Ribosomes are magnificent nano-machines within our cells that read the genetic code carried by mRNAs to synthesize proteins whose amino acid sequences are defined by that genetic code. While ribosomes synthesize proteins in the cytoplasm, they assemble in the cell nucleus, specifically within the sub-compartment called the nucleolus. Nucleolar stress is now defined as the loss of functional ribosomes which leads to several human syndromes referred to as ribosomopathies that typically affect stem cells or progenitor cells. We use the fruit fly, Drosophila melanogaster, as a genetic and cell biological model system to study ribosomopathies both at organismal and sub-cellular levels.