ACTION

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



The mission of ACTION is to develop a comprehensive framework of the causes of individual differences in paediatric aggression.

The ACTION consortium has access to a clinical sample of aggressive children and to large international paediatric Twin-Family cohorts.

- VU University Amsterdam, NL
- 2. Leiden University Medical Centre, NL
- 3. Queensland Institute of Medical Research, AU
- Karolinska Institutet, Stockholm, SE 4.
- 5. University of Helsinki, FI
- 6. King's College London, UK
- 7. University of Cagliari, IT
- Erasmus University Medical Centre, Rotterdam, NL
- University of Notre Dame, USA
- 10. Diagenode, BE (SME)
- 11. Good Biomarker Sciences, NL (SME)
- 12. Leiden University, NL

In collaboration with: Institute for Behavioral Genetics, USA









WP1. Management; supported by independent SAB and EAB

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**
- **GCTA**

WP4. Genetic-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



WP7. Dissimination



Clinical State

of the Art

Cohorts

Biomarkers

and causative

targets

Clinical

utility

Stakeholder interaction





















