The School of Psychology invites you to a Special Seminar with

Dr. Limor Shtoots
On:
”Juvenile stress: impairment and resilience
Are reflected in peritoneal inflammatory response”

&

Mrs. Noa Albelda
On:
”Neonatal exposure to immune activation leads to sex-dependent psychopathologies in adulthood: a novel neurodevelopmental rat model of schizophrenia and depression”

Tuesday, April 29th 2014, at 09:00
Faculty room

Dr. Limor Shtoots
Department of Neurobiology, University of Haifa

The interplay between the immune and nervous system becomes readily apparent during stress, particularly early life stress. While most early life stress rodent models focused on the prenatal to pre-weaning periods and involved some form of maternal deprivation or separation, our group focused on another sensitive developmental period in the rat ontogeny, post-weaning/pre-puberty or 'juvenility' (~28 post natal days). It was indicated that stress exposure during juvenility induces predisposition to develop anxiety and depression. Our research objective was to study the long term effects of psychological juvenile stress on the course of local peritoneal inflammatory responses in rats. For that purpose we examined coping and stress responses following juvenile stress using behavioral measurements in adulthood. We then tracked immune response alterations in adulthood due to juvenile stress, at different time points after the induction of local inflammation. Using behavioral measurements we characterized rats as being ‘Affected’ or ‘Non-Affected’ by the juvenile stress exposure. Furthermore, we combined the juvenile stress exposure with enriched environment housing conditions in order to examine enriched environment potential therapeutic effects.

Mrs. Noa Albelda
of Social Sciences, Tel-Aviv University PhD student at the School of Psychological Sciences, The Gershon H. Gordon Faculty

The pre- and neonatal periods are critical time periods for brain development. Exposure of the fetus/neonate to stress-inducing events during these periods may be detrimental to brain development, leading to the emergence of severe psychiatric disorders later in life. One such stress-inducing event is exposure to infection. Because many different infections lead to similar neural and behavioral pathological outcomes, it has been suggested that these outcomes result from the activation of the immune system and not from the infectious agent. In recent years, the use of developmental animal models based on early immune activation has expanded our understanding of the link between immune activation and neuropathology. In this talk, I will present a novel developmental rat model of neonatal immune activation, which leads to sex-dependent neural and behavioral abnormalities.

You are invited!