

Special Issue on
Neurobiology of Hearing Loss and Ear Disease

CALL FOR PAPERS

Hearing loss is a worldwide health problem. It is usually irreversible, since the hair cells in the auditory epithelium cannot regenerate. With the advancement of molecular biology and techniques, recent researches for hearing loss are focused on innovative approaches such as gene therapy and stem cell therapy.

Numerous studies were performed to understand the pathophysiology and to develop possible therapeutic approaches for hearing loss. Still, these processes were not quite effective. One of the reasons for this is the location of cochlea. Compared to the other sensory organs, delivering the therapeutic agent to the cochlea especially organ of Corti is not feasible so far. Therefore, development of noninvasive and effective delivery technique will be another promising research subject.

Another interesting subject is plastic change of central nervous system. It is well known that brain changes its structure and functions to adjust itself to the external stimuli. Likewise, loss of external acoustic input could result in changes of auditory cortex and pathway. After this plastic change, therapeutic efficiency of hearing rehabilitation devices might be different. Therefore, understanding the change of auditory cortex and brainstem pathway after the deafness is very important.

As described above, hearing researches can be innovative and challenging and some are very closely related to plastic change of nervous structures. In this special issue, we invite investigators to contribute original research articles as well as review articles that will help us better understand the neurobiology of hearing loss.

Potential topics include but are not limited to the following:

- ▶ Molecular mechanism of hearing loss
- ▶ Advances in hearing loss research
- ▶ Brain plasticity in hearing loss
- ▶ Genetic hearing loss
- ▶ Age-related hearing loss
- ▶ Hearing loss associated with systemic disease
- ▶ Relations of hearing loss with other neurologic diseases
- ▶ Drug delivery to the cochlea
- ▶ Gene therapy for hearing loss
- ▶ Stem cells therapy for hearing loss
- ▶ Molecular mechanism of otitis media
- ▶ Tinnitus and brainstem
- ▶ Sciences of cochlear implant and hearing aid

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/bmri/neuroscience/nhled/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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