

## **Booster Grants 2023 – UMC Utrecht, Child Health & UU, Dynamics of Youth**

€15.000

*Supporting the use of back braces in adolescents and stimulating*

Judith Masthoff – Information and Computing Sciences & Tom Schlösser – UMC Utrecht, Orthopedie

- 1000 adolescents/yr receive scoliosis night braces. Wide variation in brace compliance.
- By home-monitoring the frequency/time the brace is being worn can be quantified.
- This is the first step to compliance-dependent feedback.

€15.000

*Dark data in medical science: Identifying hidden patterns in cohort data of chronically ill patients*

Anne Margit Reitsema – Developmental Psychology & Anne Hoefnagels, UMC Utrecht, WKZ

We aim to identify dark data patterns in an existing cohort study. Dark data is known as a range of information in data that has not been collected or not analyzed. For example, more missing data during periods of increased illness activity. Child research presents unique challenges and patterns compared to adult data. For this project, we will focus on the PROactive cohort study, which is a study on the psychosocial well-being of children with a chronic medical condition. Identifying patterns in this dataset might benefit other developmental researchers, especially those who work with longitudinal datasets.

€25.000

*Development first: Follow-up of children at risk and musical stimulation*

Anneloes van Baar – FSW, Educatie en Pedagogiek & Corline Parmentier – UMC Utrecht & Anja Volk – Information and Computing Sciences

Monitoring development of young children at risk and using musical stimulation for slow developing children. 10% slowest developing children: can they be stimulated with musical games? And how does this work for children with perinatal asphyxia?

€25.000

*Parent-child interactions under early life stress conditions: from mice to human*

Michael van der Kooij – UMC Utrecht, Developmental Origins of Disease & Ronald Poppe – Information and Computing Sciences & Joyce Endendijk – FSW, Education and Pedagogy

We will focus on early life stress (ELS) and the consequences for parent-child interaction. These processes will be examined, and compared, in humans and in a mouse model for ELS. Specifically, we will take data from the YOUth project (baby cohort). In the mouse model, a particular focus shall be on parent-infant interactions (including the father); a similar approach shall be employed for the human data. Relevant aspects of parent-child interactions will be coded and interpreted automatically. Early life stress will be manipulated in mice and assessed via cortisol (hair) measures in humans and stress questionnaires.