

Effective vaccine against most virulent strains of Marek's disease affecting poultry launched in Egypt

- The innovative vaccine is a key contributor to the future and evolution of the poultry industry in Egypt and the wider region
 - **Prof. Hussein Ali Hussein**, “The vaccine leverages new technology in hatchery vaccination, and provides a robust mechanism in poultry protection against viruses”
 - **Dr. Eyad Harfoush**, “This new innovation is designed to help protect livestock investments in Egypt”
 - **Dr. Rami Al Azzouny**, “The vaccine represents a new milestone for Boehringer Ingelheim Animal Health, and a cornerstone in the overall efforts of vaccines development as well as global pharmaceutical research”
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Boehringer Ingelheim Animal Health, the world’s second largest animal health company, announced the launch of a new innovative vaccine in Egypt that is aimed at providing an unprecedented protection and innovative controlled attenuation process for Marek’s disease strains formatting the new vaccine.

The company has launched the new biological tool for the first time internationally in Egypt in an effort to support the agricultural and animal sector as well as preserving the poultry industry against the losses that result from Marek’s disease. Moreover, the General Organization for Veterinary Services approved the new vaccine (Prevexxion RN). Egypt becomes the first country internationally to witness the launch of the vaccine, reflecting the importance and vital role of the Egyptian market in the field of poultry industry and production.

At a press conference, which included a range of research, pharmaceutical, veterinary as well as poultry production experts, it was noted that for the last four decades, the Egyptian poultry flocks have been suffering from recurrent outbreaks of MD with increase in virus virulence¹. **Dr. Hussein Ali Hussein, Professor of Virology and Vice Dean for Post Graduate Studies and Research Affairs at Faculty of Veterinary Medicine, Cairo University**, said “Marek’s disease affects the immunity of chickens, but is not transmittable to humans. Symptoms of the disease could appear in chickens as early as the 6th week, in the form of immunosuppression, but usually clinical signs are recognized between 12-24 weeks. The pathogen was discovered by Scientist Joseph Marek in 1907, and is characterized by high prevalence, and aggressive persistence.”

Prof. Dr. Hussein added, “Vaccination against Marek’s is a mandatory intervention, preceded with disinfection procedures of poultry houses to prevent tumor formation caused by Marek’s. The virus infects lymphocytes and turns them into tumor cells that are precipitated in the peripheral nerves and/or other internal organs, eventually leading to paralysis or the formation of tumors.”

¹ <http://researcherlinks.com/current-issues/Marek%27s-Disease-Virus-in-Egypt-Historical-Overview-and-Current-Research-Based-on-the-Major-MDV-Encoded-Oncogene-Meg/6/1/1591/html>

Furthermore, the new vaccine will revolutionize the animal health sector and specifically the poultry industry. Prof. Dr. Hussein noted that it is considered a veterinarian scientific breakthrough that is aimed at preserving livestock and poultry, marking a new era in the overall management of one of the poultry industry's most aggressive viruses, which for a long time posed a significant threat.

Prof. Dr. Hussein also highlighted that the innovative vaccine delivers the right balance between safety and efficacy. "It is a solid proof on the successful application of modern technology in the field, by providing innovative vaccinations against viral diseases that threaten poultry health in Egypt and the Egyptian food security." He also pointed out that the new discovery enhances efforts to preserve livestock and provide self-sufficiency of protein.

In addition, **Dr. Eyad Harfoush, Chief Executive Officer of International Free Trade Corporation (IFT) and board member of the Egyptian Poultry Association** also said, "The new vaccine is a breakthrough innovation in veterinary vaccines. It provides real protection and immunization to one of the biggest industry and investment sectors which is livestock. The poultry sector's investments in Egypt amount to nearly EGP 65 bn; producing 95% of the local market's needs, equivalent to 1.3 billion chickens annually."

