

JSS Medical College and Hospital, JSS-AHER, Mysuru

Department of Medical Genetics

Report on Visit to Illumina Solutions Centre, Bengaluru

Date of Visit: 04 August 2026

Venue: Illumina Solutions Centre, Near Hebbal, Bengaluru

Faculty members from the Department of Medical Genetics, JSS Medical College, JSS Academy of Higher Education & Research, Mysuru, visited the Illumina Solutions Center, Bengaluru, on 04 August 2026. The visit was organized to understand the latest developments in next-generation sequencing (NGS) technologies and to explore opportunities for future academic, research, and diagnostic collaborations.

The visit commenced with an interactive meeting involving the Illumina technical and application specialists. Discussions focused on recent advancements in sequencing platforms, workflow optimization, automation, bioinformatics solutions, and clinical applications of genomic technologies. Particular emphasis was placed on the implementation of high-throughput sequencing in molecular diagnostics, reproductive genetics, oncology, rare disease diagnostics, and precision medicine.

The Illumina team provided a comprehensive tour of their state-of-the-art demonstration laboratory. Faculty members were introduced to various sequencing platforms, automated library preparation systems, sample processing workflows, quality control measures, and integrated bioinformatics pipelines. Live demonstrations highlighted end-to-end sequencing workflows, from sample preparation to data generation and analysis.

The visit also included discussions on the feasibility of utilizing the Illumina facility for collaborative research projects, advanced technical training, method development, validation studies, and capacity building. Potential avenues for establishing academic partnerships, hands-on workshops, student training programs, and future collaborative research initiatives were explored.

The interaction provided valuable insights into current genomic technologies and reinforced the importance of integrating advanced sequencing platforms into translational research and clinical diagnostics. The visit is expected to strengthen future collaborations between JSS Medical College and Illumina, promoting innovation in genomics, molecular diagnostics, and precision medicine.

Objectives of the Visit

- To understand recent advancements in Illumina sequencing technologies.
- To explore collaborative opportunities in genomics research and molecular diagnostics.
- To evaluate advanced sequencing workflows for future implementation.
- To discuss faculty and student training opportunities.
- To identify potential areas for collaborative research in reproductive genetics, cancer genomics, rare diseases, and precision medicine.

Outcome of the Visit

- Enhanced understanding of Illumina's latest sequencing platforms and integrated workflows.
- Identification of potential collaborative research and technical training opportunities.
- Discussions initiated regarding future utilization of the Illumina Solutions Center for academic and translational research activities.
- Strengthened academic interaction between JSS Medical College and Illumina for future genomics initiatives.

Photo Gallery





