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Sara Vernocchi, LNSI defended her PhD thesis at the University of Trier, Germany with “summa cum laude”

Department of Immunology (LNSI). Sara Vernocchi successfully defended her doctoral thesis at the University of Trier, Germany on Wednesday 23.1.13 with the best possible mark “summa cum laude”. She gave an outstanding presentation and impressed the jury with her in-depth knowledge of her topic. The title of her PhD thesis is “Function, detection and transcriptional origin of the membrane isoform of the Glucocorticoid Receptor”.

Sara Vernocchi has worked on acute stress and its influence on the Glucocorticoid Receptor. In order to shed light on the biological function of the membrane-bound Glucocorticoid Receptor (mGR), proteomic changes induced by 15 min in vivo acute stress and by short in vitro activation of the mGR were analyzed in T-lymphocytes. The numerous overlaps between the two datasets suggest that the mGR mediates physiologically relevant actions and participates in the early stress response, triggering rapid early priming events that pave the way for the slower genomic GC activities. In addition, a new commercially available method with suitable sensitivity to detect the human mGR is reported and the transcriptional origin of this protein investigated. Finally, her results indicate that specific GR-transcripts, containing exon 1C and 1D, are associated with the expression of this membrane isoform.

Sara Vernocchi has written or co-authored 3 publications, two other publications are in preparation. She has given a number of oral presentations, both at national and international meetings.

Her PhD has been sponsored by a fellowship of the Fonds National de la Recherche, Luxembourg.

Publications list of Sara Vernocchi during her PhD at the Department of Immunology

S Vernocchi, N Battello, S Schmitz, JD Turner, CP Muller. Membrane glucocorticoid receptor activation induces proteomic changes aligning with classical GC-effects. *Molecular and Cellular Proteomics* 2013. Epub ahead of print.

AM Billing, D Revets, C Hoffmann, JD Turner, S Vernocchi, CP Muller. Proteomic Profiling of Rapid Non-genomic and Concomitant Genomic Effects of Acute Restraint Stress on Rat Thymocytes. *J Prot.* 75, 2064-79, 2012.

JD Turner, SR Alt, L Cao, S Vernocchi, S Trifonova, N Battello, CP Muller. Transcriptional control of the glucocorticoid receptor: CpG islands, epigenetics and more. *Biochem Pharmacol* 80, 1860-1868, 2010.

S Vernocchi, S Schmit, JD Turner, and Claude P. Muller, Role of the 5'-untranslated regions in post-transcriptional regulation of the human Glucocorticoid Receptor. In preparation.

S Vernocchi, S Schmit, S Gohrbrandt, A Wienecke, O. Hunewald, JD Turner, and Claude P. Muller. Microvariability of the glucocorticoid receptor transcription start site. In preparation.