

London's newest (academic) supergroup

By Chris Montanini, Londoner

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Exercise is effective in fighting demntia, says a new report. REUTERS

Western University's Brain and Mind Institute and the nearby Don Wright Faculty of Music have started to jam; call it the academic equivalent of the Traveling Wilburys.

For the record, the new partnership — formerly called Musical Learning Across the Lifespan (MLAL) — is more about brain development than it is Grammy nominations. But if you're at all curious about how music and the brain intertwine, you'll want to keep an eye on this new supergroup.

The two main players are the University of Edinburgh's Katie Overy, a visiting professor in music education at Western, and Jessic Grahn, a cognitive neuroscientist that was, in 2012, awarded a grant from the Gammy Foundation for her research into the links between music and movement.

Similar to a program set up by Overy at the University of Edinburgh in Scotland, Grahn said Western's version will have many benefits for both music and neuroscience researchers.

On one side, Grahn said there is huge interest from the music education community in applying what we've discovered about how the brain learn things and how that changes in people as they get older. Not only does Western have a large number of music majors, they also host programs such as New Horizons Adult Band, which is for adults who want to begin learning how to play music.

On the neuroscience side, Grahn said researchers will benefit from access to the brains of these musically inclined students and eager adults as they learn.

“It’s not often you get to look at people who are doing a brand new, very complex, difficult, cognitively demanding task (such as learning a new musical instrument, especially not in large numbers,” she explained. “Music education majors need to learn new instruments so they can teach on these different instruments, so there’s some new opportunities there to look at how musical learning may change the brain and what we can learn about how people learn at different stages of life.”

As an example, some research suggests that older adults who have musical training are better at things like hearing speech in noisy environments, something neuroscientists might be interested in deconstructing. Grahn also said the new partnership may also connect to her research in how music could help people with brain disorders such as Parkinson’s disease.

“The research that’s been done so far confirms that for some patients, a steady beat really seems to help, but for many of them, it does not,” Grahn said. “So one of the things we’re interested in is using the musical knowledge that is represented here (to ask), ‘how can we break down music into important relevant components so we can test these for what’s important to the Parkinson’s patients we see?’”

Music is also becoming a larger part of therapy for patients with Alzheimer’s disease, as highlighted by the 2014 documentary *Ali Inside: A Story of Music and Memory*.

Grahn said she is currently overseeing a post-doctoral student researching music and memory.

“Often for patients with dementia, including Alzheimer’s, music seems to be one of the last things to go, which is useful clinically because it turns out music can be great for regulating mood,” Grahn said. “But it’s also interesting (because it might tell us) us how memory in the brain works; why is it that music seems to be preserved when these patients are no longer recognizing their own children or their partners?”

Grahn, who holds a double degree in music and neuroscience from Northwestern University, arrived at Western about five years ago. She said she hopes Musical Learning Across the Lifespan might also encourage Western to offer double degree programs between music and science.

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