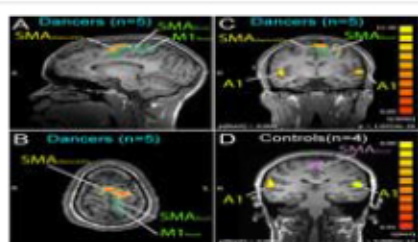


HIGHLIGHTS

04 february 2013

Dance to be tested as a therapy for Parkinson's



(Rachel Bar)

Brain scan study of dancers showing how they process music and dance moves.

Can learning to dance, or learning a specific dance, improve muscle control and movement in people suffering from Parkinson's disease?

That's the basic question soon to be asked by a team led by a researcher at Toronto, Ontario's York University.

Just as singing can help people who stutter, in a similar manner there is anecdotal evidence that learning dance associated with rhythms and melodies, can improve motor skills in Parkinson's sufferers.

Recently, York neuroscience Professor Joseph DeSouza of the Faculty of Health received a \$20,000 donation from an Italian social club, Irpinia, to help fund this new research

Using brain scanning technology, the project will be developed with Canada's National Ballet School, along with scientists at McMaster and Western University (both also in Ontario) the team will train National Ballet dancers to lead dance and movement classes for Parkinson's patients.

The research team led by Professor DeSouza, including researcher and National Ballet Instructor Rachel Bar, will study ballet students and Parkinson's patients in the project to see how the brain reacts and learns in relation to music and acquired movements related to the rhythm and beat of music.



(York U) Magnetic resonance imaging (MRI) will scan National Ballet students and volunteer Parkinson's sufferers before, during and after learning a dance routine to see how their brains are working to develop new paths around damaged brain areas.

They will use functional magnetic resonance imaging, (fMRI) to examine the neuromechanisms of the process and record the process of changing brain patterns as the subjects learn the dance, ie the motor movements, along with the music.



(York U) Professor Joseph deSouza (left) accepts a donation from Irpinia Club president Peter Cipriano to help fund the research

The goal is to prove the hypothesis that the brain can develop new paths around damaged areas if stimulated in certain ways, in this case, movement of dance. This could help Parkinson's sufferers improve their mobility.

The pilot project is expected to be further refined before beginning sometime later this fall.

RCI's Marc Montgomery contacted Professor DeSouza last week by cellphone in Lyon France.