Recommended readings

1. White papers
2. Marker papers
3. Genome and companion papers
4. Transcriptome papers
5. Proteome papers
6. VectorBase tools' papers

1. White papers

https://www.vectorbase.org/genome-project-white-papers

- The Case for Sequencing the Genome of the Blood-Feeding Hemipteran Insect, *Rhodnius prolixus*
- Genome Analysis Of Vectorial Capacity In Major *Anopheles* Vectors Of Malaria Parasites
- *Culex (pipiens) quinquefaciatus* Genome Project
- A proposal for tsetse fly (*Glossina*) genome projects
- Proposal for the Sequencing of a New Target Genome: White Paper for a Human Body Louse Genome Project.
- Proposal for Sequencing the Genome of the Tick, *Ixodes scapularis*
- Obtaining the genome sequence of the mollusc *Biomphalaria glabrata*: a major intermediate host for the parasite causing human schistosomiasis.
- Genome analysis of major tick and mite vectors of human pathogens
- Proposal for Sequencing the Genome of the Sand Flies, *Lutzomyia longipalpis* and *Phlebotomus papatasi*
- Genome sequencing white paper for the black fly disease vectors *Simulium* sp.

2. Marker papers

Aksoy S et al. (6 co-authors). 2005. A case for a *Glossina* genome project. *Trends in Parasitology*. 21(3):107-11

Hill CA and Wikel SK. 2005. The *Ixodes scapularis* Genome Project: an opportunity for advancing tick research. *Trends in Parasitology*. 21(4):151-3

Raghavan N and Knight M. 2006. The snail (*Biomphalaria glabrata*) genome project. *Trends in Parasitology*. 22(4):148-51

Pittendrigh BR et al. (6 co-authors). 2006. Sequencing of a New Target Genome: the *Pediculus humanus humanus* (Phthiraptera: Pediculidae) Genome Project. *Journal of Medical Entomology*. 43(6): 1103 -11

Neafsey DE et al. (14 co-authors). 2013. The Evolution of the Anopheles 16 Genomes Project. *G3: Genes Genomes Genetics*. 3(7): 1191-94

3. Genome and companion papers

Anopheles gambiae
Science, 4 October 2002, Vol 298, Issue 5591

Genome paper:

The Genome Sequence of the Malaria Mosquito *Anopheles gambiae*
Holt RA et al. (123 co-authors).129-149

Companion papers:

Taking a Genomic Bite of the Malaria Mosquito
Jasny BR et al. (5 co-authors). 77-78

The Mosquito Genome--a Breakthrough for Public Health
Morel CM et al. (4 co-authors). 79

An Overview of Insecticide Resistance
Hemingway J et al. (3 co-authors). 96-97

The *Anopheles* Genome and Comparative Insect Genomics
Kaufman TC et al. (3 co-authors). 97-98

Speciation Within *Anopheles gambiae*-- the Glass Is Half Full
della Torre A et al. (7 co-authors). 115-117

The Ecology of Genetically Modified Mosquitoes
Scott TW et al. (4 co-authors). 117-119

Malaria Control with Genetically Manipulated Insect Vectors
Alphey L et al. (23 co-authors). 119-121

Malaria--a Shadow over Africa
Miller LH and Greenwood B. 121-122

A New Global Effort to Control Malaria
Sachs JD. 122-124

Plasmodium Chloroquine Resistance and the Search for a Replacement Antimalarial Drug
Wellems TE. 124-126

The *Plasmodium falciparum* Genome-- a Blueprint for Erythrocyte Invasion
Cowman AF and Crabb BS. 126-128

Creatures of Our Own Making
Budiansky S. 80-86

Mosquitoes and Disease
Roberts L. 82-83

In Pursuit of a Killer
Vogel G.

What Mosquitoes Want: Secrets of Host Attraction
Enserink M. 90-92

Lab v. Field: The Case for Studying Real-Life Bugs
Enserink M. 92-93

An Elegant But Imperfect Tool
Vogel G. 94-95

Meet the Mosquitoes
Enserink M. 95

Comparative Genome and Proteome Analysis of *Anopheles gambiae* and *Drosophila melanogaster*
Zdobnov EM et al. (36 co-authors). 149-159

Immunity-Related Genes and Gene Families in *Anopheles gambiae*
Christophides GK et al. (35 co-authors). 159-165

Neuropeptides and Peptide Hormones in *Anopheles gambiae*
Riehle MA et al. (5 co-authors). 172-175

G Protein-Coupled Receptors in *Anopheles gambiae*
Hill CA et al. (10 co-authors). 176-178

Evolution of Supergene Families Associated with Insecticide Resistance
Ranson H et al. (9 co-authors). 179-181

Inversions and Gene Order Shuffling in Anopheles gambiae and A. funestus
Sharakhov IV et al. (12 co-authors). 182-185

Assembly updates:

Sharakhova MV et al. (9 co-authors). 2007. Update of the *Anopheles gambiae* PEST genome assembly. *Genome Biology*. 8(1): R5

Mongin E et al. (5 co-authors). 2004. The *Anopheles gambiae* genome: an update. *Trends in Parasitology*. 20:49-52.

