configuration, vibration, and g-force on neck load	Phil Newman	Main
	A wearable non-invasive sensor system for in-flight measurement of neck loads in rotary wing aircrew	Wayne Spratford	Main
	The relative effect of headborne equipment and operational parameters on musculoskeletal burden	Michael Vignos	Main
	Oral Communication 6: Trial Design, Methods, Conduct, and Reporting; Prof Sam Blacker		1
	A change from change scores: regression to the mean in military fitness.	Andy Siddall	1
	Developing a framework for measuring soldiers and squads during a 72-hour field mission	Victoria G Bode	1
	10 years in the making: the development of a human factors assessment toolkit for the New Zealand Defence Force	Adam Dooley	1
	Canadian Armed Forces return to duty program for ill and injured personnel: the development and implementation of a data collection trial	Julie Coulthard	1
	Oral Communication 7: Physical Performance; Chair: Dr Luana Main		2
	Functional fitness training for the German mountain infantry	Jennifer Schlie	2
	Thermo-physiological properties of summer military uniforms with different water-repellent finishes	Joo-Young Lee	2
	The relationship between the U.S. Army's new combat fitness test and a simulated marksmanship performance task	Jose Villa	2
	HRV myth-busting: considerations for the measurement and interpretation of heart rate variability	Andy Siddall	2
	Oral Communication 8: Human Augmentation; Chair: Dr Anna Casey		3
	An ethical, legal, and societal aspects framework for military human enhancement	Koen Hogenelst	3
	Feasibility of the Mawashi passive exoskeleton for the dismounted combatant: a pilot investigation	Greg L Carstairs	3
	Biomechanical adaptations to novel ankle exoskeleton use	Courtney Haynes	3
	The physiological and biomechanical effects of a full-body passive exoskeleton on military load carriage	Cheryl Lim	3
18:15 to 19:45	Thematic Sessions 9 to 11		
	Thematic 9: Managing physical health and performance in the military: enablers and impediments	Jace Drain	Main
	Thematic 10: Cold operational readiness: from science to practice	Tommi Ojanen	1
	Thematic 11: Maximising the health and performance of women in ground close combat roles	Karl Friedl	2
18:15 to 19:45	Oral Communication 9: Nutrition and Metabolism; Chair: Maj (Dr) William Conkright		3
	Effects of a gut microbiota-targeted nutrition intervention on intestinal permeability, inflammation, and cross-over study	J Philip Karl	3
	Pre-sleep protein supplementation does not improve performance, body composition, or recovery in British Army recruits	Shaun Chapman	3
	Evaluation of obese body mass as a risk factor for higher inflammatory biomarkers and worse outcomes from mild traumatic brain injury	Shawn Eagle	3
	Essential amino acid-enriched whey protein rescues post-exercise muscle protein synthesis during energy deficit	Jess A Gwin	3
	Impact of a 24-h exposure to hot and cold environments on appetite, food preferences, and energy intake	Keyne Charlot	3



WEDNESDAY (13/09/2023)

Time	Title	Presenter or Chair	Room
08:45 to 09:30	Keynote 3	Prof Andy Jones	Main
09:45 to 11:15	Thematic Sessions 12 to 15		
	Thematic 12: Human augmentation to deliver an enhanced and resilient people capability for defence	Sarah Kemp	Main
	Thematic 13: Spinal related injury in fast jet aircrew: identifying and suppressing the threat to operational capability	James Wallace	1
	Thematic 14: Modernising the human information data ecosystem to facilitate soldier performance optimisation	Andrew G Thompson	2
	Thematic 15: Soldier performance management: insights from boots on ground research	Luana Main	3
11:15 to 11:45	Coffee Break		
11:45 to 13:15	Oral Communication 10: Female Health and Physiology; Chair: Dr Kristen Koltun		Main
	Menstrual function, eating disorders, low energy availability, and physical performance in Army servicewomen	Charlotte V Coombs	Main
	Severity of menstrual cycle symptoms among UK servicewomen when performing work-based tasks	Phoebe Thomas	Main
	Characteristics associated with pelvic floor disorders among female Canadian Armed Forces members	Jessica L Puranda	Main
	Evaluating the sports bra fitting and issue service within British Army basic training	Jenny Burbage	Main
