Abstract
Phylogenetics — and, in particular, molecular phylogenetics — has become an omnipresent tool in essentially all branches of the life sciences. It has often found to be quite helpful for developing a thorough understanding of a large array of diverse topics in biology and medicine.

In the lecture, I will shortly recall the history of this field and how it developed from its first inception, and then discuss various specific problems related to "Tree (Re-)Construction", and various areas of application — from comparative sequence analysis, genetics, and proteomics to cluster analysis, language evolution, and "stemmatology", the branch of science trying to find out which extant versions of a manuscript were copied from the same earlier version. And finally, I will discuss the particular challenge of reconstructing the evolution of biomolecular / processes / (like e.g. photosynthesis) rather than that of / molecules/.