# Biological logic gate built by splitting viral gene

*The following is an edited excerpt.*

In recent years, researchers in the messy world of biology have been able to build systems that function like the clean, binary switches on computer chips. Unfortunately, most of these share a significant limitation: they rely on proteins from bacteria that act as switches to turn genes on and off under specific conditions.

A paper in this week's PNAS describes a system that may allow us to get around this limitation. The new method takes a protein from a virus that infects bacteria and cuts it in two, making a pair of genes (A and B) that each produce part of the mature protein. The two parts then act as a biological version of an AND logic gate.

**Read the full article here: Wetware advances: Biological logic gate built by splitting viral gene**