

## Protein that determines life or death of cells identified

**London** : Scientists have identified a protein that plays a crucial role in correctly measuring stress levels, and also makes sure the pathways of cell repair or cell death in the body are effective, reports PTI.

Each cell in an organism has a sensor that measures the health of its “internal” environment, researchers said. This “alarm” is found in the endoplasmic reticulum (ER), which is able to sense cellular stress and trigger either rescue responses or the death of the cell.

A team from the Institute for Research in Biomedicine (IRB), in Barcelona, found some of the molecular mechanisms that connect the protein Mitofusin 2 (Mfn2) to endoplasmic reticulum stress. When the scientists removed Mfn2 from the cell under conditions of cell stress, the endoplasmic reticulum responded by over-activating the repair pathways.

By doing so, it contradictorily functioned worse, reducing the capacity of cells to overcome the stress insult and promoting to a lesser degree apoptotic cell death. “When Mfn2 is removed, the cellular stress response pathways are completely disrupted,” said Antonio Zorzano, coordinator of IRB’s Molecular Medicine Programme.

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