Aggression in Children: unraveling gene-environment interplay to inform Treatment and InterventiON strategies

European Commission
Seventh Framework Programme

Combining genome-wide association studies in ACTION

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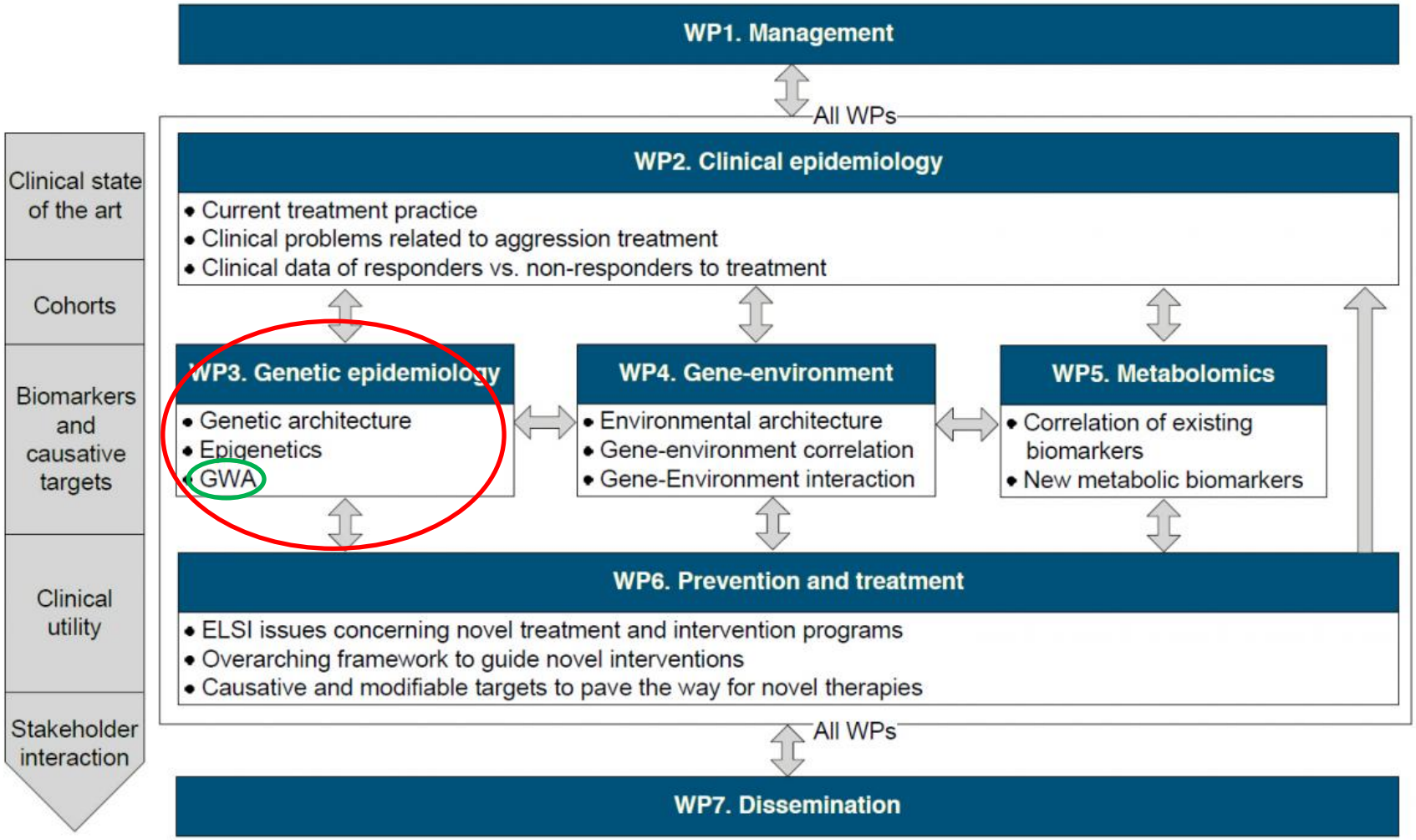
ACTION

- **Aggression in Children: unraveling gene-environment interplay to inform Treatment and InterventiON strategies**

- **Aim: Improve the understanding of the causes of individual differences in aggression among children in order to better inform the development of prevention and treatment strategies.**

My place?