	A job task analysis to identify basic training activities that place the highest demands on the breasts of female recruits	Gemma Milligan	Main
	A comparison of issued sports bras and determination of sports bra characteristics required to undertake British Army basic training	Emily Paines	Main
	Oral Communication 11: Data Analytics and Predictive Modelling; Chair: Dr Andy Siddall		1
	Prospective validation of 2B-Cool: integrating wearables and individualized predictive analytics to reduce heat injuries	Jaques Reifman	1
	The utilization of wearables to develop methods and metrics for assessing collective small unit lethality and in-field performance	Meghan O'Donovan	1
	Monitoring training load in military settings using wearable devices: can we predict musculoskeletal injuries?	Einat Kodesh	1
	Physical fatigue state classification through fusion of physiological and biomechanical metrics	Michael Vignos	1
	Consideration of individual factors when predicting target engagement decision making performance of expert shooters	Maria Talarico	1
	Novel target engagement metric for holistic quantification of marksmanship performance	Maria Talarico	2
	Oral Communication 12: Cognitive Performance; Chair: Dr Nicky Armstrong		2
	The impact of winter warfare training on physiological stability and stress reactivity	Karen R Kelly	2
	Training to perform or learning to train? Factors associated with performance in close quarter urban operations training may have limited transfer to real world performance	Daniel Cooper	2
	Implementation and validation of the Acute Readiness Monitoring Scale (ARMS) in the Australian Army	Joshua M Adie	2
	Predicting alertness of military performance during cold winter training using the 2B-Alert web tool	Agustin Leandro Folgueira	2
	Sleep deprivation and physical fatigue: impact of cognitive load and motor performance within United States military members	Joshua Springer	2
	Metabolomic profiling of acute stress events associated with 72-h military field exercises	Elizabeth Dhummakupt	3
	Oral Communication 13: Physical Training; Chair: Professor Heikki Kyröläinen		3
	Physical training and changes in physical performance and body composition of soldiers during international military operations: systematic review and meta-analysis	Kai Pihlainen	3
	The physical demands of British Army Infantry basic training: An observational study	Alex J Rawcliffe	3
	Body composition and performance adaptations of British Army Infantry basic training: An observational study	Andrew Roberts	3
	Monitoring the personnel responses to military training: a synthesis of research findings	Luana Main	3
	A comparison of performance on role-related fitness tests between British Army recruits and in-service soldiers	Carla Rue	3
	Physical employment standards next steps: informing the development of a concept for a role-related fitness continuum	Sam Blacker	3
11:45 to 13:15	Posters 2		Posters
	Musculoskeletal Injury and Physiology		
	Bone formation and resorption biomarkers are not associated with stress fracture risk during U.S. Army Basic Combat Training	Jeffery S Staab	Board 1
	Qualitative exploration of US Reserve Officers' Training Corps trainees' reasons for injury concealment	Joshua Wooldridge	Board 2
	Effect of Army Combat Fitness Test training on low back pain in US Army basic combat trainees	David Zeppetelli	Board 3
	Identifying risk factors is imperative in reducing the costly burden on neck pain in fast jet aircrew: preliminary analyses of a two-year prospective study	James Wallace	Board 4
	Biopsychosocial factors associated with musculoskeletal injury in Marine Corps Officers differ between males and females	Sarah J de la Motte	Board 5
	Screening to predict risk of injury in tactical athletes (SPRINT): a scoping review	David M Boland	Board 6
	U.S. Army Reserve Command Holistic Health and Fitness Pilot evaluation	Anna Renner	Board 7
	Differences in injuries during road marching among male and female U.S. Army soldiers	Anna Renner	Board 8
	Effects of different load carriage systems on LEAP performance, mobility, and perceived comfort in male and female police officers	Ester Heslen	Board 9
