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US & Middle East explore setting up world's first-of-their kind Centres for Genome Surgery

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Training a new generation of Emirati professionals in genomic surgery and clinical innovation



The Department of Health – Abu Dhabi (DoH), the regulator of the healthcare sector in Abu Dhabi, has announced a landmark partnership with the University of California, San Francisco (UCSF) and the Innovative Genomics Institute (IGI) to explore the establishment of the world's first-of-their-kind centres for genome surgery in Abu Dhabi and California.

Formalised during a strategic visit to the United States, the collaboration seeks to accelerate the Emirate's efforts to lead in genomic medicine and advance personalised genetic therapy, transforming the future of healthcare delivery for the global community.

Genome surgery is an experimental medical technique aimed at modifying or replacing faulty genes within cells to treat or prevent diseases. This is achieved through personalised genetic therapies or by using advanced technologies such as CRISPR, which can be tailored specifically to each patient based on their unique genetic mutations.

These new centres would enable the diagnosis and correction of severe genetic conditions as early as possible to improve outcomes. Leveraging CRISPR-based technologies, the Centres would offer customised, genome-guided interventions that have the potential to transform patient outcomes and redefine the future of healthcare.

By combining Abu Dhabi's state-of-the-art healthcare infrastructure and genomic data capabilities with UCSF's global leadership in pediatric and fetal therapy and IGI's cutting-edge research in gene editing, the partnership would drive the development and delivery of innovative, real-world solutions for patients with early-onset, severe, rare and inherited diseases.