09:30-10:00 BST 10:30-11:00 CAT	1	Basic searches in VEuPathDB – Site search, filtering, finding genes
10:00-11:00 BST 11:00-12:00 CAT	2	The gene page in VEuPathDB
15 minutes		**Coffee Break**
11:15-12:15 BST 12:15-13:15 CAT	3	Introduction to Artemis: Artemis exercise
1 hour		**Lunch Break**
13:15-14:15 BST 14:15-15:15 CAT	4	Identification of novel biomarkers for *P. falciparum* gametocyte infectivity to Anopheles vector: Combining transcriptomic & peptide array methods
14:15-15:00 BST 15:15-16:00 CAT	5	Genome browser basics
15 minutes		**Tea Break**
15:15-17:00 BST 16:15-18:00 CAT	6	Group exercise: Interpreting RNAseq data in the genome browser/Apollo
17:00-17:30 BST 18:00-18:30 CAT	7	Group exercise: Genome annotation with Companion

VEuPathDB gene record page

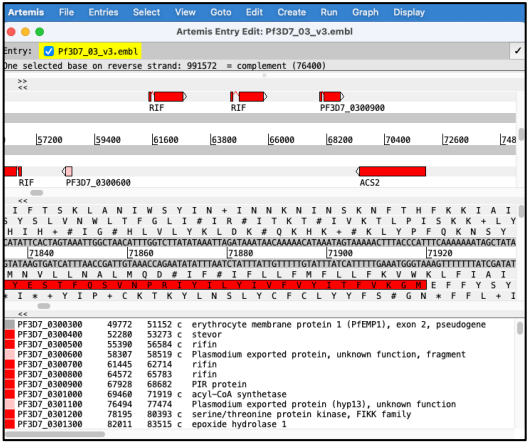
VEuPathDB
Eukaryotic Pathogen, Vector & Host Informatics Resources

GenBank


```
gene            complement(55390..56584)
                /locus_tag="PF3D7_0300500"
CDS             complement(join(55390..56400,56516..56584))
                /locus_tag="PF3D7_0300500"
                /codon_start=1
                /product="rifin"
                /protein_id="CAB39118.1"
                /db_xref="EnsemblGenomes-Gn:PF3D7_0300500"
                /db_xref="GOA:Q97326"
                /db_xref="InterPro:IPR006373"
                /db_xref="UniProtKB/TrEMBL:Q97326"
                /translation="MKLLYSNILLFALALNILLTSYYAHNKNKPSITPHHTRTTTSRL
                LSECDTESSIYDSDEEINSVKEIFERQTSRRFEEYEERMITQRQKYKEQRDKDIQKII
                HKDKMEKNLAEKIEKGCLRCGCGLGSVAGSIGLFGAVAINIWKPAALDAAIAKAITEG
                TANISAAGVKAGEATGKVLVISGLKKMGISTLGGKNLESYFATTSYKKVASIAQAVYE
                QHFEKCEFGYLKEGFTPVGDPSRDIHFCQSVWQQTSVVSKTGHYISPKDVIKRTVETM
                VSKAEGPANAAAEFVKATETATIKAAEEKTIETASTQLYSAIGYSILAILIIVLIMLI
                IYLILRYRKKKMKKKAQYTKLLNE"
gene            complement(58307..58519)
                /locus_tag="PF3D7_0300600"
CDS             complement(58307..58519)
                /locus_tag="PF3D7_0300600"
                /codon_start=1
                /product="Plasmodium exported protein, unknown function,
                fragment"
                /protein_id="CZT62488.1"
                /db_xref="EnsemblGenomes-Gn:PF3D7_0300600"
                /db_xref="InterPro:IPR019111"
                /db_xref="UniProtKB/TrEMBL:Q8I4N8"
                /translation="MHDIGVALSSTDIEHTLNFYKLDKDGKSIDEMKNYIYVFIKYYD
                TFKNDLFNEHKTIFTERIKNTQRLDM"
gene            61445..62714
                /locus_tag="PF3D7_0300700"
CDS             join(61445..61498,61662..62714)
                /locus_tag="PF3D7_0300700"
                /codon_start=1
                /product="rifin"
                /protein_id="CAB39119.2"
                /db_xref="EnsemblGenomes-Gn:PF3D7_0300700"
                /db_xref="EnsemblGenomes-Tr:PFC0035w:mRNA"
                /db_xref="GOA:Q97327"
```

Artemis

- Genome browser and annotation tool
- Easy to install on your computer
- Visualization of DNA sequence, its six-frame translation and any associated information/features
- Basic analysis
- Launch more complex analysis and searches
- Import and view the results of other searches
- Reads and writes different file formats (EMBL, GFF)



Main Artemis window

Additional information on Artemis

http://sanger-pathogens.github.io/Artemis