

PRESS RELEASE

IIT Guwahati collaborates with Hester Biosciences Limited to develop vaccine against COVID-19

GUWAHATI/AHMEDABAD, 29th April 2020: Indian Institute of Technology Guwahati is collaborating with Hester Biosciences Limited, a pharmaceutical company based in Ahmedabad, Gujarat, to work on the vaccine development against COVID-19. The agreement between the two parties was signed on 15th April 2020.

The vaccine will be based on recombinant avian paramyxovirus based vector platform. The recombinant avian paramyxovirus-1 will be used to express the immunogenic protein of SARS-CoV-2. The recombinant avian paramyxovirus-1 expressing the SARS-CoV-2 protein could be used as a vaccine candidate for further study.

The avian paramyxovirus-1 has been explored as a vaccine vector for various animals and human pathogens. The avian paramyxovirus-1 has been used to express the immunogenic protein of human pathogens such as HIV, avian influenza virus, human parainfluenza virus, SARS-CoV. Similarly, it has also been explored as a vaccine vector for animal pathogens such as infectious bursal disease virus, infectious laryngotracheitis virus, bovine herpes virus, Nipah virus etc.

The team at IIT Guwahati is headed by Dr. Sachin Kumar, Associate Professor, Department of Biosciences and Bioengineering. The team has generated the recombinant avian paramyxovirus-1 based vaccine platform for Classical Swine Fever and Japanese encephalitis. The role of the Institute is to produce the recombinant vaccine candidate.

Speaking about the vaccine for COVID-19, Dr. Sachin Kumar, Associate Professor, Department of Biosciences and Bioengineering, IIT Guwahati said, *"It is too early to comment on the efficacy and immunogenicity of the vaccine, however, we will be able to reveal more details about this vaccine after the results of animal studies are obtained."*

Speaking about the collaboration and role of Hester Biosciences Limited, Mr. Rajiv Gandhi, CEO and MD, Hester Biosciences Limited, said, *"In the current pandemic situation of COVID-19, the world is looking at developing preventive and curative measures to safeguard mankind. IITG & Hester have collaborated to develop and manufacture a recombinant vaccine against COVID-19 disease as a preventive measure. Hester's involvement would be from master seed development up to release of the commercial vaccine".*

He further added, *"Hester has 23 years of experience in vaccine manufacturing on the veterinary side. It manufactures vaccines by using fermentation, tissue culture, continuous cell line and chick embryo origin methods. Hester is also currently working towards developing next generation recombinant poultry vaccines. Being in veterinary vaccine manufacturing, as well as working towards developing recombinant vaccines, Hester has a fairly good understanding and the capability to get into human vaccines, specifically into a vaccine against the COVID-19 disease."*

IIT Guwahati and Hester Biosciences Limited expect the vaccine to be ready by the end of this year to start animal studies. The work is currently in its early stage of development.

Prof. T. G. Sitharam, Director, IIT Guwahati, is hopeful that the outcome of this important collaboration will be a win-win situation for the country and will lead to breakthrough results in prevention of COVID-19 as well as provide leads for vaccine developments against other diseases as well in immediate future.

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About [IIT Guwahati](#)

Indian Institute of Technology (IIT) Guwahati established in 1994 has completed 25 years of glorious existence in 2019. At present, the Institute has eleven departments and five inter-disciplinary academic centres covering all the major engineering, science and humanities disciplines, offering BTech, BDes, MA, MDes, MTech, MSc and PhD programmes. The institute offers a residential campus to 412 faculty members and more than 6,000 students at present. Besides its laurels in teaching and research, IIT Guwahati has been able to fulfil the aspirations of people of the North East region to a great extent since its inception in 1994. The picturesque campus is on a sprawling 285 hectares plot on the north bank of the Brahmaputra, around 20 kms from the heart of the Guwahati city.

IIT Guwahati is the only academic institution in India that occupied a place among the top 100 world universities – under 50 years of age – ranked by the London-based Times Higher Education (THE) in the year 2014 and continues to maintain its superior position even today in various International Rankings. Along with the older IITs and Delhi University, IIT Guwahati has been ranked below 500 in the QS World ranking released recently. IIT Guwahati has retained the 7th position among the best engineering institutions of the country in the 'India Rankings 2019' declared by National Institutional Ranking Framework (NIRF) of the Union ministry of Human Resource Development (HRD). IIT Guwahati has been also ranked 2nd in the 'Swachhata Ranking' conducted by the Govt. of India. Recently, IIT Guwahati has been ranked as the top ranked University in 2019 for IT developers by HackerRank in the Asia-Pacific region.

Among other frontier areas of research and innovation, IIT Guwahati is working towards augmenting critical science research initiatives in Genomics, Developmental Biology, Health Care and Bioinformatics, Flexible Electronics, Advanced Functional Materials, Sustainable Polymers, Rural Technologies, Disaster Resilience and Risk Reduction, and Water Resources and

The logo consists of a solid green square with the word "HESTER" in white, uppercase, sans-serif font centered within it.

Management. In its silver jubilee year, IIT Guwahati is poised to scale newer heights through all round growth and development.

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About Hester Biosciences

Hester Biosciences Limited is one of India's leading animal healthcare companies and second largest poultry vaccine manufacturer. Mr. Rajiv Gandhi, a first generation entrepreneur founded Hester in 1987 and successfully transformed a small proprietary trading business into one of Asia's largest single-location animal biological manufacturing facility. The Company's key strength is embedded in its cutting-edge research and development capabilities.

Located near Ahmedabad, Gujarat, Hester has a state-of-the-art manufacturing facility for products ranging from vaccines, health products to diagnostics. Hester's services include seroprofiling for poultry flocks and mastitis control programs for cattle.

The four verticals: Poultry Vaccines, Animal Vaccines, Poultry Health Products and Animal Health Products, together establish Hester's identity as a strong animal healthcare company, addressing all sectors of animal healthcare. Hester's product portfolio includes over 50 vaccines and 35 health products.

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