

LifeCell launches 'Genome-Scope' for newborn genetic testing

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'Genome-Scope' is a premier Genetic Diagnostic Test for newborns which assesses for thousands of early childhood-onset disorders



LifeCell International, India's premier stem cell bank and Diagnostics Company, has announced the introduction of 'Genome-Scope' - a premier Genetic Diagnostic Test for newborns which assesses for thousands of early childhood-onset disorders. Notably, LifeCell offers this service within a turnaround time of just 10 days, which is twice as fast compared to nearest offering - a vital time reduction for those who seek urgent diagnosis such as babies in the NICU.

With over 7000 rare disorders identified so far, it's vastly difficult for doctors to diagnose the same with traditional diagnostic techniques. A recent study showcased that it takes more than 7 physicians & 4 years to diagnose such rare disorders. Misdiagnosis, hidden symptoms & lack of awareness, are the core reasons for the long diagnostic journey of children with genetic disorders.

With >80% of them being genetic in nature, the recent emergence of low-cost genome sequencing it's now possible to detect relevant causative mutations of almost all of these conditions within a single test, thus far exceeding the routine newborn screening tests currently being offered which cover at most 50 conditions.

LifeCell has introduced this test under the brand 'Genome-Scope'. This breakthrough test uses advanced next-gen DNA sequencing technology to assess over 4000 genes related to early childhood-onset disorders, to provide results with >95% accuracy within just 10 days. Thus, it has the potential to not only expedite the diagnostic journey but also, to save lives. While not all conditions detected may have treatment, the parents may seek such information as it may help prepare for the care of the baby and also in future family planning.

Genome-Scope is also available for well-born kids to identify predisposition to genetic conditions that if detected late could cause irreparable harm. It also provides information on how & which medications the child would respond to, thus providing an impetus to the practice of personalised medicine. Genome-Scope will serve as a particularly important tool for those parents with a family history of a genetic disease or those who have previously lost a child to one. However there is also data suggesting that 80% of babies with genetic diseases are born to parents with no family history or symptoms implying the importance of this test to all families.

The test is conducted through a simple process on the cord blood obtained from the baby right after birth for the extraction & preservation of umbilical cord blood stem cells. Alternatively the test could also be done with blood samples obtained from

the child after birth through heel prick. The test results are shared with the physician within 10 business days for their reference. Lifecell's in-house certified genetic counsellors would assist the clients in pre and post test counselling. The raw data is also stored with LifeCell for future re-analysis in case there are any changes in the clinical status of the baby.