



Universität
Basel

Research Project

The role of epigenetic modification of glucocorticoid-related genes in aversive memory and post-traumatic stress disorder

Third-party funded project

Project title The role of epigenetic modification of glucocorticoid-related genes in aversive memory and post-traumatic stress disorder

Principal Investigator(s) [de Quervain, Dominique](#) ;

Project Members [Geissmann, Leonie](#) ;

Organisation / Research unit

Bereich Psychiatrie (Klinik) / Kognitive Neurowissenschaften (de Quervain)

Département Psychologie / Cognitive Neuroscience (de Quervain)

Department

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Status Completed

Post-traumatic stress disorder (PTSD) is a chronic pathological response to a traumatic event. Aversive memories of such an event are thought to play an important role in the pathogenesis and symptomatology of the disorder. We have previously shown that glucocorticoids play a critical role in regulating aversive memories with potentially important implications for PTSD. Furthermore, we have shown that an epigenetic modification of the glucocorticoid receptor gene promoter is linked to aversive memories and PTSD risk in survivors of the Rwandan genocide. In the current application we propose to extend our previous work by studying epigenetic modifications in genes related to glucocorticoid signalling using gene-set based methods on whole-genome methylation data in survivors of the Rwandan genocide. In addition, we will have the possibility to further explore the findings, in a healthy population with existing genome-wide methylation data regarding aversive memory processing and its underlying neural correlates. The findings of the proposed study will add to the understanding of the mechanisms related to increased PTSD risk after traumatic events.

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