Aedes aegypti
Science, 22 June 2007, Vol 316, Issue 5832

Genome paper:

Genome Sequence of *Aedes aegypti*, a Major Arbovirus Vector
Nene V et al. (95 co-authors). 1718-1723

Companion papers:

A Breakthrough for Global Public Health
Chadee DD et al. (4 co-authors). 1703-1704

Evolutionary Dynamics of Immune-Related Genes and Pathways in Disease-Vector Mosquitoes
Waterhouse RM et al. (35 co-authors). 1738-1743

Pediculus humanus
Proceedings of the National Academy of Sciences of the United States of America (*PNAS*), 6 July 2010, Vol 107, Issue 27

Genome paper:

Genome sequences of the human body louse and its primary endosymbiont provide insights into the permanent parasitic lifestyle
Kirkness EF et al. (71 co-authors). 12168-12173

Culex quinquefasciatus
Science, 1 October 2010, Vol 330, Issue 6000

Genome paper:

Sequencing of *Culex quinquefasciatus* Establishes a Platform for Mosquito Comparative Genomics
Arensburger P et al. (76 co-authors). 86-88.

Companion papers:

This Week in Science - Editor summaries of this week's papers
Closing the Vector Circle. 9.

Pathogenomics of *Culex quinquefasciatus* and Meta-Analysis of Infection Responses to Diverse Pathogens
Bartholomay LC et al. (33 co-authors). 88-90

Anopheles gambiae
Science, 22 October 2010, Vol 330, Issue 6003

Genome paper:

Widespread Divergence Between Incipient *Anopheles gambiae* Species Revealed by Whole Genome Sequences
Lawniczak MKN et al. (30 co-authors). 512-514

Companion papers:

This Week in Science - Editor summaries of this week's papers
Signals of Mosquito Speciation. 424

SNP Genotyping Defines Complex Gene-Flow Boundaries Among African Malaria Vector Mosquitoes
Neafsey DE et al. (17 co-authors). 514-517

Genome paper:

The Genome of *Anopheles darlingi*, the main neotropical malaria vector
Marinotti O et al. (69 co-authors). 7387-7400

4. Transcriptome papers

Dillon RJ et al. (11 co-authors). 2006 . Analysis of ESTs from *Lutzomyia longipalpis* sand flies and their contribution toward understanding the insect-parasite relationship. *Genomics*. 88(6):831-840

Crawford JE et al. (7 co-authors). 2010. De novo transcriptome sequencing in Anopheles funestus using Illumina RNA-seq technology. *PLoS One*. 5(12):e14202

Hittinger CT et al. (4 co-authors). 2010. Leveraging skewed transcript abundance by RNA-Seq to increase the genomic depth of the tree of life. *Proc Natl Acad Sci USA*. 107(4):1476-1481

Martínez-Barnetche J et al. (16 co-authors). 2012.Transcriptome of the adult female malaria mosquito vector *Anopheles albimanus*. *BMC Genomics*. 13:207
* This paper also describes VectorBase tool called Genome De-linked Alignment Viewer, GDAV

Abrudan J et al. (24 co-authors). 2013. The characterization of the *Phlebotomus papatasi* transcriptome. Insect Molecular Biology. 22(2):211-232

5. Proteome papers

Chaerkady R et al. (26 co-authors). 2011. A proteogenomic analysis of *Anopheles gambiae* using high-resolution Fourier transform mass spectrometry. *Genome Research*. 21(11):1872-1881

6. VectorBase tools

Lawson D et al. (29 co-authors). 2007. VectorBase: a home for invertebrate vectors of human pathogens. *Nucleic Acids Research*. 35(Database issue):D503-5

Topalis P et al. (4 co-authors). 2008. How can ontologies help vector biology? *Trends in Parasitology*. 24(6):249-52

Topalis P et al. (10 co-authors). 2008. Anatomical ontologies of mosquitoes and ticks, and their web browsers in VectorBase. *Insect Molecular Biology*. 17(1):87-9

Megy K et al. (6 co-authors). 2009. Genomic resources for invertebrate vectors of human pathogens, and the role of VectorBase. *Infect Genet Evol*.9(3):308-13

Lawson D et al. (27 co-authors). 2009. VectorBase: a data resource for invertebrate vector genomics. *Nucleic Acids Research*. 37(Database issue):D583-7

Dialynas E et al. (4 co-authors). 2009. MIRO and IRbase: IT tools for the epidemiological monitoring of insecticide resistance in mosquito disease vectors. *PLoS Neglected Tropical Diseases*. 3(6): e465

Topalis P et al. (8 co-authors). 2010. IDOMAL: an ontology for malaria. *Malaria Journal*. 10;9:230

Topalis P et al. (6 co-authors). 2011. A set of ontologies to drive tools for the control of vector-borne diseases. *Journal Biomed Inform*. 44(1):42-7

Maccallum RM et al. (3 co-authors). 2011. An expression map for *Anopheles gambiae*. *BMC Genomics*. 12:620

Megy K et al. (13 co-authors and VectorBase Consortium). 2012. VectorBase: improvements to a bioinformatics resource for invertebrate vector genomics. *Nucleic Acids Research*. 40(Database issue):D729-34