Guidelines for the analysis of papers

1. Description of the scientific problem, what is is the focus of the authors (first or last)?
   Aims (short ang long)
   Strategy
   Tactic

2. What? With what? Why? How?

3. Synthesis of the conjugates
   Functinal groups,
   Principle of conjugation, type of rection, equation of the reaction
   Method, coupling reagent
   Conditions of the reaction, explanation/interpretation (e.g. pH, ionic strength, solvent, reaction time, temperature, metal ion)

4. Analysis
   Purification method (principle, reason)
   Analysis of homogeneity
   Chemical composition, structure determination, identification
   Functional analysis of the components of the conjugate
   - Methods
   - Preserved?

5. Scientific novelty described in the paper

6. Critical remarks
   Suitability of the strategy?
   Appropriateness of the synthesis method?
   Reproducibility of the sythesis described?
   Suitability of the purification methods?
   The presence of the product was evidenced? Sideproducts?
   Suitability of the analytical methods?
   Are the conclusions correct?
   Is the novelty of the results visible?
   Structure, composition, clarity of presentation/writing, language?

September, 2018 Dr. Ferenc Hudecz

References:

1. Kalia J, Raines RT. Advances in Bioconjugation . Curr Org Chem. 2010 Jan; 14(2): 138–147
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3. Lundblad RL. Chemical Reagents for Protein Modification. 3rd ed. Boca Raton, FL: CRC Press; 2005.
4. Hermanson GT. Bioconjugate Techniques. 3rd ed. San Diego, CA: Elsevier inc; 2013.
5. Bioconjugation Protocols (Ed.: Mark, S.S.) – Methods in Molecular Biology, Springer, 2011