	Association between self-reported injury history, physical complaints, and medical attention injury during Army basic military training	Neil Gibson	Board 10
	Hamstrings work demands during heavy load carriage are related to walking slope	Anne Silverman	Board 11
	A wearable sensor system for in-flight measurement of neck loads in fast jet aircrew: key observations from typical air combat manoeuvres	Phil Newman	Board 12
	Can the Y-Balance test be used as a predictor of injury occurrence during military training?	Alisa Hui Na Lau	Board 13
	Implementation of Rehabilitation Exercise (PX) in the Singapore Army	Denise Seow	Board 14
	The effect of external load on approximated centre-of-mass vertical movement during treadmill marching	Kane Middleton	Board 15
	Assessing biomechanical and physiologic response to training in female warfighters using virtual avatars	Adam M Hott	Board 16
	Inclusion of rehabilitation as part of the management of the injured soldier	Cyrille Crochet	Board 17
	Conception of a guided rehabilitation form after an lateral ankle sprain for the French Armed Forces with a delphi method	Alexandra Malgoyre	Board 18
	Are parity status or injury history related to knee kinematics in a bodyweight overhead squat to assessment in military servicewomen?	Chris M Edwards	Board 19
	The validity of Loadsol® pressure insoles during treadmill load carriage across different speeds, external loads, and footwear	Corey Perrett	Board 21
	Simulation-Informed Machine Learning Model for Predicting Musculoskeletal Kinetics of 'Shoot on the Move'	Connor Pyles	Board 22
	Comparison of strikes and front kick from an inverse dynamic's perspective and their protective benefit from a view of possible damage to the striking surface of the hand at the military personnel	Michal Vagner	Board 23
	Health and Wellbeing		
	Self-reported gastrointestinal symptoms and diarrhoea in Special Operations Forces personnel deployed to Afghanistan	William R Konkright	Board 24
	Heart rate variability profile of a specialist police selection assessor	Colin Tomes	Board 25
	eHealth platform with integrated wearable biosensor facilitates scaling of targeted military fitness intervention	Alexander Nicholls	Board 26
	The challenge of excess body fat in military personnel: prevalence and comparison between men and women	Thabata Chaves Pereira Lima	Board 27
	The AVU-IGF: Ensuring medical and operational readiness by means of a regular and comprehensive health assessment	Alexander Sievert	Board 28
	Metabolic and inflammatory features of physically active and low-active military police officers	Diego Ribeiro de Souza	Board 29
	High versus low self-perceived occupational demand profiles among employees of the Dutch Gendarmerie Corps	Pablo Stegerhoek	Board 30
	Epidemiology		
	Challenges in advanced foodborne disease outbreak surveillance systems: identifying and handling algorithmic bias using the national outbreak reporting system, 2009-2019	Emily Diemer	Board 31
	U.S. Defense Safety Oversight Council (DSOC) Military Injuries Working Group (MIWG): a collaboration to reduce military injuries	Michelle Canham-Chervak	Board 32
	Burden and risk factors for plantar fasciopathy in the military population from 2006 to 2015: a retrospective cohort study	Jennifer Xu	Board 33
	Environmental Stressors, Exposures, and Injuries		
	Physiological markers of heat stroke during loaded ruck marches	Emma Atkinson	Board 34
	Influence of hand temperature on core temperature afterdrop following cold-water immersion in operational settings	Douglas M Jones	Board 35
	Evaluation of thermal and pain sensations to predict frostbite risk during localised cold stress and recovery	Rebecca Weller	Board 36
	Effect of single versus twice daily heat acclimatisation on 5 km running performance in tropical native soldiers	Edwin Chong	Board 37
	Neurobiomarker responses to thermal stress with physical activity: prior endurance exercise may confound mTBI diagnosis using UCHL1	Mike Stacey	Board 38
	Assessing the predictive value of body surface area to mass ratio for heat intolerance in military personnel: a retrospective cohort study	Inbal Akavian	Board 39
	Impact of 12 km military march on skin temperature using infrared thermography	Danielli Mello	Board 40
