

REPRODUCTIVE **GENOMICS**

Support for every *Mother*

About Us



1 Lakh+ lives empowered | **99%** sensitivity in technology
5,000+ biomarkers screened | **100+** advanced genetic testing

Transforming lives through personalised genetics

At **OneDNA**, we believe your DNA is more than just a code it's a powerful guide to your past, present health, and future well-being. Founded in 2023, OneDNA is a brand by Lords Mark Micro Biotech, part of the renowned **Lords Mark Industries**, a conglomerate with **27+ years** of excellence across sectors like healthcare, biotechnology, solar energy, and more. We're dedicated to helping you unlock the meaning behind your genetics for informed, confident choices.

Our Vision

To make precision genomics an integral part of everyday healthcare empowering individuals and clinicians to make informed, proactive, and personalised health decisions.

Our Mission

To deliver accurate & clinically relevant genomic solutions by translating genetic science into actionable insights that support prevention, early intervention & treatment.

Reproductive Genomics



Carrier Screening

Carrier Screening is a genetic test performed on both partners before conception to assess the risk of passing inherited genetic disorders to their child. Using NGS-based technology, we analyse **2,000+ genes** associated with autosomal recessive and X-linked conditions, enabling informed reproductive planning and decision-making.



Non-invasive Prenatal Screening

NIPT is a safe, blood test done from 10 weeks of pregnancy to screen for common chromosomal conditions like Down syndrome with no risk to the pregnancy. In India, where around **30,000–35,000 babies** are born with Down syndrome each year (Indian Journal of Pediatrics), NIPT offers a vital, screening option for all expectant mothers, especially those 35+ or with concerning USG findings.



Newborn Screening

Newborn screening is a vital heel-prick test that checks for serious but treatable disorders before symptoms appear. In India, where where **~2 in every 100 babies** are affected by congenital disorders, early detection can prevent up to 90% of related disabilities. Protect your child's future with this simple, life-saving check.

PMCID: PMC5970488



Maternal Serum Screening

MSS assesses the risk of chromosomal abnormalities and neural tube defects, using maternal blood markers. Double Marker test evaluates the risk of Down syndrome with maternal age and NT scan giving detection rate of **~85%**. Triple Marker test screens for NTD, Down and Edward syndrome, while Quadruple Marker test provides higher sensitivity and detection rate over 90% with combined screening.



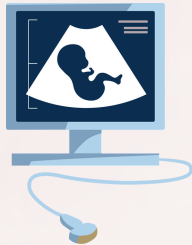
Invasive Clinical Genomics

It helps detect genetic disorders in high-risk pregnancies when ultrasound shows abnormalities but standard tests are normal. Essential for India's population, where consanguinity and high birth defect rates create urgent need, it provides diagnoses in nearly **50%** of unexplained fetal anomaly cases, with test like Karyotyping, FISH, CMA, WES, and other advanced genetic tests enabling critical planning and targeted care.

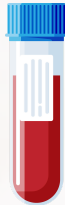
Maternal Serum Screening

Combined screening offers enhanced sensitivity towards early detection of common chromosomal abnormalities.

Ultrasound Measurements



Biochemical Markers



“ Absence of nasal bone, increased resistance to flow in the ductus venosus & tricuspid regurgitation are soft markers when combined with maternal age, fetal NT, serum concentration in first trimester can improve detection rate by 95% and decrease FPR than 3%.

DOI: 10.1002/uog.10051 ”

DOUBLE MARKER

Performed between 10–13.6 weeks:

- Free β -hCG
- PAPP-A

TRIPLE MARKER

Performed between 15–20 weeks:

- Alpha-fetoprotein (AFP)
- β -hCG
- Unconjugated Estriol (uE3)

QUADRUPLE MARKER

Performed between 15–20 weeks:

- AFP
- β -hCG
- uE3
- Inhibin A

Note: Maternal Serum Screening is a screening test, not a diagnostic test. Abnormal results indicate increased risk and should be followed up with advanced screening test (NIPT) or confirmatory diagnostic procedures (CVS, or amniocentesis) followed with genetic investigation as advised by the clinician.

