APPENDIX 1. Search strategy for CINAHL, EMBASE, Medline and SportDiscus.

**Database**: OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) <1946 to Present> (982 citations)

Search performed: January 2, 2017. Total citations: 3056

1 exp Dietary Proteins/
2 (protein* adj3 (diet* or supplement* or intake* or consum*)).ti,ab,kf.
3 (protein* adj3 ingest*).ti,ab,kf.
4 or/1-3
5 Resistance Training/
6 Weight Lifting/
7 Isometric Contraction/
8 ((weight* or isometric or strength or resistance) adj3 (train* or lift* or exercise*)).ti,ab,kf.
9 exp muscle strength/
10 ((muscle* or muscular) adj3 strength*).ti,ab,kf.
11 or/5-10
12 4 and 11
13 animals/ not (humans/ and animals/)
14 12 not 13
15 limit 14 to english language
16 remove duplicates from 15

**Database**: Embase <1974 to 2016 December 30> (1161 citations)

Search performed: January 2, 2017

1 protein intake/
2 (protein* adj3 (diet* or supplement* or intake* or consum* or ingest*)).ti,ab,kw.
3 1 or 2
4 resistance training/
5 weight lifting/
6 ((weight or isometric or strength or resistance) adj3 (train* or lift* or exercise*)).ti,ab,kw.
7 muscle strength/
8 ((muscle* or muscular) adj3 strength*).ti,ab,kw.
9 isometric contraction*.ti,ab,kw.
10 or/4-9
11 3 and 10
12 exp animal/
13 human/
14 11 not (12 not (12 and 13))
15 remove duplicates from 14
Database: CINAHL (406 citations)

Search performed: January 2, 2017

S15  S12 NOT S13  Limiters - English Language
S14  S12 NOT S13
S13  (MH "Animals+") NOT ((MH "Human") AND (MH "Animals+"))
S12  S4 and S11
S11  S5 OR S6 OR S7 OR S8 OR S9 OR S10
S10  (muscle* or muscular) N3 strength*
S9   (MH "Muscle Strength+")
S8   (weight* or isometric* or strength* or resistance) N3 (train* or lift* or exercise*)
S7   (MH "Weight Lifting")
S6   (MH "Muscle Strengthening+")
S5   (MH "Resistance Training")
S4   S1 OR S2 OR S3
S3   protein N3 (intake* or injest* or supplement* or diet* or consum)
S2   (MH "Dietary Proteins+")
S1   (MH "Diet, High Protein")

Database: SPORTDiscus (507 citations)

Search performed: January 2, 2017

S10  S4 AND S9 Limiters - Language: English
S9   S5 OR S6 OR S7 OR S8
S8   (muscle* or muscular) N3 (strength*)
S7   DE "MUSCLE strength" OR DE "GRIP strength" OR DE "KRAUS-Weber test"
S6   (weight* or isometric* or strength* or resistance) N3 (train* or lift* or exercise*)
S5   DE "RESISTANCE training (Physical training & conditioning)" OR DE "ISOMETRIC exercise" OR DE "WEIGHT training"
S4   S1 OR S2 OR S3
S3   protein* N3 (injest* or diet* or supplement* or intake* or consum*)
S2   DE "HIGH-protein diet" OR DE "FOOD -- Protein content"
S1   DE "LOW protein diet"