



SOCIETAS PHYSIOLOGICAE HOLMIENSIS

FYSIOLOGFÖRENINGEN

Tuesday September 25, 2018

at 15:30

**Biomedicum, Room C0335*,
Solnav. 9, Karolinska Institutet, Solna**

(*freely accessible to visitors from the main entrance floor)

Professor György Bagdy

Semmelweis University, Budapest, Hungary



**The “missing heritability” enigma in major depression:
*gene-environment and gene-gene interactions and their
translation to drug target research***

Single genetic variations only account for very limited heritability of common diseases: the "missing heritability" problem. Depression is an extreme example being a polygenic and multifactorial disorder, strongly impacted by environmental effects. Mostly the effect of stressors on the genetic contribution to depression is neglected. The few significant genes in GWASs are related to neurogenesis, neuronal synapse, cell contact and DNA transcription, and less suitable for therapeutic exploration. In contrast, many candidate genes in replicable Gx \times E interactions are connected to stress and the HPA axis and could serve as drug targets. Dr. Bagdy proposes that detailed phenotyping, measurement of time, type and severity of environmental factors, and the application of innovative statistical method may lead to novel pharmacological strategies.



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Host: Tomas Hökfelt