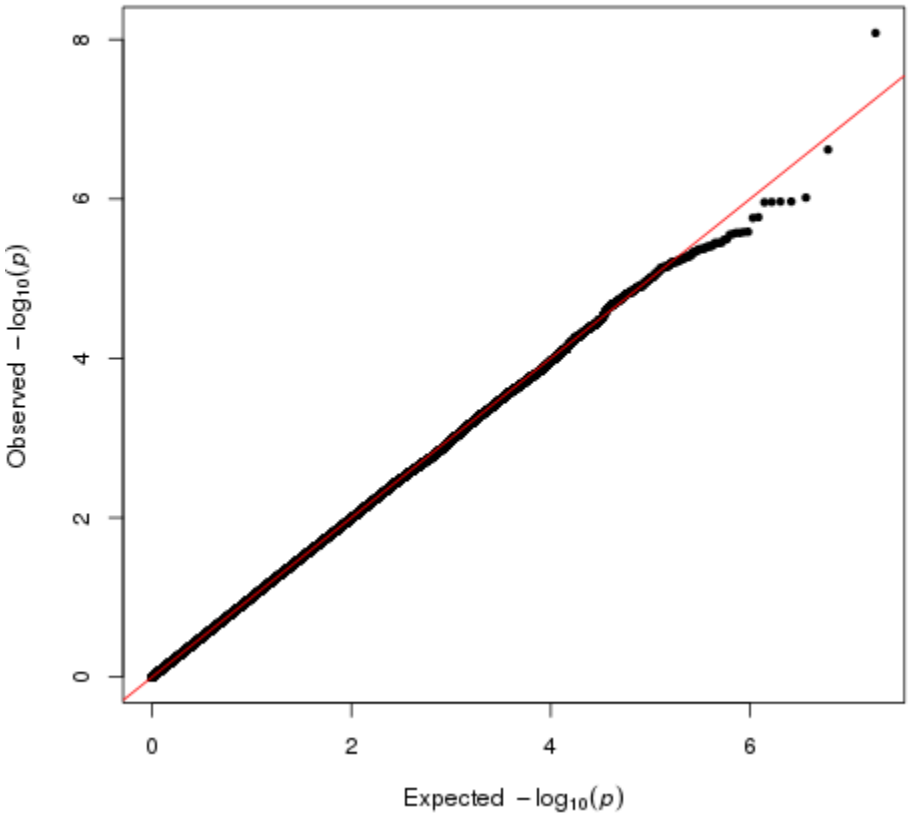

WP1. Management
All WPs
Clinical state of the art
Cohorts
Biomarkers and causative targets
Clinical utility
Stakeholder interaction
WP2. Clinical epidemiology
• Current treatment practice
• Clinical problems related to aggression treatment
• Clinical data of responders vs. non-responders to treatment
WP3. Genetic epidemiology
• Genetic architecture
• Epigenetics
• GWA
WP4. Gene-environment
• Environmental architecture
• Gene-environment correlation
• Gene-Environment interaction
WP5. Metabolomics
• Correlation of existing biomarkers
• New metabolic biomarkers
WP6. Prevention and treatment
• ELSI issues concerning novel treatment and intervention programs
• Overarching framework to guide novel interventions
• Causative and modifiable targets to pave the way for novel therapies
All WPs
WP7. Dissemination

Lots Of Data

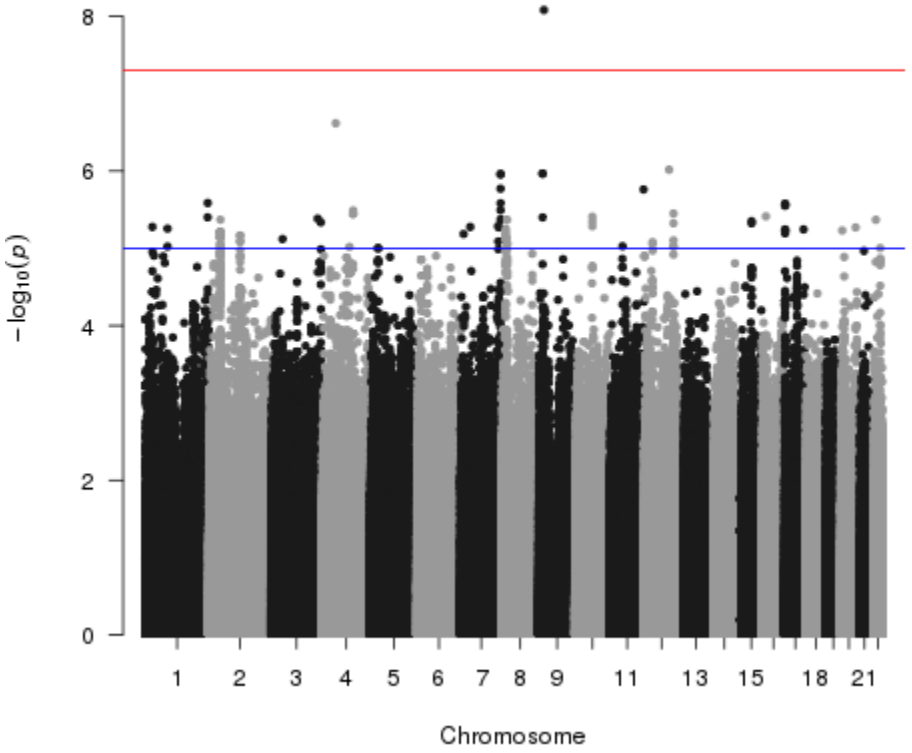
- **Rater: mother, father, teacher and/or self**
- **Multiple age groups**
- **Various instruments**

- **NTR: 28 combinations**
- **My task: GWAS for every combination**
  - So far: 1 GWA on mother-rated 10yo's

Results



Results



Future

- **Run remaining GWA in NTR**
- **Collect results from partners**
- **Multivariate meta-regression**

- **Find combination of age, rater and instrument that gives best prediction of:**
  - Future outcome
  - Other traits/disorders

Thank you for your attention