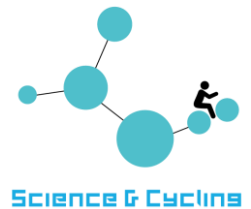# Training Intensity Distribution Which is best?

Assoc. Professor Jeroen Swart
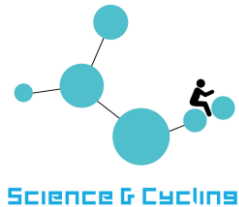
The protagonists
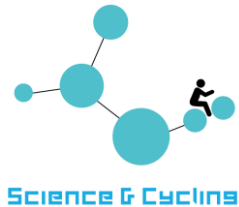

Polarised

Pyramidal

Historical perspective

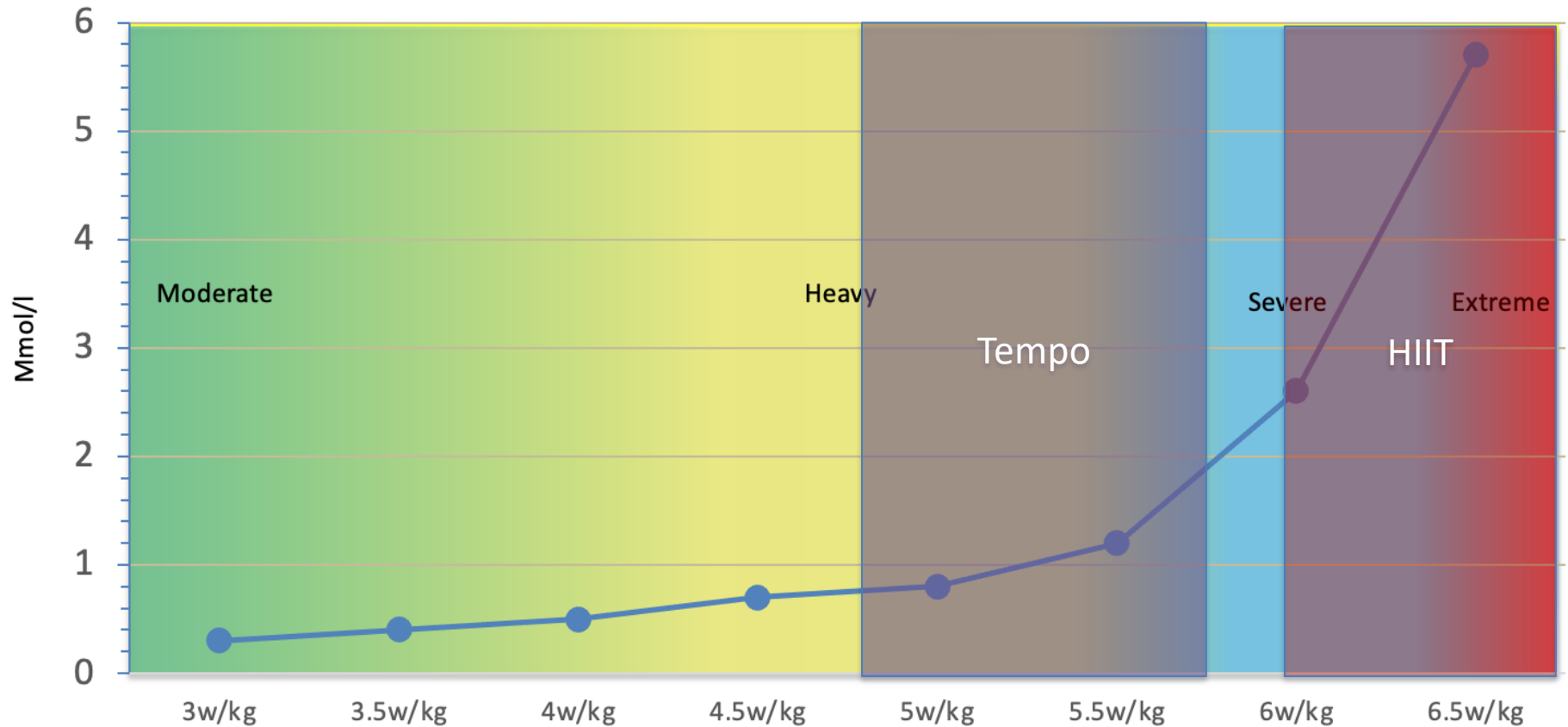# Historical perspective
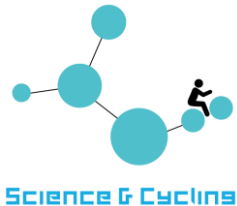
Historical perspective
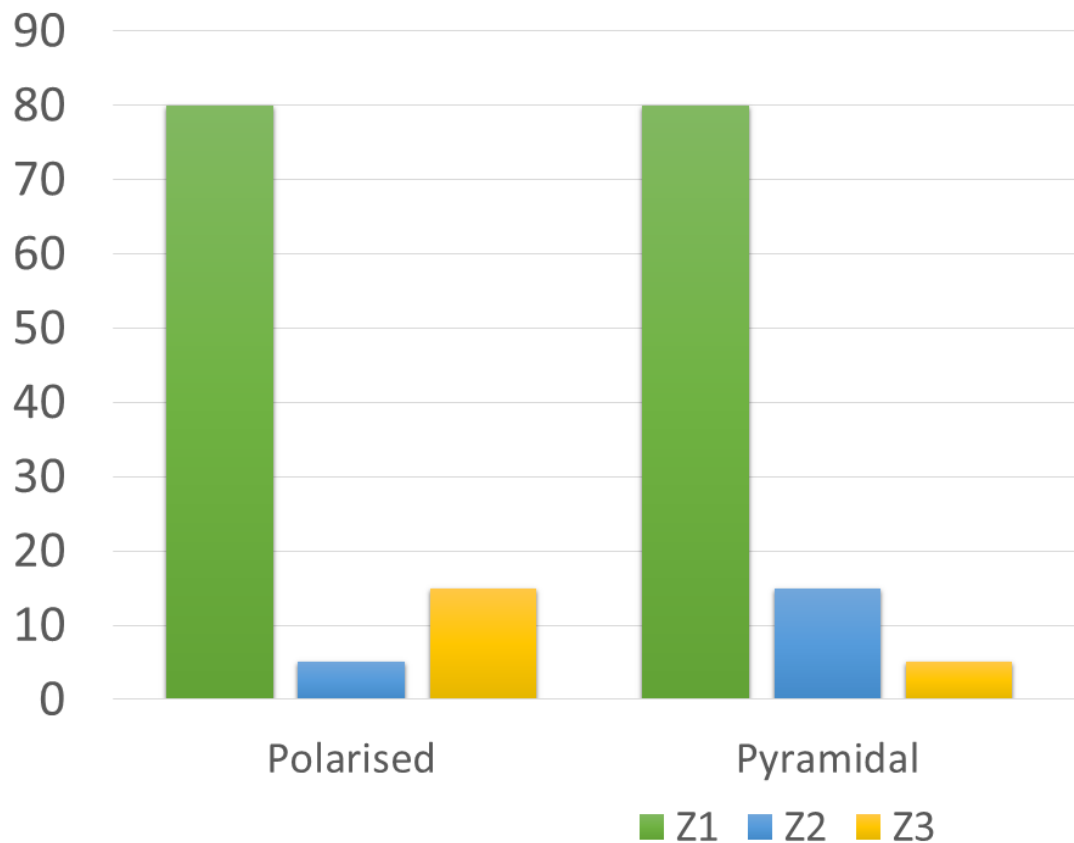
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MED...

