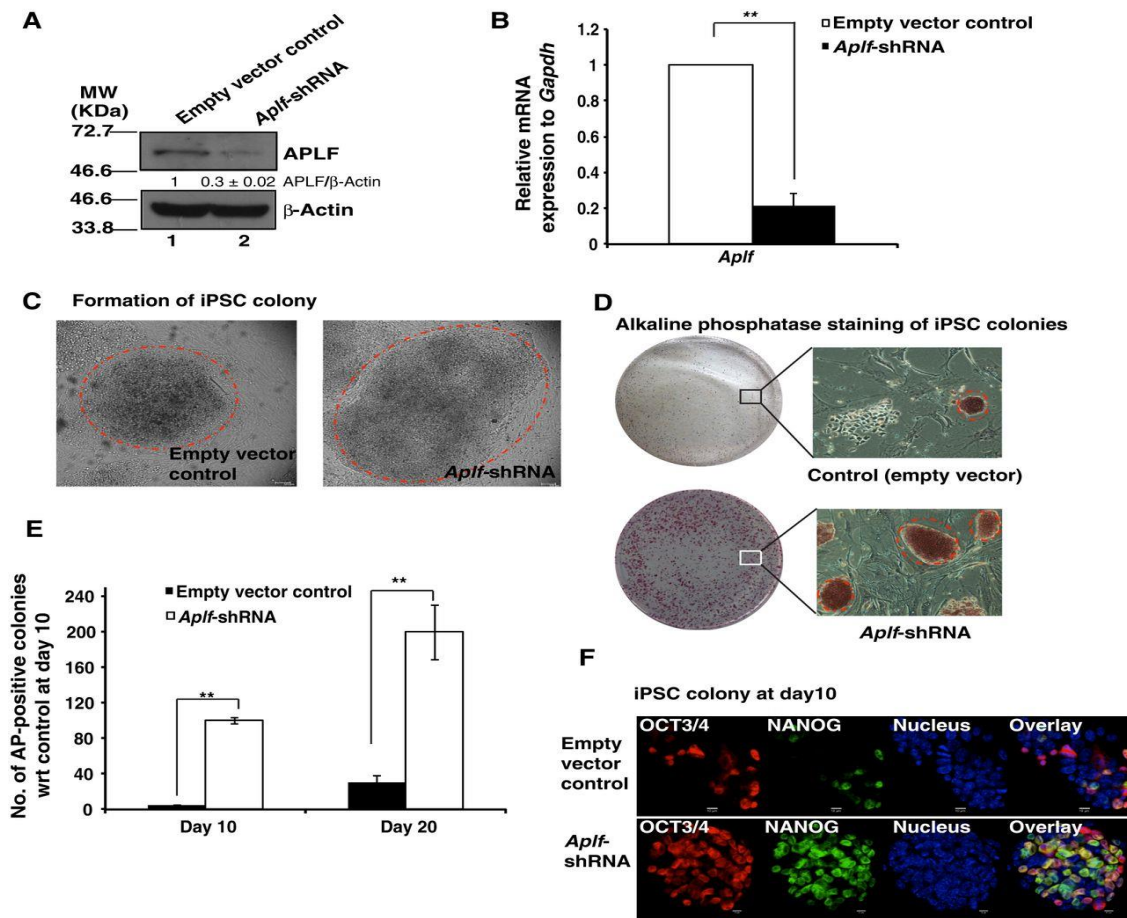


Scientists at RGCB discovered that the level of a protein molecule called APLF can dictate the implantation of an embryo within the mother's body

One of the foremost and crucial factors for a successful pregnancy is the implantation of the embryo into the mother's uterus. Any impairment during this process is the primary cause of loss in pregnancy at the early stages. Studies conducted by Dr. Debasree Dutta and her team at the DBT's Rajiv Gandhi Centre for Biotechnology (RGCB), Thiruvananthapuram, Kerala showed that APLF (Aprataxin PNK like Factor), which is a histone chaperone (a protein which helps in the assembly or disassembly of histones, which are the proteins that package our DNA in the nucleus of the cell) is highly expressed during the early embryo development stages and is found to be an essential factor for the development of a proper maternal-fetal connection during embryo implantation. These points are very difficult to be proven in human system, so they have utilized mouse (the closest mammal to human) model to understand this phenomenon.



Dr. Dutta's team has found that proteins associated with pre-eclampsia are also increased with loss in expression of this APLF protein. So, exploiting these findings, the associated concerns in

development of an embryo in the mother's womb might be considered and further studied. This kind of work is done for the first time in India.

Link: <https://jcs.biologists.org/content/early/2020/12/03/jcs.246900>

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