

## Supplementary Overview

**Table S1:** List of all identified proteins based on at least two unique peptides for each protein.

**Table S2:** List of all quantified proteins based on at least three unique peptides for each protein. Overview of relative protein intensities (LFQ intensities) provided by MaxQuant.

**Table S3:** Lists of proteins with significantly changed abundance from multiple sample test (ANOVA model, artificial background constant  $S_0=0.1$ , permutation-based FDR of 5% for truncation).

**Table S4:** Enrichment analysis and the corresponding protein members based on unsupervised hierarchical clustering in Figure 2.

**Table S5:** Lists of proteins with significantly changed abundance confirmed by Student's t-tests using a permutation-based FDR of 5% for truncation.

Protein level change in: control versus post-flight

flight versus post-flight

only significant in control versus post-flight

common: significant change observed in both comparisons

LFQ intensities of proteins with specific KEGG annotations

**Figure S1.** Comparison of significant changes in the protein expression level between flight, post-flight, and control group (Student's t-test, truncation: permutation-based FDR=0.05,  $S_0=0.1$ ).