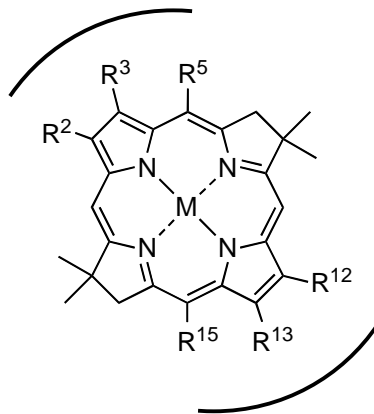


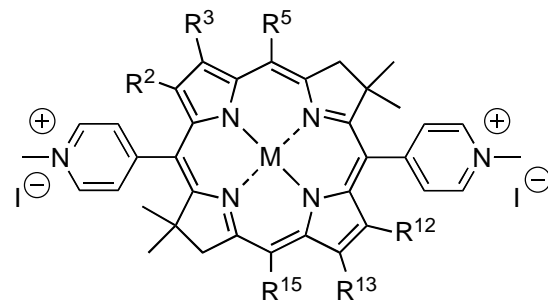
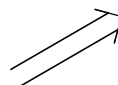
Bioconjugatable bacteriochlorins for biohybrid antennas

We have already created a palette of lipophilic bioconjugatable bacteriochlorins with wavelength tunability (700-830 nm). The wavelength range has been extended to 900 nm but not yet in a design suitable for bioconjugation. We are working to accomplish this latter point, which will then afford a set of donors and acceptors for use at will in biohybrid designs.

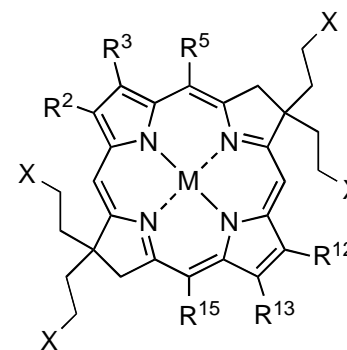
The positions indicated enable wavelength tuning (700-900 nm). Features for imparting water-solubility and bioconjugation must either be added onto these sites in an innocent manner (i.e., not affecting the wavelength) or be positioned elsewhere.



Two new designs under investigation are shown here that place the water-solubilization groups at sites other than the wavelength-tuning sites. X can be varied. The bioconjugatable group can then be introduced as we have already done with the lipophilic bacteriochlorins. We are very excited about one of these designs.



10,20-dipyridyl
bacteriochlorins



8,8,18,18-tetrasubstituted
bacteriochlorins

Theme 1: Native Antenna

Theme 2: Biohybrid Antenna

Theme 3: Bioinspired Antenna

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