WHAT IS CLAIMED IS:

1. A linker unit, comprising a center core and 2 to 5 first elements, wherein each of the first elements is independently a C_{8-28} fatty acid derivative or a C_{8-28} dioic fatty acid derivative, and the center core comprises,

2 to 5 lysine (K) residues, wherein the ε-amino group of each of the K residues of the center core is acylated with one of the first elements;

one or more fillers, wherein any two of the K residues are separated by the filler;

optionally, a terminal spacer, wherein the terminal spacers is an N-terminal spacer linked to the N-terminus of the first K residue or a C-terminal spacer linked to the C-terminus of the last K residue, and each of the filler and the terminal spacer comprises, independently, (1) 1 to 12 non-K amino acid residues, or (2) a PEGylated amino acid having 1 to 12 repeats of ethylene glycol (EG) unit; and

a conjugating moiety, linked to the first or the last K residue or, in the case where the terminal spacer is present, the terminal amino acid residue of the terminal spacer by forming an amide bond therewith, wherein the conjugating moiety has a conjugating group selected from the group consisting of azide, alkyne, tetrazine, cyclooctene, and cyclooctyne group.

2. The linker unit of claim 1, wherein the fatty acid derivative is derived from octanoic acid, pelargonic acid, decanoic acid, undecanoic acid, lauric acid, tridecanoic acid, myristic acid, pentadecanoic acid, palmitic acid, margaric acid, stearic acid, nonadecanoic acid, arachidic acid, heneicosanoic aAcid, behenic acid, tricosanoic acid, lignoceric acid, palmitoleic acid, oleic acid, lionleic acid, ricinoleic acid, vaccenic acid, eicosapentaenoic acid (EPA), or docosahexaenoic acid (DHA).

3. The linker unit of claim 2, wherein the fatty acid is derived from myristic acid or palmitic acid.

4. The linker unit of claim 1, wherein the dioic fatty acid derivative is derived from suberic acid, azelaic acid, sebacic acid, undecanedioic acid, dodecanedioic acid, brassylic acid, tetradecanedioic acid, pentadecanedioic acid, thapsic acid, heptadecanedioic acid, or octadecanedioic acid.

5. The linker unit of claim 4, wherein the dioic fatty acid derived is derivable from tetradecanedioic acid or thapsic acid.

6. The linker unit of claim 1, wherein the fatty acid derivative or the dioic fatty acid derivative is modified with a glutamate residue.

7. The linker unit of claim 1, further comprising a second element that is linked to the conjugating group via copper catalyzed azide-alkyne cycloaddition (CuAAC) reaction, strained-promoted azide-alkyne click chemistry (SPAAC) reaction, or inverse electron demand Diels–Alder (iEDDA) reaction.

8. The linker unit of claim 7, wherein the second element is selected from the group consisting of, insulin, insulin-like growth factor, glucagon-like peptide-1 agonist, somatostatin and somatostatin analogues, calcitonin, growth hormone, erythropoietin, gonadotropin releasing factor, granulocyte colony stimulating factor, adenosine deaminase, arginine deiminase, asparaginase, interferon-α, interferon-β, soluble TNF-α receptor, soluble IL-1 receptor, soluble EGF receptor, agalsidase β, agalsidase α, laronidase, idursulphase, alglucosidase α, and galsulphase, or a derivative or variant thereof.

9. The linker unit of claim 8, wherein the somatostatin analogue is octreotide.

10. The linker unit of claim 7, wherein the second element is a drug bundle comprising a plurality of drug molecules.

11. The linker unit of claim 1, wherein the cyclooctene group is norbornene or trans-cyclooctene (TCO); and the cyclooctyne group is dibenzocyclooctyne (DBCO or DIBO), difluorinated cyclooctyne (DIFO), bicyclononyne (BCN), or dibenzoazacyclooctyne (DIBAC).

12. The linker unit of claim 1, wherein the tetrazine group is 1,2,3,4-tetrazine, 1,2,3,5-tetrazine or 1,2,4,5-tetrazine, or derivatives thereof.

13. The linker unit of claim 1, wherein the azide group is a picolyl azide group.

14. The linker unit of claim 1, wherein the center core comprises both the N-terminal spacer and

the C-terminal spacer, and

when the conjugating group of the N-terminal spacer is azide, alkyne, or cyclooctyne group; the conjugating group of the C-terminal spacer is tetrazine or cyclooctene group; or

when the conjugating group of the N-terminal spacer is tetrazine or cyclooctene group, the conjugating group of the C-terminal spacer is azide, alkyne, or cyclooctyne group.

15. The linker unit of claim 14, further comprising a second element and a third element, wherein,

the second element is linked to the conjugating group of the N-terminal spacer via CuAAC reaction or SPAAC reaction, and the third element is linked to the conjugating group of the C-terminal spacer via iEDDA reaction; or

the second element is linked to the conjugating group of the N-terminal spacer via iEDDA reaction, and the third element is linked to the conjugating group of the C-terminal spacer via CuAAC reaction or SPAAC reaction.