

Literature review on proffesor

[Environment](#), [Nature](#)



The study of cells has led to many inventions. However, one of the things that is yet to be exclusively analysed is the underlying protein in the mitochondrial intake of calcium (Bernardi, Rasola, 2007). A survey done in 2010 brought the matter close to conclusion. Below is a pictorial representation of MICU1 that has been used for survey and which is the basis for many arguments.

The mitochondrion has two membranes; the outer and the inner membrane. As evident in the above figure, the MICU1 is attached to the inner membrane. This makes it essential in sensing of calcium in the membrane. Calcium intake is an important stage in cell physiology (Santo-Domingo, Demarex, 2010). The first recordings of this important part of cell physiology were done in mid twentieth century. The continued study has shown that, MICU1 has an ability to let pass calcium across the inner membrane and hold it in there. The availability of calcium in the mitochondrion is therefore highly dependent on MICU1 (Balaban, 2009).

The effect of MICU1 is proved to have direct effect on various physiological factors. These factors range from cell secretion to differentiation (Gunter, Gunter, 1994). However, the retention of the large amount of unwanted calcium in the mitochondrion may at times have counter effects. This is because it may cause the mitochondrion to burst which is not healthy. While the inner walls of the mitochondrion are elastic in nature, the outer membrane is rigid and thus when pushed may burst. This scenario of mitochondrion bursting is not common (Kirichok, Krapivinsky, Clapham, 2004). The high level of activity in the cell ensures that calcium is assimilated fast.

The ability of cytosolic calcium has been found not to be utterly affected even when MICU1 is silenced (Hajnoczky, Robb-Gaspers, Seitz, & Thomas, 1995). However, the intake becomes slow thus most of the physiological functions are also slowed (Paragna, Gunter, Sheu, Gunter, 1995).

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