

“BASIC KNOWLEDGE is vital for progress in treatment”



“What struck me most, just like in Valencia and Bruges during the last venues, was the heterogeneity of the approaches which were presented”, says Dr. Berthold Langguth. He is head of the tinnitus center of Regensburg University and one of the speakers in Auckland. He looks back on a pleasant, well organized meeting at an idyllic location overlooking Auckland harbour. “I value the idea within TRI to place tinnitus in the context of related disorders and to build on new basic neuroscientific knowledge.”

“Tinnitus is caused by changes in the brain. So if we want to understand tinnitus to get clues for effective treatment, getting to understand the underlying mechanisms in the brain better than we do now is the direction to go”, says

Langguth. A contribution to this was provided by New-Zealand neuroscientist professor Cliff Abraham of the university of Otago, who informed the audience about the rules in the brain by which neuroplastic changes are guided.

Innovative approach

Also active in fundamental neuroscience is Professor Dr. Susan Shore, director of the Neurobiology Laboratory of the University of Michigan in Chicago. Langguth wishes to mention her intreaguing lecture: “She studies the interaction between the somato-sensoric system and the auditory system. As a result of that, she has identified a neuronal mechanism of the interaction between the two. This was the basis for a new treatment approach, although the ‘ingredients’ are already known. She proposes electrical stimulation in combination with offering tones to the patient. The added value is, that the treatment intervention can be guided by measuring the amount of interaction between the auditory and the somato-sensoric system. The process can be steered.”

Langguth emphasizes that this approach is in a very early phase and that clinical confirmation is therefore needed. “But still, this is a very innovative approach. It illustrates

how basic knowledge can be instrumental to find and develop new treatment methods.”

Variability and imaging

A valuable contribution, according to Langguth, came also from Dr. Winnie Schlee from the University of Regensburg on the variability of tinnitus over time in each patient. “These changes occur both in the patient’s perception and in the measurable neuronal function of tinnitus patient’s brains. Schlee’s idea is to develop new standard methods to assess this variability; he for instance developed an app. With this smartphone-app a detailed assessment of the variability of tinnitus over time will be possible, and the app may be further developed into a treatment device. By now we have an idea of what tinnitus is and we have notions on how to treat patients. To work towards systematic assessment is one of the keys for moving ahead from where we are now.”

Langguth witnessed several nice talks about imaging. “The relevance of the auditory pathways in the brain for tinnitus is well established. There was already a believe that we not only have to consider this specific area, but the whole brain to study tinnitus. This was clearly confirmed in Auckland.” ■

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