

## Medical Philately



100th birth anniversary of Barany  
Stamp- Austria, 1976



Robert Barany Nobel Prize-1914  
Stamp-Sweden 1974



Cochlea and vestibular apparatus  
Stamp-Sweden, 1984

### ROBERT BARANY

#### FATHER OF OTONEUROLOGY AND VESTIBULAR FUNCTIONS

**R**obert Barany (1876-1936) received his MD degree from University of Vienna in 1900, having written his inaugural thesis on rhythmical nystagmus. He studied Internal medicine, psychology and neurology, from various centers in Germany. He was held prisoner of war during WW-I by Russian forces and released only at the end of the war. He then accepted an appointment as Faculty member in the Department of Otorhinolaryngology, in the University of Uppsala and became a Swedish citizen.

Returning to Vienna, Barany served as assistant to Politzer, a young professor in a world famous ear clinic, where he began his investigations on vestibular nystagmus. His additional training in Internal medicine, and clinical devotion to otology, enabled him to define normal and abnormal responses of semicircular canals to special stimuli. Barany thus proved the labyrinthine origin of nystagmus.

In 1868, Schmiedekam had first noted the sudden appearance of vertigo, nausea, and vomiting from introduction of cold water into external auditory canal, Barany reasoned that if the temperature was warmer or colder than endolymph, a current was set up, which caused movement of ampullary hair cells, transmitting them to vestibular nuclei, which in turn directed them to the centers controlling eye muscle movements. This resulted in conjugated movements of the eyes consisting of quick and slow components; quick component indicated the direction of nystagmus, which depended upon use of warm or cold water, and also the position of head. A delay or negative response was observed in labyrinthine dysfunction (Barany caloric test).

The mechanism of past pointing, the bipartition of granular layer of optic cortex, and cerebellar localization, also benefited from his productive investigations. Barany's pointing test is a useful diagnostic aid, detecting disturbance of cerebellar functions. Barany's syndrome consists of unilateral deafness, vertigo and pain in occipital region, seen in migraine or inner ear infection.

To detect unilateral deafness he developed a device called the Barany Box. In audiometry, although sound is presented to one ear, it is by no means certain which ear picks up the sound. The Barany box is a simple clockwork device used to generate a rattling noise to the non-test ear. Closing the tragus and setting up such a noise rendered normal ear deaf. Shouting words in the deaf ear, if the patient cannot hear anything, the ear is considered "Barany Deaf"

In 1914, he was awarded Nobel Prize in Physiology and Medicine, for his study on the sense of equilibrium and vestibular functions. At the time of award, he was held as a war prisoner by the Russian army. Through the efforts of the Red-Cross Society he was released in 1916 and finally received the award in Stockholm, from King of Sweden. Barany was one of the outstanding neurophysiologist and otologist of all times. Sweden proudly bestowed upon him many other honors and merits. Despite cerebral hemorrhage and the resultant hemiplegia from which he suffered in his later years, he continued his research with persistence and determination. Barany died in Uppsala in 1936.

Contributed by

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