Tables

| Table 1. Participant characteristics. | | | | |
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|  | Experimental group | | Control group | |
|  | Female | Male | Female | Male |
| *n* | 6 | 5 | 4 | 4 |
| Age (yrs) | 23.4 (2.9) | 25.7 (5.8) | 24.1 (3.5) | 25.5 (5.5) |
| Body mass, (kg) | 64.0 (9.2) | 77.5 (8.0) | 63.7 (0.5) | 76.0 (7.0) |
| Stature (cm) | 167.8 (8.1) | 177.2 (3.3) | 166.0 (3.7) | 181.8 (5.0) |
| Body mass index (kg m-2) | 22.7 (2.7) | 24.7 (2.7) | 23.2 (1.1) | 23.1 (3.2) |
| Body fat (%) | 30.8 (30.8) | 25.1 (25.1) | 30.3 (30.3) | 17.9 (17.9) |

| Table 2. Primer sequences and average performance. | | | |
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| Symbol | Transcript name | Sequence | Mean Cq (SD) and efficiency |
| rRNA47S ETS | 45S pre-ribosomal RNA | F: 5'-CTGTCGCTGGAGAGGTTGG-3' | 27.3 (1.9), E = 1.84 |
| R: 3'-GGACGCGCGAGAGAACAG-5' |
| rRNA45S ETS | 45S pre-ribosomal RNA | F: 5'-GCCTTCTCTAGCGATCTGAGAG-3' | 24.0 (2.2), E = 1.89 |
| R: 3'-CCATAACGGAGGCAGAGACA-5' |
| rRNA45S ITS | 45S pre-ribosomal RNA | F: 5'-TCCGAGACGCGACCTCAG-3' | 12.2 (2.2), E = 2.14 |
| R: 3'-TCGCCGTTACTGAGGGAATC-5' |
| rRNA5.8S | 5.8S ribosomal RNA | F: 5'-ACTCTTAGCGGTGGATCACTC-3' | 15.7 (1.9), E = 1.96 |
| R: 3'-GTGTCGATGATCAATGTGTCCTG-5' |
| rRNA28S | 28S ribosomal RNA | F: 5'-TGACGCGATGTGATTTCTGC-3' | 10.7 (1.8), E = 2.07 |
| R: 3'-TAGATGACGAGGCATTTGGC-5' |
| rRNA18S | 18S ribosomal RNA | F: 5'-TGCATGGCCGTTCTTAGTTG-3' | 10.3 (2.9), E = 1.98 |
| R: 3'-AACGCCACTTGTCCCTCTAAG-5' |
| rRNA5S | 5S ribosomal RNA | F: 5'-TACGGCCATACCACCCTGAAC-3' | 17.1 (2.2), E = 2.00 |
| R: 3'-GGTCTCCCATCCAAGTACTAACC-5' |
| RPL32 | Ribosomal protein L32 | F: 5'-AAGTTCCTGGTCCACAACG-3' | 22.0 (1.6), E = 1.93 |
| R: 3'-CGGCACAGTAAGATTTGTTGC-5' |
| RPS6 | Ribosomal protein S6 | F: 5'-TTGAAGTGGACGATGAACGC-3' | 22.3 (1.7), E = 1.96 |
| R: 3'-GGACCACATAACCCTTCCATTC-5' |
| UBTF [1,4] | Upstream bindning transcription factor | F: 5'-CCGATTCAGGGAGGATCACC-3' | 28.4 (2.7), E = 1.87 |
| R: 3'-ACCTCCTTCGTAGTGGCATC-5' |
| UBTF [2,3] | Upstream bindning transcription factor | F: 5'-CGGCCAGATGAGATCATGAGAG-3' | 28.0 (1.8), E = 1.88 |
| R: 3'-GGGTGGACTTGGTGATACCC-5' |
| MYH7 | Myosin heavy chain 7 (MHCslow) | F: 5'-AGGAGCTCACCTACCAGACG-3' | 19.5 (2.3), E = 1.93 |
| R: 3'-TGCAGCTTGTCTACCAGGTC-5' |
| MYH2 | Myosin heavy chain 2 (M | F: 5'-CCAGGGTACGGGAGCTG-3' | 18.0 (1.9), E = 1.99 |
| R: 3'-TCACTCGCCTCTCATGTTTG-5' |
| MYH1 | Myosin heavy chain 1 (M | F: 5'-GGCCAGGGTTCGTGAACTT-3' | 22.0 (2.5), E = 1.94 |
| R: 3'-TGCGTAGACCCTTGACAGC-5' |
| Lambda | Lambda external reference | F: 5'-Proprietary-3' | 22.2 (2.0), E = 1.98 |
| R: 3'-Proprietary-5' |

| Table 3. Effect of UBF and rpS6 levels, sessions and de-training on RNA-levels. | | | | |
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| Coefficient | Estimatea | SD | Lower 95% CI | Upper 95% CI |
| Intercept | 5.91 | 0.06 | 5.80 | 6.03 |
| UBF protein levels (SD-units) | 0.06 | 0.02 | 0.02 | 0.10 |
| Session 1-4b | 0.08 | 0.01 | 0.05 | 0.10 |
| Session 4-8c | -0.06 | 0.02 | -0.11 | -0.02 |
| Session 8-12d | -0.02 | 0.03 | -0.07 | 0.03 |
| De-training | -0.19 | 0.07 | -0.32 | -0.06 |
| Between Participant variation | 0.13 | 0.04 | 0.06 | 0.23 |
| Between Participant:Leg variation | 0.03 | 0.03 | 0.00 | 0.10 |
| Residual SD | 0.22 | 0.01 | 0.19 | 0.24 |
| Intercept | 5.88 | 0.06 | 5.77 | 6.00 |
| rpS6 protein levels (SD-units) | 0.01 | 0.03 | -0.04 | 0.07 |
| Session 1-4b | 0.08 | 0.01 | 0.05 | 0.11 |
| Session 4-8c | -0.06 | 0.03 | -0.11 | -0.01 |
| Session 8-12d | -0.02 | 0.03 | -0.07 | 0.03 |
| De-training | -0.21 | 0.07 | -0.34 | -0.07 |
| Between Participant variation | 0.13 | 0.05 | 0.06 | 0.24 |
| Between Participant:Leg variation | 0.03 | 0.02 | 0.00 | 0.09 |
| Residual SD | 0.22 | 0.01 | 0.20 | 0.25 |
| aThe dependent variable is total RNA levels (log); bSlope in response to session 1-4; cChange in slope in session 4-8; dChange in slope in session 8-12 | | | | |

| Table 4. Total RNA as a predictor of muscle growth. | | | | |
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| Coefficient | Estimatea | SD | Lower 95% CI | Upper 95% CI |
| Intercept | -0.20 | 0.58 | -1.32 | 0.98 |
| Sex (Male) | 0.95 | 0.59 | -0.31 | 2.10 |
| Mean Total RNA | -0.40 | 0.27 | -0.93 | 0.13 |
| Mean Total RNA increase per session | 0.31 | 0.10 | 0.09 | 0.51 |
| Between Participant variation | 0.45 | 0.33 | 0.02 | 1.27 |
| Between Participant:Leg variation | 0.63 | 0.30 | 0.05 | 1.21 |
| Residual SD | 0.92 | 0.14 | 0.68 | 1.24 |
| aThe dependent variable is Δ Muscle thickness (mm) | | | | |