Origin and evolution of life represents complex and not yet resolved question in a field of natural sciences. One of the possible explanation is held by "The RNA world theory". In its general notion, RNA molecule can function both as genetic carrier and catalyst. Further it assumes, that in early development of life, genetic continuity was assured by the replication of RNA whereas proteins and DNA only appeared later. In a light of recent reasearch there is now a strong evidence supporting existence of this world. However, there are still several problems associated with prebiotic chemistry reactions and number of unresolved paradoxes. Although this teory does not directly explain life's origins, it offers us an alternative how such event may occured on primitive Earth.