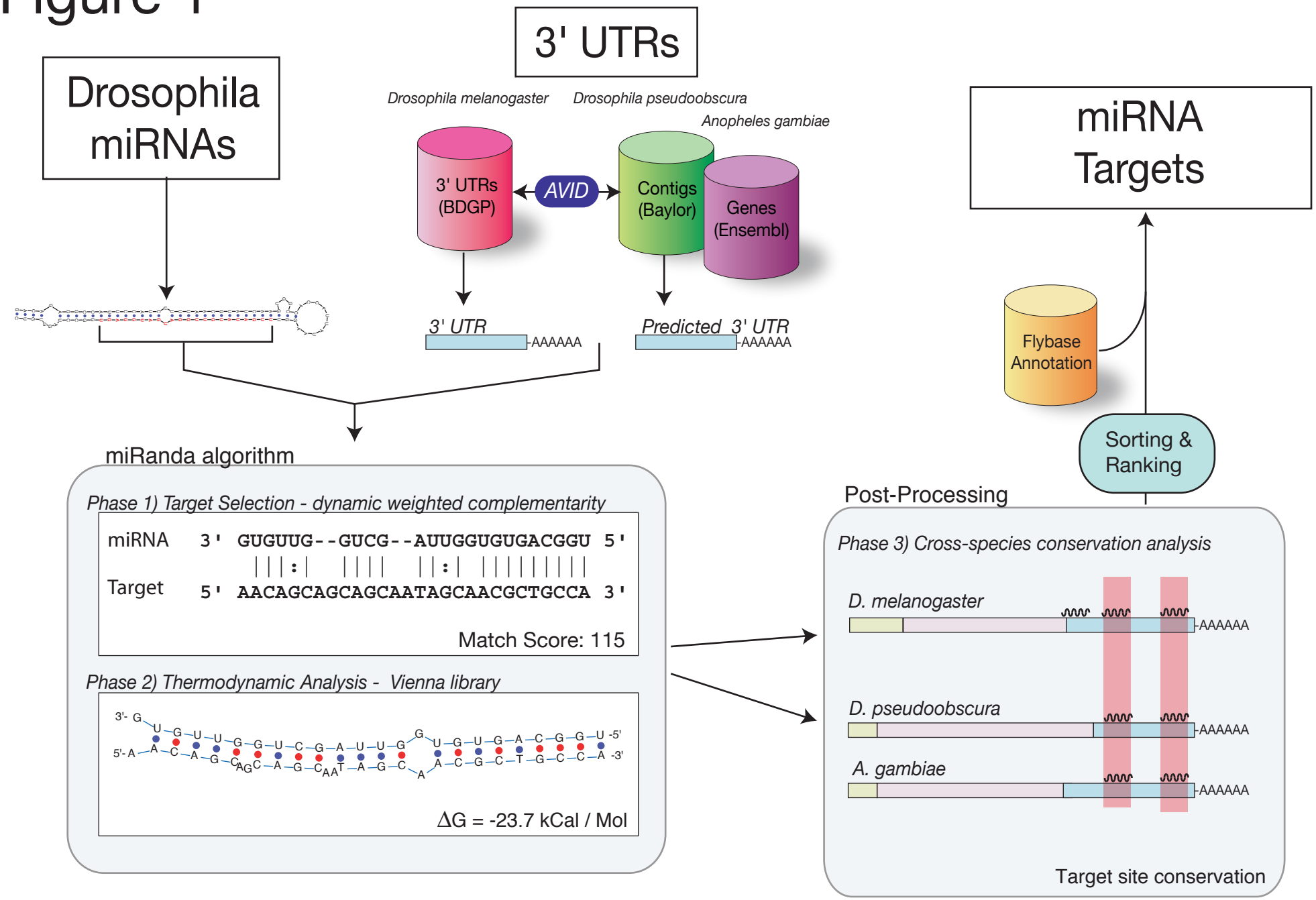
Figure 1


Drosophila miRNAs
3' UTRs
Drosophila melanogaster
Drosophila pseudoobscura
Anopheles gambiae
3' UTRs (BDGP)
AVID
Contigs (Baylor)
Genes (Ensembl)
3' UTR
AAAAAA
Predicted 3' UTR
AAAAAA
miRNA Targets
Flybase Annotation
Sorting & Ranking
miRanda algorithm
Phase 1) Target Selection - dynamic weighted complementarity
miRNA 3' GUGUUG--GUCG--AUUGGUGUGACGGU 5'
Target 5' AACAGCAGCAGCAATAGCAACGCTGCCA 3'
Match Score: 115
Phase 2) Thermodynamic Analysis - Vienna library
ΔG = -23.7 kCal / Mol
Post-Processing
Phase 3) Cross-species conservation analysis
D. melanogaster
D. pseudoobscura
A. gambiae
AAAAAA
Target site conservation