Docusign Envelope ID: 25BEE86D-8C17-877D-800D-8867E3ECA5F8

Global Alliance for Genomics & Health

Instituto Nacional de Medicina Genómica MÉXICO

Strategic Partnership

Memorandum of Understanding

between **GLOBAL ALLIANCE FOR GENOMICS AND HEALTH (GA4GH)**
and **INSTITUTO NACIONAL DE MEDICINA GENÓMICA (INMEGEN)**

1. Overview

This document outlines the rationale and implementation of a Strategic Partnership between the Global Alliance for Genomics and Health (GA4GH) and the Instituto Nacional de Medicina Genómica (INMEGEN). This partnership formalizes a long-standing intent to cooperate, dating back to 2013, to advance human health through the responsible sharing of genomic and clinical data within Mexico and across Latin America.

INMEGEN serves as a national authority in Mexico for genomic medicine, bridging the gap between research and clinical application. GA4GH is an international standards organization dedicated to creating policy frameworks and technical standards for genomic data interoperability. This Strategic Partnership provides a flexible framework to align their collective efforts while respecting the administrative and normative requirements of Mexican institutions.

2. Mission

Through this partnership, GA4GH and INMEGEN aim to expand the use of global standards in the Latin American genomics community. INMEGEN will provide regional leadership and expertise in the genomics of indigenous and Latin American populations, ensuring GA4GH standards are fit for purpose in diverse ancestries. GA4GH will provide the technical and policy scaffolding to support INMEGEN's goal of creating a trusted, federated data ecosystem.

3. Strategic Partnership Objectives

- Regional Leadership: establish a voice for Mexico and Latin America within the GA4GH community to foster the adoption of global standards.
- Standardization of Regional Data: implement GA4GH standards in the collection, curation, and processing of Latin American genomic databases.

Docusign Envelope ID: 25BEE86D-8C17-877D-800D-8867E3ECA5F8

- Capacity Building: facilitate the exchange of knowledge between regional leads and international peers to share best practices in data governance and infrastructure.

4. Scientific and Operational Needs

Scientific Need: The integration of clinical trial data and genomic data is essential for advancing personalized medicine and translational research. INMEGEN is currently spearheading the creation of a Latin American genomic database for variants linked to ancestry markers and the largest collection of indigenous Mexican genomes. However, realizing the potential of these datasets poses significant challenges that transcend the capacity of any single organization.

The Strategic Partnership will support this work by:

- **Addressing Technical Fragmentation**: utilizing GA4GH's interoperable APIs (such as DRS, htsget, and Beacon) to overcome technical hurdles in genomic data sharing across national borders.
- **Establishing Trust Frameworks**: implementing the GA4GH Framework for Responsible Sharing of Genomic and Health-Related Data to ensure that sensitive indigenous data is handled with recognized, secure, and documented services.
- **Addressing the "VUS" Challenge**: tapping into the GA4GH ecosystem to better classify variants of uncertain significance (VUS) by comparing regional findings against a broader international context.
- **Facilitating Federated Analysis**: implementing Cloud standards (WES, TES, TRS) that allow researchers to analyze sensitive data in a virtual environment when data cannot be moved outside of national jurisdictions.

Operational Need: The Strategic Partnership provides an organizational framework that helps align the two groups to increase the benefit of their collective participation.

- **Structured Engagement**: it offers a formal mechanism to connect GA4GH to the network of INMEGEN initiatives, moving beyond individual volunteer relationships to a high-level organizational commitment.
- **Administrative Flexibility**: the partnership model is designed to be flexible and evolving, allowing INMEGEN to navigate its specific administrative tasks and normative requirements while remaining a committed partner.
- **Scalability**: as both organizations grow, this model provides a clear coordination structure for touchpoints and an efficient mechanism to raise regional issues within the GA4GH governance structure.
- **Coordinated Dissemination**: it allows for joint awareness campaigns and workshops, reducing duplicative efforts and facilitating GA4GH's responsiveness to regional needs.

5. Key Activities and Deliverables

The parties intend to collaborate on several high-priority initiatives:

Docusign Envelope ID: 25BEE86D-8C17-877D-800D-8867E3ECA5F8

- **Regional Stakeholder Meeting**: organize a high-level meeting in Mexico (target: late 2026 or early 2027) for leaders of medical genomics initiatives in Latin America to consolidate a regional network.
- **National Initiatives Forum (NIF) Participation**: INMEGEN will join the GA4GH NIF to engage with other national genomic programs and share implementation experiences.
- **Technical Implementation Pilots**: the parties intend to collaborate on specific technical initiatives to demonstrate the value of standardized, federated data sharing:
    - **Beacon Network Deployment**: explore the implementation of a GA4GH Beacon network to allow for the secure, federated discovery of variants within the INMEGEN ecosystem without necessitating the movement of raw data.
    - **Federated gnomAD Participation**: align regional population genomic data with the Federated gnomAD project to enhance the global understanding of human genetic variation and ancestry-specific allele frequencies.
    - **Variant Level Matching**: leverage the GA4GH ecosystem to engage in the variant-level matching consortium, facilitating the international identification of causal variants in rare disease and clinical diagnostics. INMEGEN aims to promote the development of a national database including population-wide variants, in collaboration with key genomic stakeholders.
- **Clinical Integration**: INMEGEN will integrate its country-wide diagnostic platform with the recently Congress-approved National Registry for rare diseases, encoding patient data using GA4GH clinical and phenotypic data standards to enable federated rare disease discovery.

6. Roles and Responsibilities

GA4GH's Responsibilities:

Provide advisory support for the organization of regional meetings and workshops.

- Facilitate connections between INMEGEN and relevant GA4GH product teams.
- Provide a platform for INMEGEN to showcase its regional data initiatives to the global community.

INMEGEN's Responsibilities:

Subject to its internal policies, applicable administrative requirements, and availability of resources, INMEGEN will:

- Represent regional interests with GA4GH, including at quarterly Product Steering Committee meetings.
- Identify technical leads to participate in GA4GH Work Streams to gain in-depth understanding of standard implementation.
- Promote the *Framework for Responsible Sharing of Genomic and Health-Related Data* within Latin American collaborations.

Docusign Envelope ID: 25BEE86D-8C17-877D-800D-8867E3ECA5F8

7. Governance and Coordination

- **Product Steering Committee Representation**: INMEGEN will nominate one individual to sit on quarterly GA4GH Product Steering Committee meetings and will hold one vote on decisions affecting the partnership.
- **Biannual Meetings**: leadership from GA4GH and INMEGEN will meet virtually at least twice per year to review progress and set goals.
- **Term**: this MoU is a statement of mutual intent and does not create any legally binding obligations and will enter into force upon signature, to be reviewed annually.

GA4GH, INC.

Signed by:
9BBA01C5855D42E...

Name:Peter Goodhand

Title: CEO

Date: 4/27/2026

INSTITUTO NACIONAL DE MEDICINA GENÓMICA

Signed by:
BCAF798A618B474...

Name: Jorge Meléndez Zajgla

Title: General Director

Date: 4/28/2026