Claims

1. A kit for treating a protein degradation disorder in a subject, the kit comprising:

an aggresome inhibitor that selectively inhibits HDAC6 or a pharmaceutically acceptable ester or salt thereof;

a proteasome inhibitor, or a pharmaceutically acceptable salt thereof; and

instructions for using the aggresome inhibitor in combination with the proteasome inhibitor for treating the protein degradation disorder in the subject.

2. The kit of claim 1, wherein the aggresome inhibitor is present as a pharmaceutical composition comprising a therapeutically effective amount of the aggresome inhibitor and a pharmaceutically acceptable carrier.

3. Use of composition comprising a therapeutically effective amount of an aggresome inhibitor that selectively inhibits HDAC6 and a pharmaceutically acceptable carrier or diluent, in the manufacture of a medicament for treating a subject suffering from or susceptible to a protein degradation disorder, wherein the medicament is packaged with instructions to treat the subject with the aggresome inhibitor in combination with a proteasome inhibitor.

4. The kit or use of claim 1, 2 or 3, wherein the protein degradation disorder is a cellular proliferation disorder or a protein deposition disorder.

5. The kit or use of claim 4, wherein the cellular proliferation disorder is cancer.

6. The kit or use of claim 5, wherein the cancer is one or more of multiple myeloma, leukemia, lymphoma, breast cancer, lung cancer and liver cancer.

7. The kit or use of claim 5, wherein the cancer is multiple myeloma.

8. The kit or use of claim 4, wherein the protein deposition disorder is Wilson's disease, spinocerebellar ataxia, prion disease, Parkinson's disease, Huntington's disease, Familial

amytrophic lateral sclerosis, amyloidosis, Alzheimer's disease, Alexander's disease, alcoholic liver disease, cystic fibrosis, Pick's Disease or Lewy body dementia.

9. A method of inhibiting protein degradation in a cell comprising contacting the cell *in vitro* with an aggresome inhibitor that selectively inhibits HDAC6 in combination with a proteasome inhibitor.

10. The kit, use, or method of any one of claims 1 to 9, wherein the proteasome inhibitor is selected from the group consisting of bortezomib, MG132, sapojargon, and NPI-0052.

11. The kit, use, or method of any one of claims 1 to 9, wherein the aggresome inhibitor is tubacin.

12. The kit, use, or method of any one of claims 1 to 11, wherein the aggresome inhibitor comprises a metal binding moiety.

13. The kit, use, or method of claim 12, wherein the metal binding moiety is a zinc-binding moiety.

14. The kit, use, or method of claim 13, wherein the zinc-binding moiety is a hydroxamate moiety.

15. The kit, use, or method of claim 14, wherein the hydoxamate moiety comprises a cinnamic hydroxamate, an O-ether of hydroxamate, or a cyclic hydroxamate.

16. The kit, use, or method of claim 14, wherein the hydroxamate moiety comprises an alkylene chain substituted with a terminal hydroxamate group.

17. The kit, use, or method of claim 14, wherein the hydroxamate moiety comprises a phenyl group substituted with an amido group bearing an alkylene moiety, in which the alkylene chain

has between four and eight carbon atoms, and the alkylene chain is substituted with a terminal hydroxamate group.

18. The kit, use, or method of any one of claims 13 to 17, wherein the aggresome inhibitor includes a linker arm or other spacing moiety between the zinc-binding moiety and a target binding portion of the aggresome inhibitor responsible for binding to its biological target.

19. The kit, use, or method of claim 18, wherein, when the target binding portion of the aggresome inhibitor is bound to its biological target, the linker arm or other spacing moiety orientates the zinc-binding moiety into a position favorable for target inhibition.

20. The kit, use, or method of any one of claims 1 to 10, wherein, the aggresome inhibitor inhibits the C-terminal aceylation activity of HDAC6, thereby inhibiting aggresome-mediated protein degradation.

21. The kit, use, or method of any one of claims 1 to 10, wherein the aggresome inhibitor is a peptide derived from HDAC6, dyenin, an N-terminal peptide of HDAC6, or a C-terminal peptide of HDAC6.

22. The kit, use, or method of claim 21, wherein the C-terminal HDAC6 peptide is sufficient to modulate a phenotype of a cell.