## Description of Additional Supplementary Files:

Supplementary Movie 1: **Structure of the U6 snRNP.** This video shows a 360 degree rotation of the U6 snRNP (PDB coordinate file: 5VSU). Colors are as in Figure 1.

Supplementary Dataset 1: Pymol session file of the overlayed U6 snRNP structures (PDB coordinate files: 6ASO and 5VSU). Colors are as in Figure 1.