## S23-03 NEUROBIOLOGY OF ANXIETY DISORDERS J. Den Boer

Department of Psychiatry, University Medical Centre, Groningen, The Netherlands In many psychotherapeutic theories the aim of therapeutic interventions is a restructuring of cognitive appraisals of past and current situations. The question is whether such a 'dry' and formal cognitive approach does not unjustly leave out the body. Especially in anxiety disorders brain/bodily changes appear to play an important role in the etiopathogenesis.

There is now a great deal of experimental evidence that the brain does not only store mental representations, but that the brain/body is actively involved in mental operations. As an example of this I will discuss recent evidence indicating that early adverse life events not only lead to psychological (cognitive) disorders, but also leads to abnormal functioning of brain mechanisms and bodily functions.

These changes occur on different levels of organization. Children who have been neglected or abused have smaller brains and a reduced complexity of neuronal dendrites, and also exhibit dysfunctions in neurotransmitter systems and the immune system.

I will specifically discuss recent investigations conducted in our centre in which severely traumatized patients were studied using positron emission tomography, one of the neuroimaging techniques which yields information about brain functioning in vivo.

As a final point I will discuss genetic differences that may explain differences in sensitivity for stressful life events, which may lead to the deveopment of a spectrum of anxiety disorders.