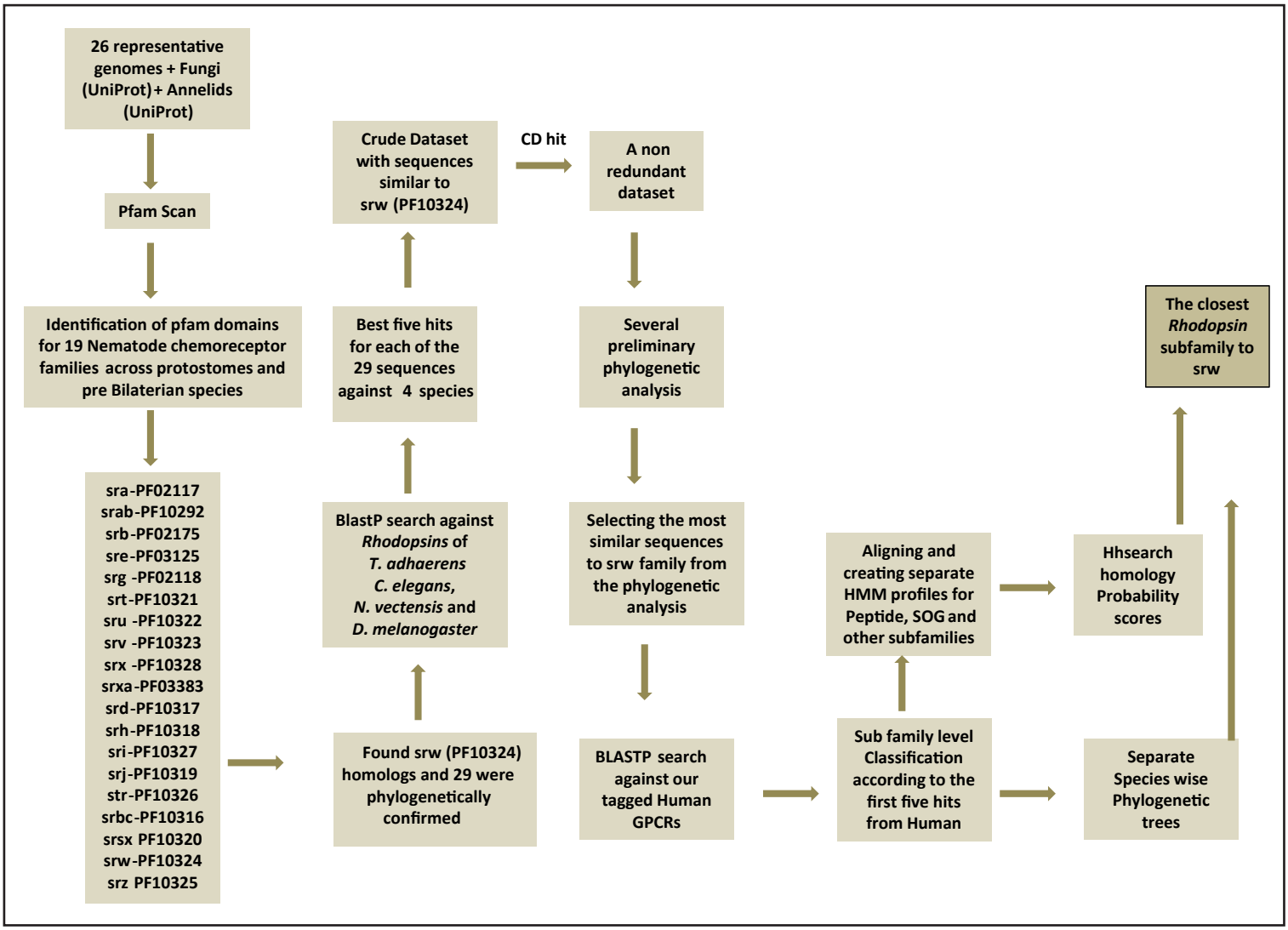
26 representative genomes + Fungi (UniProt) + Annelids (UniProt)
Pfam Scan
Identification of pfam domains for 19 Nematode chemoreceptor families across protostomes and pre Bilaterian species
sra-PF02117
srab-PF10292
srb-PF02175
sre-PF03125
srg -PF02118
srt-PF10321
sru -PF10322
srv -PF10323
srx -PF10328
srxa-PF03383
srd-PF10317
srh-PF10318
sri-PF10327
srj-PF10319
str-PF10326
srbc-PF10316
srsx PF10320
srw-PF10324
srz PF10325
Found srw (PF10324) homologs and 29 were phylogenetically confirmed
BlastP search against Rhodopsins of T. adhaerens C. elegans, N. vectensis and D. melanogaster
Best five hits for each of the 29 sequences against 4 species
Crude Dataset with sequences similar to srw (PF10324)
CD hit
A non redundant dataset
Several preliminary phylogenetic analysis
Selecting the most similar sequences to srw family from the phylogenetic analysis
BLASTP search against our tagged Human GPCRs
Sub family level Classification according to the first five hits from Human
Aligning and creating separate HMM profiles for Peptide, SOG and other subfamilies
Separate Species wise Phylogenetic trees
Hhsearch homology Probability scores
The closest Rhodopsin subfamily to srw