

Mainstream in molecular biology derives from physical chemical assumptions about the genetic code that are basically more than 40 years old. Recent empirical data on genetic code compositions and (re)arrangements by mobile genetic elements and noncoding RNAs, together with results of virus research and their role in evolution, does not really fit into these assumptions. If we look at the abundance of regulatory RNAs and persistent viruses in host genomes, we will find evidence that the key players that edit the genetic codes of host genomes are consortia of RNA agents and viruses that drive evolutionary novelty and regulation of cellular processes in all steps of development. This is coherent to empirical knowledge about natural languages or codes: No natural language or code speaks or codes itself. In all known cases there are populations, groups, consortia of competent agents that generate, represent and use such languages or codes. This agent-based approach may lead to a qualitative RNA sociology that investigates and identifies relevant behavioral motifs of cooperative RNA consortia.