Genomes and natural languages evolve constantly and they have much in common. Genomes are written in multiple languages, and like the languages we use for communication, genomes have syntactic structures and semantics, and they feature translation, editing and text splicing programs. Like genes, linguistic elements are born, mutate, and are transferred between languages according to their contribution to the “fitness” of the language. The mechanisms and dynamics of the evolution of both genomes and languages share similarities, but the differences can be equally enlightening. This conference will bring together scientists from molecular evolution and from linguistics and human culture for a cross-disciplinary meeting that will aim to foster mutual fertilization between these fields.