How Do Endurance Runners Actually Train? Relationship with Competition Performance

ESTEVE-LANAO, JONATHAN[1]; JUAN, ALEJANDRO F. SAN[1]; EARNEST, CONRAD P.[2]; FOSTER, CARL[3]; LUCIA, ALEJANDRO[1]
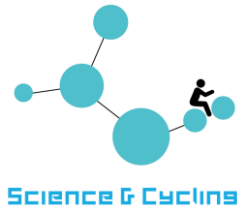
Phy...
clas...

BILLAT, VÉRONIQUE L.; DEMARLE, ALEXANDRE; SLAWINSKI, JEAN; PAIVA, MARIO; KORALSZTEIN, JEAN-PIERRE

Historical perspective

The case for polarized training

The case for polarized training

The Journal of Physiology

Short-term sprint interval *versus* traditional endurance training: similar initial adaptations in human skeletal muscle and exercise performance

Martin J. Gibala, Jonathan P. Little, Martin Van Essen, Geoffrey P. Wilkin, Kirsten A. Burgomaster, Adeel Safdar, Sandeep Raha, Mark A. Tarnopolsky
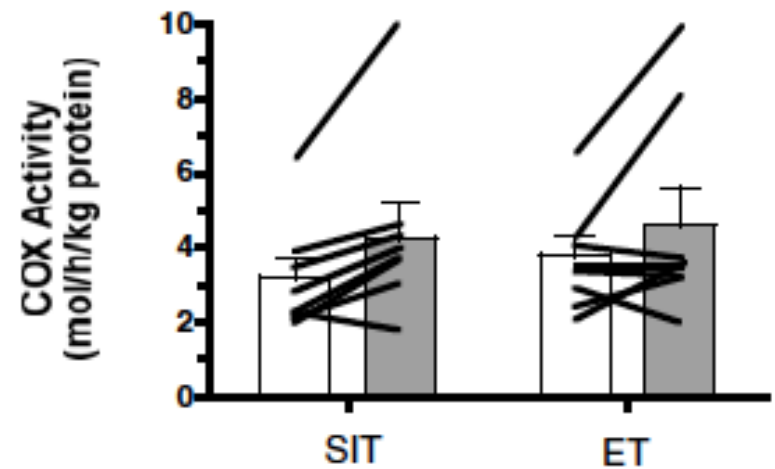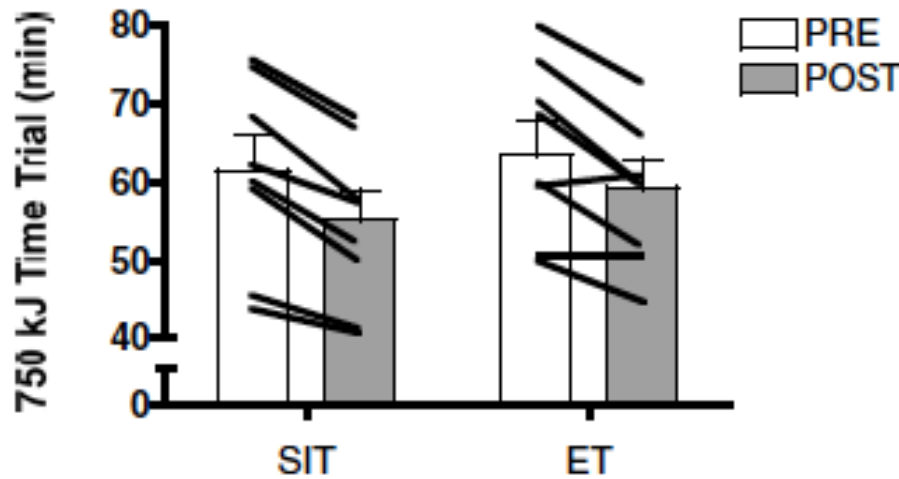
Short-term sprint interval *versus* traditional endurance training: similar initial adaptations in human skeletal muscle and exercise performance
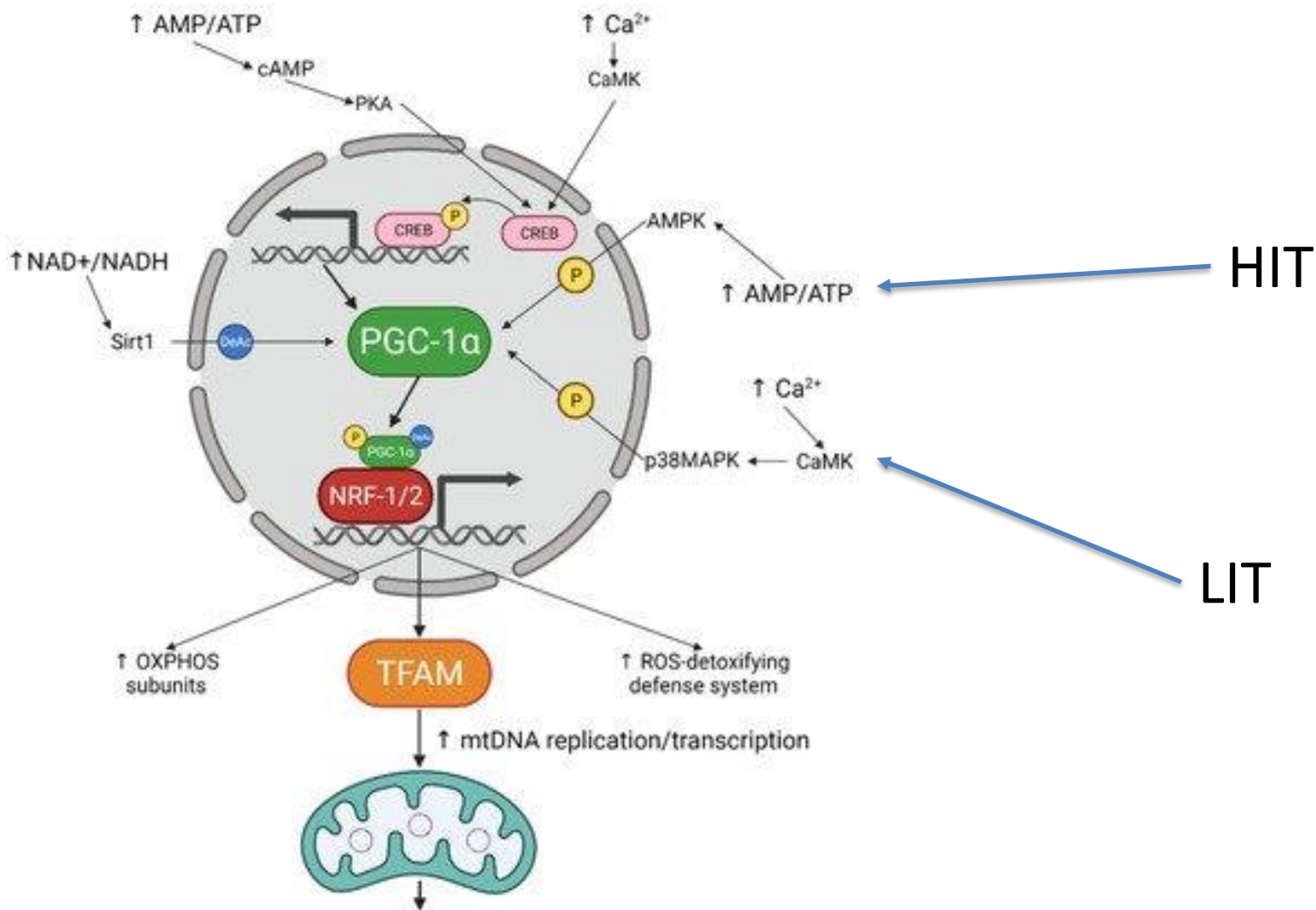
Martin J. Gibala, Jonathan P. Little, Martin Van Essen, Geoffrey P. Wilkin, Kirsten A. Burgomaster, Adeel Safdar, Sandeep Raha, Mark A. Tarnopolsky
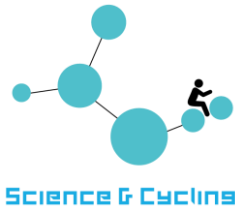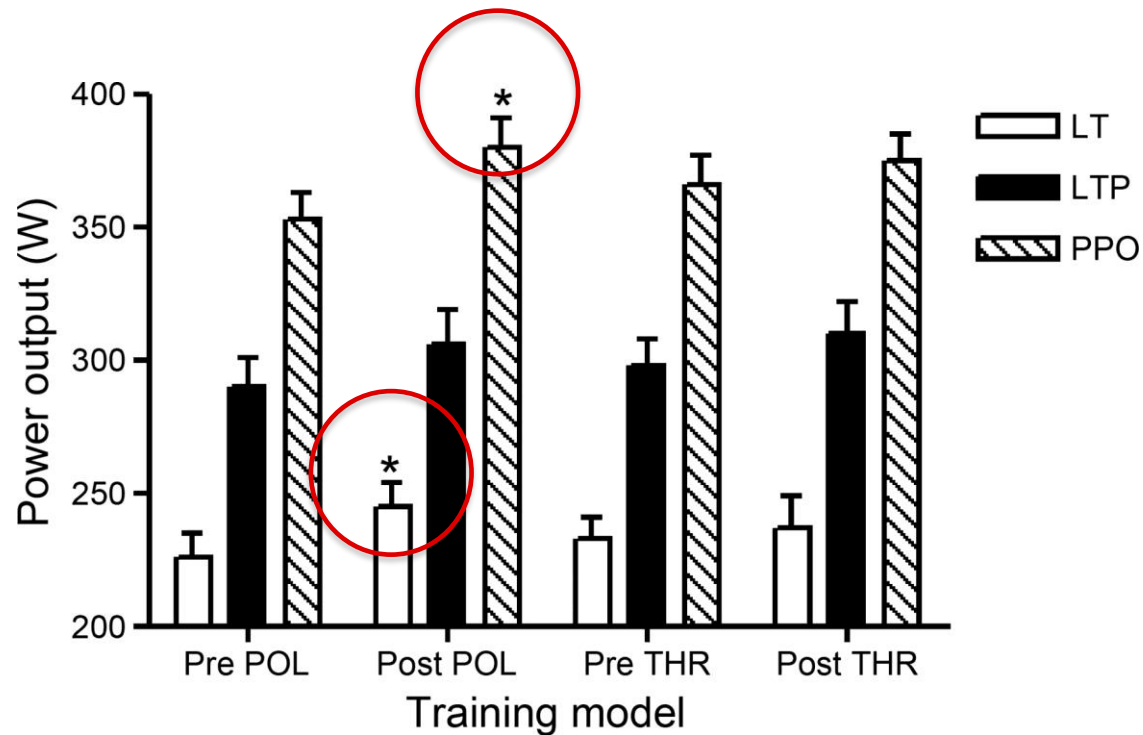
Six weeks of a polarized training-intensity distribution leads to greater physiological and performance adaptations than a threshold model in trained cyclists

