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Interaction of soluble and amyloid form of serum amyloid a protein to BC3H1 cells

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The BC3H1 smooth muscle cells of mice brain, the study was carried out membrane binding. This is important in relation to the activity of membrane proteins because losing the activity of such systems will ultimately lead to malfunction or death of the cell. The interactions of Serum Amyloid A (SAA) and Serum Amyloid A protofibrils with BC3H1 cells of the mouse are dealt with in detail to study the binding of SAA protofibrils in various conditions. The FACScan and MTT assay results have shown the SAA and SAA fibrils binding and cell toxicity with the BC3H1 cells with different concentrations of Serum amyloid P component and Amyloid enhancing factor. Specifically, cells were incubated with 1.25-6.25 μ M SAA-FITC and SAA protofibrils-FITC assayed. The 50% viable BC3H1 cells at 4-6 μ M with an LD50 of 3.5 μ M. The interaction of serum amyloid A fibrils with a cell surface binding site/receptor might alter the local environment to cause cellular dysfunction and to be more favorable for amyloid formation. The RAGE (receptor for advanced glycation endproducts) a polyvalent receptor in the immunoglobulin super family has been implicated in binding with the isoform of SAA (SAA1.1) which has the highest fibrillogenetic property. The present study concludes the SAA fibrils more binding and cell cytotoxicity than SAA protein.

Biography

Asokan Chinnasamy has completed his PhD at the age of 27 years from University of Madras and Postdoctoral studies from Columbia University, USA. He is the Associate Professor, Department of Biochemistry, Sokoto State University, Nigeria. He has published more than 36 papers in reputed journals and has been serving as an Editorial Board Member of reputed journals.

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