Protective Effect of *Mucuna pruriens* (L.) DC. var. *pruriens* Seed Extract on Sperm Qualities and Protein Expressions in Testis of Adult Rats Induced with Chronic Stress

Natthapol Lapyuneyong,* Chadaporn Chaimontri,* Nareerak Tangsirisakda,** Dr. Tarinee Sawatpanich (ดร. ธาริณี สำราญ)**
Dr. Nongnut Uabundit (ดร. นงนุช เอื้อบัณฑิต)**
Kowit Chaisiwmongkol (กอวิท ชัยศิวามงคล)** Dr. Sitthichai Iamsaard (ดร. ศิทธิชัย อัญชลี)***

ABSTRACT

Stress increases the cortisol levels, resulting in decreasing of testosterone levels and sperm qualities. It also alters the protein expressions in testis. This study aimed to investigate the protective effect of Thai *Mucuna pruriens* (TMP), possessing antioxidant activities, on reproductive damages in male rats induced with chronic stress (CS). Adult male rats were divided into 4 groups (*n* = 8 each group). Rats in control and CS groups received the distilled water (DW) before stress induction (immobilization for 4 hr. and cold forced swimming for 15 min) and the treated animals received the TMP seed extract at doses of 150 and 300 mg/kgBW. After experiment (81 consecutive days), the TMP extracts of both groups could protect the decrease of testicular and epididymis plus vas deferens weights while increase of testosterone level and sperm qualities. Moreover, TMP changed the expressions testicular proteins as compared to CS group.

Keywords: Chronic stress, Protein expression, Thai *Mucuna pruriens* (TMP)