	Thermoregulatory model validation of physical readiness training guidance to prevent cold-weather injuries	John W Castellani	Board 41
	Cognitive assessment during heat tolerance test (HTT) of combat soldiers post exertional-heat injury	Itay Ketko	Board 42
	Is there an anthropometric bias in the heat tolerance test? Exploring heat intolerance further with a human conceptual heat balance approach	Philémon Marcel-Millet	Board 43
	Impact of acute and habitual caffeine consumption on local tolerance to cold after total sleep deprivation	Fabien Sauvet	Board 44
	Managing heat stress: from science to practical implementation	Karl Jochen Glitz	Board 45
	Individual vulnerability to hypoxia: impact of an HMOX2 single nucleotide polymorphism on chemosensitivity in Caucasians	Pierre Fabries	Board 46
	History of freezing cold injury is associated with persistent decrease in local response to cold: a case control study	Melchior Arnal	Board 47
	Influence of skin temperature responses to cold water immersion as a predictor for cold shock response magnitude	Rebecca McClintock	Board 48
	A comparison between a HR-based temperature algorithm and gastrointestinal temperature in military personnel during heat acclimation.	Sam Ballak	Board 50
	Thermal manikin tests of the multilayer thermal insulation of combat winter clothing	Solène Champigny	Board 51
	Effect of a lightweight packable insulation blanket on body core and skin temperatures during passive exposure to -30°C: a pilot study	Lennart Teunissen	Board 52
	Using axillary skin temperature to monitor core temperature in military scenarios: an exploratory investigation	Minhee Lee	Board 53
13:15 to 14:00	Lunch		
14:00 to 16:00	DSEI		
16:00 to 17:30	Thematic Sessions 16 to 19		
	Thematic 16: Physiological consequences of arduous military energy deficits and the anabolic role of protein nutrition	Jess Gwin	Main
	Thematic 17: Survive and thrive in the cold	Karl Friedl; Hilde K Teien	1
	Thematic 18: Collaborative research on resilience across The Technical Cooperation Program member nations	Jennifer EC Lee	2
	Thematic 19: Human performance optimisation for the warfighter: keeping it simple in a complex age	Jonpaul Nevin	3
17:30 to 18:00	Coffee Break		
18:00 to 19:30	Thematic Sessions 20 to 23		
	Thematic 20: Considerations in programming physical training in a military environment	Heikki Kyröläinen; Bradley C Nindl	Main
	Thematic 21: Reducing musculoskeletal injuries in the military: a consensus approach to tackling a shared wicked problem	Joanne L Fallowfield	1
	Thematic 22: Exertional heat illness prevention: considerations for planning and real-time monitoring	Mark Buller	2
	Thematic 23: Fatigue and management of warfighter mental endurance	Karl E Friedl	3

THURSDAY (14/09/2023)

Time	Title	Presenter or Chair	Room
08:30 to 10:00	Oral Communication 14: Musculoskeletal Injury and Physiology; Chair: Dr Tim Doyle		Main
	Lumbar spine injury risk during heavy load carriage when walking on slopes	Anne Silverman	Main
	Effects of stature and load carriage on the running biomechanics of healthy men	Jaques Reifman	Main
	Effects of stature and stride length on the running biomechanics of healthy women	Jaques Reifman	Main
	Speed and load, but not grade, reduce shock attenuation during a simulated ruck	AuraLea Carylon Fain	Main
	The effect of speed and load on non-linear measures of stride time	Patrick Slattery	Main
	The effect of biological sex and external load on lower extremity coupling variability of military personnel	Brooke Hoolihan	Main
	Oral Communication 15: Psychological Resilience and Performance; Chair: Dr Karl Friedl		1
	A six-week brain endurance training (BET) program improves endurance and cognitive performance, and enhances resilience to fatigue in elite athletes	Walter Staiano	1
	Using accelerometry and heart rate data for non-metabolic stress modelling and real-time monitoring of soldiers' stress in dynamic military virtual reality scenario's	Olaf Binsch	1
	Sleep and work demands contribute to daytime impairment and depressive symptoms in a shipboard environment	Alice LaGoy	1
	The relationship of psychological inflexibility and the experience of pain in active-duty US Army soldiers	Jason Lee Judkins	1
