

GEMCOVAC -OM Vaccine

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About GEMCOVAC -OM Vaccine:

- It was developed using the indigenous platform technology by Gennova Biopharmaceuticals Ltd. and supported under **the Mission COVID Suraksha**, implemented by Biotechnology Industry Research Assistance Council (BIRAC).
- It is a thermo-stable vaccine, which **does not require ultra-cold chain infrastructure** used for other approved mRNA-based vaccines, making it easy for deployment pan India.
- It is **delivered intra-dermally using a needle-free injection** device system.
- When administered intradermally in participants as a booster, it generated significantly **higher immune responses**.
- The clinical outcome demonstrates the need for variant-specific vaccines for desired immune response.

Key facts about BIRAC

- It is a **not-for-profit Section 8, Schedule B, Public Sector Enterprise**, set up by the Department of Biotechnology (DBT), Government of India,
- It is an Interface Agency to strengthen and empower emerging Biotech enterprises to undertake strategic research and innovation, addressing nationally relevant product development needs.

What is mRNA vaccine?

- It contains messenger **RNA (mRNA)**, a single-stranded RNA molecule that complements DNA.
- It is created in the nucleus when DNA is transcribed by RNA polymerase to create pre-mRNA

Q1) What is cell nucleus?

In biology, the nucleus is a membrane-bound organelle found in eukaryotic cells. It is often referred to as the “control center” of the cell because it houses the genetic material and regulates cellular activities.

Source: [Omicron-specific mRNA-based Booster vaccine developed using the indigenous platform technology](#)

Source: <https://vajiramandravi.com/current-affairs/gemcovac-om-vaccine/>

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