



## ATXN2 in Health and Disease

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submissions:

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### Message from the Guest Editor

Dear Colleagues,

Ataxin-2 (ATXN2) and its homologues down to yeast and plants have been implicated in RNA binding, in translation regulation, and in EGF/insulin receptor endocytosis. They act during stress responses, relocating to cytosolic stress granules and modulating RNA decay in P-bodies. Defense against viral, bacterial, and possibly toxic mitochondrial RNA seems to be a part of their roles. Downstream of AMP kinase, they act to repress mTORC1 signals that govern cell growth.

Their genetic variants trigger various pathological consequences. In view of the dramatic neuroprotective effects of ATXN2 depletion, clinical trials will use antisense oligonucleotides and locked nucleic acids to prevent disease. Now there is an urgent need to define the natural course of the ATXN2-associated disorders, to identify biomarkers of ATXN2 effects, to understand their pathway roles, and to elucidate potential side-effects of ATXN2 deficiency.

The journal mainly focuses on molecular mechanisms or pathophysiology implications including basic studies in biochemistry, molecular biology, and molecular medicine.

Prof. Dr. Georg Auburger  
Guest Editor





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