

Thursday 30 November 2017

08.00am	Registration Open			
	Room 105/106			
08.30-09.30	Invited keynote: Louise Burke, Australia Supporting training and performance in the military environment through nutrition and supplementation			
09.30-10.30	Invited keynote: Maria Fiatorone Singh, Australia Resistance training, it's a no brainer....			
10.30-11.00	MORNING TEA			
	Room 103	Room 104	Room 105	Room 106
11.00-12.00	Featured Science Session 13 - Injuries and injury surveillance systems in military and other tactical occupations <i>Session chair: Rob Orr, Australia</i>	Featured Science Session 12 - Fitness, training, cognitive and hormonal characteristics associated with musculoskeletal injury and physical performance in Special Operation Forces - an international perspective <i>Session chair: Kim Beals, USA</i>	Featured Science Session 11 - Sex-specific considerations in stress fracture risk of military personnel <i>Session chair: Julie Greeves, UK</i>	Featured Science Session 10 - Metabolic fuelling for performance and recovery during high altitude combat operations <i>Session chair: Stefan Pasiakos, USA</i>
	Injuries suffered by Australian Army recruits completing basic training Ben Schram, Australia Evaluation of musculoskeletal injury trends in United States initial entry Soldiers Jo Ellen Sefton, USA Injuries suffered by an Australian State Police Force Michael Stierli, Australia Contributing factors to structural firefighter injury Kaitlin McGinnis, USA	The association of physical training with musculoskeletal injuries in US Special Operation Forces Kim Beals, USA Special operations mental agility training for the Canadian Special Operations Forces Command Paige Mattie, Canada Changes in body composition, power and hormonal status during and after a prisoner of war exercise in Norwegian Navy Special Operations Command (NORNAVSOC) recruits Paul Andre Solberg, Norway Stress and determinants of shooting performance among Norwegian Navy Special Forces Operators	Sex differences in skeletal adaptation to mechanical loading: implications for stress fracture risk Rachel Izard, UK The incidence and risk factors for stress fractures and other injuries among U.S. Army trainees Bruce Jones, USA Risk of lower extremity stress fracture with commonly prescribed drugs in female warfighters Julie Hughes, USA Iron: an essential nutrient for warfighter performance James McClung, USA Intervention program to lower overuse injuries	Physiological effects of hypoxia on Warfighters conducting high-altitude operations Andrew Young, USA Nutritional countermeasures to skeletal muscle loss during high-altitude operations Stefan Pasiakos, USA Appetite and diet composition at high altitude Philip Karl, USA Effects of carbohydrate supplementation during aerobic exercise and altitude acclimatization on exogenous carbohydrate oxidation and performance Robert Kenefick, USA

		Jan Erik Buskerud, Norway	among women warfighters Ran Yanovich, Israel	
	Free Communication Session 11 - load carriage 2	Free Communication Session 10 - Injury prevention 2		
12.00-12.15	Physiological factors of importance for load carriage Mikael Mattsson, Sweden	Utility of incident and injury surveillance systems for incident and injury risk management in tactical populations Rod Pope, Australia		
12.15-12.30	The effects of increasing thoracic load carriage, using a backpack and body-armour ensemble, on peak aerobic power and exercise tolerance Gregory Peoples, Australia	Force preservation through individual blast exposure surveillance Scott Featherman, USA		
12.30-12.45	Vertical ground reaction forces and sagittal plane ankle kinetics during stair ascent and descent as a function of load carried Harrison Crowell, USA	Embedded physiological monitoring programme to reduce injury rates David Edgar, New Zealand		
12.45-13.00	Lower-limb joint work and power are modulated differently during load carriage based on speed and load configuration Gavin Lenton, Australia	Does low aerobic performance increase musculoskeletal injury risk in the military? a systematic review with meta-analysis Jeremy Witchalls, Australia		
13.00-13.15	The soldier's load: how much is enough? Stephen Rudzki, Australia			
13.00-14.00	LUNCH AND POSTER SESSION 2			
	Room 103	Room 104	Room 105	Room 106
	Free Communication Session 12 - Sleep and recovery	Featured Science Session 16 - Wearable assistive devices for dismounted soldiers Session chair: Angela Boynton, USA	Featured Science Session 15 - Physical performance in soldiers at environmental extremes: responses and adaptations Session chair: Julien Périard, Australia	Featured Science Session 14 - Non- pharmacological military performance enhancement technologies Session chair: Karl Friedl and Mark Buller, USA
14.00-14.15	Efficacy of THN102, a new combination between modafinil and flecainide low-dose,	Viability of using a wearable assistive device to reduce soldier burden	Mitigating the impact of cold air exposure on	A novel individual heat acclimatisation dosimeter concept

