

# 2023 APPLIED PHYSIOLOGY CONFERENCE

Thursday 19<sup>th</sup> October 2023

Online | Microsoft Teams

## Objectives

- Connect to share and challenge current HP system Physiology practice, projects, and ways of working
- Share current and potential future system activities and projects
- Consider future HP system preparation and how Physiology will support and impact sustained podium success

## Invitees

- NSO and NIN engaged physiologists
- Postgraduate students embedded within NSO or NIN programs
- Invited guests

## Themes

- **Applied Physiology Research & Case Studies** | Applied work, technology & research projects (staff and students) from the Network.
- **Athlete Profiling Evolution** | Sport specific updates
- **System Updates** | Updates on National High Performance Sport Research projects.

## ESSA CPD Points

- Learning Hours: Thursday 19<sup>th</sup> October = 5.5



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## Program

Thursday 19<sup>th</sup> October 2023 (all times in AEDT)

Time	Session	Speaker
<b>09.00-09.15</b>	<b>Welcome</b> Acknowledgement of Country Housekeeping   Themes   Format	<b>Rodney Siegel</b> <i>National Physiology Network Lead   AIS</i>
<b>09.15-10.45</b>	<b>Athlete Profiling Evolution</b>	
	1. Athletics	<b>Avish Sharma</b> <i>Performance Scientist – Physiology   VIS</i>
	2. Cycling	<b>Jamie Stanley</b> <i>Lead Physiologist   Australian Cycling Team</i>
	3. Swimming	<b>Lachlan Mitchell</b> <i>Performance Scientist – Physiology   VIS</i>
	4. Triathlon	<b>Steven Hughes</b> <i>Performance Scientist   NSWIS</i>
<b>10.45-11.15</b>	<b>Break</b>	
<b>11.15-12.45</b>	<b>Athlete Profiling Evolution / Applied Research</b>	
	1. AIS Athlete Profiling Project Update	<b>Katie Slattery</b> <i>Senior Lecturer   University of Technology Sydney</i>
	2. Paddle Athlete Profiling Evolution	<b>Mark Osborne</b> <i>Performance Support &amp; Innovation Manager   Paddle Australia</i>
	3. Rowing Athlete Profiling Evolution	<b>Martin Binnie</b> <i>Performance Scientist   WAIS</i>
	4. Preliminary findings of the physiological validation of a 3 min all out test in swimming	<b>Karla Bulte</b> <i>PhD Candidate   VIS &amp; Deakin University</i>
	5. Application of the Omni-Domain Power-Duration model in Swimming	<b>Karli Musarra</b> <i>Assistant Physiologist &amp; Honours Student   NSWIS &amp; University of Technology Sydney</i>
<b>12.45-14.00</b>	<b>Break</b>	



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## 14.00-15.30 Applied Research / Case Studies

1. Determining the energetic demands of supramaximal efforts in elite swimming athletes  
**Bryce Lanigan**  
*PhD Candidate | WAIS & Murdoch University*
2. Integrating the evolution of endurance testing and monitoring with athlete categorisation and coach education  
**Jamie Stanley**  
*Lead Physiologist – Australian Cycling Team*
3. Extreme Intensity Domain Training Prescription for Middle-Distance Performance  
**Avish Sharma**  
*Performance Scientist – Physiology | VIS*
4. Acute individual responses to high intensity interval training  
**Alexandra Bauer**  
*PhD Candidate | VIS & Victoria University*
5. Assessing the Use of Heart-Rate Monitoring for Competitive Swimmers  
**Stephen Crowcroft**  
*Senior Physiologist (National Technical Lead – Swimming) | QAS*

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## 15.30-16.00 Break

## 16.00-17.00 Applied Research / Case Studies

1. A sprint kayak case study: From pre-conception to pregnancy to postpartum - navigating through the unknown and the learnings  
**Nicola Bullock**  
*Performance Pathway Scientist | AIS*
2. The Swimmer's Phenomics Project  
**Andrew Govus**  
*Senior Lecturer | La Trobe University*  
  
**Laine Heidenreich**  
*PhD Candidate | VIS & La Trobe University*
3. AIS Data Science Education project  
**Eugene Sachkou**  
*Post Doctoral Research Fellow | La Trobe University*

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End

