

# Histochemistry & Cell Biology

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### Mucins in lips and associated structures of a teleost *Glossogobius giuris*

Mucins are glycoproteins (GPs) and major constituents of mucus elaborated by the lips epithelia of a fresh water carnivorous fish *Glossogobius giuris* from river Ganges, Varanasi, India, were analyzed by a range of 58 histochemical methods. In this study, we intend to identify the different classes of carbohydrate and protein components of the highly biologically active lips epithelia and its unicellular glands that produce it. Mucins elaborated at the surface of the lips epithelia are primarily from two sources, the epithelial cells and the mucous goblet cells. They include GPs with oxidizable vicinal diols, GPs with sialic acid residues without O-acyl substitution, GPs with O-sulphate esters, GPs with sialic acid residues with O-acyl substitution at C7, C8 or C9. Different classes of GPs have been associated with specific functions and are discussed in relation to their physiological significance, with special reference to their roles in lubrication, alteration in viscosity, trapping of food particles, buffering of fluids at the epithelial surface, prevention of proteolytic damage to the epithelia, antimicrobial activity and defense against pathogens. The epithelial shows specialized modifications in the form of secretory glands. These have been considered to increase the secretory surface that allows profuse secretion of mucus in a very short period of time. The secretions of these glands have been associated with multiple functions similar to those of saliva.

### Biography

Pinky Tripathi has completed her PhD from Department of Zoology, Banaras Hindu University and Post-doctoral studies in Molecular Biology Unit and Department of Medicine, IMS, BHU. Currently, she is a Lecturer of Zoology at Sri Agrasen Kanya PG College (AKPGC), Varanasi. She has published more than 10 papers in reputed journals and has been serving as an Editorial Board Member of "*Frontiers in Ethnopharmacology*". She is Life Member of Society of Biological Chemists and Indian Immunology Society.

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