CLAIMS

1. A method of inhibiting protein secretion from a eukaryotic cell, comprising contacting the cell with nigericin or tyrphostin AG-879, or an analog thereof.

2. The method of claim 1, wherein the cell is in a cell culture.

3. The method of claim 2, wherein the contacting comprises adding nigericin, tyrphostin AG-879, or analog to the cell culture.

4. The method of claim 3, wherein the nigericin, tyrphostin AG0879, or analog is added to the cell culture to reach a concentration of from about 1 μg/mL to about 100 μg/mL, optionally from about 5 μg/mL to about 50 μg/mL.

5. The method of claim 3, wherein the nigericin, tyrphostin AG0879, or analog is added to the cell culture to reach a concentration of at least about 50 μg/mL; optionally, wherein the nigericin, tyrphostin AG0879, or analog is added to the cell culture to reach a concentration of about 50 μg/mL.

6. A method of increasing protein secretion from a eukaryotic cell, comprising contacting the cell with lycorine or an analog thereof.

7. The method of claim 6, wherein the eukaryotic cell is a recombinant cell engineered to express a recombinant protein.

8. The method of claim 7, wherein the recombinant protein is an enzyme for enzyme replacement therapy, or an antibody.

9. The method of any one of claims 6-8, wherein the cell is in a cell culture.

10. The method of claim 9, wherein the contacting comprises adding lycorine or analog to the cell culture.

11. The method of claim 10, wherein the lycorine or analog is added to the cell culture to

reach a concentration of from about 0.1 μM to about 100 μM, optionally from about 1 μM to about 50 μM.

12. The method of claim 10, wherein the lycorine or analog is added to the cell culture to reach a concentration of at least about 1 μM.

13. The method of claim 10, wherein the lycorine or analog is added to the cell culture to reach a concentration of about 1 μM or of about 50 μM.

14. The method of any one of the preceding claims, wherein the eukaryotic cell is a mammalian cell, an insect cell, or a yeast cell.

15. The method of claim 14, wherein the cell is a mammalian cell, optionally a CHO cell, a NS0 cell, a BHK cell, a 293 cell, a HeLa cell, a HEK cell, or a Sp2/0 cell.