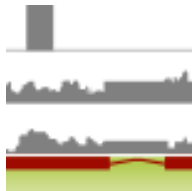# Available Data Types

Answer key

1. Give the name of the main five data types available in VectorBase:

   - Genomes
   - Transcripts and transcriptomes
   - Proteins and proteomes
   - Mitochondrial sequences
   - Population biology

2. What are the options to query or look for the data?:

   - For BIG data sets or complete genomes: BioMart
   - For a few genes or small data sets: Search or each Tool query interface

3. What is the name of the page where you can be updated with the changes that take place in VectorBase every two months? **Hint**: Go to the Data navigation tab

   - Release page

4. The transcripts & transcriptomes page has four data resources, label each. Which one can you use for your current project?

ATCATCG CACTGAC TGTC C TGT G TGT C	*In silico* transcripts from the available genomes

	Differential expression from experiments with microarrays and RNAseq
	RNAseq reads aligned to available genomes
	Transcriptomes annotated and assembled from ESTs and RNAseq reads

5. How many *Anopheles* have an annotated and assembled transcriptome but not a genome? Which ones are these?

Three, *Anopheles aquasalis, An. freeborni* and *An. quadrimaculatus*

6. The proteins and proteomes page is divided in two sections, the *in silico* predictions and *in vivo* experimental data. Which one is which?

	In vivo
	In silico

7. Go to the mitochondrial sequences page. https://www.vectorbase.org/mitochondrial-genomes

    -   Which mosquito genera has mitochondrial data?
        Aedes, Anopheles and *Culex.*

    -   What is the difference between going to this page or to GenBank to search for mitochondrial sequences?
        VectorBase data comes from GenBank, and in the page of each genus it is clearly stated when our current GenBank entries were last updated.

8. Go to the navigation tab called DOWNLOADS and select "Data files". List two possible file formats to download.
    -   Fasta
    -   Fasta (tar)

9. When you use VectorBase we ask you to please properly cite this database data, tools and resources. Using *Lutzomyia longipalpis* and the information provided in this page https://www.vectorbase.org/faqs/how-cite-vectorbase please reference this sandlfy species current gene set.

    VectorBase, http://www.vectorbase.org, *Lutzomyia longipalpis* LlonJ1.4 (Giraldo-Calderon et al. 2015).

10. Can you use pictures posted in the Images section of VectorBase DOWNLOADS? **Hint**: Go to VectorBase FAQs or use Search.
    Yes, pictures can be used because there are no copyright restrictions, but they need to be properly cited as explained in the FAQ "Can I use pictures posted in the Images section of VectorBase?",
    https://www.vectorbase.org/faqs/can-i-use-pictures-posted-images-section-vectorbase

Note: If you need help with a question go to the page of this tutorial (https://www.vectorbase.org/tutorials/general-tutorials/available-data-types) or send us an email to info@vectorbase.org. Remember that answers may change because VectorBase its updated every two months (www.vectorbase.org/releases).