



# Neuroscience today: neuronal functional diversity and collective behaviors

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## Poster Sessions



## Attention Deficit Hyperactivity Disorder in three family generations: case report

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### Abstract

Attention deficit hyperactivity disorder (ADHD) is a complex disorder that affects children and adults. Although ADHD is one of the best-researched disorders, its cause remains unknown. Among other possible reasons, research suggests a strong genetic basis to ADHD - the disorder tends to run in families.

The diagnosis can be made clinically and in additionally to the clinical observation, testing by qEEG assessment. In the recent years, according to the qEEG and ERPs analysis, five ADHD subtypes in children are defined. In adults, this kind of classification is yet to be tested.

We present a family with ADHD, including a mother and two of her children diagnosed by ICD-10, psychometric scales and qEEG. Mother, aged 40, has ADHD symptoms since her early childhood. Her qEEG suggests alpha excess all over the cortex. Her father suffers from ADHD and as well as her sister who has dyslexia too. Daughter, age 9, on the qEEG, has typical alpha excess all over the cortex in all conditions. She has emotional and working memory problems. The qEEG of her son, age 11, shows over activated frontal cortex. He suffers from difficulties in concentration and emotional blocks.

QEEG and ERP analysis gave information about cortical and subcortical impairment and was in favor for planning the individual neurofeedback protocol.

**Key words:** ADHD, family predisposition, qEEG