	Sex differences in mood states and cortisol response to hand-to-hand combat training in U.S. Military Academy Cadets	Meaghan E Beckner	1
	Oral Communication 16: Environmental Stressors, Exposures, and Injuries; Chair: Dr Hilde Teien		2
	British military personnel with non-freezing cold injury have increased pain and reduced quality of life due to delayed and unsuitable rehabilitation	Lynn Kelly	2
	Potential impact of a ventilated vest on perception, physiology, and cognition of Soldiers in controlled and uncontrolled warm environments	Milene Catoire	2
	Physiological and subjective responses during work in encapsulated suits under day and night conditions in the tropics	Wee Hon Ang	2
	Heat stress in armoured vehicles: challenges and solutions	Maria Richter	2
	Susceptibility to acute mountain sickness negatively impacts sleep and nocturnal oxygenation at 3600 m but active ascent does not result in greater decrements	Steven Landspurg	2
	Oral Communication 17: Physical Performance; Chair: Dr Charlotte Coombs		3
	The Pandolf load carriage equation systematically underpredicts the metabolic cost of load carriage in males and females	Jace Drain	3
	Physiological responses across a 2-hour loaded march in male soldiers	Ben Dascombe	3
	The physiological and biomechanical effects of weapon handling during load carriage	Danielle M Vickery-Howe	3
	Cardiorespiratory responses to torso-borne loaded marching in British Army Infantry soldiers & physically active civilians	Josh Osofa	3
	Respiratory muscle strength in British Army Infantry recruits	Nicola Armstrong	3
	The impact of torso-borne load-carriage on operating lung volumes and breathing patterns during marching in British Army Infantry soldiers and physically active civilians	Mitch Lomax	3
10:00 to 10:15	Coffee Break		
10:15 to 11:45	Thematic Sessions 24 to 27		
	Thematic 24: Epidemiology of musculoskeletal injuries in female military personnel: descriptive data and risk factors	Mita Lovalekar	Main
	Thematic 25: Internal dialogue: deciphering the role of the gut microbiome in health and performance	Sarah Harding	1
	Thematic 26: Exertional heat illness and recovery or return to duty: international lessons learned and best practices for the future	Yoram Epstein; Jason Lee	2
	Thematic 27: Evidenced-based interventions to decrease overuse musculoskeletal injury prevalence in military training	Tara Reilly	3
11:45 to 12:15	Lunch		
12:15 to 13:45	Oral Communication 18: Musculoskeletal Injury and Physiology; Chair: Dr Tom O'Leary		Main
	Areal bone mineral density changes in soldiers attending U.S. Army Ranger training	William R Konkright	Main
	Acute and chronic high load intensity resistance exercise is associated with changes in bone-related biomarkers	Kristen J Koltun	Main
	Lower baseline trunk areal bone mineral density, not cortical parameters, predicts greatest density changes at the axial skeleton in recreationally active men and women following 12 weeks of concurrent resistance training	Nicole Sekel	Main
	Sleep characteristics associated with musculoskeletal injuries in female Canadian Armed Forces members	Jessica L Puranda	Main
	Externally validated machine learning algorithm accurately predicts medial tibial stress syndrome in military trainees: a multi-cohort study	Phil Newman	Main
	Predictors of musculoskeletal injury during U.S. Army Basic Combat Training	Stephen Foulis	Main
	Oral Communication 19: Health and Wellbeing; Chair: Dr Tara Reilly		1
	Effects of an operational physical training program applied during service on the body composition and oxidative stress of military policemen	Fernanda Monma	1
	Self-reported intentions to seek medical attention for musculoskeletal injuries, concussions, and exertion-related injuries during military training	Alex Gregory	1
	The association of barriers with care-seeking for musculoskeletal injuries in Canadian military personnel using scenario-based questionnaires	Jennifer Born	1
	Sleep in British Army basic training: an observational analysis	Alex J Rawcliffe	1
	Sex differences in sleep across a large cohort of military personnel	Bradley M Ritland	1
	The relationship between sleep quality and poor health symptoms in US Navy sailors	John Casachahua	1
