



## **IGC's Drug Candidate for Alzheimer's Potentially Presents New Molecular Pathway for THC to Inhibit A $\beta$ 40 Production**

Bethesda, MD. September 11, 2017– India Globalization Capital, Inc. (NYSE American: IGC) today provides an update on compelling in vitro data compiled from genetically engineered cell lines, confirmed by Dr. Chuanhai Cao, an IGC Senior Advisor and Associate Professor of Pharmaceutical Sciences at USF's College of Pharmacy, which shows that at varying concentrations of THC, the production of A $\beta$ 40 protein decreases by as much as 50% over a 48-hour period.

It is believed that Alzheimer's disease is caused by two types of lesions in the cerebral cortex and hippocampus: 1) senile plaque composed of amyloid beta peptides (A $\beta$  plaque), and 2) neurofibrillary tangle, composed of highly phosphorylated Tau protein. Amyloid Precursor Protein (APP), on the surface of neurons, is normally cleaved by enzymes to free up A $\beta$  peptide composed of 36-43 amino acids that is then cleared by the body.

In patients with Alzheimer's, an imbalance causes A $\beta$  to be unregulated, resulting in the abnormal buildup into insoluble fibrils depositing as senile plaques. A $\beta$  monomers aggregate to form oligomers and then into fibril A $\beta$ . It is believed that extracellular misfolded oligomers are toxic to nerve cells.

IGC's Alzheimer's drug candidate, IGC-ADI, works through a molecular pathway that allows low doses of THC to: 1) inhibit A $\beta$  protein production, 2) inhibit A $\beta$  protein aggregation 3) reduce protein phosphorylation, 4) restore mitochondria function and 5) redirect the immune system.

The summary data indicates that at a 25nM THC concentration, A $\beta$ 40 production decreased by 30% over a 6-hour period; 35% over a 24-hour period; and 40% over a 48-hour period. At a 2.5  $\mu$ M concentration of THC, A $\beta$ 40 production decreased by 30% over a 6-hour period; 40% over a 24-hour period; and 55% over a 48-hour period.

A $\beta$ 40 and A $\beta$ 42 play a key role in amyloid plaques and have been implicated in the pathogenesis of Alzheimer's disease. The studies done by Dr. Cao at USF led to the filing of a patent by USF entitled, "THC as a Potential Therapeutic Agent for Alzheimer's Disease."

"IGC acquired the exclusive right to this patent filing and we plan to advance this technology through medical trials that can potentially bring much needed relief for patients suffering from AD," says IGC's CEO, Ram Mukunda.

### **About Alzheimer's Disease**

Alzheimer's Disease (AD) is a form of dementia. It is known as America's most expensive disease, with an estimated cost to the U.S. economy of \$236 billion. AD currently affects more than 5.3 million Americans. Over the next 20 years, the number of those afflicted with the disease is expected to double. The forecast is staggering, considering that to date, no effective cure has been found.

### **About IGC**

IGC is engaged in the development of cannabis based combination therapies to treat Alzheimer's, pain, nausea, eating disorders, several end points of Parkinson's, and epilepsy in dogs and cats. IGC has assembled a portfolio of patent filings and four lead product candidates addressing these conditions. The company is based in Maryland, USA.

For more information please visit [www.igcinc.us](http://www.igcinc.us)  
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### **Forward-looking Statements**

Please see forward looking statements as discussed in detail in IGC's Form 10K for fiscal year ended March 31, 2017, and in other reports filed with the U.S. Securities and Exchange Commission.

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