

Regulation of skin functions by the molecular clock system

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In this study, we examined if reactive oxygen species (ROS) level shows circadian rhythm in the skin and role of the molecular clock system in the process. ROS level and gene expression involved in ROS production showed clear circadian rhythm in the skin of mice. The rhythmicity was diminished in the skin of molecular clock deficient mice. Consequently, we are led to conclude that molecular clock system may regulate the skin homeostasis by controlling the cellular ROS level.