**Supplementary Materials**

**What can Ribo-seq, immunopeptidomics, and proteomics tell us about the non-canonical proteome?**

**Author list**

John R. Prensner,1,2 Jennifer G. Abelin,3 Leron W. Kok,4 Karl R. Clauser,3 Jonathan M. Mudge,5 Jorge Ruiz-Orera,6 Michal Bassani-Sternberg,7,8,9 Robert L. Moritz,10 Eric W. Deutsch,10 Sebastiaan van Heesch4

**Affiliations**

1Department of Pediatrics, Division of Pediatric Hematology/Oncology, University of Michigan Medical School, Ann Arbor, MI 48109, USA

2Department of Biological Chemistry, University of Michigan Medical School, Ann Arbor, MI 48109, USA

### 3Broad Institute of MIT and Harvard, Cambridge, MA, 02142, USA

4Princess Máxima Center for Pediatric Oncology, Heidelberglaan 25, 3584 CS, Utrecht, the Netherlands

5European Molecular Biology Laboratory, European Bioinformatics Institute, Wellcome Genome Campus, Hinxton, Cambridge CB10 1SD, UK

6Cardiovascular and Metabolic Sciences, Max Delbrück Center for Molecular Medicine in the Helmholtz Association (MDC), 13125 Berlin, Germany

7Ludwig Institute for Cancer Research, University of Lausanne, Agora Center Bugnon 25A, 1005 Lausanne, Switzerland

8Department of Oncology, Centre hospitalier universitaire vaudois (CHUV), Rue du Bugnon 46, 1005 Lausanne, Switzerland

9Agora Cancer Research Centre, 1011 Lausanne, Switzerland

10Institute for Systems Biology (ISB), Seattle, Washington 98109, USA

**Address correspondence to:**

John R. Prensner, MD, PhD

Department of Pediatrics and Biological Chemistry

Medical Science Research Building II, Room 2560B

1150 Medical Center Drive

Ann Arbor, MI 48109

Email: [prensner@umich.edu](mailto:prensner@umich.edu)

Phone: 734-763-5939

**List of Supplementary Tables**

Supplementary Table 1: Description of aggregated data

Supplementary Table 2: A description of ORF primary datasets and data sources

Supplementary Table 3: Phase I Ribo-seq ORFs detected in only 1 of 8 studies

Supplementary Table 4: A metaanalysis of non-canonical ORFs present in 8 different high-stringency datasets

Supplementary Table 5: ORFs included for this analysis from the Duffy et al. dataset.

Supplementary Table 6: ORFs included for this analysis from the Ouspenskaia et al. dataset.

Supplementary Table 7: The number of ORFs for comparative analysis across studies

Supplementary Table 8: The number of ORFs per sample and per cell/tissue type according to each study