

## **The Prediction of Evolutionary Process of Coloured Vision in Mammals: A System Biology Approach**

**Authors :** Shivani Sharma, Prashant Saxena, Inamul Hasan Madar

**Abstract :** Since the time of Darwin, it has been considered that genetic change is the direct indicator of variation in phenotype. But a few studies in system biology in the past years have proposed that epigenetic developmental processes also affect the phenotype thus shifting the focus from a linear genotype-phenotype map to a non-linear G-P map. In this paper, we attempt at explaining the evolution of colour vision in mammals by taking LWS/ Long-wave sensitive gene under consideration.

**Keywords :** evolution, phenotypes, epigenetics, LWS gene, G-P map

**Conference Title :** ICSB 2015 : International Conference on Systems Biology

**Conference Location :** Zurich, Switzerland

**Conference Dates :** January 13-14, 2015