Craig M. Neal, Angus M. Hunter, Lorraine Brennan, Aifric O'Sullivan, D. Lee Hamilton, ..

Polarized training has greater impact on key endurance variables than threshold, high intensity, or high volume training

**Thomas Stöggl**[1,2]* and **Billy Sperlich**[3]

	POL	HIIT	THR	HVT
TTE	17.4 ± 16.1***	8.8 ± 8.6**	6.2 ± 9.0	8.0 ± 10.3
V/P_2	9.3 ± 12.4	12.1 ± 8.8**	2.0 ± 13.8	0.8 ± 13.3
V/P_4	8.1 ± 4.6**	5.6 ± 4.8*	1.4 ± 4.3[†]	1.2 ± 6.6[†]
V/P_{peak}	5.1 ± 3.0**	4.4 ± 2.8**	1.8 ± 4.8	-1.5 ± 4.9[†††‡]

	POL		HIIT		THR		HVT	
	Pre	**Post**	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**
VO_{2peak} $[L \cdot min^{-1} \cdot kg^{-1}]$	60.6 ± 8.3	67.4 ± 7.7*** $11.7 \pm 8.4\%$	63.7 ± 7.1	66.6 ± 5.8* $4.8 \pm 5.6\%$	63.2 ± 4.6	60.8 ± 7.1 $-4.1 \pm 6.7\%$[†††‡]	60.5 ± 9.4	62.1 ± 9.8 $2.6 \pm 4.5\%$[†]
VO_{2peak} $[L \cdot min^{-1}]$	4.4 ± 1.0	4.9 ± 1.1*** $10.4 \pm 7.9\%$	4.6 ± 0.5	4.7 ± 4.9 $1.1 \pm 7.6\%$[†]	4.4 ± 0.8	4.3 ± 9.2 $-3.7 \pm 7.0\%$[†††]	4.8 ± 0.7	4.9 ± 0.7 $2.9 \pm 4.5\%$[†]

