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The afferent signaling complex: regulation of type I spiral ganglion neuron responses in the auditory periphery

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Highlights

- Spiral ganglion neuron (SGN) afferent fiber responses are determined peripherally
- Proteins of the SGN postsynapse and neighboring cells shape glutamatergic signaling
- Ion channels and transporters set SGN excitability intrinsically
- Input from the lateral olivocochlear efferent terminals modifies excitability
- These cellular and molecular components form the type I afferent signaling complex

Keywords

Cochlea, inner hair cells, type I spiral ganglion neurons, lateral olivocochlear efferents, ion channels and transporters, neurotransmitter receptors, postsynaptic density, auditory neuropathy and synaptopathy

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