

→ ***Moving Forward*** → **Creating the Genomic AI Coalition (GACT)**

**Making genomics
standard of care**

See the blog at
<https://www.genomics.network>

PROMOTE INNOVATION THROUGH ECOSYSTEM-BUILDING

Creating the opportunity for all stakeholders

Over the next five years, the market for applying generative AI to clinical genomics is projected to experience significant growth. The increasing availability of genomic data, coupled with advancements in sequencing technologies and the growing adoption of precision medicine, is expected to be the primary drivers of this growth. There are many facets to artificial intelligence and machine learning in genomics (**AI/ML-Gen**), and each one can be applied in different ways. AI is not just one single tool, but rather a collection of tools. For translation of genomic data into clinical outcomes, the overarching concept is to build an individualized model that integrates genetic, environmental, epigenetic and phenotypic information in a way that will be able to capture the complexity of a patient's genome resulting in precise treatments.

Research, doctors, patients

- Genotype-phenotype correlations to biomolecular network interactions
- AI-powered clinical applications takes precision medicine to
- new concepts of participatory health, to a medical record for the patient lifespan
- Utilize and apply the results of clinical genomics for wellness and enhanced quality of life

Public health, national initiatives, and global implementation

- Patient registries and population datasets to conduct studies that assess gene-environment interactions
- Solve undiagnosed and rare disease questions that are a focus of many national initiatives
- Global implementations, especially in lower- and middle-income countries

Industry challenges to resolve

- Trust in AI/ML-Gen by healthcare providers and patients
- The industry operating under the same guiding principles
- Improving data aggregation
- Integration with clinical systems

GACT next steps

- [Call-to-action](#) on blog
- Continue communication to generate interest, even in a highly competitive environment
- Submit for ARPA-H funding

GACT activities

- Set guiding principles
- Hold conferences
- Roundtable discussions on highly focused topics
- Launch an industry accelerator for projects of mutual benefit
- Contribute to testing and further improvement of standards
- Proof-of-concept pilots
- Participate with other healthcare AI organizations
- Policy and advocacy initiatives
- Publications and white papers
- Shared marketing and promotional actions
- Horizon scanning
- [Blog post](#) and [Perspective Report](#)

Executive Highlights

Having clear operating principles will set the vision, mission, strategic interests, and core values of the GACT

Developing public trust in the application of AI/ML-Gen into their healthcare

The coalition will pool their resources and knowledge to develop and deploy new technologies and approaches

As a coalition, co-developing a new genomics-based ecosystem

By working together, companies will achieve economies of scale and improve the efficiency of their operations

Collaborative partnership opportunities across the business of clinical genomics

Critical to driving genomics to become standard of care

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