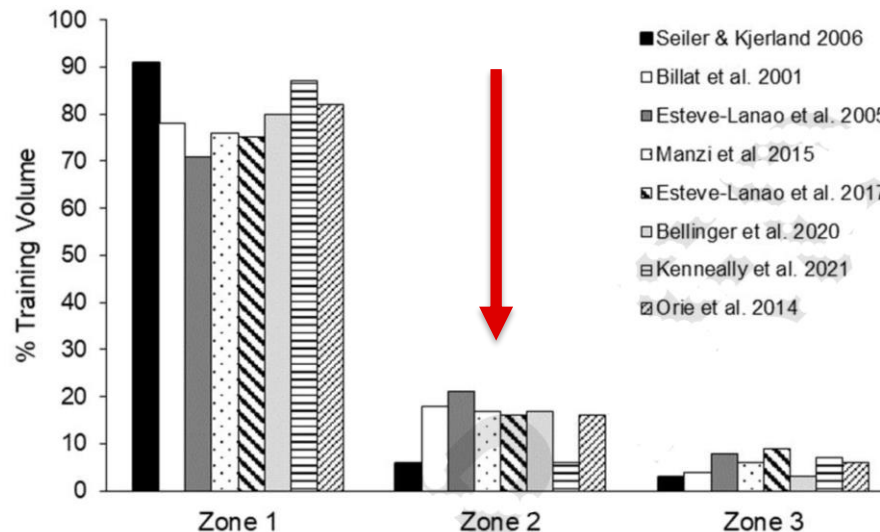# The case for pyramidal training
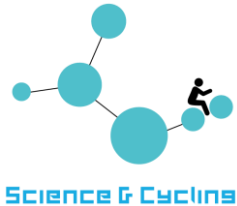
The case for pyramidal training

Elite endurance athletes rarely practice polarized training

Polarized Training Is Not Optimal for Endurance Athletes

BURNLEY, MARK[1,2]; BEARDEN, SHAWN E.[3]; JONES, ANDREW M.[4]
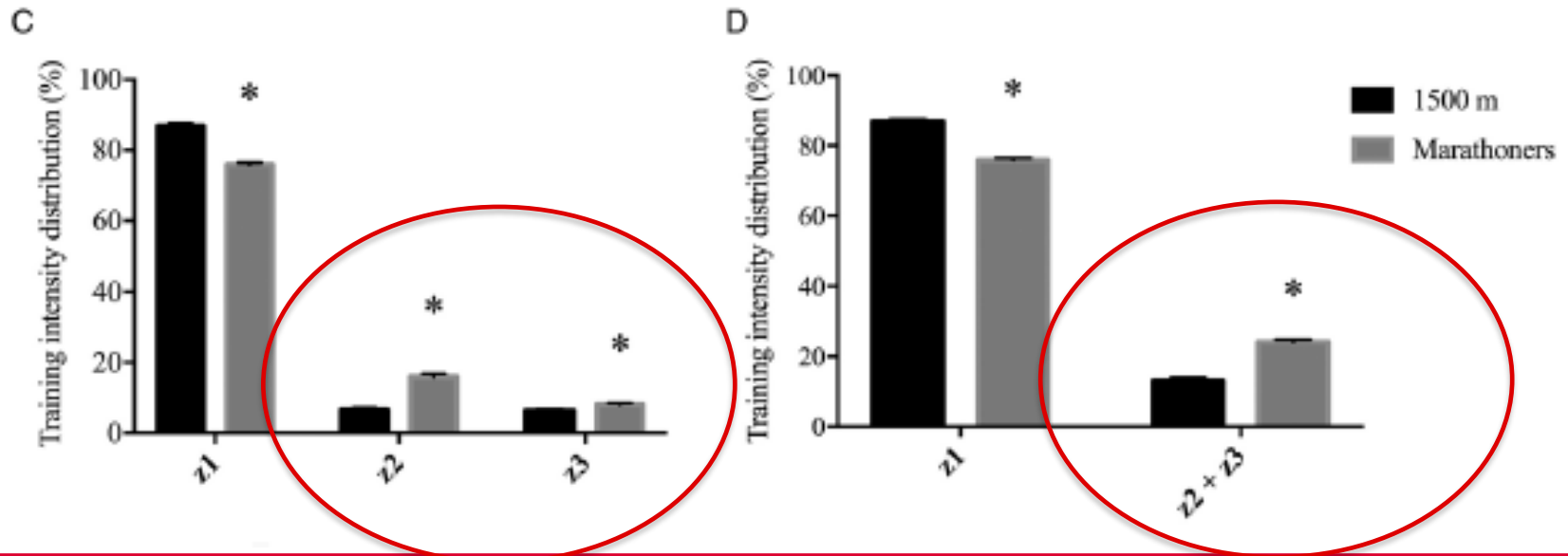
The case for pyramidal training

Elite endurance athletes rarely practice polarized training

Training Periodization, Methods, Intensity Distribution, and Volume in Highly Trained and Elite Distance Runners: A Systematic Review

Arturo Casado,[1] Fernando González-Mohíno,[2,3] José María González-Ravé,[2] and Carl Foster[4]