Technical Specifications:



Methodology: CLIA



Risk Calculation: Triple/Quadruple marker by Benetech (MA, NT scan & more), Double marker by AutoDELFIA/ROCHE



TAT: 2-3 days



Instrumentation: Beckman Coulter Access 2



Reporting Units: ng/mL or pg/mL or iu/mL



Sample Type: Serum

Non-Invasive Prenatal Testing

NIPT Test	Trisomy 21, 18, 13	Sex Chromosomes	All Chromosomes	5 Microdeletions
Basic	✓	✓	✓	
Advanced	✓	✓	✓	✓

Technical Specifications:

- Technique: Next Generation Sequencing
- Variant type: Copy Number Variants
- TAT: 10 days (basic), 14 days (advanced)
- Sample type: 10ml maternal blood in Streck tube
- Sensitivity: 99% for Trisomy 21, 18 & 13

Invasive Clinical Genomics

A rapid test that uses fluorescent probes to detect specific chromosomal abnormalities in fetal cells.

FISH

We offer various PCR-based methods for prenatal testing, including QF-PCR, TP-PCR, and Fragment analysis.

PCR

Includes Whole Exome Sequencing with Mitochondrial DNA Sequencing

Exome Sequencing

Panel consists of: Karyotype, Y-Microdeletion and Whole Exome Sequencing

Male Infertility

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Karyotyping

Karyotyping is available at both 400K and 800K resolution.

CMA

There are various CMA panels available:

- CMA – 315K and 750K
- CMA + MCC – 315K and 750K (for POC)
- CMA + MCC + QF-PCR – 315K and 750K

MLPA

Detects small rearrangements Up to 40 targets high throughput for detecting conditions such as DMD, SMA, and related disorders.

