

**Transfer of technology ‘Inactivated low pathogenic avian influenza (H9N2) vaccine for chickens’ developed by ICAR-NIHSAD to Globion India Pvt. Ltd., Venkateshwara Hatcheries Pvt. Ltd., Indovax Pvt. Ltd. and Hester Biosciences Ltd.**

The ‘Inactivated low pathogenic avian influenza (H9N2) vaccine for chickens’, developed by the scientists of ICAR-NIHSAD, Bhopal was transferred to M/s Globion India Pvt. Ltd., Secunderabad, M/s Venkateshwara Hatcheries Pvt. Ltd., Pune, M/s Indovax Pvt. Ltd., Gurgaon and M/s Hester Biosciences Ltd., Ahmedabad on 27<sup>th</sup> December, 2022 at an event organized by M/s. Agrinnovate India Ltd., (AgIn) in NASC, New Delhi. The event was graced by Dr. Himanshu Pathak, Secretary (DARE) & Director General (ICAR) and Chairman, AgIn, Dr. B.N. Tripathi, DDG (Animal Science), ICAR, Dr. Praveen Malik, CEO, AgIn, Dr. Aniket Sanyal, Director ICAR-NIHSAD, Dr. V.K. Shankar, CEO & Director, Globion India Pvt. Ltd., Dr. S.K. Gavkare, GM, Venkateshwara Hatcheries Pvt. Ltd., Mr. Arun Tiwari, Resident Director, Indovax Pvt. Ltd., Mr. Rajiv Gandhi, CEO & MD, Hester Biosciences Ltd. and other officials from ICAR and AgIn.

Dr. Himanshu Pathak appreciated the sincere efforts of the ICAR-NIHSAD scientists in development of this vaccine and commended the AgIn for the efforts in the transfer of the technology to industry. He also congratulated all the industry for successful transfer of the technology. He asserted that the vaccine will meet the standard of the market both in India and abroad and contribute significantly to increasing the income of poultry farmers by reducing the economic loss due to H9N2 low pathogenic avian influenza.

Dr. B.N. Tripathi highlighted the relevance and significance of the technology, which is the first indigenously developed low pathogenic avian influenza (H9N2) vaccine in India that can contribute significantly to the control of H9N2 low pathogenic avian influenza in chickens. The licensees can start manufacturing the vaccine immediately so that it is market ready for dissemination to the stakeholders.

Dr. Praveen Malik remarked that this technology transfer is one of the major achievements for AgIn and thanked ICAR and Industry for their cooperation in the transfer of technology. Dr. Aniket Sanyal outlined the technical details of the technology and emphasized that the vaccine provides protective immunity in chickens for 6 months following vaccination and covers the

antigenically divergent strains of H9N2 low pathogenic avian influenza virus currently circulating in India.

The signatories of the companies were glad to receive the license of the technology from ICAR and promised the commercial production of the vaccine at par with the national and global standards at the earliest. They also said the vaccine has a great demand both in India and abroad and thanked DAHD, MoFAHD, GoI for adopting vaccination policy for control of H9N2 low pathogenic avian influenza in India.

The vaccine was developed by a team of scientists of ICAR-NIHSAD viz. Dr. C. Tosh, Dr. Manoj Kumar, Dr. S. Nagarajan, Dr. S. Bhatia and Dr. H. V. Murugkar under the leadership of Dr. V. P. Singh. The vaccine was developed using a field isolate A/chicken/India/22213/2006 (H9N2) from Rajasthan State. It provides protective immunity in chickens for 6 months following vaccination against antigenically related and divergent strains of H9N2 virus isolated in India in both specific pathogen free and commercial chickens and has passed the sterility and purity, safety and potency stages as per World Organization for Animal Health (WOAH, formerly OIE) guidelines. It has several advantages over the imported vaccines. The current vaccine was developed using a candidate vaccine strain based on antigenic cartography and phylogenetic analysis of H9N2 field strains circulating in India over a period of 20 years. The wider antigenic coverage of the vaccine and longer immune response up to a period of six months will be beneficial for poultry industry. The vaccine may go a long way towards the control of H9N2 virus infection in chickens, thereby protecting poultry farmers from economic losses and help the poultry industry to grow at its full potential.



