

## What Is Dubai Police's Genome Centre?

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The UAE once again broke new ground in the field of police work last month, as the Dubai Crown Prince Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum opened the doors of the emirate's first Genome Centre. Part of Dubai Police's General Department of Forensic Science and Technology, the Centre cements the country's status as a regional and international leader in the industry.

The newly opened centre will concentrate on four key disciplines: Human Genomes, Metagenomes, Bioinformatics and Biotechnology. The Centre will aid in the education and training of the police force's employees and cadets, as well as furthering its impressive work in the forensic entomology and investigation sectors.

### Built on four pillars

The Genome Centre is in perfect alignment with the country's National Genome Strategy, which aims to develop a robust infrastructure for genomic programmes and attract top talent from all over the world to study and work within Emirati borders. After opening its doors on September 13<sup>th</sup>, the Centre is specifically intended to support police work in the emirate through four major areas. These are as follows:

- **Human genomes.** This section will analyse degraded samples of human DNA or other genetic material to identify their genetic background, as well as participate in molecular autopsy testing.
- **Metagenomes.** This section will deal exclusively with non-human samples and other environmental material to determine the species or strain of genomes involved.
- **Bioinformatics.** This section will be dedicated to building out an extensive database of genomic samples and using artificial intelligence to conduct statistical analysis of individual variants so as to deliver informed insights.
- **Biotechnology.** As above, this section will also harness the twin powers of science and technology to support statistical analysis.

This organisational structure of the Genome Centre was personally reviewed by the Dubai Crown Prince during his visit at the institute's inauguration ceremony. As well as directly supporting the police in their investigations, the Centre will also aid in the education of select employees and students, who may be eligible to study abroad at other centres of excellence and thereby increase their experience, knowledge and value to Dubai Police.

### Leading the way in forensic entomology

The new Centre is expected to feature prominently in Dubai's ongoing forensic entomology work, in which it is already setting a global example to other police forces around the world.

Not only is the UAE home to the first regional database of forensic sciences in the Middle East, but it also has broken new ground in the time it can deliver concrete forensic results.

Globally, obtaining critical forensic results in a criminal investigation takes an average of between three days and two weeks. Clearly, this can cause significant delays in identifying suspects, gathering evidence and bringing guilty parties to justice. However, thanks to its expertise in forensic entomology and the extensive database at its disposal, Dubai Police have proven themselves capable of delivering these results in less than 24 hours. It's a major milestone in the industry and one which marks the UAE out as a global leader.