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July 20, 2012 | News | By BioSpectrum Bureau

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Bangalore: Novavax, CPL Biologicals (CPLB) and the International Centre for Genetic Engineering and Biotechnology (ICGEB), have formed a new collaboration to develop a novel malaria vaccine in India. This unique public-private partnership will combine the advanced vaccine technology of Novavax with the malaria vaccine research capabilities of ICGEB and vaccine manufacturing capability of CPLB, to develop a new and effective malaria vaccine.

The project is being funded by India's Department of Biotechnology Vaccine Grand Challenge Program and will be managed by the Malaria Vaccine Development Program, a New Delhi-based not-for-profit organization established to support the development of malaria vaccines.

Novavax's virus-like particle (VLP) vaccine technology platform will be applied to construct malaria vaccine candidates, which CPLB will manufacture for advanced preclinical studies, clinical trials and commercialization. The partners will develop and evaluate VLPs that express Plasmodium falciparum circumsporozoite protein (PfCSP), which has been used to develop the only recombinant malaria vaccine that has shown efficacy in field trials. After establishing the feasibility of Novavax's technology, the partners will explore the possibility of producing additional VLPs against antigens from other stages of malaria parasites. The partners believe a multi-stage VLP malaria vaccine has the potential for higher efficacy compared to vaccines based on a single antigen or that target only one stage of the malaria parasite.

Malaria remains a major public health problem in many regions of the tropical world. Forty percent of the world's population lives in malaria endemic regions of Africa, Asia and Central and South America. Despite the widespread use of insecticides, bed nets and other malaria control efforts, there are approximately 210 million cases of malaria each year that lead to around 650,000 deaths, primarily in children less than five years of age. There is an urgent need for malaria vaccines with high efficacy that can be used in conjunction with other control efforts to provide protection against malaria.

Dr Virander Chauhan, director of ICGEB, New Delhi, which will provide their extensive experience in pre-clinical and clinical development of vaccines, said, "ICGEB is excited about the possibility of working with Novavax and CPLB to advance malaria vaccine development."

Mr Indravadan A Modi, chairman of Cadila Pharmaceuticals, said, "CPLB will develop manufacturing processes for the vaccine candidates and will provide GMP production capability in support of this initiative." He also stated, "Malaria is a common health problem for tropical countries and efforts have been ongoing for years for its eradication. I am confident that a multi-stage VLP malaria vaccine will prove beneficial in saving precious lives by restricting morbidity and mortality associated with malaria."

Dr Gale Smith, vice president- vaccine development at Novavax, stated: "Novavax is honored to be working with leading malaria experts at ICGEB and with the Department of Biotechnology of the Government of India to support the development and production of malaria vaccine candidates by Novavax and CPLB. By combining our knowledge and experience with these partners to pursue the most advanced malaria vaccine concepts, we hope to one day have an effective vaccine against one of the world's most devastating diseases."