

05/07/2002

## HKUST Scientists Discover Protein's Integral Role in Duplicating DNA

Dr Chun Liang, Assistant Professor of Biochemistry at the Hong Kong University of Science and Technology (HKUST), has identified a protein that plays an essential role in the initiation of DNA replication.

The findings were published in the 28 June 2002 issue of *Cell*, an academic journal in modern biology renowned for its publication of high-impact, cutting-edge biological research.

The discovery has opened the door to a new line of research for DNA replication in normal and cancer cells. "The study of the mechanism and control of DNA replication is crucial for the understanding of cancer development because every cancer cell must replicate its DNA before division. The discovery of the novel initiation protein will not only advance our study on DNA replication, but hopefully, will also help the fight against cancer," says Dr Liang, who is specialized in basic and applied research in DNA replication and cancer.

Before a cell can divide, it must duplicate its DNA. The DNA replication process is mainly controlled at the initiation step, which requires many initiation proteins interacting with one another and the replication origins. Using a yeast genetic screen, Dr Liang and his research team have identified a novel replication-initiation protein called Noc3p. They employed methods in molecular biology and biochemistry to characterize Noc3p and found that it plays an essential role in the initiation of DNA replication.

Dr Liang is the first researcher from Hong Kong to have his research published in *Cell*. He obtained his PhD in Biology from Brown University, US, in 1993, where he also received the Barry Rosen Award for Excellence in Molecular Biology. After graduation, he worked as a postdoctoral fellow at the Cold Spring Harbor Laboratory from 1993-98, a world-renowned biology research institute in the US. He joined HKUST in 1998.