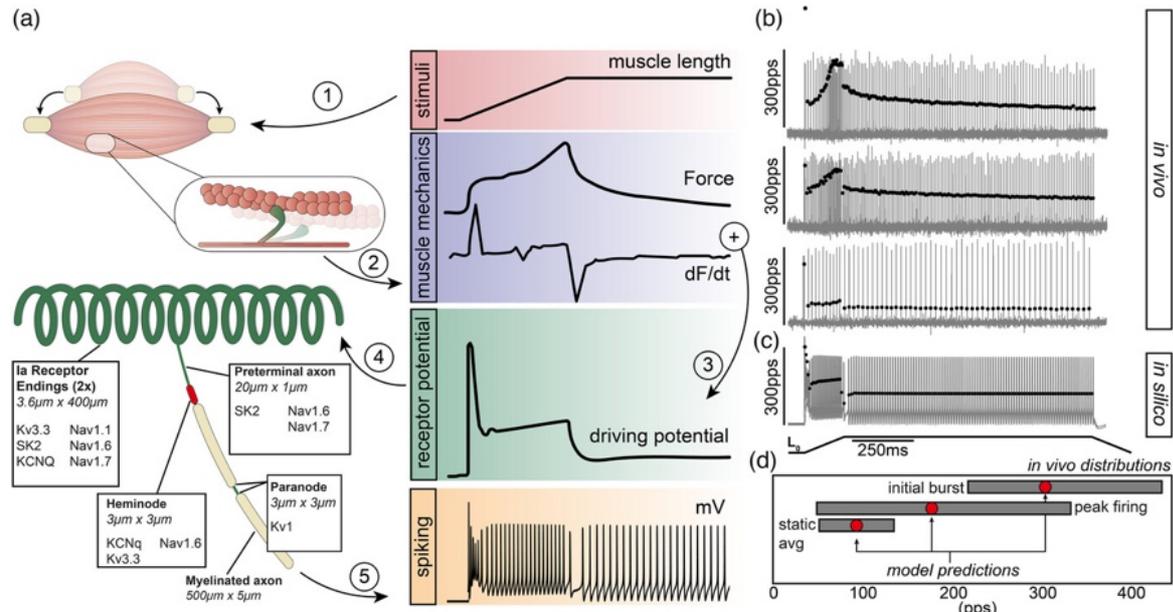


# Provisional Programme 240326

## The 3<sup>rd</sup> Mechanotransduction, Muscle Spindles and Proprioception conference

Monash Prato Campus  
Via Pugliesi 26, 59100 Prato, Italy  
June 29–July 1, 2026

Experimental  
Physiology



Housley SN, Powers RK, Nardelli P, Lee S, Blum K, Bewick GS, Banks RW, Cope TC. Biophysical model of muscle spindle encoding. *Exp Physiol.* 2024 109: 55-65



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**Monday, June 29**

9:15-9:30

**Bridgette Watkins & Vaughan Macefield**

Welcome to the 3<sup>rd</sup> Conference

## **Session 1: Chair – Vaughan Macefield**

9:30-10:30

**Robert Banks**

University of Durham, United Kingdom

*Some properties of equatorial nuclear membranes*

10:30-11:00

*Morning Tea*

11:00-11:30

**Guy Bewick**

Institute of Medical Sciences, University of Aberdeen, UK

*Further investigations into the role of Piezo2 in stretch-evoked responsiveness in mammalian muscle spindle afferents: a progress report*

11:30-12:00

**Stephan Kröger**

Ludwig Maximilians University, Germany

*3D Electron Microscopic Reconstruction of the Central Region of a Murine Muscle Spindle – A Progress Report*

12:00-12:30

**Arzu Petersen**

Center of Anatomy and Cell Biology, Medical University Vienna, Austria

*Molecular properties of muscle spindles in extraocular muscles of humans*

12:30-2:00

*Lunch*

## **Session 2: Chair – Bridgette Watkins**

2:00-2:30

**Turkay Akay**

Brain Repair Center, Department of Neuroscience, Dalhousie University, Canada

*Proprioceptive feedback: a key driver of homolateral leg coordination during locomotion*

2:30-3:00

**Kazuhiko Seki**

National Institute of Neuroscience, Japan

*Optogenetic manipulation of large-diameter primary afferent feedback during voluntary movement in nonhuman primates*

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3:00-3:30

**Piotr Krutki**

Department of Neurobiology, Poznan University of Physical Education,  
Poland

*Exercise-induced plasticity of Ia proprioceptive input to spinal motoneurons*

3:30-4:00

*Afternoon Tea*

4:00-4:30

**Alessandro Santuz**

Max Delbrück Center, Germany

*Proprioception drives the emergence of skipping in hypogravity through reuse of conserved locomotor modules*

4:30-5:00

**Vaughan Macefield**

Department of Neuroscience, Monash University, Australia

*Microelectrode recordings from muscle spindle afferents in the intrinsic muscles of the human foot during walking*

5:00-7:00

*Welcome Reception*

## Tuesday, June 30

### Session 3: Chair – Véronique Marchand-Pauvert

9:00-10:00

**Daniel Zytnicki**

Université Paris Cité, CNRS, Saints-Pères Paris Institute for the Neurosciences,  
France

*Defective signalling from Ia spindle afferents to spinal motoneurons plays a key role in Amyotrophic Lateral Sclerosis*

10:00-10:30

**Katherine Wilkinson**

School of Biological Sciences, San Jose State University, USA

*Impaired muscle proprioceptor function in mouse models of two diseases that alter Piezo2 function, Angelman Syndrome and Distal Arthrogryposis subtype 5*

10:30-11:00

*Morning Tea*

11:00-11:30

**Joriene De Nooij**

Division of Translational Neurobiology, Columbia University, USA

*Activity-dependent regulation of group Ia muscle spindle-afferent subtype identity*

11:30-12:00

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## **Mica Menks**

Department of Human Movement Sciences, Vrije University Amsterdam, The Netherlands

*Changes in muscle spindle morphology in response to joint immobilization*

12:00-12:30

## **Jente Wiliart**

Department of Human Movement Sciences, KU Leuven, Belgium

*Altered muscle spindle responses in immobilised rats: investigating the interaction between muscle mechanics and spindle sensitivity*

12:30-2:00

*Lunch*

## **Session 4: Chair – Bob Banks**

2:00-2:30

## **Slav Bagriantsev**

Department of Cellular and Molecular Physiology, Yale University, USA

*Early origin of tactile acuity in the somatosensory system of vertebrates*

2:30-3:00

**TBA**

3:00-3:30

**TBA**

3:30-4:00

*Afternoon Tea*

4:00-4:30

**TBA**

4:30-5:00

**TBA**

6:00-9:00

*Conference Dinner*

## **Wednesday, July 1**

## **Session 5: Chair – Guy Bewick**

9:00-10:00

## **Véronique Marchand-Pauvert**

Laboratoire d'Imagerie Biomédicale, Sorbonne Université, INSERM, CNRS, France

*Patterned tendon vibration therapy enhances neuroplasticity in subacute post-stroke rehabilitation*

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10:00-10:30

**TBA**

10:30-11:00

*Morning Tea*

11:00-11:30

**TBA**

11:30-12:00

**TBA**

12:00-12:30

**TBA**

12:30-2:00

*Lunch*

## **Session 5: Chair – TBA**

2:00-2:30

**TBA**

2:30-3:00

**TBA**

3:00-3:30

**TBA**

## **Session 6: Chair – Vaughan Macefield**

3:30-3:45

**Announcement of Prize Winners**

3:45-4:00

**Discussion on future meetings**

4:00

**End of Conference**