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Indiaâ??s first-of-its-kind animal stem cell biobank and laboratory open at NIAB, Hyderabad

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To enable biobanking of animal stem cells and their derivatives



Union Minister of State (Independent Charge) Science & Technology Dr Jitendra Singh inaugurated India's first-of-its-kind State-of-the-Art Animal Stem Cell Biobank and Animal Stem Cell Laboratory at the National Institute of Animal Biotechnology (NIAB), Hyderabad.

The Minister also laid the foundation stone of a new hostel block and Type-IV quarters at NIAB, approved by the Department of Biotechnology at a total cost of Rs 19.98 crore. The infrastructure will cater to the needs of research scholars, faculty, and staff, fostering a vibrant academic and innovation ecosystem.

The cutting-edge facility of Animal BioBank, spread over 9,300 sq ft and constructed at a cost of Rs 1.85 crore, will focus on regenerative medicine and cellular therapies for livestock.

Equipped with a stem cell culture unit, 3D bioprinter, bacterial culture lab, cryostorage, autoclave rooms, advanced air handling systems, and uninterrupted power backup, the laboratory will advance research in disease modelling, tissue engineering, and reproductive biotechnology.

With support from the National Biopharma Mission (NBM) of DBT–BIRAC, the facility will be expanded to enable biobanking of animal stem cells and their derivatives.

Dr Jitendra Singh has also launched five innovative veterinary diagnostic tools designed to revolutionise animal health management and support the 'One Health' approach:

1. Rapid Detection of Brucellosis – A field-deployable, DIVA-capable diagnostic kit for early and accurate detection of *Brucella* species.
2. Mastitis Detection Technology – A cost-effective on-site diagnostic assay for subclinical and clinical mastitis in dairy cattle.
3. Antimicrobial Sensitivity Testing Device – A portable tool providing results within two hours to promote responsible antibiotic use.
4. Toxoplasmosis Detection Kit – A sensitive and specific test for *Toxoplasma gondii* infection in animals.
5. Japanese Encephalitis Detection Kit – An indigenously developed rapid strip for large-scale surveillance in animals and humans.