**The world of Gene and Life**

# MicroRNA

MicroRNA (miRNA) is a single-stranded, non-coding RNA molecule, approximately 21

nucleotides in length. MiRNA regulates gene expression at the post-transcriptional level via mRNA degradation or translational repression (Bartel, 2004). More than 60% of human protein- coding genes are predicted to be regulated by miRNAs (Friedman, Farh, Burge, & Bartel, 2009). Single nucleotide polymorphisms of miRNA influence the biogenesis of microRNA and subsequently affect both the expression level of mature miRNAs and target recognition. (Jazdzewski et al., 2008).