	Oral Communication 20: Physical Performance; Chair: Dr Jace Drain		2
	A 20 h military field training decreases the soldier's ability to perform casualty emergency evacuation	Jussi Mussalo	2
	Changes in physical training, physical performance, and injury after implementation of an age and gender-neutral military fitness test	Tyson Grier	2
	Establishment of reference body composition values for healthy fit military men and women: new and improved physical readiness metrics	Karl Friedl	2
	Are front length and chest breadth effective predictors of ergonomic fit of body armour systems?	Celeste Coltman	2
	Predictive value of modifiable and nonmodifiable characteristics on passing a military-based physical employment standard assessment in physically-active men and women	Evan Feigel	2
	Fitness assessment tests predict operational performance on standardised LEAP obstacle course	Lotte Linssen	2
	Oral Communication 21: Epidemiology; Chair: Dr Henriette Hasselstrom		3
	Prevalence of exertional heat illness risk factors in a healthy military population	Kyla Driver	3
	Applications of the Taxonomy of Injuries injury definition and standardised medical encounter reporting	Anna Renner	3
	The prevalence of Medial Tibial Stress Syndrome in the British Armed Forces: a secondary data analysis based on data from the Armed Forces medical electronic notes system	Emma Farquharson	3
	Risks associated with injury in soldiers following knee surgeries at on-post versus off-post surgical facilities	Benjamin Adams	3
	The effect of aerobic activity and combat exposure on new-onset mental health diagnoses after deployment to a combat zone	Diane Williams	3
	Half a decade of heat injuries in the Israel Defense Forces (IDF) – lessons learned and future directions	Inbal Akavian	3
12:15 to 13:45	Posters 3		Posters
	Physical Training		
	The concept of military endurance training in the Danish Defence	Jesper Gronemann Wendell	Board 1
	The influence of a field-based training on anthropometric measures among Brazilian cadets	Willian C Botta	Board 2
	Heart rate variability assessment of land navigation and load carriage in specialist police selection training	Colin Tomes	Board 3
	Motivation for physical training among Danish military personnel: a cross sectional survey	Frank Thøgersen	Board 4
	The effects of survival-run training on creativity and physical adaptivity	Kaj Gijbsertse	Board 5
	Designing human performance tools for US Army Holistic Health and Fitness technology enablement	Teo Balbach	Board 6
	The development of quantitative performance metrics for squads entering and clearing a room (Battle Drill 6)	Meghan O'Donovan	Board 7
	Outcomes following musculoskeletal injury during Army basic training	Andrew Roberts	Board 8
	Nutrition and Metabolism		
	The Future Defence Deployed Nutrition Programme: a pilot study to assess the utility of a new self-sustaining rapid insertion ration during a 7-day military field exercise	Daniel Rowland	Board 9
	The influence of pre-sleep protein supplementation on recovery from load carriage in British Army recruits	Shaun Chapman	Board 10
	Associations of baseline vitamin D level with acute respiratory infections, inflammation markers, and cathelicidin through 14-week follow up in conscripts	Akseli Laaksi	Board 11
	Caloric expenditure of special forces operators during multi-day winter warfare training	Andrea Givens	Board 12
	Comparison of weighed-food and food diary methods for measuring energy and macronutrient intake during arduous military training	Sally R Handford	Board 14
	Macronutrient recommendations for basic military training to mitigate musculoskeletal injury incidence: a narrative review	Nick Dontje	Board 15
	Effectiveness of food supplements among soldiers during an outfield military exercise	Rachel Leah Yeow	Board 16
	Lipid profile improved in young soldiers during energy-restricted military training	Tarja Nykänen	Board 17
	Longitudinal evolution of body composition and energy expenditure during a basic course for Special Operations Regiment (SOR BC)	Annelore Gemmeke	Board 18
	The impact of Holistic Health and Fitness (H2F) on the nutritional readiness of U.S. Army soldiers: results from the 2023 Soldier Readiness Survey	Brenda D Bustillos	Board 19
