



**International Conference on
Inter-Individual
Variation in Resistance
Training Responses**

**November 19-21, 2025
Jyväskylä, Finland**

25th International Symposium, Faculty of Sport and Health Sciences

Conference program

(Last updated: November 6th, 2025)

WEDNESDAY, November 19th

- 11:00 Registration opens
- 12:00 - 12:15 Conference Opening
Conference Chair – Juha Ahtiainen, Associate Professor,
University of Jyväskylä, Finland
Dean of the Faculty of Sport and Health Sciences – Sarianna
Sipilä, Professor, University of Jyväskylä, Finland

Session 1
Chair: Juha Hulmi, Professor, University of Jyväskylä, Finland

- 12:15 - 13:00 Individuality in Resistance Training Responses: What Is It All About?
Juha Ahtiainen, Associate Professor, University of Jyväskylä,
Finland

13:00 - 13:45 Keynote: Response Heterogeneity to Resistance Training: What Have We Learned Since 2018
Michael Roberts, Professor, Auburn University, USA

13:45 - 14:30 **Coffee Break and Exhibition**

Session 2

Chair: Troy Hornberger, Professor, University of Wisconsin-Madison, USA

14:30 - 15:15 How Muscle Glycolytic Metabolism Adapts to Muscle Growth
Juha Hulmi, Professor, University of Jyväskylä, Finland

15:15 - 16:00 Keynote: Ribosome Production and Specialization in the Control of Skeletal Muscle Mass
Gustavo Nader, Professor, Penn State University, USA

Sponsor presentations:

16:00 - 16:10 Grip Strength, Lumberjacks, and the World's Strongest Man: Objective measurements and strength profiles
Markus Kuusela, Business Development Manager, VALD Performance

16:10 - 16:20 Explosive and Speed Strength training with HUR Pneumatic equipment - case Tappara
Anssi Lipsonen, Sales Director, and Kai Ahlroth, Sales Manager, Hur Ltd.

16:30 - 19:00 **Welcome Reception and Poster Presentations**

THURSDAY, November 20th

Session 3

Chair: Gustavo Nader, Professor, Penn State University, USA

9:00 - 9:45 Keynote: Genetics of Individual Variation in Physical Traits
Markus Perola, Research Professor, University of Helsinki, Finland

9:45 - 10:30 Genomewide Scoring of Human Performance and Physical Activity Behavior
Elina Sillanpää, Associate Professor, University of Jyväskylä, Finland

10:30 - 11:00 Coffee Break and Exhibition

Session 4
Chair: Michael Roberts, Professor, Auburn University, USA

11:00 - 11:45 Keynote: Identifying the Mechanisms Through Which Mechanical Stimuli Regulate Muscle Mass
Troy Hornberger, Professor, University of Wisconsin-Madison, USA

11:45 - 12:30 Keynote: The Cellular and Molecular Basis of Muscle Memory
Abigail Mackey, Clinical Professor, University of Copenhagen, Denmark

12:30 - 13:45 Lunch

Session 5
Chair: Philip Atherton, Professor, University of Nottingham, UK

13:45 - 14:30 Keynote: Assessing Individual Response to Resistance Training – Biological Plausibility, Logical Rigor, and Practical Constraints
Anne Hecksteden, Professor, University of Innsbruck, Austria

14:30 - 15:15 Keynote: Multidimensional Biocircuitry of Inter-individual Exercise Response Heterogeneity
Marcas Bamman, Professor, IHMC, Pensacola, USA

15:15 - 15:45 Coffee Break and Exhibition

Session 6
Chair: Sheila Gagnon, Senior Lecturer, University of Jyväskylä, Finland

15:45 - 16:30 Keynote: Can We All Be a Bodybuilder? Lessons For 'Hard Gainers' from the Gym to the Lab and Back (Virtual)
Stuart Phillips, Professor, McMaster University, Canada

16:30 - 17:00 Short Oral Presentations

16:30-16:40 Does Human Muscle Volume Homeostatically Adapt to Bone Volume?

Brecht D'hoë, University of Ghent, Belgium

16:40-16:50 The effect of a 12-week time-specific strength-aerobic training programme on body composition, metabolic health, and muscle strength in elderly females.

Ludmila Oreská, Comenius University, Bratislava, Slovakia

19:00

Conference Dinner

Sataman Viilu, Satamakatu 10, 40100 Jyväskylä

FRIDAY, November 21st

Session 7

Chair: Anne Hecksteden, Professor, University of Innsbruck, Austria

9:00 - 9:45 Short Oral Presentations

9:00-9:15 Individual responses to multicomponent physical training in older adults – secondary analysis of controlled trial

Onni Hämmäläinen, University of Jyväskylä, Finland

9:15-9:30 The Effect of Resistance Training Volume on Individual-Level Skeletal Muscle Adaptations: A Novel Randomized Replicated Within-Participant Unilateral Trial

Zac Robinson, Florida Atlantic University, USA

9:30-9:45 Meta-analytic methods for exploring intervention effect heterogeneity: Examples of application in a large-scale resistance training dataset

James Steele, Steele Research Ltd, UK

9:45 - 10:30 Keynote: Muscle Fiber Types and Strength Training Response

Wim Derave, Professor, University of Ghent, Belgium

10:30 - 11:00

Coffee Break and Exhibition

Session 8

Chair: Marcos Bamman, Professor, IHMC, Pensacola, USA

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| 11:00 - 11:45 | Keynote: Exploring Predictors, Mechanisms, and Individuality in Adaptability to Distinct Exercise Modes: A Crossover Approach
Philip Atherton, Professor, University of Nottingham, UK |
| 11:45 - 12:30 | Keynote: Manipulating Resistance Training Variables to Optimize Muscle Hypertrophy: A Summary of Expert Consensus
Brad Schoenfeld, Professor, Lehman College, New York, USA |
| 12:30 - 13:45 | Lunch |

Session 9

Chair: Juha Ahtiainen, Associate Professor, University of Jyväskylä, Finland

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| 13:45 - 15:00 | Short Oral Presentations |
| 15:00 - 15:05 | Conference Closing |