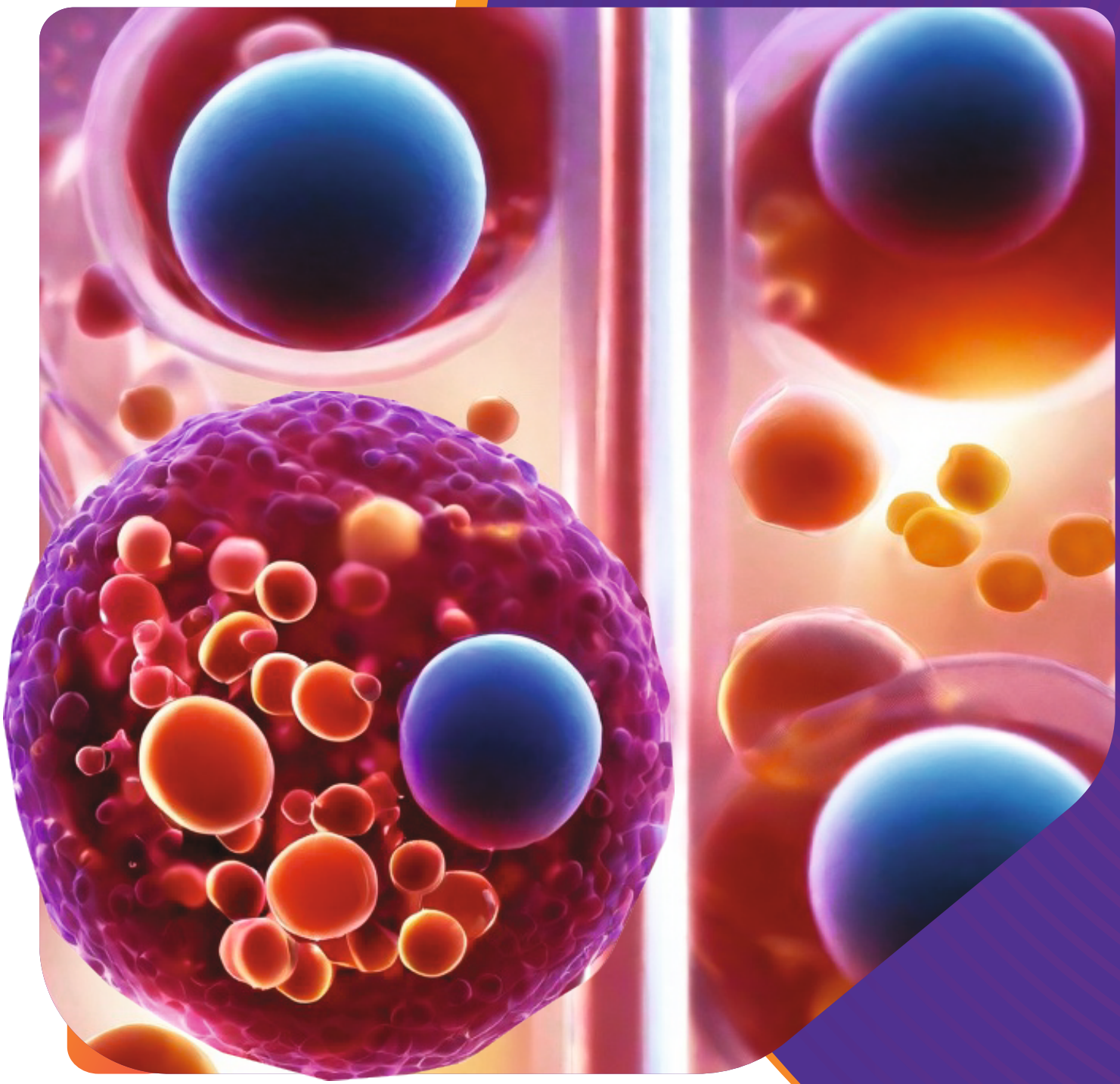
NCGM
—by Neuberg—

New INSIGHTS



PLASMASEQ

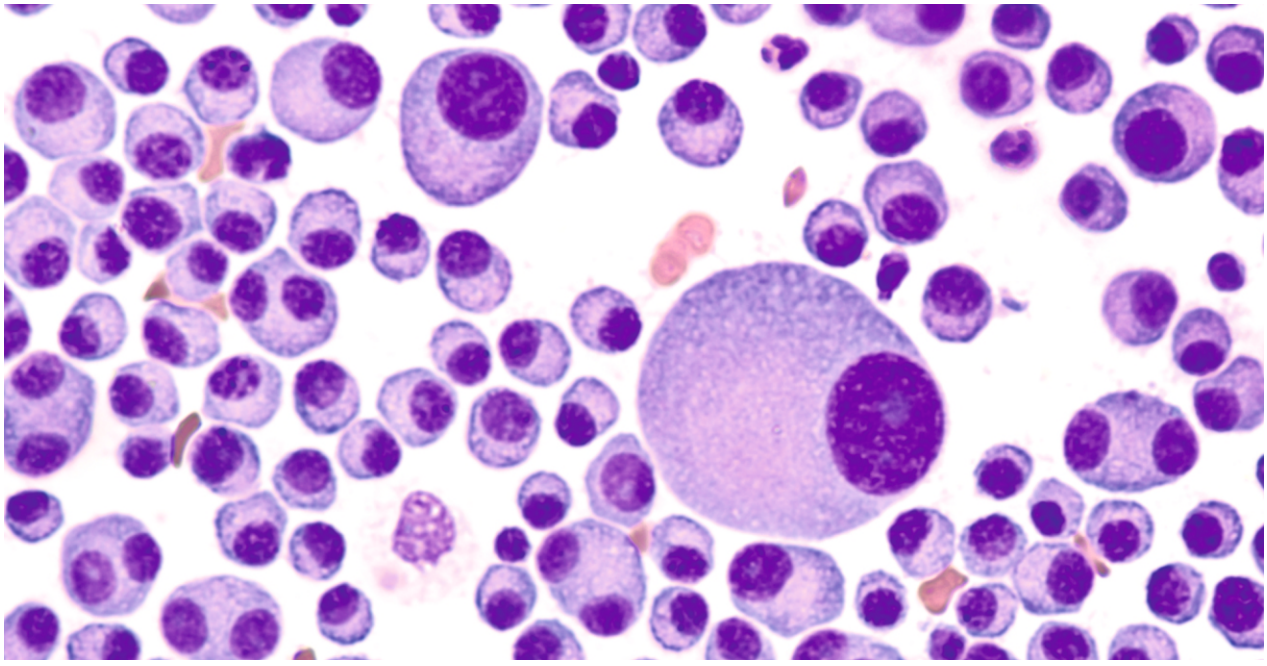
Serial number : 031 Edition : 1. 2024

Multiple Myeloma?

Multiple Myeloma (MM) represents a malignant proliferation of plasma cells.

Emerging Challenges:

- FISH (Fluorescence in Situ Hybridization) is limited in detecting mutations and has a restricted scope in identifying all genetic abnormalities, leading to potential diagnostic gaps and incomplete patient stratification.
- Moreover, the need for manual sample preparation and manual review in addition to the need for intact cells, significantly increases the risk of failure and as a result a lack of data on these samples.
- Given the complex translocation profile and copy number aberrations in myeloma, the implementation of a Next Generation Sequencing based assay has been challenging in this disease.



Introducing: PLASMASEQ

"DISCOVER THE UNDISCOVERED WITH NGS BASED ASSAY FOR MULTIPLE MYELOMA"

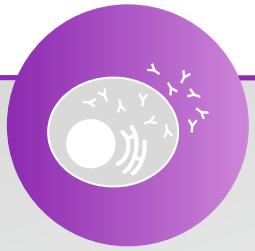
Next-generation sequencing (NGS) has played a crucial role in advancing our understanding of various diseases, including cancer. In the context of Multiple Myeloma (MM), NGS has been employed to unravel the genomic landscape, identify key genetic mutations, but till now has failed to make it to the clinic.

PlasmaSeq, a NGS based DNA only assay serves as the new benchmark for Myeloma diagnostics globally. Built under the guidance of Myeloma experts globally and deployed across the world, PlasmaSeq is the new standard of care. With a highly optimized panel design, novel informatics and extensive validations on thousands of samples globally gives you the confidence of reliable and rapid myeloma diagnostics like never before.

