

## Technology for Fish Vaccines against Bacterial Diseases, Edwardsilosis and Columnaris

ICAR-CIFE has transferred the technologies of two fish vaccines developed against two major bacterial diseases, Columnaris caused by *Flavobacterium columnare* and Edwardsilosis caused by *Edwardsiella tarda* to Indian Immunological Private Limited (IIL), Hyderabad, who will develop commercial-scale vaccines for use in fresh water fish. These two vaccines are inactivated vaccines which will protect fish from these bacterial diseases. The technologies were transferred in a non-exclusive mode. This is the first fish vaccine technology for bacterial diseases transferred by an ICAR institute to the industry. Dr. C.N. Ravishankar, Director, ICAR-CIFE, signed MoA with Dr. K Anand Kumar, Managing Director, IIL, Hyderabad on 28<sup>th</sup> November 2022 in the presence of Dr. N P Sahu, Joint Director, Inventors, co-inventors, Chairperson, ITMU and other officials of ICAR-CIFE and IIL, Hyderabad.

Inventors of the technology are Dr. Megha Kadam Bedekar (Principal Scientist, AEHM Division CIFE), Dr. Rajendran KV (Principal Scientist & Head, AEHM Division, CIFE), Dr. Kundan Kumar (Senior Scientist), Dr. Saurav Kumar (Scientist), Mrs. Puja Vinde (SRF), Dr. Gopal Krishna (Former Director, ICAR- CIFE) and Dr. Gaurav Rathore (Principal Scientist & Head of Division, ICAR-NBFG, Lucknow). ICAR-CIFE acknowledges funding provided by ICAR Consortium Research Platform on Vaccines and Diagnostics.

1. <http://bwhealthcareworld.businessworld.in/article/Indian-Immunologicals-First-To-Venture-Into-Fish-Vaccines/28-11-2022-455886/>
2. <https://www.deccanchronicle.com/business/companies/281122/indian-immunologicals-joins-hands-with-cife-to-venture-into-fish-vacc.html>
3. <https://www.thehindubusinessline.com/economy/agri-business/iil-cife-tie-up-to-develop-fish-vaccines/article66195741.ece>
4. <https://www.biovoicenews.com/indian-immunologicals-ventures-into-fish-vaccines-segment/>
5. <https://telanganapress.com/hyderabad-based-iil-to-develop-indias-first-fish-vaccine/>
6. <https://agriculturepost.com/allied-sectors/fisheries/indian-immunologicals-icar-cife-venture-into-commercial-development-of-fish-vaccines/>
7. <https://pune.media/hyderabad-based-iil-to-develop-indias-first-vaccine-for-fish/>