



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

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

25<sup>th</sup> International Symposium, Faculty of Sport and Health Sciences

## **Conference program**

*(Last updated: November 6<sup>th</sup>, 2025)*

### **WEDNESDAY, November 19<sup>th</sup>**

- 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: Multidimensional Biocircuitry of Inter-individual Exercise Response Heterogeneity  
Marcas Bamman, Professor, IHMC, Pensacola, 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 20<sup>th</sup>

#### Session 3

Chair: Karsten Koehler, Professor, Technical University of Munich, Germany

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: Ribosome Production and Specialization in the Control of Skeletal Muscle Mass (Virtual)  
Gustavo Nader, Professor, Penn State University, 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 21<sup>st</sup>

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 Härmäläinen, 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

- 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

- 13:45 - 15:00      Short Oral Presentations
- Repeatability of Skeletal Muscle Size and Strength Responses to Resistance Training  
Sasu Kaasinen, PhD student, JYU
- The Effect of Diet Quality on Skeletal Muscle Hypertrophy  
Esko Tiainen, PhD student, JYU
- Is There an Upper Limit to Training Volume for Hypertrophy?  
Aapo Rantilä, PhD student, JYU
- Different protein profiles display unequal changes after resistance training and a training break  
Eeli Halonen, PhD student, JYU
- Heterogeneity in Acute Resistance Exercise-Induced Changes in the Reticulospinal Excitability  
Jun Zhou, PhD student, JYU
- Glucose as a building block in muscle growth  
Sakari Mäntyselkä, PhD student, JYU
- Assessment of Individual Response Variation Following Resistance Training: Statistical Insights  
Sergi Manzano, PhD student, JYU

15:00 - 15:05      Conference Closing

15:10              Laboratory tour. Departure from the 3rd floor lobby (in front of the conference auditorium). Led by Sasu Kaasinen.