

# 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.

- 1. VU University Amsterdam, NL
- 2. Leiden University Medical Centre, NL
- 3. Queensland Institute of Medical Research, AU
- 4. Karolinska Institutet, Stockholm, SE
- 5. University of Helsinki, Fl
- 6. King's College London, UK
- 7. University of Cagliari, IT
- 8. Erasmus University Medical Centre, Rotterdam, NL

- 9. 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 We welcome other collaborators with data on childhood aggression









### WP1. Management; supported by independent SAB and EAB

#### WP2. Clinical epidemiology

Clinical State

of the Art

Cohorts

Biomarkers and causative targets

Clinical utility

Stakeholder interaction

- 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



- 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



























