

Abstract

Muller glial cells play the most crucial role in zebrafish retina regeneration. Immediately after injury, they de-differentiate into retinal progenitor cells, proliferate, and re-differentiate into all retinal cell types. Although some of the major signaling pathways involved in retina regeneration have been worked out, majority remains unknown. As the involvement of telomerase is evident from earlier research findings in mouse liver and beta cell regeneration, we tried to check whether it plays similar role in zebrafish retina regeneration as well. We found that, one of the telomerase gene transcripts, Tert-004 is expressed in the ganglion cell layer following retinal injury.