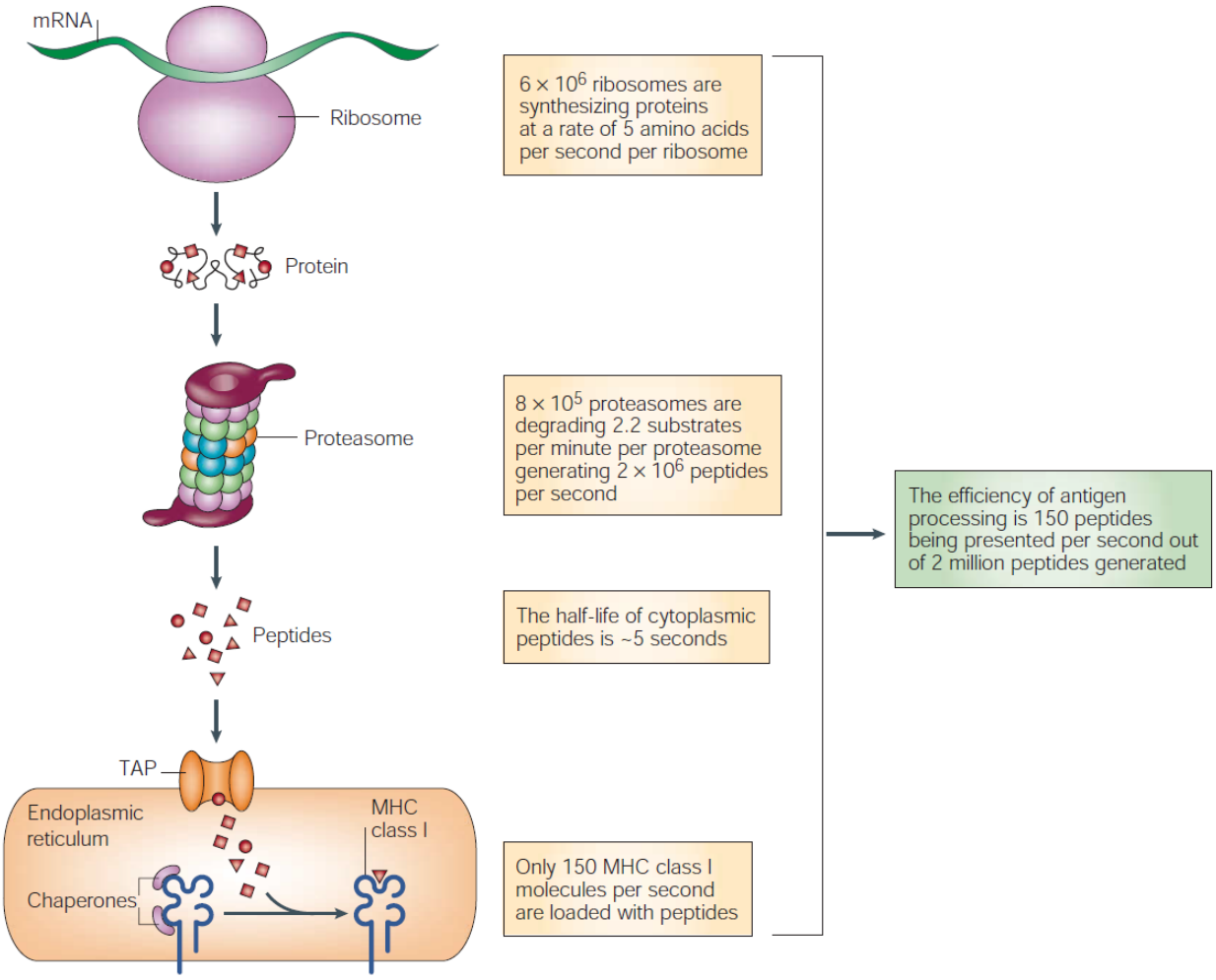

Figure 4 | **New economy of the various steps in MHC class I antigen processing per cell.** The rates of various steps that are involved in MHC class I antigen presentation are shown. Defective ribosomal products (DRiPs) represent ~30% of the proteins synthesized by ribosomes. The number of ribosomes and of proteasomes have been established experimentally in L929 cells, as have the rate of translation, DRiP formation and peptide degradation. The rate of proteasome activity has been deduced from the protein synthesis at equilibrium. The number of MHC class I molecules loaded with peptide per second follows from the estimated number of cell-surface MHC class I molecules and their half-life. The new economy of MHC class I molecules is extraordinarily wasteful with only 1–2 out of every 10,000 peptides generated binding to MHC class I molecules. Note that the misuse of these numbers is at the reader's own risk! These numbers are average estimations from *in vitro* studies and are expected to vary between different cell types and different physiological and pathological states (statistics are based on REFS 7,66). mRNA, messenger RNA; TAP, transporter for antigen processing.