SECTION 3:

AIMS AND OBJECTIVES
The present study has been designed to investigate the effect of novel pharmacological interventions i.e. selective modulators of src kinase, nuclear factor kappa-B, histone deacetylase, tyrosine phosphatase and calpain on the development of morphine withdrawal syndrome both in vivo in mice and in vitro in morphine withdrawn rat ileum preparation.

Study Focused Upon Following Pharmacological Interventions:

- SU-6656, a selective src-kinase inhibitor (Blake et al., 2000);
- Ammonium pyrrolidine dithiocarbamate (APD), a selective nuclear factor kappa-B (NF-κB) inhibitor (Schreck et al., 1992);
- RS 102895, a selective CCR-2 chemokine receptor antagonist (Mirzadegan et al., 2000; Onuffer et al., 2002);
- Tributyrin, a selective histone deacetylase inhibitor (Chen and Breitman, 1994; Rocchi et al., 2005);
- Trichostatin A, a selective histone deacetylase inhibitor (Yoshida et al., 1995);
- N-Acetyl-Asp-Glu-Val-Asp (Ac-DEVD-CHO), a selective interleukin-1β converting enzyme inhibitor (Margonin, 1997);
- Sodium orthovanadate, a selective inhibitor of tyrosine phosphatase (McLauchlan et al., 2010; Sugano et al., 2004) and;
- SJA 7019, a selective inhibitor of calpain (Liu et al., 2002).