[1]Center for Sport Studies, Rey Juan Carlos University, Madrid, Spain; [2]Sport Training Lab, University of Castilla-La Mancha, Toledo, Toledo, Spain; [3]Facultad de Ciencias de la Vida y de la Naturaleza, Universidad Nebrija, Madrid, Spain; [4]Department of Exercise and Sport Science, University of Wisconsin, La Crosse, WI, USA
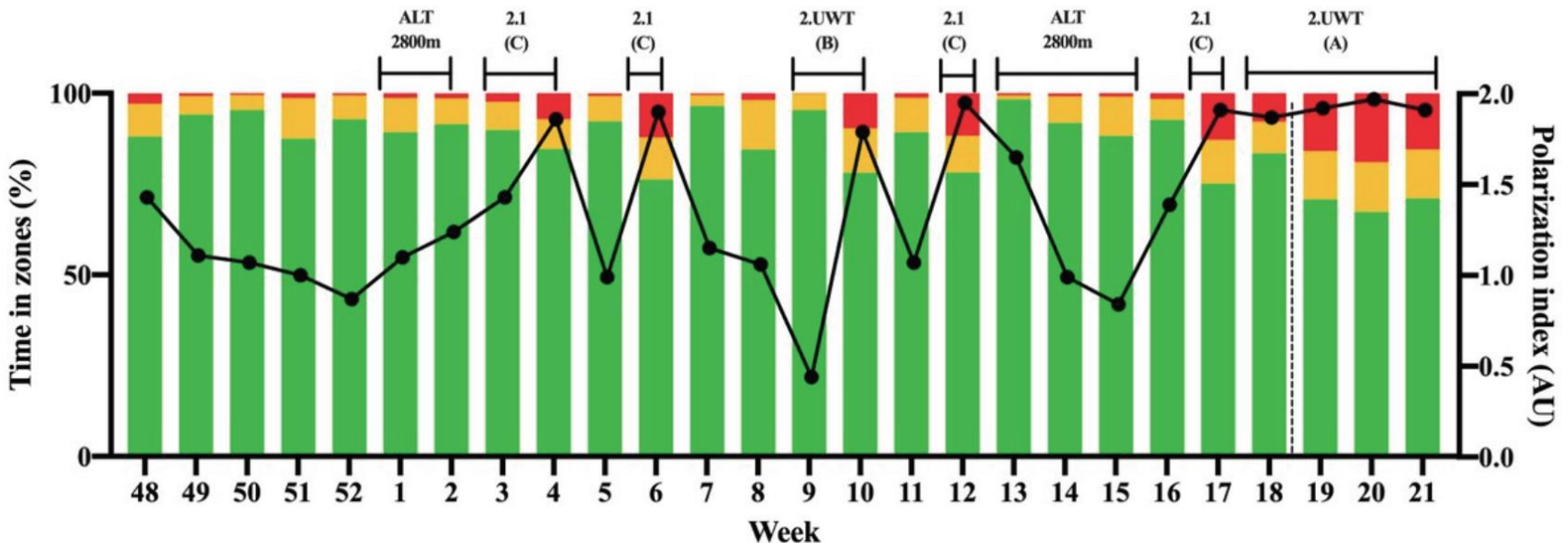
The case for pyramidal training

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How do world class top 5 Giro d'Italia finishers train?
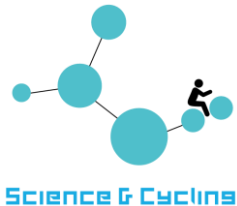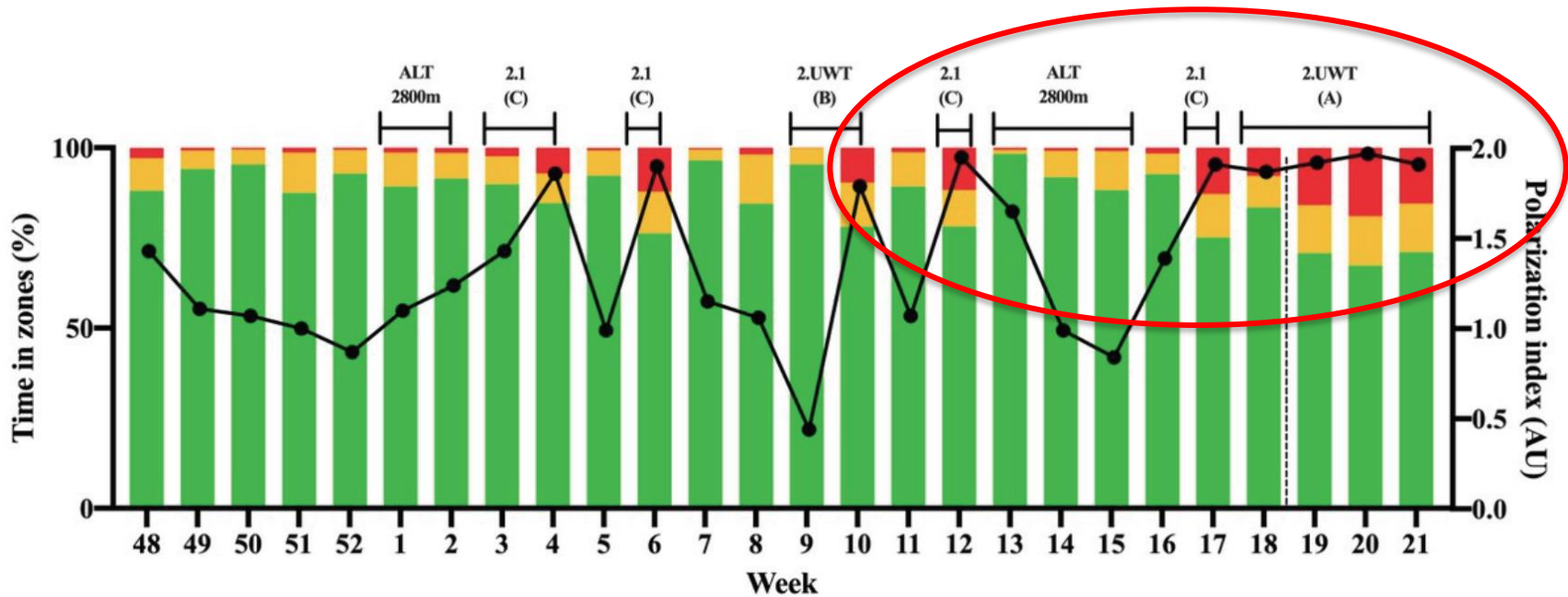A qualitative multiple case study