1 Stop Solution For Genetic Classification of Multiple Myeloma

What FISH Covers:

- Del (17p)
- Del (1p32)
- 1q21 amplification/gain
- IGH Translocations:
  - t(4;14)IGH::FGFR3
  - t(14;16)IGH::MAF
  - t(11;14)IGH::CCND1
  - t(6;14)IGH::CCND3*
  - t(14;20)IGH::MAFB*



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- TP53 Mutation
- BRAF V600E
- All RAS/RAF Mutations
- DIS3-DEL(13q) Mutation
- SLAMF-7
- BCMA & APRILv2
- Genomic Profiling of ATM
- Trisomies & Hyperdiploidy across the genome

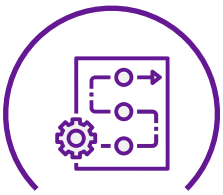
*rare IGH translocations

Specific Biomarker analyzed using PLASMSEQ:

Test Code	Test Name	Biomarkers Used	Clinical Significance	Incidence	FISH	NGS
MH020	PLASMASEQ	TP53 mutation	High-Risk	1-7%	✗	✓
		ATM	Poor Prognosis	~4%	✗	✓
		DIS3	Poor Prognosis	10%	✗	✓
		T(6;14)IGH:: CCND3	Standard-Risk	~4%	✓/✗	✓
		T(14;20)IGH:: MAFB	High-Risk	<2%	✓/✗	✓
		Trisomies & Hyperdiploidy across the genome	Standard-Risk	>40%	✓/✗	✓
		Del (1p32)	Poor Prognosis	~8%	✓	✓
		Del (17p)	High-Risk	5-20%	✓	✓
		1q21 amplification/ gain	High-Risk	40%	✓	✓
		t(4;14) IGH:: FGFR3	High-Risk	15%	✓	✓
		t(14;16) IGH:: MAF	High-Risk	3.5%	✓	✓
		t(11;14) IGH:: CCND1	Standard-Risk	15-20%	✓	✓

Sample type:
Bone Marrow

TAT:
10-14 days



Methodology:
NGS

Note: Sample must reach the lab within 48hrs of sample collection. 1st pull of Bone Marrow sample is suggested.

Why PLASMSEQ?

- 1st Global NGS based test for Myeloma
- Validated for DNA input per sample of as low as 10 ng.
- >1000 Samples Validated in 3 countries with >95% accuracy.

FAB over Conventional Methods

F — Features

- Eliminates the need of multiple assays like FISH and Karyotyping
- Able to pick up mutations including TP53 and others which are not checked by FISH

A — Advantage

- Sample is not a limiting factor unlike in FISH where search for IGH partner can result into depletion of sample

B — Benefits

- Covers CNVs across the genome relevant to Myeloma; hence, trisomies in all relevant chromosomes can be detected which is not routinely checked by FISH.

About NCGM, Inc.

Established in 2020, located in the heart of Apex, North Carolina, NCGM's CAP and CLIA accredited facility has become the pivotal hub for cutting-edge genomic analysis. NCGM provides high-quality, cost-effective NGS services to researchers, clinicians, and industry partners worldwide, while fostering collaboration and innovation in the genomic arena.

The laboratory boasts a world-class facility equipped with the latest in NGS instrumentation, including Illumina sequencing platform along with other leading-edge technologies for library preparation, quality control, and data analysis. The facility is designed to handle a wide range of genomic applications, from Whole Exomes to whole-genome sequencing to targeted panel analysis. NCGM is equipped to cater to several prenatal screenings programs and have developed an array of tests to diagnose advanced cancers which the world is catching up to.

Adhering to the highest standards of CAP's quality, NCGM implements rigorous quality control measures at every stage of the sequencing process. This includes stringent sample preparation and consistent equipment integrity check protocols and HIPAA compliant servers and database management systems to ensure reliable and reproducible results.

NCGM actively collaborates with academic institutions and research organizations to drive scientific discovery and translate genomic insights into tangible outcomes. Through these partnerships, they engage in interdisciplinary research projects, technology development initiatives, and clinical studies aimed at addressing pressing challenges in healthcare and beyond.

In addition to its market offerings, NCGM strives to provide constant education and training its in-house team. Hosting workshops, seminars, and training programs to empower every employee with the knowledge and skills needed to harness the power of NGS technology.

NCGM stands as a centre of excellence in genomic research and technology innovation. With its world-class facilities, comprehensive service offerings, commitment to quality and collaborative ethos, NCGM is poised to make significant contributions to the advancement of science and the improvement of human health for years to come.

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FOR MORE DETAILS, CONTACT US AT

Neuberg Center for Genomic Medicine (NCGM) | NCGM, Inc.(a Neuberg Diagnostics Company)
9760 Holly Springs Rd, Apex, NC 27539 | Contact number: +1 (919) 267-4688
Email: info@ncgmglobal.com | CLIA No. 34D2205781