Dr. Harfoush explained that the livestock industry is considered one of the country's national wealth that faces great challenges, including the spread of epidemics and diseases. "For example the industry suffered from the spread of avian influenza, which had a significant impact on the industry as a whole. Marek's Disease is another threat and the new vaccine will work on developing and preserving this existing wealth. The growth of the poultry industry can balance GDP with a highly sustainable source of income. It is also an extensive labor industry that can accommodate youth and encourage individuals interested in investing in the poultry industry to enter into new investment opportunities while also expand existing ones, by understanding the map of diseases and epidemics affecting poultry and the ways of overcoming them," noted Dr. Harfoush.

From his side, **Dr. Magdy Hassan, Chairman of International Free Trade Corporation (IFT)**, highlighted that "Boehringer Ingelheim benefits from a strong track record of delivering key innovations that add more value to the overall development of the animal health industry. The launch of this new vaccine in Egypt is a first of its kind and is aimed at securing stronger opportunities for the poultry industry to grow at higher rates in the future."

Hassan also said that both Boehringer Ingelheim and IFT have collaborated to introduce a wide range of innovations to the Egyptian animal health market with the underlying objective of provide sustainable solutions against diseases beyond the vaccine. These include public health awareness campaigns for farmers to understand the epidemiology of diseases; providing international best practice training and methods on how to store, transport and use the vaccines; conducting surveys to outline the prevalence and spread of diseases in an effort to provide effective solutions that helps facilitate unmet needs for stronger control purposes to ultimately protect the industry and overall economy.

Boehringer Ingelheim Animal Health's North East Africa Area Business Manager, Dr. Ramy Al Azzouny said, "The new vaccine is one of the company's important innovations an important milestones in its research and development (R&D) efforts around the world. As a company, we are proud of our leadership position in global animal health R&D. **Boehringer Ingelheim** is the world's second largest animal health company and is one of the world's foremost leader in biologicals and vaccines."

Al Azzouny also mentioned that **Boehringer Ingelheim** was keen to announce the launch from Egypt as the first country after the United States in the company's international network to leverage this key innovation. This reflects the importance and strategic position of the Egyptian market which possesses strong animal health and poultry production investment opportunities. The vaccine will be distributed in Egypt through IFT under its partnership agreement with **Boehringer Ingelheim**, which was forged since the year 2003.

Poultry Technical Manager North, East Africa at **Boehringer Ingelheim, Dr. Ali Khalifa**, explained that the company has succeeded in developing the vaccine after extensive and dedicated R&D efforts. The hybrid vaccine of 3 viruses was genetically engineered to ensure safety and efficacy and protect poultry against virulent strains of the Marek's disease starting 4 days after only one shot of vaccination. Protection is not only guaranteed against present MD strains but also expected to be against the evolving strains in the future. This will limit the overall mortality rates, hence increasing the productivity and profitability for breeders and layers as well as the entire poultry industry."

About **Boehringer Ingelheim**

Improving the health of humans and animals is the goal of the research-driven pharmaceutical company **Boehringer Ingelheim**. The focus in doing so is on diseases for which no satisfactory treatment option exists to date. The company therefore concentrates on developing innovative therapies that can extend patients' lives. In animal health, **Boehringer Ingelheim** stands for advanced prevention.

Family-owned since it was established in 1885, **Boehringer Ingelheim** is one of the pharmaceutical industry's top 20 companies. Some 50,000 employees create value through innovation daily for the three business areas human pharmaceuticals, animal health and biopharmaceuticals. In 2018, **Boehringer Ingelheim** achieved net sales of around 17.5 billion euros. R&D expenditure of almost 3.2 billion euros corresponded to 18.1 per cent of net sales.

As a family-owned company, **Boehringer Ingelheim** plans in generations and focuses on long-term success. The company therefore aims at organic growth from its own resources with simultaneous openness to partnerships and strategic alliances in research. In everything it does, **Boehringer Ingelheim** naturally adopts responsibility towards humankind and the environment.

More information about **Boehringer Ingelheim** can be found on www.boehringer-ingelheim.com or in our annual report: <http://annualreport.boehringer-ingelheim.com>.