



Diet-Body-Brain: from epidemiology to evidence-based communication
Competence Cluster in Nutrition Research

July 9, 2018

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"Using genetics to unpick the complex relationships between obesity and socioeconomic position"

Invited by Prof. Dr. Markus Nöthen

Abstract:

Higher body mass index (BMI) and obesity are driving the epidemic of type 2 diabetes. In addition to biological factors, social and economic factors influence susceptibility to obesity, with people from poorer backgrounds having a higher prevalence of obesity, diabetes, and premature mortality. Poverty and lower education status are thought to lead to poorer lifestyles and obesity, but there is limited evidence to suggest that higher BMI could lead directly to poverty and poorer lifestyle through, for example, discrimination against overweight individuals. Our research aimed to a) determine if BMI can directly influence socioeconomic status (SES) and b) investigate whether socioeconomic position accentuates an individual's genetic risk to high BMI. To investigate these complementary aims we utilised up to 119,669 individuals from the UK Biobank study. Firstly, we utilised a Mendelian randomisation approach to test for causal effects of differences in BMI on five measures of SES: age completed full time education, degree level education, job class, annual household income and Townsend deprivation index (TDI). Secondly, we investigated BMI gene x socioeconomic position interactions, comparing the association of a BMI genetic risk score (GRS) with BMI in individuals from high socioeconomic backgrounds to those from lower socioeconomic backgrounds.

5.00-5.45 pm

Auditorium XVII, Nußallee 17, Bonn-Poppelsdorf

The talk will be followed by an informal Get-together.