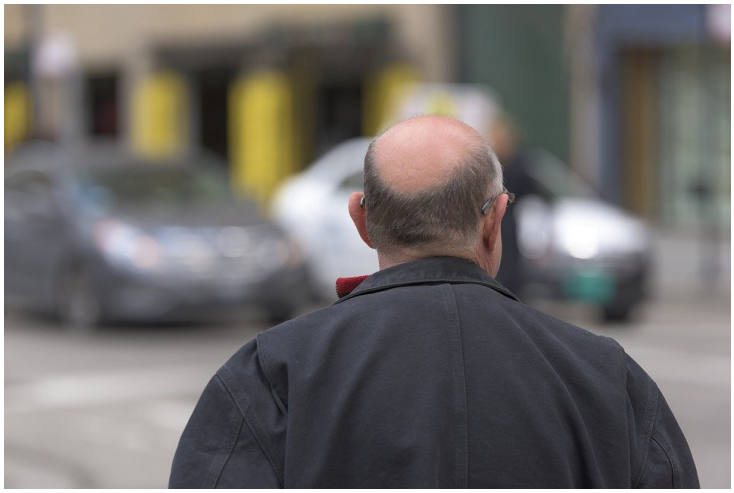
BioSpectrum the business of Bio & Health Sciences

Iranian researchers conduct studies on stem cells and their effect on hair growth

24 May 2017 | News

Researchers found that hair growth occurred in mice, when they received dermal papilla and epithelial stem cells. This could help in the treatment of hair loss in humans too.



Researchers at Royan Institute, the leading center for Stem Cell research, conducted a study in which they cultivated dermal papilla and epithelial stem cells extracted from human scalp in laboratorial conditions.

Dermal papilla are small ridges at the surface of the skin, and in scalp, they provide oxygen and nutrients to the hair follicle so that healthy new hairs may grow. Epithelial stem cells (EpSCs) in the hair follicle bulge are required for hair follicle growth and cycling. Damage to these cells is the main cause of hair loss.

In the experiment, fifteen laboratory rats were divided into three groups. One group received dermal papilla, the second group simultaneously received dermal papilla and epithelial stem cells while the third group is the control group and did not receive any cells.

Hair growth occurred in both groups but the second group in which both dermal papilla and epithelial stem cells were present, the hair growth was more tangible and visible to unaided eye.

The results were published in the Cell Journal. The thinking as outlined by Mehr News, says that this could pave way for understanding of hair growth mechanism in humans and treatment of hair loss.