Gabriele Gallo[1,2] | Manuel Mateo-March[3,4] | Daniel Gotti[5] | Emanuela Faelli[2,6] |
Piero Ruggeri[2,6] | Roberto Codella[5,7] | Luca Filipas[5,7]

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The case for pyramidal training

Specificity

My own perspective
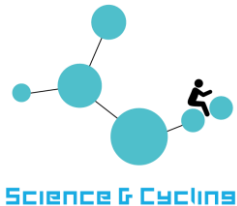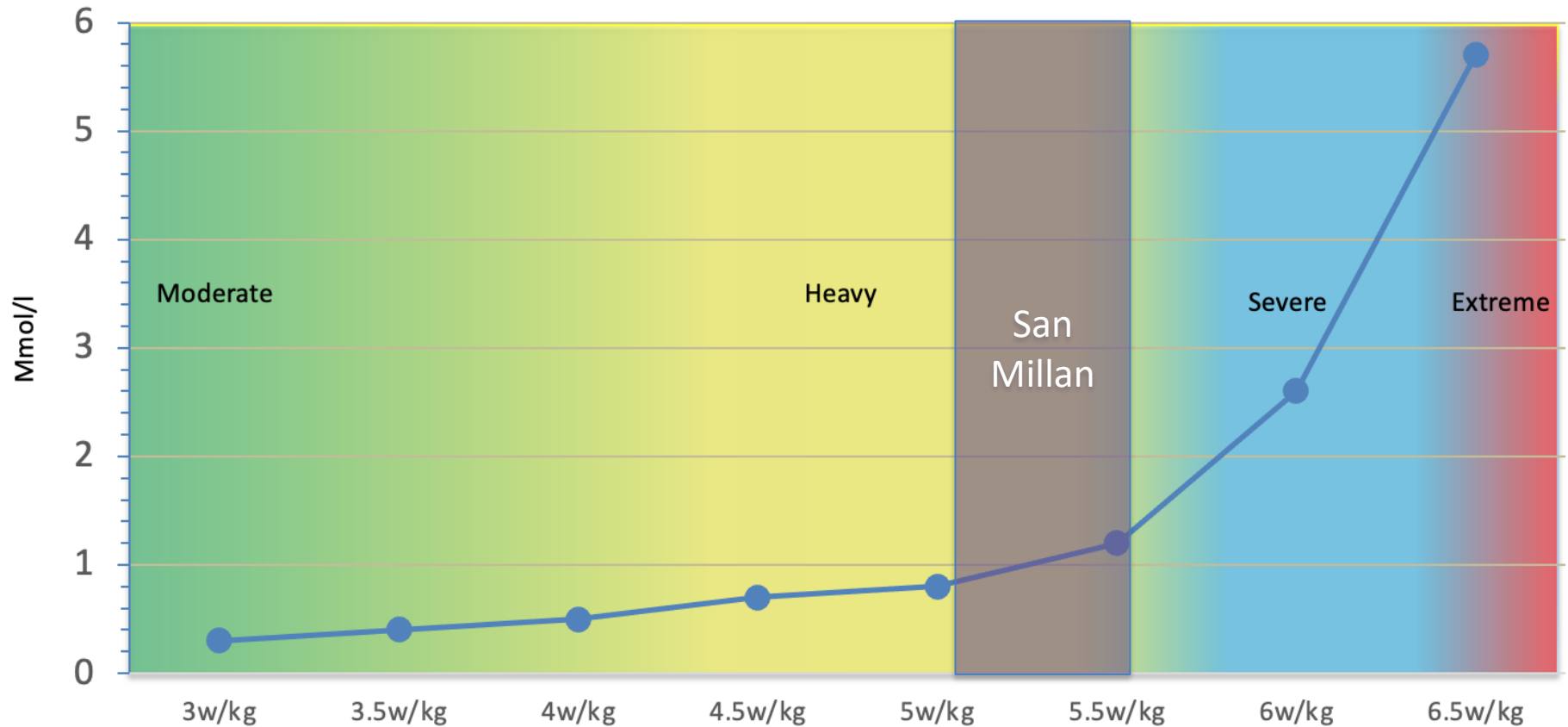
