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UCD collaborates on study of autism

By Daily Democrat Staff

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A network of leading autism researchers from three regions across the country Tuesday launched one of the largest research studies of its kind to investigate early risk factors for Autism Spectrum Disorders.

The network, called the Early Autism Risk Longitudinal Investigation Study, will follow up to 1,200 pregnant women who already have a child with autism.

The study is considered one of the best-equipped to discover biological markers and environmental risk factors for autism, due to its elevated autism-risk pregnancy cohort, wide-ranging data collection with extensive bio-sampling, lengthy follow-up of pregnant women and their babies, and multidisciplinary team of expert investigators.

Under the study, researchers at four network field sites around the country, including UC Davis, will study possible environmental risk factors and their interplay with genetic susceptibility during the prenatal, neonatal and early postnatal periods. The project will also investigate early biological indicators of autism. The EARLI study is one of 11 National Institutes of Health Autism Centers of Excellence projects nationwide.

The Drexel University School of Public Health in Philadelphia is the national coordinator of the EARLI study network. Other research sites for the study include: Children's Hospital of Philadelphia; the UCD M.I.N.D. Institute; Johns Hopkins Bloomberg School of Public Health/Kennedy Krieger Institute in Baltimore; and Kaiser Permanente Division of Research in Oakland.

The EARLI Study will complement several federally funded research studies already under way at UCD, said Irva Hertz-Picciotto, professor and chief of the Division of Environmental and Occupational Health at the UCD School of Medicine.

The studies include the MARBLES (Markers of Autism Risk in Babies -- Learning Early Signs) study, which is a project of the UCD Center for Children's Environmental Health, and the CHARGE study (CHildhood Autism Risk from Genetics and the Environment), Hertz-Picciotto said.

"All of these studies have as a goal to learn about environmental factors that may contribute to autism, in conjunction with genetic susceptibility," Hertz-Picciotto said. Both the EARLI and MARBLES studies are recruiting mothers who have at least one child with autism and who are pregnant or considering another pregnancy. The CHARGE study, begun in 2003, already has over 1,200 children enrolled, and is continuing to enroll any child with autism who is between the ages of 24 and 60 months. It has uncovered several clues about the mechanisms by which environmental chemicals may alter risk for autism and will continue to do so."

Hertz-Picciotto emphasized the need for multiple studies "because of the complexity of autism, the need to replicate findings, and the limits to what can be done in a single investigation when data and specimens are not infinite."

The network also includes a data-coordinating center at UCD and a central lab and secure bio-sample repository at the Johns Hopkins Bloomberg School of Public Health.

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"No other study can more comprehensively explore the impacts and interplay of environmental factors and genetic predisposition in the cause of autism," said Craig Newschaffer, a department chairman at the Drexel University School of Public Health and EARLI study principal investigator.