

Teaching Biotech from a Distance - Examples and Sharing

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Webinar Date: Friday, May 1, 2020

Time: 2 pm Eastern time (note: this is 1 pm Central time, 12 noon Mountain time,
and 11 am Pacific Time)

***Over ten online lab material related to Covid-19 and have used in**

Biol 1414 Introduction to biotechnology I

Biol 1415 Introduction to biotechnology II

Bitc 2431 Cell culture technique

***Skills focused:**

Problem solving

Analytical

Scientific communication

Independent thinking

Computer

***Goals: Keep the class retention and deliver student learning outcomes.**

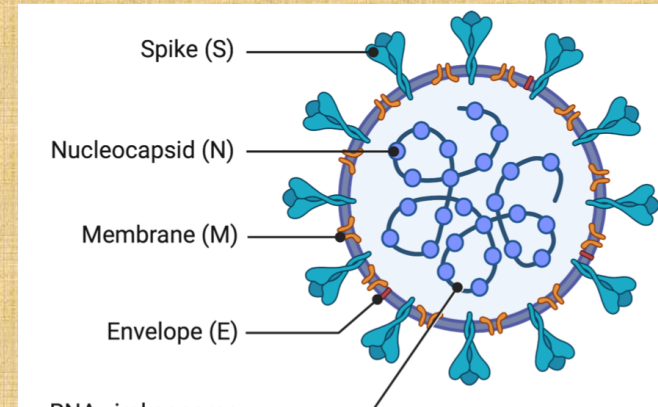
Covid-19 bioinformatics labs

- https://www.ncbi.nlm.nih.gov/labs/virus/vssi/#/virus?SeqType_s=Nucleotide&VirusLineage_ss=Severe%20acute%20respiratory%20syndrome%20coronavirus%202,%20taxid:2697049
- Design a RT-PCR based detection test.
- Is this virus lab made?
- Has this virus mutated?
- Did the CA virus migrate from China or Italy?

ACE2 and Phenotypes of Infection

- <https://www.ncbi.nlm.nih.gov/protein/QIS30065.1/>
- angiotensin-converting enzyme 2
- **Soluble angiotensin-converting enzyme 2: a potential approach for coronavirus infection therapy?**
- <file:///Users/daisy Zhang/Desktop/1415%202020%20online/Why%20does%20the%20new%20coronavirus%20kill%20some%20people%20and%20barely%20affect%20others%20-%20News%20-%20Citizens'%20Voice.htm>
- <https://ghr.nlm.nih.gov/gene/ACE#resources>

A vaccine proposal



- <https://www.cdc.gov/flu/prevent/how-fluvaccine-made.htm>
- Can we use the SARs' vaccine?
- Introduce RT-PCR.
- Looking for Baculovirus vector using Thermo Fisher website.
- Looking for an insect cell line for transduction. ATCC.
- Put your proposal together.

Retention and Feedback

- Lost one student due to an internet issue.
- Students stayed interested and focused.
- Very important to have assignment with each lab to turn in.
- **Nothing can be compared to a real lab and we do need to do our best to keep them focused on SCIENCE!**