**IBT Week 1\_What is Bioinformatics**

**FAQ document**

**\*\*\* Definitely Pedro Questions**

* ?
* **\*\*\***Linux and windows OS, are they compatible? Can I install the two to be able to run command based Bioinformatics experiments?
* **\*\*\***What is Cygwin?
* Is NCBI a good site for performing sequence alignment or do we have to do that by using a suitable software?
* How do I synthesize and/or create primers for pathogen with genome DNA /Protein sequence? Which is the best software freeware or commercial.
* **\*\*\***For those using MacOS I read that it’s not necessary to install linux. I will like to know why. Are both systems similar?
* Which sequence type is more appropriate to search homologue, paralogue and orthologue relationship during phylogeny (Nucleotide or Protein) ? Which one provide approximately nearest relationship?
* **\*\*\***Can I run bioinformatics on my windows OS
* **\*\*\***Can I use Ubuntu 18.04 LTS from Microsoft store on my windows ?
* **\*\*\***After installing Cygwin, do I need to install any other app on Windows 10?
* **\*\*\***Cygwin is like Linux?
* I heard the word "Annotation" frequently in the area of genomics and bioinformatics: can you explain when and how could be done annotation and what is the difference with biological dataset
* Which is better to use (coding or non-coding sequence) when construction phylogenetic tree?
* When computing MSAs, is it more logical to use global or local alignment
* Can one say bioinformatics deals exclusively with genetic information RNA/ DNA?
* could bioinformatics help us in the drug designs? and how?
* Could you throw more light on nucleotide ambiguity codes
* So we can say that bioinformatics analyzes the results that computational biology has generated?
* What are the features that makes python the most common programming language for bioinformatics?
* Hi, human genome have more databases site what about animal genome it was informed and have database site?
* I could understand how could 2 unsimilar sequences are homologous, but how could 2 similar ones be un homologous?
* Could Bioinformatic help in pre\_detection of disease?
* **\*\*\***what are the applications of computational biology in neuroscience
* **\*\*\***May I understand the key role of bioinformatics in biopreservation of human biological samples in a biobank
* Does the panther tool can reflects the effects of mutation on the tertiary and secondary structure of protein and effects on proteins properties across species
* How can i select the right reference for may target sequence
* What are your recommended online Tools for frameshift mutations ?

DONE:

* What are the differences between global alignment and local alignment? or pairwise alignment?
* is it possible for one to create a personal profile in NCBI or any other database where you can save your searches for future references if not how do you save the results for offline use in our laptops?
* what is the best tool to make sequence alignment
* Please, what's the difference between Protein Domains and Protein Sequence Motifs