CLAIMS

1. A cell penetrating conjugate comprising a non-cell penetrating protein covalently attached to one or more phosphorothioate nucleic acids,

wherein said non-cell penetrating protein is an antibody;

wherein the one or more phosphorothioate nucleic acids are independently from 10 to 30 residues in length;

wherein said one or more phosphorothioate nucleic acids enhance intracellular delivery of the non-cell penetrating protein;

wherein the antibody binds an intracellular target; and

wherein the antibody is non-cell penetrating in the absence of said one or more phosphorothioate nucleic acids.

2. 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.

3. The cell penetrating conjugate of claim 1, wherein the intracellular target is a cancer target.

4. The cell penetrating conjugate of claim 1, wherein the intracellular target is selected from the group consisting of STAT3, exportin 7, and Src.

5. 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.

6. The cell penetrating conjugate of claim 5, wherein the phosphorothioate nucleic acid comprises a covalent reactive moiety.

7. The cell penetrating conjugate of claim 6, wherein the covalent reactive moiety is reactive with a lysine, arginine, cysteine or histidine of the protein.

8. 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.

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

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

11. A kit comprising the cell penetrating conjugate of claim 1 or the pharmaceutical composition of claim 10 and instructions for use.

12. 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 cancer.