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CombiMatrix to Present New Data from a Large-Scale Analysis of Genomic Abnormalities Impacting Multiple Stages of Human Growth and Development Starting from Conception through Childhood at the American Society of Human Genetics Annual Meeting

IRVINE, Calif., Oct. 20, 2017 (GLOBE NEWSWIRE) -- CombiMatrix Corporation (NASDAQ:CBMX), a family health molecular diagnostics company specializing in DNA-based reproductive health and pediatric testing services, announces the presentation of new data from a large-scale, first-of-its kind study providing a comprehensive assessment of chromosomal imbalances and their adverse impact upon human growth and development from conception to childhood. Results from nearly 32,000 samples analyzed in this study indicate that genomic alterations decrease in frequency and severity from conception through development into childhood. Trilochan Sahoo, M.D., FACMG, CombiMatrix Vice President of Clinical Affairs and Director of Cytogenetics, will discuss these results today at the American Society of Human Genetics Annual Meeting (ASHG) in Orlando, Fla.

This study is aimed at exploring and cataloging the frequency, severity and complex evolution of genomic abnormalities with adverse effects on human conception, pregnancy and childhood growth and development. Data was obtained from CombiMatrix's exclusive data collected over a multi-year period. An abstract of the study, "Large-scale cytogenomic analysis of samples from conception to childhood: a comprehensive assessment of the landscape of unbalanced genomic abnormalities," is posted at http://combimatrix.com/providers/educational-references.

The abstract reviews outcomes from preimplantation genetic screening (PGS) of 6,883 embryos and chromosomal microarray analysis testing of 12,324 pregnancy loss samples, 4,176 prenatal samples, 1,564 neonatal samples and 7,047 pediatric samples. The study showed a spectrum of unbalanced genomic abnormalities detected in each sample type. Key findings include:

- Embryo or early pregnancy loss samples showed the highest abnormality rates and a predictable correlation between the severity of chromosomal abnormalities, primarily aneuploidies, with unsuccessful implantation or progression to viable pregnancy.
- Prenatal and neonatal samples showed that the frequency of significant genomic alterations correlated with the incidence of significant physical and developmental abnormalities, but were not necessarily incompatible with life.
- Pediatric samples were predominantly deletions and duplications rather than aneuploidy and had less drastic adverse effects.

"This is the first study to provide a comprehensive overview of the nature and frequency of cytogenomic abnormalities with adverse effects from the earliest post-conception developmental stages (i.e., embryos) through pregnancy and into childhood," said Dr. Sahoo. "Analysis of this larger sample set validates our previous findings that showed an interesting pattern elucidating genomic alterations of decreasing severity as human growth progresses these developmental stages. This opens a new window into the errors and corrective mechanisms at play at a cellular level during various stages of human development."

"These results support the importance of genomic testing for different abnormalities that may occur at distinct development stages," said Mark McDonough, CombiMatrix President and CEO. "We now have even more compelling evidence of the importance of the genetic information produced from this testing from preconception through early childhood. It is our goal to provide useful and timely information that can help physicians and their patients make important health decisions."

About CombiMatrix Corporation

CombiMatrix Corporation provides sophisticated molecular diagnostic solutions and comprehensive clinical support to foster the highest quality in patient care. CombiMatrix specializes in pre-implantation genetic diagnostics and screening, prenatal diagnosis, miscarriage analysis and pediatric developmental disorders, offering DNA-based testing for the detection of genetic abnormalities beyond what can be identified through traditional methodologies. Our testing focuses on advanced technologies, including single nucleotide polymorphism chromosomal microarray analysis, next generation sequencing, fluorescent in situ hybridization and high resolution karyotyping. Additional information about CombiMatrix is available at www.combimatrix.com or by calling (800) 710-0624.

Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995

This press release contains forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These statements are based upon our current expectations, speak only as of the date hereof and are subject to change. All statements, other than statements of historical fact included in this press release, are forward-looking statements. Forward-looking statements can often be identified by words such as "anticipates," "expects," "intends," "plans," "goal," "predicts," "believes," "seeks," "estimates," "may," "will," "should," "would," "could," "potential," "continue," "ongoing," "outlook," "reach," similar expressions, and variations or negatives of these words and include, but are not limited to, statements regarding projected results of operations, including projected cash flow-positive operating results, management's future business, operational and strategic plans, recruiting efforts and test menu expansion. These forward-looking statements are not guarantees of future results and are subject to risks, uncertainties and assumptions that could cause our actual results to differ materially and adversely from those expressed in any forward-looking statement. The risks and uncertainties referred to above include, but are not limited to: our ability to grow revenue and improve gross margin; delays in achieving and maintaining cash flow-positive operating results; the risk that operating expenses are not reduced or increase; the risk that test volumes and reimbursements level off or decline; the risk that payors decide to not cover our tests or to reduce the amounts they are willing to pay for our tests; the risk that we will not be able to grow our business as quickly as we need to; the inability to raise capital; the loss of members of our sales force; our ability to successfully expand the base of our customers, add to the menu of our diagnostic tests, develop and introduce new tests and related reports, expand and improve our current suite of services, optimize the reimbursements received for our microarray testing services, and increase operating margins by improving overall productivity and expanding sales volumes; our ability to successfully accelerate sales, steadily increase the size of our customer rosters in all of our genetic testing markets; our ability to attract and retain a qualified sales force in wider geographies; our ability to ramp production from our sales; rapid technological change in our markets; changes in demand for our future services; legislative, regulatory and competitive developments; general economic conditions; and various other factors. Further information on potential factors that could affect our financial results is included in our Annual Report on Form 10-K, Quarterly Reports of Form 10-Q, and in other filings with the Securities and Exchange Commission. We undertake no obligation to revise or update publicly any forward-looking statements for any reason, except as required by law.

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