**Supplementary Digital Content 7: Studies included in the analysis examining acylated ghrelin responses during exercise (*n* = 118)**

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| **Reference** | **Participants (all healthy males)** | **Exercise** | **Acylated ghrelin (AUC)** |
| **Broom et al (Unpublished)**  Data available on request | *n* = 9; age 23.2 ± 2.1 y; BMI 22.8 ± 1.5 kg/m2; V̇O2 Peak 63.4 ± 5.8 mL/kg/min | Treadmill running; 90 min; 69.7 ± 2.2 % V̇O2 peak; Net EE 5473 ± 699 kJ | CON: 248 ± 200 pg/mL/1.5 h  EX: 170 ± 182 pg/mL/1.5 h  P = 0.001 |
| **Broom et al (2006) *J Sports Sci (abstract)***  *Control & high-intensity trial used only* | *n* = 8; age 21.5 ± 1.7 y; BMI 24.7 ± 2.5 kg/m2; V̇O2 Peak 57.3 ± 5.2 mL/kg/min | Treadmill running; 30 min; 75.3 ± 4.6 % V̇O2 peak; Net EE 2151 ± 481 kJ | CON: 33 ± 14 pg/mL/0.5 h  EX: 30 ± 18 pg/mL/0.5 h  P = 0.506 |
| **Broom et al (2007) *J Appl Physiol***  doi:10.1152/japplphysiol.00759.2006. | *n* = 9; age 21.2 ± 2.1 y; BMI 22.2 ± 2.4 kg/m2; V̇O2 Peak 63.3 ± 6.7 mL/kg/min | Treadmill running; 60 mins; 71.9 ± 6.2 % V̇O2 peak; Net EE 3603 ± 618 kJ | CON: 162 ± 173 pg/mL/1 h  EX: 103 ± 135 pg/mL/1 h  P = 0.005 |
| **Broom et al (2009) *Am J Physiol Reg-I***  doi: 10.1152/ajpregu.90706.2008 | *n* = 11; age 21.1 ± 1.1 y; BMI 23.1 ± 1.3 kg/m2; V̇O2 Peak 62.1 ± 6.4 mL/kg/min | Treadmill running; 60 mins; 68.9 ± 5.6 % V̇O2 peak; Net EE 3469 ± 272 kJ | CON: 83 ± 81 pg/mL/1 h  EX: 67 ± 83 pg/mL/1 h  P = 0.073 |
| **King et al (2010) *Appetite***  doi: 10.1016/j.appet.2010.02.002 | *n* = 9; age 22.2 ± 2.5 y; BMI 23.6 ± 1.1 kg/m2; V̇O2 Peak 60.5 ± 4.5 mL/kg/min | Treadmill running; 90 min; 68.8 ± 2.3% V̇O2 peak; Net EE 5324 ± 559 kJ | CON: 206 ± 85 pg/mL/1.5 h  EX: 116 ± 64 pg/mL/1.5 h  P < 0.001 |
| **King et al (2011) *J Clin Endocrinol Metab***  *Control & exercise trial used only*  doi: 10.1210/jc.2010-2735 | *n* = 12; age 23.4 ± 3.4; BMI 22.8 ± 1.2 kg/m2; V̇O2 Peak 57.3 ± 4.1 mL/kg/min | Treadmill running; 90 min; 69.8 ± 3.1 % V̇O2 peak; Net EE 4716 ± 391 kJ | CON: 327 ± 242 pg/mL/1.5 h  EX: 284 ± 225 pg/mL/1.5 h  P = 0.005 |
| **King et al (2011) *J Obes***  doi: 10.1155/2011/351628 | *n* = 9; age 21.8 ± 2.5 y; BMI 23.5 ± 2.3 kg/m2 | Swimming; 42 min (6 x 7 min bouts); HR 156 ± 18 beat/min; Net EE 2001 ± 306 kJ | CON: 89 ± 29 pg/mL/1 h  EX: 66 ± 25 pg/mL/1 h  P < 0.001 |
| **Wasse et al (2012) *J Appl Physiol***  *Sea-leV̇el control and sea-level exercise trials used only*  doi: 10.1152/japplphysiol.00090.2011 | *n* = 10; age 23.8 ± 2.6 y; BMI 24.8 ± 2.4 kg/m2; V̇O2 Peak 56.9 ± 6.5 mL/kg/min | Treadmill running; 60 min; 71.21 ± 5.7% V̇O2 peak; Net EE 3278 ± 428 kJ | CON: 131 ± 96 pg/mL/1 h  EX: 94 ± 77 pg/mL/1 h  P = 0.003 |
| **Deighton et al (2013) *Eur J Appl Physiol***  *Control & endurance exercise trial used only*  doi: 10.1007/s00421-012-2535-1 | *n* = 12; age 23.0 ± 3.0 y; BMI 24.2 ± 2.9 kg/m2; V̇O2 Peak 46.3 ± 10.2 mL/kg/min | Stationary cycling; 60 min; 68.1 ± 4.3% V̇O2 peak; Net EE 2640 ± 418 kJ | CON: 62 ± 28 pg/mL/ 1h  EX: 44 ± 22 pg/mL/ 1h  P = 0.005 |
| **King et al (2013) *Appetite***  doi: 10.1016/j.appet.2012.10.018 | *n* = 10; age 21.3 ± 2.1 y; BMI 23.9 ± 2.3 kg/m2; V̇O2 Peak 61.5 ± 4.8 mL/kg/min | Treadmill running; 60 min; 71.8 ± 4.8% V̇O2 peak; Net EE 4117 ± 369 kJ | CON: 174 ± 47 pg/mL/1 h  EX: 142 ± 44 pg/mL/1 h  P = 0.011 |
| **Wasse et al (2013) *Appl Physiol Nutr Metab***  *Control & running trial used only*  doi: 10.1139/apnm-2012-0154 | *n* = 11; age 22.7 ± 2.2 y; BMI 23.4 ± 2.4 kg/m2; V̇O2 Peak 57.8 ± 10.0 mL/kg/min | Treadmill running; 60 min; 70.1 ± 4.0% V̇O2 peak; Net EE 2940 ± 786 kJ | CON: 165 ± 114 pg/mL/1 h  EX: 115 ± 123 pg/mL/1 h  P = 0.042 |
| **Alajmi et al (2016) *Med Sci Sports Exerc***  *Data for men used only*  doi: 10.1249/MSS.0000000000000793 | *n* = 8; age 22.1 ± 3.4 y; BMI 23.6 ± 2.2 kg/m2; V̇O2 Peak 64.0 ± 9.0 mL/kg/min | Treadmill running; 60 min; 71.6 ± 4.4% V̇O2 peak; Net EE 4134 ± 490 kJ | CON: 100 ± 58 pg/mL/1 h  EX: 89 ± 20 pg/mL/1 h  P = 0.609 |

Data = Mean ± SD; participants all healthy males