Concept Note

GATC 2026

10th Annual Genomics Advances Through Convergence (GATC) conference 2026
New Delhi │ September 2026

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Hosted by
Bencos Research and Education Foundation
Academic & Knowledge Partner
Ashoka University

GATC 2026: Genomics in reshaping global healthcare

Overview

Genomics technologies hold immense potential to transform global health, yet their application remains limited in many regions. Early detection of genetic and infectious risks through genomics could prevent countless deaths, particularly among women in pregnancy and childbirth, and newborns. Similarly, genomics can significantly shorten the "diagnostic odysseys" for patients with rare or complex diseases, allowing for timely treatment. For instance, whole-genome sequencing reduced the diagnosis time for drug-resistant TB from six weeks to just five days. In cancer care, comprehensive genomic profiling applied early can make over half of patients eligible for targeted therapies, dramatically improving survival. Studies show that nearly three out of four sequenced tumors yield clinically actionable insights, and about one in four breast cancer patients carry genomic markers that guide personalized treatment. Building on these advances, population genomics offers the next leap where only ~2% of the genomics data comes from non-European populations- expanding genomics to underrepresented populations ensures global equity in research and therapies. Addressing the urgent need to expand access to these life-saving tools, GATC 2026 aims to position genomics at the forefront of women's, children's, cancer, and equitable global health. Expanded access to genomics promises dramatically shorter diagnostic timelines, a 2-3x higher yield in rare-disease diagnoses, and thousands of new patient and pathogen genomes to guide personalized care and surveillance.

Vision and Program Structure

The 10th edition of annual Genomics Advancements Through Convergence (GATC 2026) conference will be held at Bharat Mandapam, New Delhi (the venue of India's G20 Presidency), hosted by Bencos Research & Education Foundationin association with Ashoka University and global partners. Our vision is a future-ready health ecosystem where genomic data flows freely as per national and international regulations, enhancing diagnostics, public health, and precision medicine. Over three interlinked days, GATC 2026 will establish a unified "policy→research→innovation" pipeline:

●**Day 1 – Policy & Public Health: Public-**health regulators and ethicists will set the framework, with joint panels involving India's DBT and ICMR, and WHO/UN experts. Discussions will cover regulation, bioethics, data governance, and pandemic preparedness. Draft guidelines for genomic data sharing shall be announced (aligned with WHO principles of informed consent, privacy, and equity) and we will begin establishing a South Asia pathogen-genomics network, mirroring Africa's flagship Population Genomics Initiative.

●**Day 2 – Healthcare & Research:** Scientists and clinicians will share breakthroughs in genomic medicine through keynotes and symposia. Topics include rare disease genomics, cancer genomics, population genomics for diversity, and the development of new population-specific bio-therapeutics. Sessions will connect clinicians and bench scientists, showcasing successful models like pilot programs for genomic diagnosis of rare metabolic disorders and targeted therapeutics for ultra-rare conditions. Young investigators will present data linking the Indian Genome Reference Project to regional disease trends.

● **Day 3 – Industry & Innovation:** Industry and investors will focus on translating discoveries into products and services through investor roundtables, startup pitches, and corporate exhibits. The focus will be on commercializing genomic solutions like point-of-care genomics and affordable sequencers. Strategic sessions will connect funders, entrepreneurs, and public agencies to commit to post-conference actions, such as pilot programs and open-data platforms. Innovations in faster compute, cloud, and AI, driven by global players like Microsoft, Google, and Intel, are transforming the genomics landscape. Platforms like Twine, a no-code bioinformatics solution, convert sequencing reads into actionable insights, leveraging AI/ML and deep genomics expertise to deliver precision at unprecedented speed.

This integrated structure ensures a **coherent journey from policy to practice**, with each successive day building on the previous day's program. For example, early discussions on data policy enable smoother clinical studies and industry adoption. By bridging these sectors, GATC 2026 will motivate all stakeholders to be engaged across all three days : policymakers learn about emerging technologies, researchers understand market needs, and industry hears about health priorities. Measurable outcomes will be catalyzed, including:

● Sequencing and openly sharing N[1] new reference genomes of underrepresented South Asian populations, supporting the Genome India initiative.
● Training and connecting X[2] healthcare professionals and data scientists (especially women and underserved groups) in genomic medicine best practices.
● Drafting a consensus white paper on genomic data policies (to be endorsed by DBT/DST/ICMR) to accelerate research and surveillance.

