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Opsonokine™ Technology: A novel method for enhancing immunity to cell based tumor vaccines

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Cancer is the second leading cause of death in the United States and is projected to be the leading cause of death worldwide this year. There is a critical need for therapeutic approaches that can enhance patients' immune responses to target solid tumors and their metastases. OpSaniTx is developing an innovative therapeutic vaccine approach that addresses these challenges. The company has developed the first generation of a proprietary protein, the Opsonokine™, which can significantly enhance the immune response to a cell based vaccine. The Opsonokine™, a recombinant protein, expressed and purified from yeast, is a chimeric protein with two independently functioning domains. The first domain is a powerful cytokine, GM-CSF. The second domain binds to sialic acid residues on the surface of tumor cells. Mixing the protein with tumor cells ex vivo results in the spontaneous binding of thousands of Opsonokine molecules to each individual cell. When introduced into the patient as a series of vaccinations, the cytokine coated tumor cells are rapidly taken up by antigen presenting cells, stimulating a strong anti-tumor response.

Biography

Young managed both the scientific and manufacturing Operations at Genitrix LLC and has served as Vice President of OmniGene DX and Director/ Interim Vice President at Cambridge Biotech (acquired by Antigenics). He has also held scientific positions at Integrated Genetics (acquired by Genzyme) and Abbott Laboratories. Dr Young did his Post-doctoral work at Harvard Medical School after receiving his PH.D.and MA in Molecular Biology at Indiana University and his BA at the University of Rochester. He holds several patents in molecular biology and vaccine development.

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