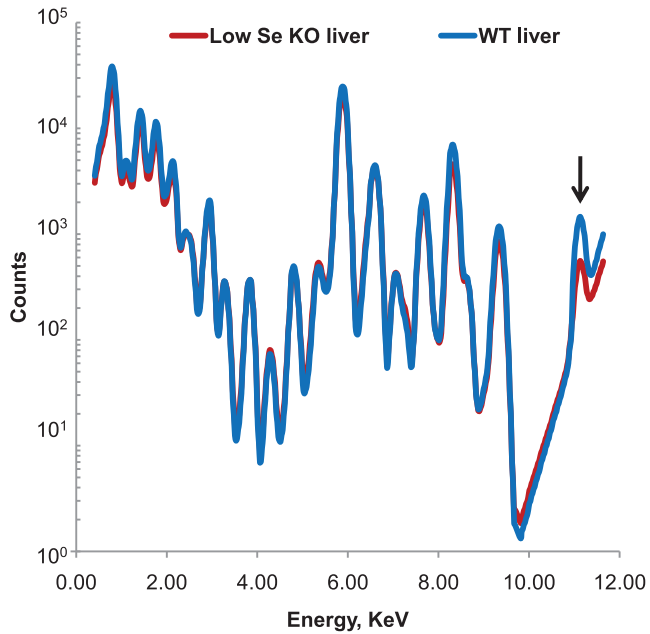


## Supplementary Data



**SUPPLEMENTARY FIG. S1. Integral X-ray fluorescence spectra of mouse liver samples.** XFM spectra were obtained for paraffin-embedded sections (5  $\mu\text{m}$ ) from livers of C57BL/6J mice (WT liver) on a regular diet, and the corresponding mice characterized by liver-specific Sec tRNA<sup>[Ser]Sec</sup> knock-out maintained on a Se-deficient diet (low Se KO liver). The arrow indicates the location of the Se peak. The XFM scan was obtained by using 13 keV incident energy with a dwell time of 4 sec per pixel and 0.4  $\mu\text{m}$  steps through the sample.