Canadian Audiologist
The Official Publication of the Canadian Academy of Audiology

Knowledge Translation from Research Labs to the Audiology Clinics: A Flow or Just a Trickle?

Published August 31st, 2020

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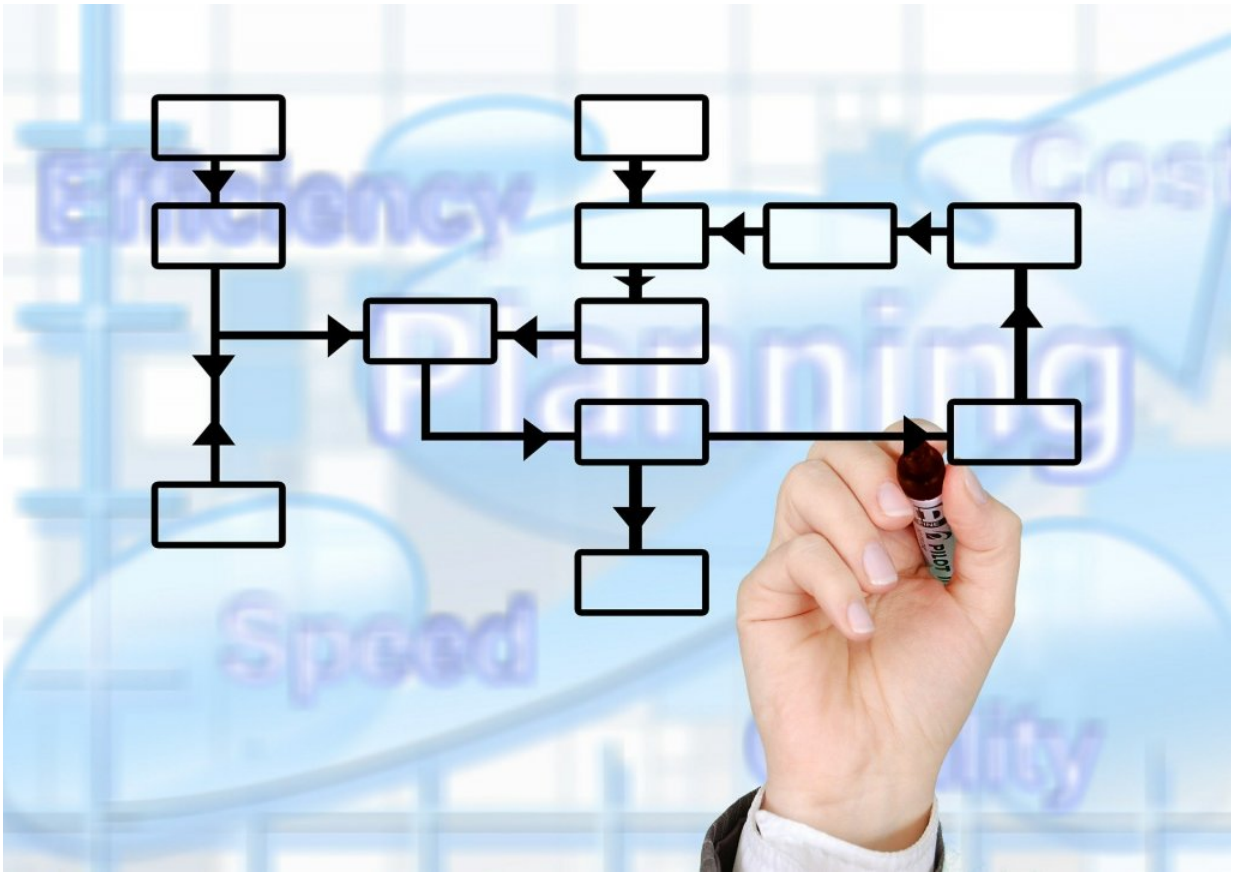

The title of my column in **Canadian Audiologist** is “From the Labs to the Clinics,” but I have to say that the gap between audiological science and clinical audiology has not narrowed as much as I would have liked during my (45 year) career. There is a steady stream of new ideas from academic hearing scientists, few of which have had much impact on day-to-day audiology practice.

For example, last month in *Canadian Audiologist* we had a celebration of Prof. Brian Moore, a very productive auditory scientist with many “contributions” to clinical audiology. However, very little of the new knowledge and ideas that he generated appear in practical, clinical audiology. His research on cochlear dead-areas, resulting in the TENS test, including methods for mapping them has seen scant attention clinically. Having said that, there have been several attempts at making his TENS test more clinically feasible by using a piano keyboard with the search for cochlear dead regions taking seconds rather than 20 minutes (see for example[1]). And Brian Moore’s work with his colleague Michael Stone has provided the underpinnings for several aspects of modern hearing aid circuitry. But his work on frequency resolution and bandwidth filter shapes has not led to any

tests for these important hearing mechanisms in the clinic. In this respect, I am especially disappointed after spending much energy measuring frequency selectivity, including the development of potential clinical tools.[2–7]

I was thinking about this audiology knowledge-translation gap, and the hopeful title of my column, when I came across a newly published Canadian study[8] with the potential to provide a useful clinical tool. The research was headed up by David Purcell and colleagues at Western (NCA) and studied the value of objective electrophysiological signals, specifically speech envelope following responses (EFRs) in predicting speech audibility.

The research study was published in the journal *Ear and Hearing*. This is the highest-impact journal in the field of audiology. (I do hope some of my readers will be familiar with this journal and from time to time read its published papers!)

Despite my somewhat critical comments above about a lack of knowledge translation and bridge building from the labs to clinics, I can get excited when there is some potential for developing a useful clinical tool based on some new basic science findings. I will be following any progress in that direction closely and will report to you directly.

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