



## Glycoproteins , its Functions and clinical significance

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### Abstract:

Increasing knowledge on structure, biosynthesis and catabolism of glycoproteins have given new insights on the patho-biochemical and clinical significance of these macromolecules. The most important results and conclusions are summarized . 1. The terminal sugars of glycoproteins-N-acetylneuraminic acid (NANA) and L-fucose-as well as the penultimate galactose molecule have important functions in cell interaction, adhesion and recognition. Moreover, these carbohydrates mediate the migration and distribution of cells and it is believed that they are essential part of the fetomaternal “immunological barrier”. 2. Evidence indicating that the composition and pattern of plasma membrane glycoproteins is associated with tumour growth and metastatic formation is accumulating. Moreover, the determination of serum glycosyltransferase activity is gaining increasing interest, because the level of these enzymes is substantially elevated in patients with neoplastic disease. 3. Diseases of the autoimmunosystem are likely linked to a disturbed glycoprotein metabolism. The clinical importance is underlined by studies on immunotherapy of tumours..

### Biography:

Ratnesh Das is a Professor in the Department of Chemistry, Dr. Harisingh Gour Central University, Sagar, India. He commands a rich experience in teaching, and research of about 16 years during which he has supervised many sponsored research projects.

### Recent Publications:

- Kulkarni DR, Malode SJ, Prabhu KK, Ayachit NH, Kulkarni RM, Shetti NP (2020) Development of a novel nanosensor using Ca-doped ZnO for antihistamine drug. Mater Chem Phys 246:122791



- Dakshayinia BS, Reddy KR, Mishrac A, Shetti NP, Malode SJ, Basuc S, Naveene S, Raghue AV (2019) Role of conducting poly-mer and metal oxide based hybrids for application in amperometric sensors and biosensors. Microchem J 147:7-24
- Shetti NP, Malode SJ, Bukkitgar SD, Bagihalli GB, Kulkarni RM, Pujari SB, Reddy KR (2019) Electro-oxidation and determination of nimesulide at nanosilica modified sensor. Mater Sci Energy Technol 2:396-400
- Shetti NP, Shanbhaga MM, Malode SJ, Srivastava RK, Reddy KR (2020) Amberlite XAD-4 modified electrodes for highly sensitive electrochemical determination of nimesulide in human urine. Microchem J 153:104389
- Bukkitgar SD, Shetti NP, Malladi RS, Reddy KR, Kalanur SS, Amin-abhavi TM (2019) Novel ruthenium doped TiO<sub>2</sub>/reduced gra-phene oxide hybrid as highly selective sensor for the determination of ambroxol. J Mol Liq 300:112368

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