Brief Profile of Dr.Samuel JK Abraham

(To Bio-Asia, Hyderabad; Feb 2010)

- Dr Samuel JK Abraham, completed his primary medical education in Tirunelveli Medical College affiliated to Madurai Kamaraj University in 1992, TN, India. After a year of training in Pediatric Surgery in India, joined Yamanashi Medical University, Japan in 1993. Finished post-graduate training and doctorate in Cardiac surgery in Yamanashi Medical University and has been working with the Division of Cardiac Surgery of the same varsity.
- Along with his work in cardiac surgery, started research work in stem cells using 3d bio-mimicking scaffolds and nanomaterials in collaboration with private and public institutes in Japan (Prof. Mori of Waseda University, Dr Haraguchi of Kawamura Institute, to name a few) in 2000 under the Nichi-In Consortium, Japan.
- Heads the Indian operations of Nichi-In Centre for Regenerative Medicine (NCRM) an indo-japan joint venture institute (Estd 2005; www.ncrm.org), guides PhD scholars in regenerative medicine (under Acharya Nagarjuna University, Guntur, India), collaborator to the TPRM programme by University of Toronto & Technical Advisor to Nichi-Asia centre for Regenerative Medicine, Malaysia.

  Involved in the research of (i) Corneal limbal diseases (ii) Hepatic progenitors (iii) Cartilage defects (iv) Retinal stem cells and RPE cells (v) Buccal mucosal epithelial culture for treating ocular surface disorders (vi) *In vitro* expansion of hematopoietic stem cells from Bone marrow and Umbilical cord blood, (vii) Dermal fibroblast expansion to treat facial wrinkles that occurs due to aging & (viii) Zero gravity cell cultures. Clinical applications undertaken for cancer patients using Autologous NK cells and Cytotoxic T-Lymphocytes (Autologous Immune Enhancement Therapy; AIET (www.ncrm.org/aiet)

- In stem cell research the major focus has been biological contamination free, synthetic polymers, nano material and scaffolds based *in vitro* cell expansion
- Has publications in both cardiac surgery and regenerative medicine and applicant to two patents in scaffolds based stem cell *in vitro* culture methodology and tissue engineering
- Member of (i) ISSCR (ii) Japanese Thoracic Surgeons Association and Fellow of Indian Association of Cardiothoracic Surgeons (IACTS) & IABP.