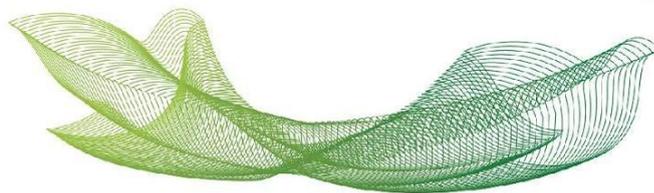


Tipo	Periódico
Título	Validity of the peak velocity to detect physical training improvements in athymic mice ideal for tumor biology and xenograft research
Autores	Maurício Beitia Kraemer, Karen Christine da Silva, Camila da Cunha França Kraemer, Juliana Silva Pereira, Ivan Gustavo Masseli dos Reis, Denise Gonçalves Priolli, Leonardo Henrique Dalcheco Messias
Autor (es) USF	Maurício Beitia Kraemer, Karen Christine da Silva, Camila da Cunha França Kraemer, Juliana Silva Pereira, Ivan Gustavo Masseli dos Reis, Leonardo Henrique Dalcheco Messias
Autores Internacionais	
Programa/Curso (s)	Programa de Pós-Graduação Stricto Sensu em Ciências da Saúde
DOI	10.3389/fphys.2022.943498
Assunto (palavras chaves)	Neoplasia, camundongo atímico, capacidade aeróbia, carga de treinamento
Idioma	Inglês
Fonte	Título do periódico: Frontiers in Physiology ISSN: 1664-042X Volume/Número/Paginação/Ano: v. 13, p. 943498, 2022
Data da publicação	24/08/2022
Formato da produção	Digital
Resumo	<p>This study comprises two complementary experiments with athymic Balb/c (Nu/Nu) mice. In experiment 1, the aim was to verify the reproducibility of the peak velocity (VPeak) determined from the incremental test. The second experiment aimed to assess the VPeak sensitivity to prescribe and detect modulations of the physical training in athymic nude mice. Sixteen mice were submitted to two incremental treadmill tests separated by 48-h (Experiment 1). The test consisted of an initial warm-up of 5 minutes. Subsequently, animals initiated the tests at 8 m min⁻¹ with increments of 2 m min⁻¹ every 3 minutes. The VPeak was determined as the highest velocity attained during the protocol. In experiment 2, these animals were randomly allocated to an exercise group (EG) or a control group (CG). The training protocol consisted of 30-min of treadmill running at 70% of the VPeak five times a week for 4 weeks. High indexes of reproducibility were obtained for VPeak (Test = 19.7 ± 3.6 m min⁻¹; Retest = 19.2 ± 3.4 m min⁻¹; p = 0.171; effect size = 0.142; r = 0.90). Animals from the EG had a significant increase of VPeak (Before = 18.4 ± 2.7 m min⁻¹; After = 24.2 ± 6.0 m min⁻¹; p = 0.023). Conversely, a significant decrease was observed for the CG (Before = 21.1 ± 3.9 m min⁻¹; After = 15.9 ± 2.7 m min⁻¹; p = 0.038). The VPeak is a valid parameter for exercise prescription in studies involving athymic nude mice.</p>



Fomento	Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP—Proc. 2018/21471-5 and Proc. 2019/23592-7) Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq—Proc. 408680/2021-0) Kraemer & Kraemer - Panama Law Firm and Attorneys-At-Law (Fomento privado)
----------------	---