

NSU Genome Research Institute Contributes to Breakthrough Cholera Genetics Study
(<https://www.nottingham.edu.cn/en/CBI/News/Article.aspx?id=b0954753-c1fb-4257-ae48-4cb9a1157b3f&language=en-GB>)

The **NSU Genome Research Institute (NSU-GRI)** has played a key role in a landmark study on the genetics of cholera, recently published in *Nature Communications* (<https://www.nature.com/articles/s41467-024-52238-0>). The research, led by **Professor Tania Dottorini** of the University of Nottingham and the China Beacons Institute, was conducted in collaboration with Bangladesh's **IEDCR, ideSHi, icddr**, and **NGRI**. The study reveals how specific genetic traits of *Vibrio cholerae O1* drive both the severity and spread of the disease. Using advanced tools such as **machine learning, genomics, and structural modelling**, the team identified critical mutations that enhance the adaptability and virulence of cholera strains. Cholera continues to be a major public health threat, with **over 100,000 cases and 4,500 deaths each year in Bangladesh** alone. These findings open new possibilities for targeted treatments and prevention strategies. This international collaboration underscores **NGRI's commitment to cutting-edge genomic research** that addresses pressing global health challenges.