	during total sleep deprivation in healthy subjects: a double-blind, randomized, placebo and modafinil controlled study Fabien Sauvet, France	Thomas Karakolis, Canada Powered lower limb soft exosuit to reduce energy cost during load carriage Angela Boynton, USA	soldier wellbeing and performance Jay Ollie, Australia Heat stress and the modern day soldier: can we prevent heat illness? Julien Périard, Australia	Simon Delves, UK Physiologically-based real-time pacing algorithms Mark Buller, USA
14.15-14.30	Effective soldier's recovery and dynamic sleep: objective method for evaluating transient sleeping environments Olga Troynikov, Australia	Passive exoskeleton to transfer backpack mass to the ground Kurt Mudie, Australia Effect of a load distribution system on mobility and performance during simulated and field hiking while under load Karen Kelly, USA	Altitude: friend or foe? Laura Garvican-Lewis, Australia Challenges and opportunities of aquatic environments for healthy and injured soldiers Jim Cotter, New Zealand	Subject-specific prediction of body core temperature using nonlinear population modelling Kok-Yong Seng, Singapore
14.30-14.45	Analysis of work-rest profiles, fatigue and performance during an ANZAC class frigate cruising watch Helen Kilding, New Zealand	Mitigating load carriage burden – the Dynamic Weight Distribution (DWD) hip belt Yoram Epstein, Israel Wearable energy harvesting technologies: physiological cost and operational readiness Courtney Haynes, USA		Predicting individual risk of altitude illness using real-time monitoring of accumulated hypoxic debt Beth Beidleman, USA
14.45-15.00	Auditory closed-loop stimulation to enhance sleep quality Pierrick Arnal, France	Relationship between metabolic cost and power output with a prototype energy harvesting assault pack Courtney Haynes, USA		Auditory closed-loop stimulation to enhance sleep quality Pierrick Arnal, France
15.00-15.15	Secular trends in insomnia and associations with deployment and combat exposure in the entire population of US Army Soldiers, 1997-2011 Joseph Knapik, USA			
15.30-16.00	AFTERNOON TEA			
	Room 101/102	Room 103	Room 104	
16.00-17.00	Free Communication Session 13 - Impact of deployment and combat exposure	Thematic Oral Poster Session 6 - Psychological and cognitive considerations	Thematic Oral Poster Session 7 - Occupational performance and testing 2	
	The physical demands of military operators during a 4 month peace keeping mission in Mali Gerard Rietjens, The Netherlands	Self-reported combat-related symptom scores change after witnessing a teammate's improvement following stellate ganglion block for post-traumatic stress symptoms James Lynch, USA	A fitness assessment for the Canadian Army - FORCE combat Tara Reilly, Canada	
	The Shared Motorised Military Land Transit Experiences of Australian Defence Force Infantry Personnel Thomas Debenedictis, Australia	Using a controlled virtual reality simulation platform to induce, measure and feedback	A physical employment standard for the Royal Air Force Regiment James Treweek, UK	

		stress responses of soldiers Olaf Binsch, The Netherlands	
	Disease and non-battle injuries (DNBI) in austere environments: lessons learned, for the DoD Role I, from CL Garoua, Cameroon, U.S. Army Africa (USARAF/SPMAGTAF) Paul Auchincloss, USA	A preliminary study of the effects of load carriage on cognition during a simulated military task in male and female soldiers Nicola Armstrong, UK	USAF occupationally specific, operationally relevant physical fitness tests and standards: effects of mission and environmental stressors Neal Baumgartner, USA
	The impact of a military training and operational deployment on health and performance measures in submariners of the Royal Netherlands Navy Pieter Helmhout, The Netherlands	Effects of military survival training on Brazilian Air Force soldiers' cognitive function Patricia Paiva, Brazil	A comparison of the metabolic demands of Royal Australian Navy criterion tasks to other physically demanding occupations Catriona Burdon, Australia
		Tactics to Optimize the Potential (TOP) program for French military forces Laurent Rocco, France	A novel method for estimating pull forces during a casualty extraction task Kane Middleton, Australia
		Mental fatigue influences subsequent marksmanship decision James Head, USA	
17.00-18.30	Results from an International Survey - Critical Research "Gaps/Needs/Priorities" pertaining to Soldiers' Physical Performance Marilyn Sharp, USA Interactive Case Study – Dismounted Soldier Performance Assessment: Going Beyond the Individual Graham Fordy, New Zealand		

The program is subject to change.