CLAIMS:

1. A cell penetrating conjugate comprising a non-cell penetrating protein attached to a phosphorothioate nucleic acid, wherein the phosphorothioate nucleic acid enhances intracellular delivery of the non-cell penetrating protein.

2. The cell penetrating conjugate of claim 1, wherein the phosphorothioate nucleic acid is covalently attached to the non-cell penetrating protein.

3. The cell penetrating conjugate of claim 1, wherein a plurality of phosphorothioate nucleic acids are attached to the non-cell penetrating protein.

4. The cell penetrating conjugate of claim 3, wherein the protein comprises covalently and non-covalently attached phosphorothioate nucleic acids.

5. The cell penetrating conjugate of claim 1, wherein each phosphorothioate nucleic acid is independently attached to a lysine, arginine, cysteine, or histidine of the non-cell penetrating protein.

6. The cell penetrating conjugate of claim 4, wherein each phosphorothioate nucleic acid is independently from 10 to 30 residues in length.

7. The cell penetrating conjugate of claim 1, wherein the non-cell penetrating protein is an antibody.

8. The cell penetrating conjugate of claim 1, wherein the non-cell penetrating protein binds an intracellular target.

9. The cell penetrating conjugate of claim 8, wherein the intracellular target is a target of a disease selected from the group consisting of autoimmune disease, inflammatory disease, metabolic disorder, developmental disorder, cardiovascular disease, liver disease, intestinal disease, infectious disease, endocrine disease, neurological disorder, and cancer.

10. The cell penetrating conjugate of claim 9, wherein the intracellular target is a cancer target.

11. The cell penetrating conjugate of claim 8, wherein the intracellular target is selected from the group consisting of STAT3, exportin 7, and Src.

12. The cell penetrating conjugate of claim 1, made by contacting an unattached non-cell penetrating protein with an unattached phosphorothioate nucleic acid and allowing the unattached phosphorothioate nucleic acid to covalently bind to an amino acid of the unattached non-cell penetrating protein thereby attaching and forming the cell penetrating conjugate.

13. The cell penetrating conjugated of claim 12, wherein the phosphorothioate nucleic acid comprises a covalent reactive moiety.

14. The cell penetrating conjugate of claim 13, wherein the covalent reactive moiety is reactive with a lysine, arginine, cysteine or histidine of the protein.

15. The cell penetrating conjugate of claim 1, made by contacting an unattached non-cell penetrating protein with an unattached phosphorothioate nucleic acid and allowing the unattached phosphorothioate nucleic acid to bind to the unattached non-cell penetrating protein thereby attaching and forming the cell penetrating conjugate, wherein the unattached phosphorothioate nucleic acid comprises a substituent having the formula –S-S-(CH_2)z-OH, wherein z is an integer from 1 to 10.

16. A cell comprising the cell penetrating conjugate of claim 1.

17. A pharmaceutical composition comprising the cell penetrating conjugate of claim 1 and a pharmaceutically acceptable carrier.

18. A kit comprising the cell penetrating conjugate of claim 1 or the pharmaceutical composition of claim 17 and instructions for use.

19. The use of a cell penetrating conjugate of claim 1 in the manufacture of a medicament for the treatment of a disease, wherein the disease is selected from the group consisting of autoimmune disease, developmental disorder, inflammatory disease, metabolic disorder, cardiovascular disease, liver disease, intestinal disease, infectious disease, endocrine disease, neurological disorder, and cancer.

20. The use of claim 19, wherein the disease is cancer.

21. A cell penetrating conjugate comprising a non-cell penetrating protein attached to a phosphorothioate nucleic acid, wherein the phosphorothioate nucleic acid enhances intracellular delivery of the non-cell penetrating protein and wherein said non-cell penetrating protein binds an intracellular target.