

Special Issue on **Alterations of Autophagic Pathways as Therapeutic Targets**

CALL FOR PAPERS

Autophagy is an evolutionarily conserved catabolic process used to recycle cytoplasmic material. This process is enabled through the formation of a double membrane vesicle called an autophagosome, which transports cellular material to lysosomes for degradation, and allows cells to maintain cellular homeostasis under basal conditions and ensure survival after exposure to stress factors. Autophagy is critical to the healthy functioning of cells, and the failure of autophagy is a primary driver of cell damage and aging. However, competing findings suggest that autophagy may play either a tumor-suppressing or a tumor-promoting role in cancer. Cells with different genetic backgrounds, such as gene mutations (BRAF^{V600E} and KRAS^{G12D}) and autophagy deficiency (ATG7^{-/-}, ATG5^{-/-}), are essential for the different roles of autophagy. Therefore, efforts to modify autophagic pathways will provide some new cues for clinical therapy. Targeting essential components of the autophagy machinery may be the leading therapeutic strategy for clinical cancer treatment. Many small molecules, like hydroxychloroquine and rapamycin, and natural products (i.e., quercetin and liensinine) have been shown to exhibit significant anticancer effects by modifying autophagy signaling.

This special issue encourages the submission of original research and review articles focusing on novel mechanistic insights into the underlying pathogenesis or new aspects of autophagy that may impact clinical therapy, including targeted therapies or immunotherapies. Studies using animal or cell culture models to investigate molecular mechanisms are welcome. Special attention will be given to new therapeutic targets and molecules.

Potential topics include but are not limited to the following:

- ▶ Role of oxidative stress in cancer therapy in relation to autophagy
- ▶ Alterations of autophagic pathways as therapeutic targets
- ▶ Role of autophagy in cancer stem cells
- ▶ New proposed drugs targeting autophagy in cancer
- ▶ Nanotechnology and gene-based therapies targeted towards the modification of autophagy

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

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

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