Partnerships & Data Sharing
Success hinges on collaboration. Bencos Research & Education Foundation (BREF) and Ashoka University (academic co-host) are formal partners, with a signed MoU between these two entities. We are also finalizing partnerships with DBT, ICMR, and India's Genome India consortium. We engage with WHO (e.g. WHO - Technical Advisory Group on Genomics) and other international bodies to align with global standards. For data, we will adhere to WHO's new ethical guidelines, ensuring strong informed consent, privacy safeguards, and equitable inclusion of low-resource communities. All collected human genomic data will be de-identified and shared (in controlled-access databases or public repositories) working as per national and international guidelines. For pathogens, rapid data sharing via platforms like GISAID (with WHO-endorsed biosecurity checks) will enable real-time outbreak tracking. Data-sharing agreements will be established in advance for all collaborations.For example, national population cohorts and surveillance laboratories have committed to openly sharing genomic sequences for public health benefit. By explicitly addressing data access and governance— a known bottleneck in genomics,GATC will foster trust and accelerate progress.

Risk Mitigation & Ethical Considerations
At GATC 2026, we will carefully manage the unique risks associated with genomics:
● **Privacy and Consent:** Robust protocols will secure participants' genomic data. Every human subject inclusion will have clear informed consent (potentially broad consent for future research) consistent with WHO and GA4GH frameworks. Data will be encrypted and governed by IRBs and ethics boards; identities will be protected, and participants can opt out.
● **Equity:** Recognizing that genomic innovations have historically benefited the wealthy first, we will prioritize affordable, locally relevant solutions (e.g., point-of-care assays for diseases common in India's rural areas). Our sessions will explicitly address the inclusion of underrepresented populations to fulfill the WHO call for equitable genomic research.

●**Biosecurity:** For pathogen work, we will follow WHO and national guidelines to prevent misuse, including secure handling of infectious samples and careful sharing of sequence data to aid response without enabling biothreats. Day 1 includes a biosecurity panel with experts from WHO and national health agencies to ensure international best practices. By proactively addressing these concerns, GATC 2026 will embed public trust and ethical integrity into every project.

In summary, GATC 2026 represents an unprecedented convergence of global partners dedicated to placing genomics at the heart of healthcare innovation. With targeted support such as funding to enable broad participation, endorsement by national/international foundation for global visibility, and expertise from the leadership in steering discussions, we can transform this vision into reality. The measurable outcomes will include tangible improvements in women's and children's health, faster disease detection, and the launch of equitable precision medicine programs. We invite collaborations and investment for GATC 2026 to catalyze a future where the benefits of genomics reach every community.

Legacy & Highlights from Previous GATC Editions
Over the years, the Genomics Advancements Through Convergence (GATC) series has evolved into a dynamic platform where discovery meets deployment. From pioneering discussions on human genome diversity to shaping policies for equitable data access, each edition has strengthened the bridge between science, society, and strategy. Building on the momentum of previous GATC editions, we invite you to explore key moments from our past editions here:

- 🎥 **Video Link 1:** https://www.youtube.com/watch?v=WK3ncf-dbzA
- 🎥 **Video Link 2:** https://www.youtube.com/watch?v=zUN_NroDscU
- 🎥 **Video Link 3:** https://www.youtube.com/watch?v=VAZULxsSi-g

💬 **Community & Social Highlights (LinkedIn):** https://www.linkedin.com/posts/genomics-analysis-technology-conference_clinical-therapeutics-ai-activity-7199022683638960128-D8qy?utm_source=social_share_send&utm_medium=member_desktop_web&rcm=ACoAACJ6z4UB3cYB9kJlA7GubcCKXv-aeP8z6mY

PHOTO GALLERY
GATC

Image: Secretary at Department of Biotechnology in the Ministry of Science & Technology, GoI Dr. Rajesh Gokhale cutting the ribbon to inaugurate GATC 2025