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## SCIENTIFIC REPORT

I have successfully completed my Short Term Scientific Mission (STSM) at the Department of Genetics, Cell- and Immunobiology in Semmelweis University, Budapest, Hungary, within COST Recent advances in histamine receptor H4R research program on 15.05.2010. The STSM agenda was aimed to assess whether H4R is connected to local androgen deficiency in salivary glands in Sjögren's syndrome. Since the histidine decarboxylase knockout (HDC-KO) mice are androgen deficient the mRNA levels of the H4R were measured in the murine salivary glands from HDC-KO by using qRT-PCR technique. This study also included orchietomized and non-operated mice comparing to wild type mice. Additionally, intracrine sex-steroid enzymes ( $3\beta$ -HSD,  $17\beta$ -HSD, steroid sulfatase, sulfotransferase, aromatase (CYP19) and  $5\alpha$ -reductase) in salivary glands from H4R-KO were immunohistochemically stained. Collected murine salivary gland samples will be applied to further studies. The results of our experiments are important in understanding of mechanisms of local intracrine sex-steroid production failure in pathogenesis of Sjögren's syndrome and will be published in our upcoming article.

The host report is attached.

*Helsinki, 07. June, 2010*

A handwritten signature in blue ink, appearing to read 'V. Stegaev'.

/ Vasily Stegaev M.D.