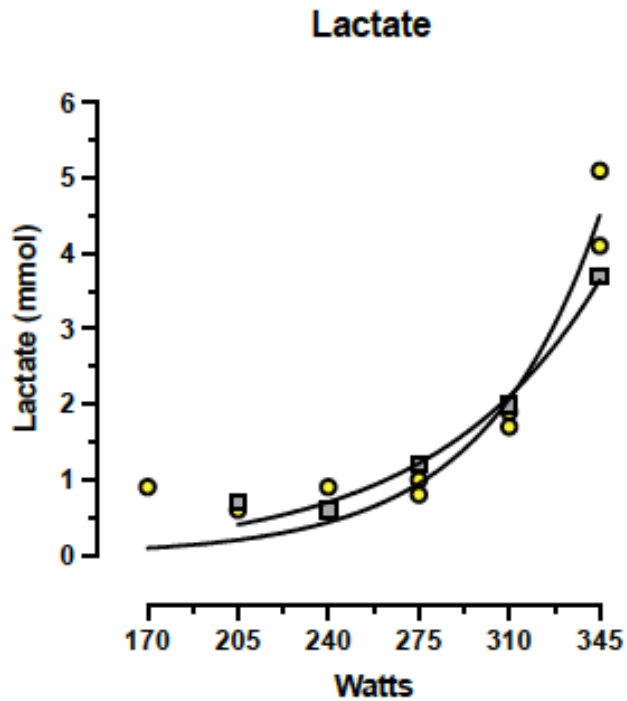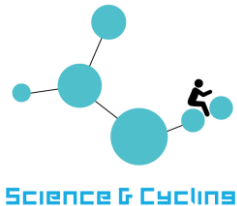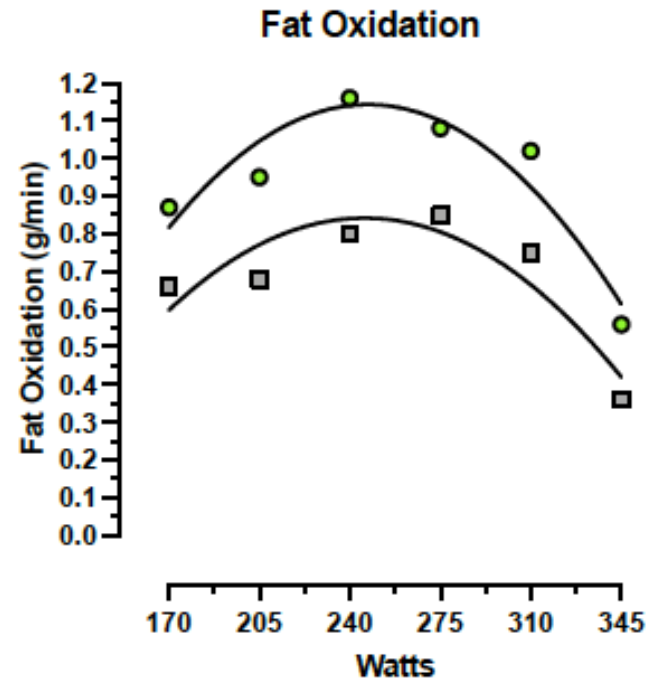## San Millan Zone 2 training
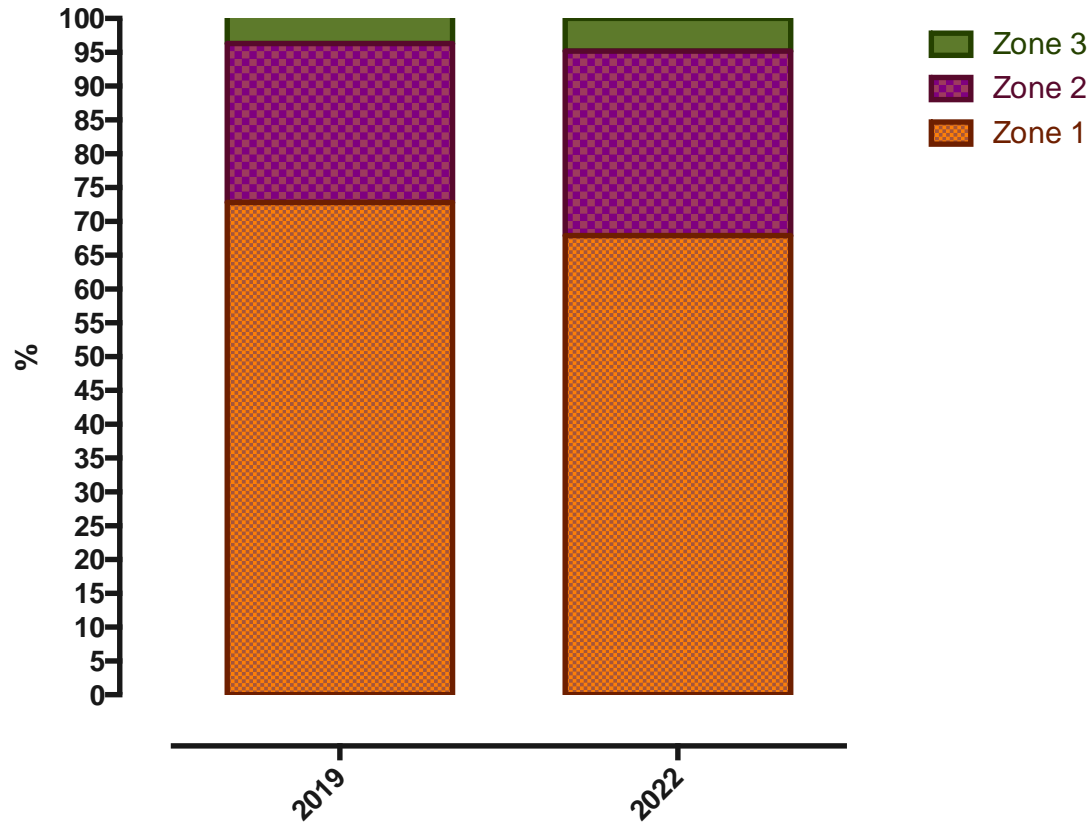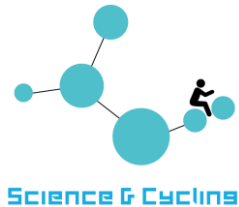
My own perspective

San Millan Zone 2 training

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