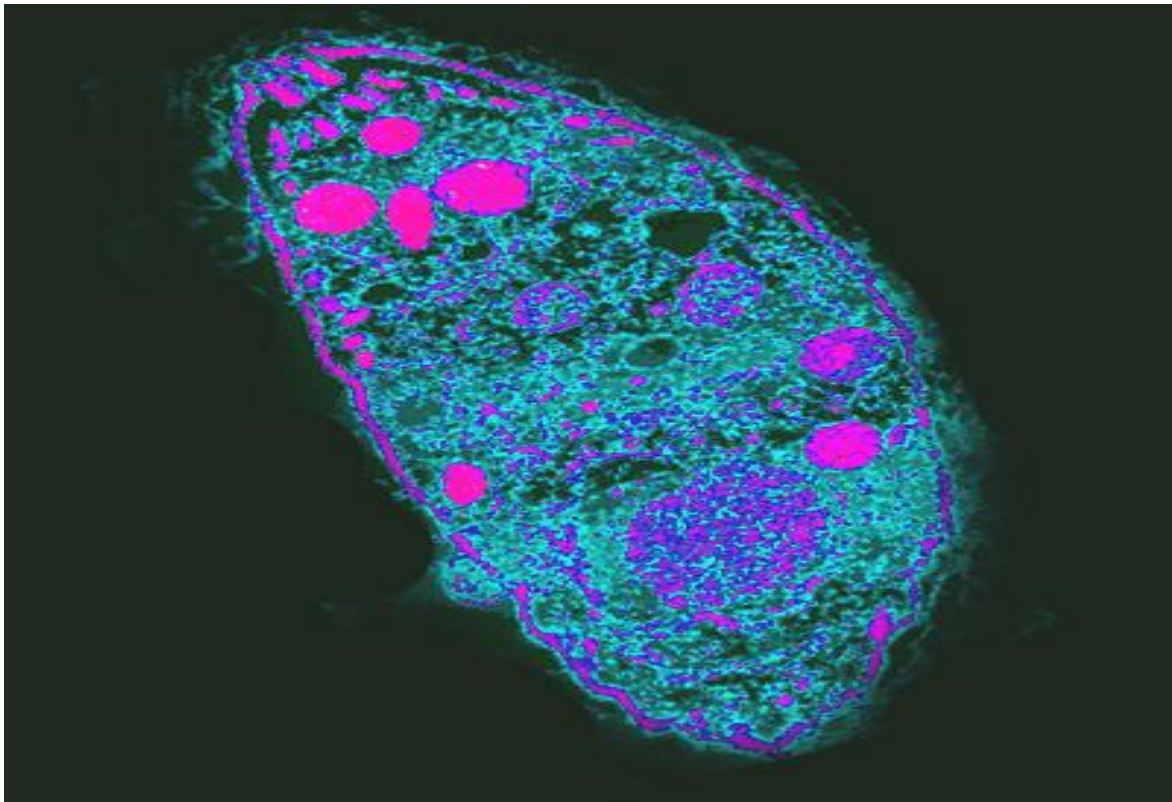


Protein kinase TgCDPK7 regulates vesicular trafficking and phospholipid synthesis in *Toxoplasma gondii*

New Delhi, April 05: In a new study, researchers at DBT- National Institute of Immunology have demonstrated that protein kinase TgCDPK7 regulates cellular processes like vesicular trafficking and the synthesis of phospholipids, which are critical for the development of the parasite *Toxoplasma gondii*.



It regulates the localization of a small GTPase TgRab11a by phosphorylating it at a specific site, which is critical for trafficking of important parasite proteins and is important for parasite division. TgCDPK7 may regulate key enzymes involved biogenesis of phosphatidylethanolamine, which may contribute to the synthesis of this important phospholipid. These and other studies shed light on a novel signaling pathway in apicomplexan parasite *Toxoplasma gondii*.

Reference:

Bansal P, Antil N, Kumar M, Yamaro-Botté Y, Rawat RS, Pinto S, Datta KK, Katris NJ, Botté CY, Prasad TSK and Sharma P (2021). Protein kinase TgCDPK7 regulates vesicular trafficking and phospholipid synthesis in *Toxoplasma gondii*. *Plos Pathogens* 17(2):e1009325.doi:10.1371/journal.ppat.1009325

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