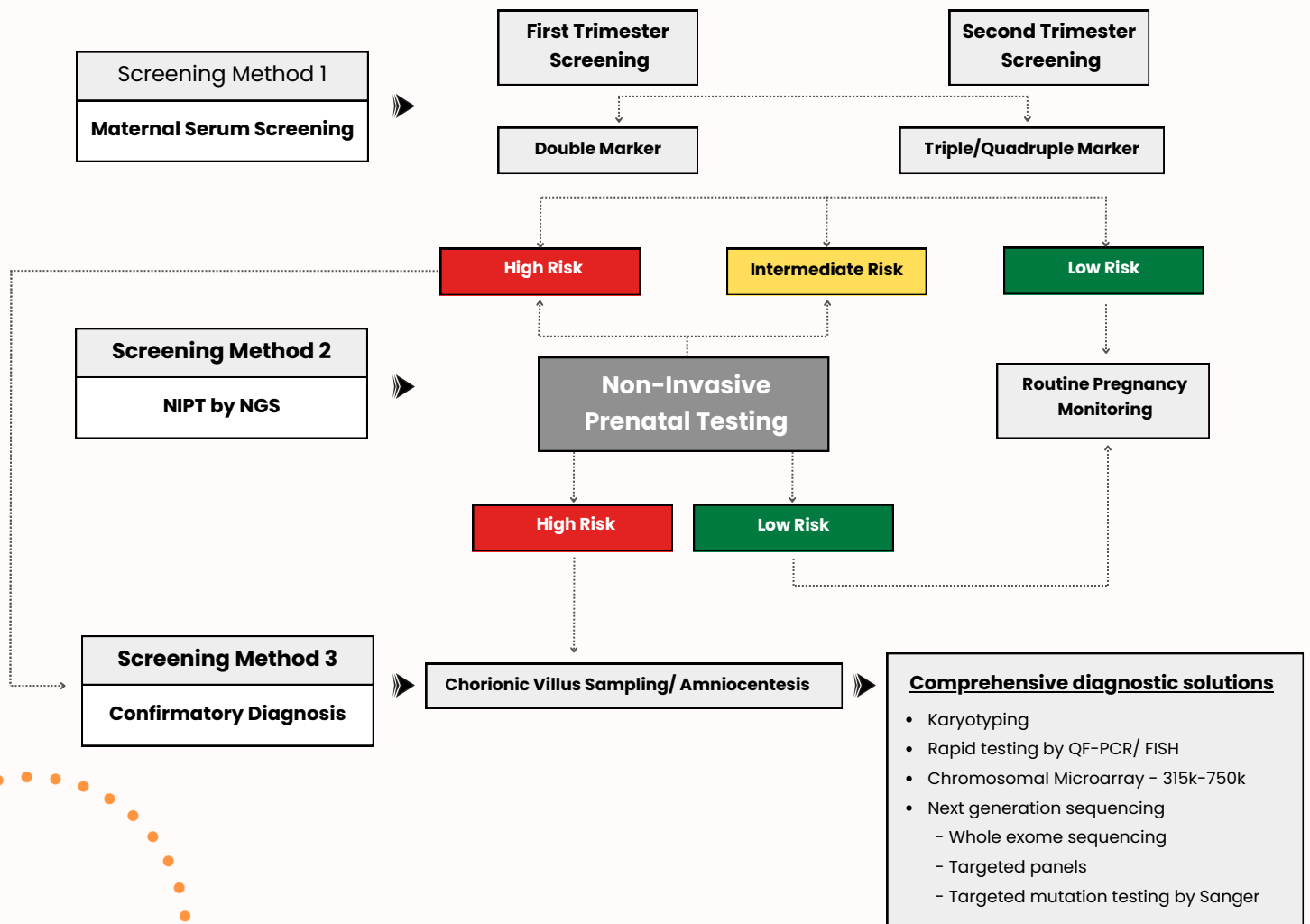
Sanger

Sensitivity upto 99% for identifying single nucleotide variations (SNVs) and small insertions/deletions (Indels).

Female Infertility

Panel consists of: Karyotype, Fragile X and Whole Exome Sequencing

Prenatal Screening Algorithm





Newborn Screening

Test	Conditions	Sample type	TAT	Technology
Bio 6	Congenital Hypothyroidism (CH), Congenital Adrenal Hyperplasia (CAH), G6PD Deficiency, Galactosemia (GAL), Cystic Fibrosis (CF), Biotinidase.	Heel prick - DBS card	<1 week	ELISA, EIA
Bio 7	Congenital Hypothyroidism (CH), Congenital Adrenal Hyperplasia (CAH), G6PD Deficiency, Galactosemia (GAL), Cystic Fibrosis (CF), Biotinidase, Phenylketonuria.	Heel prick - DBS card	<1 week	ELISA, EIA, TMS
TMS	Amino acid disorders, Urea cycle defects, Acylcarnitine-related issues.	Heel prick - DBS card	<1 week	TMS
GC-MS - UOA	Organic acidurias	5ml Urine or Urine card	1 week	GC-MS
Plasma aminoacids	Amino acid disorders	EDTA Blood	<1 week	LC-MSMS
Hemoglobinopathies	α -Thalassaemia, β -Thalassaemia, Sickle Cell Disease (SCD), HbC, Foetal Variant (HbF), HbS, HbE, HbO, HbD.	Heel prick - DBS card	<1 week	LC-MSMS

Note: This is a screening test, and a negative result does not completely rule out the possibility of a disorder. A positive result indicates the need for further diagnostic evaluation, and all results should be interpreted in conjunction with clinical findings.



Who should take this Test?

Couple Carrier Screening

- The couple is related by blood (consanguineous marriage).
- One partner has a known hereditary condition.
- There is a family history of genetic disorders.

Maternal Serum Screening

- All pregnant women as routine prenatal screening.
- High-risk pregnancies (advanced maternal age, family history, abnormal scan).
- Previous affected pregnancy or genetic risk history.

Non-Invasive Prenatal Testing

- Advanced Maternal Age.
- Recurrent Pregnancy Loss.
- High Risk / Intermediate Risk on Maternal Screening Test.
- Previous Affected Pregnancy.

Invasive Clinical Genomics

- Abnormal screening results (NIPT, MSS, NT/ultrasound).
- Known genetic risk (carrier status, family history, previous affected child).
- Suspected chromosomal abnormalities requiring definitive diagnosis.

Newborn Screening

- All newborns, regardless of risk factors.
- Babies with family history of genetic/metabolic disorders.
- Newborns with NICU admission or birth complications.

Other Services

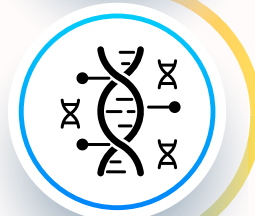
Pharmaco Genomics

Genetics-guided drug selection



Preventive Genomics

Predicting health risks before symptoms appear



Clinical Genomics

Full-spectrum of clinical genetic test and services



Gutmicrobiome Test

Understanding gut health and balance



SCAN TO VISIT
WEBSITE

