

Advance Gene therapeutics (Oreochromis mossambicus)

M. Sangeetha

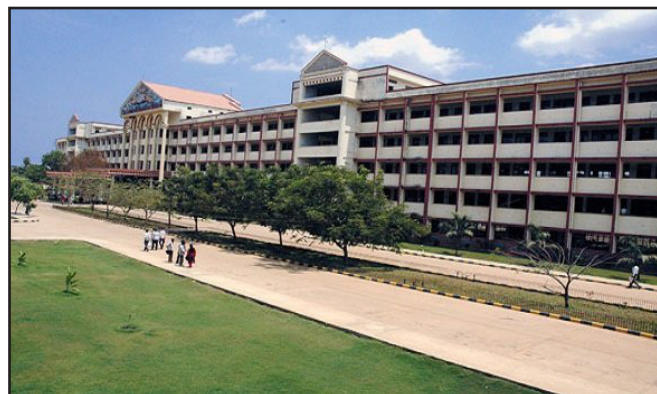
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Abstract:

The paper has been focussed information about the effect of tannery effluent on the structural and functional group changes in the biomolecules constituting the structural architecture of the muscle and gill tissues of *Oreochromis mossambicus* fingerlings. Control and tannery treated fishes were given normal feed. The exposure and period were 45 days. A range of 7 concentrations (50, 40, 30, 25, 20, 15, 10 % / L of water) were selected for lethal dose studies. The mortality in each concentration were noted for 24, 48, 72 and 96 hours exposure. The LC₅₀ value (96 hour) was determined for tannery effluent exposed fingerlings of *Oreochromis mossambicus*, which was found to be 20%. The fishes were maintained at 50% of this concentration (10% of the tannery effluent). The presence of structural architecture and functional group changes was confirmed by Fourier Transform Infrared (FTIR) Spectroscopy. The FT-IR spectra of muscle and gill tissues are composed of several bands of various functional groups having a place with lipids, proteins and carbohydrates. The vibrational assignment of FT-IR spectra are observed frequencies in the region 4000–400 cm⁻¹ along with their vibrational assignment. The ratio of the intensities of the amide bands (I 1541 / I 1652) decreases from 0.93 for control to 0.89 for tannery intoxicated tissues during acute exposure. The I 2958 / I 2858 ratio for control and treated for gill tissues are 1.64 and 1.39. The ratio I1538 / I3290 for control, and tannery treated gill tissues are 1.81 and 1.48 respectively. The ratio of the intensities of the amide bands (I1538/I1653) decreases from 0.83 for control to 0.72 for tannery intoxicated tissues during acute exposure.

Biography:

My graduation (MBBS) and post graduation in General Surgery (M.S.) were from Medical College, Thiruvananthapuram, Kerala, India and I have put in 50 years of professional experience. I am working as Senior Consultant Vascular Surgeon in St. Thomas Hospital, Chethipuzha, Changanassery, Kerala, India since 1980. St. Thomas Hospital is a 450 bedded major hospital in Changa-



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