

## **Abstract**

Efficient transport of cargo to its correct destination is required for the proper functioning of eukaryotic cells. Vesicular trafficking is one of the important means of intracellular transport. Impairment of this process often leads to serious pathologies. Sorting and recycling is the crucial part of vesicular trafficking as it enhances its efficiency. The WASH complex has a key role in the regulation of branched actin patches formation. If this occurs on the membrane of endosomes, then it affects sorting, recycling and cargo trafficking. Mutations in the WASH complex or its interacting partners cause diseases such as hereditary spastic paraplegia, Parkinson disease or light intellectual disability. Despite certain advance in the understanding of above-mentioned pathologies, mechanism of the pathogenesis is still elusive. Research in this field can reveal basic molecular mechanisms responsible for the complexity of cargo sorting, recycling and trafficking and thus provide better opportunities for treatment of affected individuals.