Proposal Acronym	Importins-H1 complex
Proposal Title:	Structural characterization of importinß:importin7:Histone1 complex
Surname:	Ivic
First name(s):	Nives
Research area:	Life sciences LIF
Sub-discipline of research area:	Molecular biology and interactions Structural biology
Category of research:	basic
[redacted]	[redacted]
Abstract:	During DNA replication, histones synthesised in the cytoplasm must be imported into the nucleus for the formation of nucleosomes on newly replicated DNA. While core histones are transported by monomeric importers, members of the importinß superfamily, linker histone H1 is an exception and requires formation of a heterodimeric receptor consisting of importinß and importin7. No structural information is available for any importin:histone complex. The main objective of this proposal is to crystallize and solve the three-dimensional structure of the ternary importinß:importin7:Histone1 complex using modern X-ray crystallography and cryo electron microscopy methods. The structure will provide a detailed insight into the interaction network of these proteins, reveal the mechanism of their recognition and explain how Imp7 is regulated by Impß.
Does this proposal possess any of the sensitive ethical issues detailed in ethical issues table?:	No