	Trial Design, Methods, Conduct, and Reporting		
	Repeatability and reproducibility of a standard test method for measuring head-supported mass properties	Marina Carboni	Board 20
	Rapid Assessment of changes in jump performance following a 36-hour field exercise using a semi-automated force-plate system	Patrick W Bray	Board 21
	Effects of body size on range of motion measurements in product testing	Hyegjoo E Choi-Rokas	Board 22
	The benefits and practicality of utilising a baseline data collection period in research at military training establishments	Faye Walker	Board 23
	Female Physiology		
	Self-reported hormonal contraceptive use in female recruits during British Army basic training	Bethany J Moxham	Board 24
	Comparison of body segment masses between male and female postmortem human specimens	Meghan P O'Donovan	Board 25
	Defining a sports bra for fitness - U.S. Army	Michael S McGurk	Board 26
	To fit or not to fit: How the body armor issuing process differs for males and females	K Blake Mitchell	Board 27
	Relationship between subjective ratings of fit and performance for female soldiers	K Blake Mitchell	Board 28
	Cognitive Performance		
	Cognitive load, distraction, and information pickup in a dynamic visual search task	Brian Higginson	Board 29
	Accuracy-reaction time trade off in dynamic marksmanship task under different mechanical and cognitive loads	Brian Higginson	Board 30
	The effects of probabilistic information and gaming experience on a performance in a military specific shoot / don't-shoot task	Christopher Vine	Board 31
	Unregulated caffeine consumption and the cognitive performance of Israeli Infantry Special Forces trainees during a 96-hour field combat exercise	Itay Ketko	Board 32
	The Effect of rotary shifts on the cognitive performance of Israeli Submariners: preliminary results	Itay Ketko	Board 33
	Effects of heat stress in armoured vehicles on cognitive performance and their mitigation due to individual cooling: Preliminary results of a pilot study	Alexander Witzki	Board 35
	Exploring relationships between fireteam communication and marksmanship performance across varying engagement workload conditions.	Peoneti MD Lam	Board 36
	Measuring the effects of concurrent and subsequent physical activity on cognitive performance by using the Load Effects Assessment Program (LEAP) obstacle environment	Olaf Binsch	Board 37
	The potential effects of mental fatigue on marksmanship judgment performance: insights from research on physically and cognitively demanding sport	Hui Kwan Nicholas Lam	Board 38
	Feasibility and methodology of neurofeedback training to optimise attentional performances of healthy soldiers	Clémentine Jacques	Board 39
	The Relationship Between Marksmanship Qualification Scores and a Simulated Marksmanship Performance Task	Jose Villa	Board 40
	Psychological Resilience and Performance		
	The mental preparation of the Military and Sports Physical Training Instructors (SPTI) in formation	Gilles Fégueux	Board 41
	Sustainable physical and mental readiness training for tactical operators	Richard E Cleveland	Board 42
	An ecological approach to clinically assess nightmares in military service members with severe PTSD	Emeric Saguin	Board 43
	The relationship between frequency of psychological skills application and novices' shooting performance in the military	Rachel Chan Sihui	Board 44
	Dynamic associations between catastrophic thinking and PTSD among active duty military personnel receiving cognitive processing therapy	Sarah Vacek	Board 45
14:00 to 14:45	Keynote 4	Maj Gen Tim Hodgetts	Main
14:45 to 15:15	Coffee Break		
15:15 to 16:45	Thematic Sessions 28 to 30		
	Thematic 28: Holistically assessing dismounted infantry performance: bridging science and operational relevancy	Jennifer Sperlein	Main
	Thematic 29: Adopting a systems health approach to enhance warfighter readiness and resilience	Chris Connaboy	1
	Thematic 30: Mountain warfare: examining the effects of multi-week field training exercises in austere environments on warfighter health and readiness	Douglas M Jones	2
17:00 to 18:00	Closing	Brig Tony Finn	Main
18:30 onwards	Gala Reception and Keynote Speaker	Prof Ben Goldacre	Gala