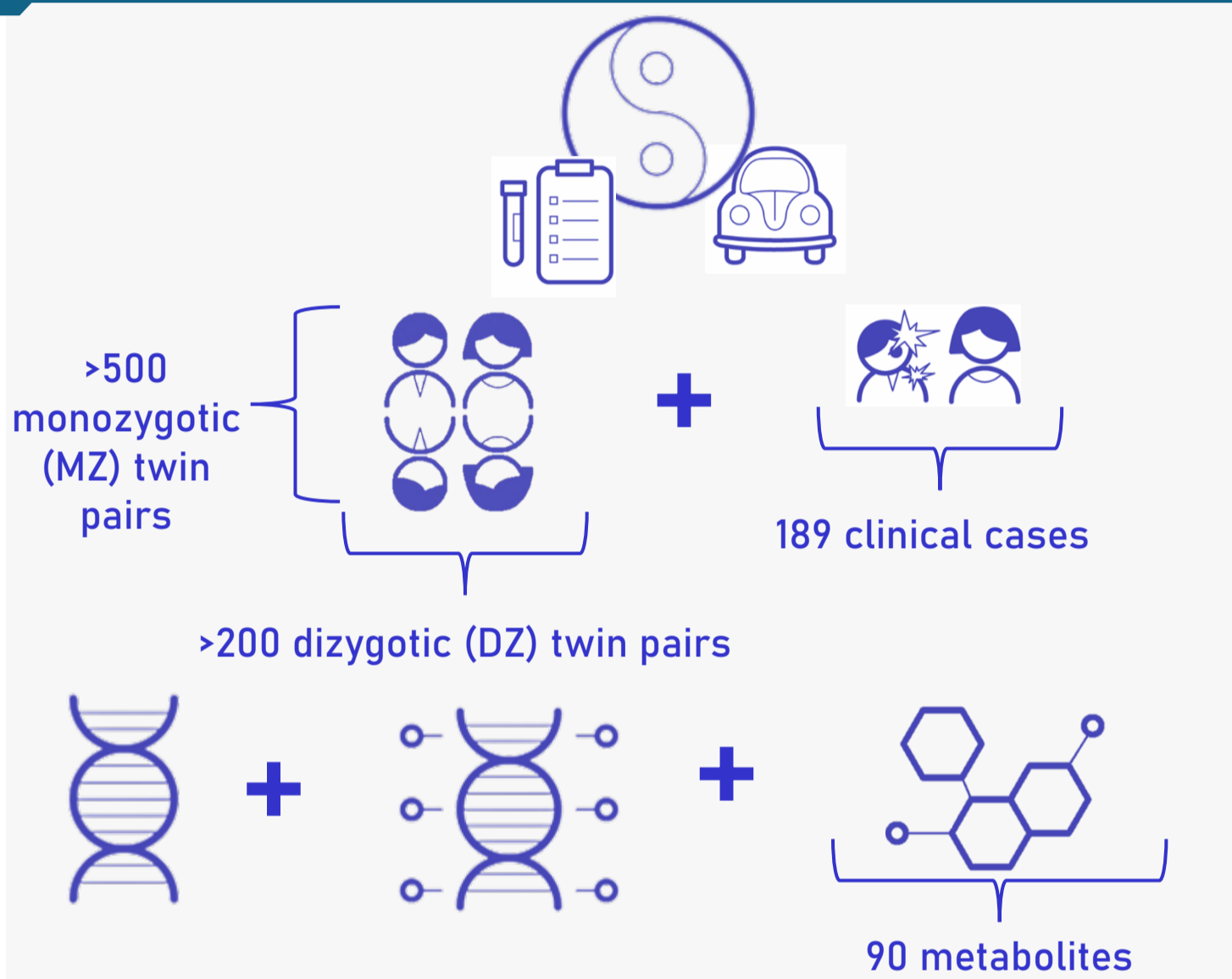


## Cross-Omics Correlations and Childhood Aggression

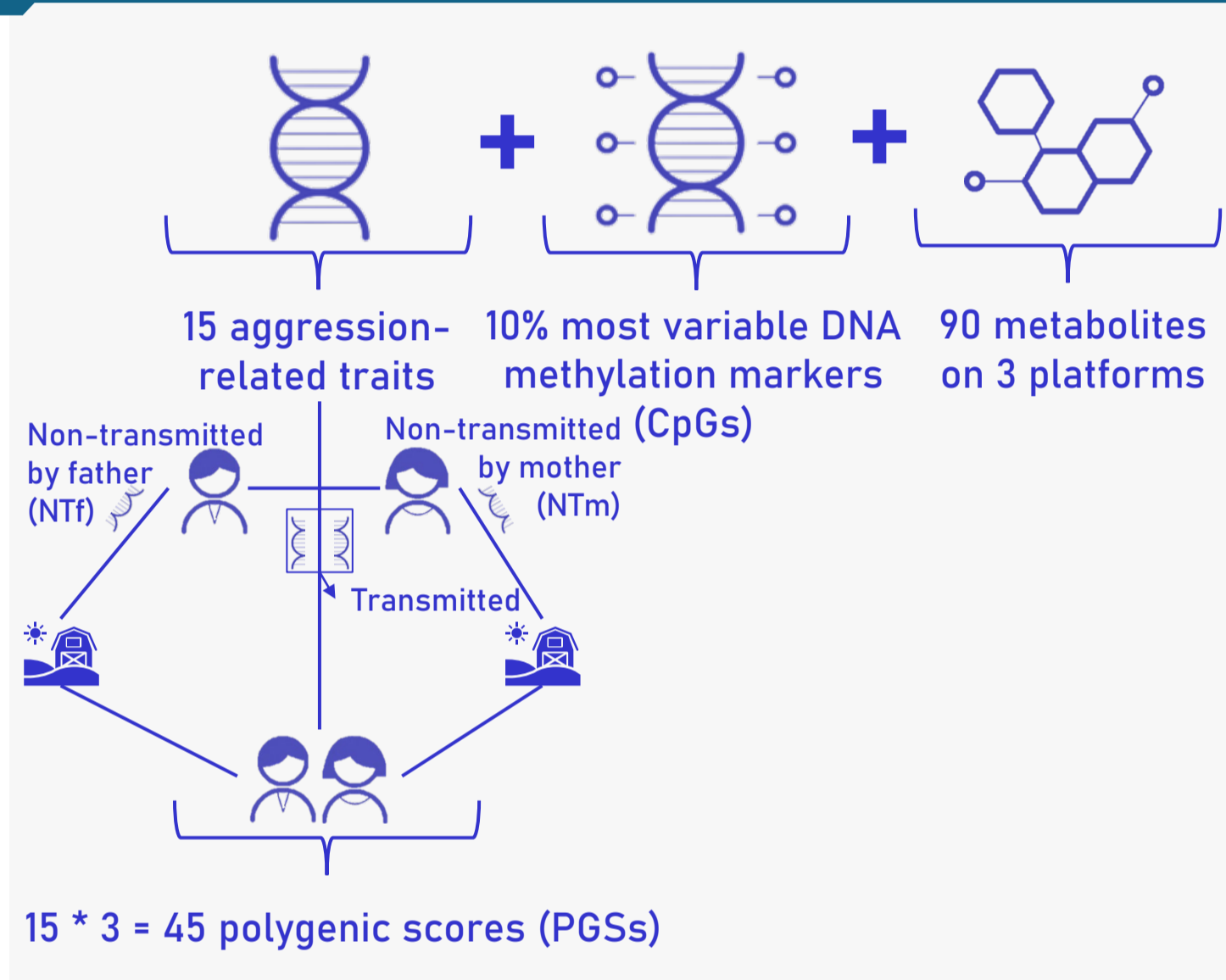
Fiona A. Hagenbeek<sup>1,2</sup>, Jenny van Dongen<sup>1,2,3</sup>, René Pool<sup>1,2</sup>, Peter J. Roetman<sup>4</sup>, Amy C. Harms<sup>5,6</sup>, Jouke Jan Hottenga<sup>1</sup>, Cornelis Klufft<sup>7</sup>, Olivier F. Colins<sup>4,8</sup>, Conor V. Dolan<sup>1,2</sup>, Britt J. van Keulen<sup>9</sup>, Brian R. Walker<sup>10,11</sup>, Hilleke E. Hulshoff Pol<sup>12</sup>, Joost Rotteveel<sup>9</sup>, Martijn J. J. Finken<sup>9</sup>, Catherina E. M. van Beijsterveldt<sup>1</sup>, Vassilios Fanos<sup>13</sup>, Erik A. Ehli<sup>14</sup>, Thomas Hankemeier<sup>5,6</sup>, Robert R. J. M. Vermeiren<sup>4,15</sup>, Meike Bartels<sup>1,2,3</sup>, Sébastien Déjean<sup>16</sup> & Dorret I. Boomsma<sup>1,2,3</sup>

<sup>1</sup>Dept. Biological Psychology, Vrije Universiteit Amsterdam; <sup>2</sup>Amsterdam Public Health research institute; <sup>3</sup>Amsterdam Reproduction & Development research institute; <sup>4</sup>LUMC-Curium, Department of Child and Adolescent Psychiatry, Leiden University Medical Center; <sup>5</sup>Division of Analytical Biosciences, Leiden Academic Center for Drug Research, Leiden University; <sup>6</sup>The Netherlands Metabolomics Centre; <sup>7</sup>Good Biomarker Sciences; <sup>8</sup>Department Special Needs Education, Ghent University; <sup>9</sup>Emma Children's Hospital, Amsterdam UMC; <sup>10</sup>Centre for Cardiovascular Science, University of Edinburgh; <sup>11</sup>Institute of Genetic Medicine, Newcastle University; <sup>12</sup>Department of Psychiatry, Brain Center Rudolf Magnus, University Medical Center Utrecht; <sup>13</sup>Department of Surgical Sciences, University of Cagliari; <sup>14</sup>Avera Institute for Human Genetics; <sup>15</sup>Youz, Parnassia Psychiatric Institute; <sup>16</sup>Toulouse Mathematics Institute, University of Toulouse.

