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Three-step Synthesis Route for Molnupiravir

Researchers have engineered enzymes to enable faster manufacture of antiviral drug molnupiravir.

- **Molnupiravir** is an investigational oral antiviral for treatment of Covid-19, which was originally developed to treat influenza.
- Molnupiravir works by causing viruses to make errors when copying their own RNA, introducing mutations that inhibit replication.
- Recently, molnupiravir reduced the risk of hospitalization and death from COVID-19 for newly diagnosed, at-risk patients, and that it worked equally well against different SARS-CoV-2 variants.
- **In the new study**, a 3-step synthesis route was developed - from a sugar molecule called **ribose** - to increase the yield of Molnupiravir.
- They identified enzymes or chemical treatments to sequentially add the appropriate chemical groups to ribose to generate the molecule.
- For the 2nd step of the synthesis, the team identified bacterial enzymes that weakly catalyzed the desired reactions.
- Using in vitro evolution, they greatly enhanced these enzymes' activities.
- This new route, which also included a phosphate recycling strategy, was 70% shorter and had a 7-fold higher overall yield than the original route.

Technical Textiles

Union Minister of Textiles said that time has come to target 5 times increase in export of Technical Textiles in 3 years.

- Technical textiles are textiles materials and products manufactured for **non-aesthetic purposes**, primarily for technical performance and functional properties.
- Depending upon their application areas, Technical Textiles products are divided into 12 broad categories.
    - Agrotech, Buildtech, Clothtech, Geotech, Hometech, Indutech, Mobiltech, Meditech, Protech, Sportstech, Oekotech, Packtech.
- India shares nearly 6% of world market size of 250 Billion USD.
- The growth of Technical Textiles in India has gained momentum in past 5 years, currently growing at 8 % per annum rate. The aim is to hasten this growth to 15-20% range during next 5 years.

Marquee Institutional Investors

Infrastructure Investment Trusts (InvIT) of the National Highways Authority of India (NHAI) attracts marquee institutional investors.

- A marquee investor is an investor well known for investing in companies that turn into success

stories at a later date.

- This person could be either an individual or a corporate/ institutional investor.
- The purchase of some company's shares by such investors gives others the hope that these companies would turn out to be profitable investments for them too.
- While this can prove to be true in many cases, it is not a rule, because no investor can dictate future business and economic events.
- So, one should not just look at the presence of marquee investors, but the potential of those companies and then invest.

Reference

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