

## Press Release

### **A novel cell therapy solution for Osteoarthritis using discarded cartilage tissue**

#### ***Technical assistance by NCRM India, helps Japanese scientists in this feat***

Tokyo, 29<sup>th</sup> April, 2019: A break-through technology to regenerate the chondrocytes, which are the essential cells of the weight bearing joints such as knee joint, has been developed by Japanese scientists taking assistance from NCRM, India, which was presented in the annual regenerative medicine symposium in the University of Toronto ([www.regenmedcanada.com](http://www.regenmedcanada.com)). The novelty is that the cells isolated from damaged cartilage of knee joint of aged patients who underwent total knee arthroplasty (TKA) could be regenerated which are otherwise discarded as biomedical waste. TKA is a procedure in which artificial prosthesis is replaced after removing the damaged cartilage which are beyond repair by other means including medications. Globally every year 1.2 million TKA procedures are done and if the cells removed before the TKA surgery could be used as a source of pooled- donor tissue, it has tremendous potentials for developing an allogenic product of cells, cell secreted factors such as Hyaluronic acid that could be used to treat early stage damage to the joints. The polymer scaffolds used in the study, developed by chemical engineers from Japan could be used to repair inflammatory conditions as well in osteoarthritis after validations, opined by Dr Shojiro Katoh, the principal investigator of the study and president of Edogawa Hospital, Tokyo.

Earlier the team from NCRM, India after in vitro experiments and animal studies in cartilage regeneration published in Journal of Orthopedics, had signed a MoU with Japanese institutes. After relevant pre-clinical studies and approvals, this accomplishment will be taken to a clinical trial in Japan according to one of the co-investigators, Dr Sunao

Kubota. Annually **300 million people worldwide** are affected with joint problem and the market potential of solutions and products for Osteoarthritis is very huge.



*Dr. Fumihiro Ijima (3rd from left) who presented the work in the Annual Regenerative Medicine Symposium at the University of Toronto with other speakers and delegates (L>R Prof. Gary Levy (Univ. of Toronto), Dr. Senthilkumar (NCRM, India), Dr. Ijima (Presenter from Japan), Dr. Juan Carlos Izpisua Belmonte (Salk Institute, USA), Dr. Gordon Keller (Univ. of Toronto), Dr. Samuel JK Abraham (Yamanashi Univ. Japan) & Dr. Atul Humar ((Univ. of Toronto)*

**This press release is available online at: <http://www.ncrm.org/media/pr29apr19.htm>**

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