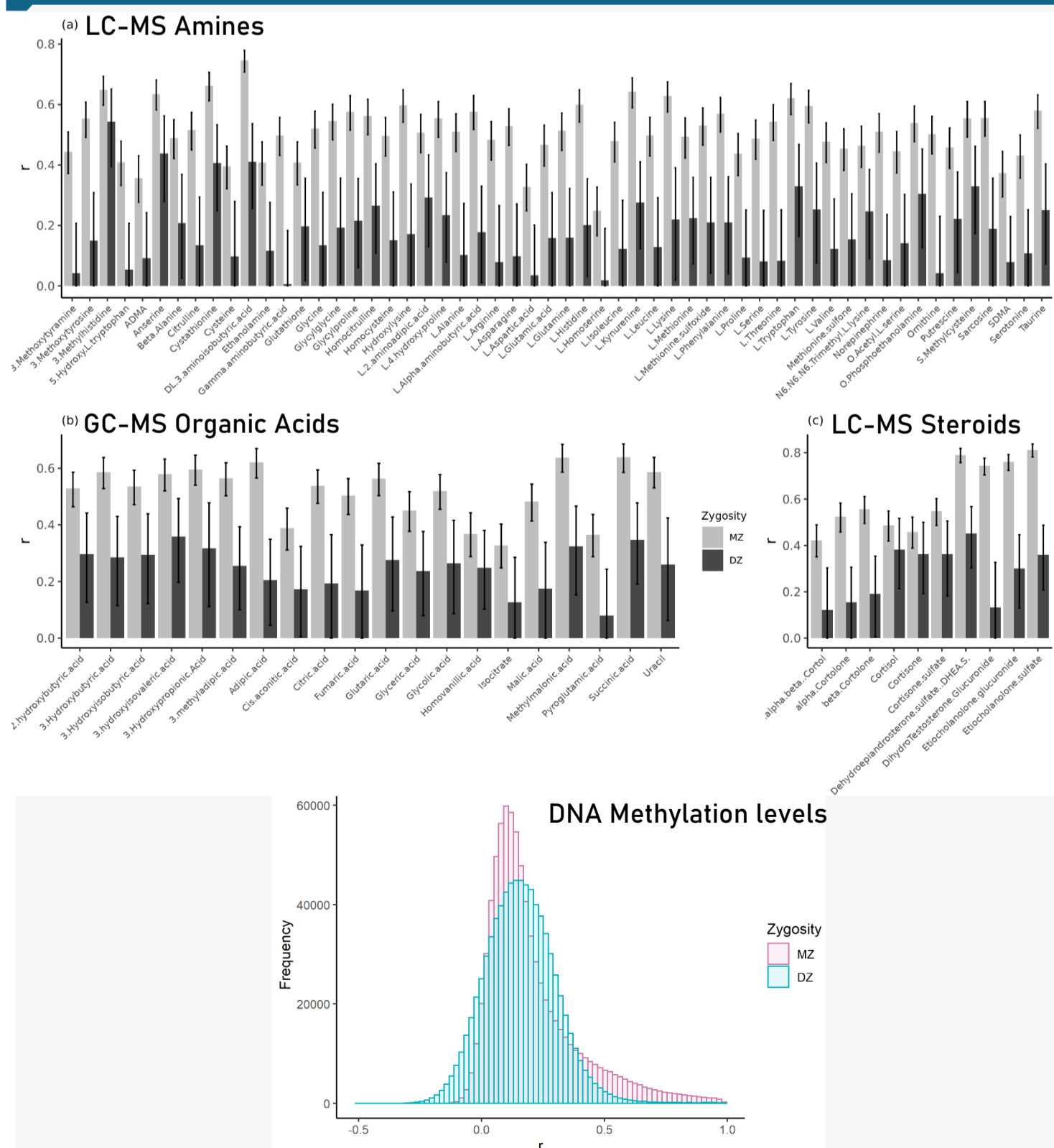
### The ACTION Biomarker Study



### Multi-omics Design



### Omics MZ & DZ correlations



### Cross-Omics Correlations

