

Global Free Webinars for Students



#studentwebinars

We'd like to help students all over the world understand what viruses are, why/how they make us sick and how we can fight them.

Created on: April 18, 2020

by [Eugenia Covernton](#)

SDG's:



Skills:

Education

Teaching

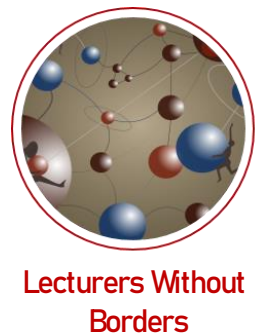
Webinar management

On viruses and viral diseases

+ the case of COVID-19



Eugenia Covernton



On viruses and viral diseases + the case of COVID-19

- ▶ *Ages 15-19 (adapting to previous knowledge)*
- ▶ *Interactive but recorded to use as video lectures*
- ▶ *20-30' Q&A at the end of the presentation*
- ▶ *Available in several languages*

On viruses and viral diseases

+ the case of COVID-19

(20 FAQ)



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On viruses and viral diseases

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*Introduction to
clinical virology*



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(20 FAQ)

Applied to real life



Just One Giant Lab
learning & solving together

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Lecturers Without
Borders

On viruses and viral diseases

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(20 FAQ)

20 FAQ



Helps keep pace, maintain attention and organize ideas

20 FAQ

► *Q1·What is a virus?*

Viral particles, enveloped vs non-enveloped viruses

20 FAQ

▶ *Q1·What is a virus?*

▶ *Q2·Are viruses alive?*

Viruses need to infect cells to reproduce

20 FAQ

▶ *Q1·What is a virus?*

▶ *Q2·Are viruses alive?*

▶ *Q3·Do all virus look the same?*

Shapes and sizes of viruses

20 FAQ

- ▶ *Q1·What is a virus?*
- ▶ *Q2·Are viruses alive?*
- ▶ *Q3·Do all virus look the same?*
- ▶ *Q4·What is a viral infection?*

Viral cycle: entry, replication, exit

20 FAQ

- ▶ *Q1·What is a virus?*
- ▶ *Q2·Are viruses alive?*
- ▶ *Q3·Do all virus look the same?*
- ▶ *Q4·What is a viral infection?*
- ▶ *Q5·What can viruses infect?*

Not only humans can be infected

20 FAQ

- ▶ *Q1·What is a virus?*
- ▶ *Q2·Are viruses alive?*
- ▶ *Q3·Do all virus look the same?*
- ▶ *Q4·What is a viral infection?*
- ▶ *Q5·What can viruses infect?*
- ▶ *Q6·What's the difference between infection and disease?* *Not all infections are bad*

20 FAQ

- ▶ *Q1·What is a virus?*
- ▶ *Q2·Are viruses alive?*
- ▶ *Q3·Do all virus look the same?*
- ▶ *Q4·What is a viral infection?*
- ▶ *Q5·What can viruses infect?*
- ▶ *Q6·What's the difference between infection and disease?*
- ▶ *Q7·Why do \neq viral diseases have \neq symptoms?* *Cell tropism and tissue dysfunction*

20 FAQ

▶ *Q8. Can we treat a viral disease?*

What “treatment” means

20 FAQ

▶ *Q8·Can we treat a viral disease?*

▶ *Q9·Can we cure a viral disease?*

Natural and aided clearance of virus

20 FAQ

- ▶ *Q8·Can we treat a viral disease?*
- ▶ *Q9·Can we cure a viral disease?*
- ▶ *Q10·Can we prevent a viral disease?*

Molecules that prevent disease

20 FAQ

▶ *Q8·Can we treat a viral disease?*

▶ *Q9·Can we cure a viral disease?*

▶ *Q10·Can we prevent a viral disease?*

▶ *Q11·What are antiviral drugs & how do they work?*

The use of antivirals

20 FAQ

- ▶ *Q8·Can we treat a viral disease?*
- ▶ *Q9·Can we cure a viral disease?*
- ▶ *Q10·Can we prevent a viral disease?*
- ▶ *Q11·What are antiviral drugs & how do they work?*
- ▶ *Q12·What is a vaccine?* *How vaccines differ from antiviral drugs*

20 FAQ

- ▶ *Q8·Can we treat a viral disease?*
- ▶ *Q9·Can we cure a viral disease?*
- ▶ *Q10·Can we prevent a viral disease?*
- ▶ *Q11·What are antiviral drugs & how do they work?*
- ▶ *Q12·What is a vaccine?*
- ▶ *Q13·How are vaccines developed?* *Steps and ethical considerations for testing of candidates*

20 FAQ

- ▶ *Q8·Can we treat a viral disease?*
- ▶ *Q9·Can we cure a viral disease?*
- ▶ *Q10·Can we prevent a viral disease?*
- ▶ *Q11·What are antiviral drugs & how do they work?*
- ▶ *Q12·What is a vaccine?*
- ▶ *Q13·How are vaccines developed?*
- ▶ *Q14·Can a vaccine eliminate the virus completely?*

What vaccines actually do and how

The case of COVID-19

The case of COVID-19

► *Q15·COVID-19: A disease or a virus?*

SARS-CoV-2: the virus behind the disease

The case of COVID-19

- ▶ *Q15·COVID-19: A disease or a virus?*
- ▶ *Q16·COVID-19: What do we know about SARS-CoV-2?* *Clinical virology of SARS-CoV-2*

The case of COVID-19

- ▶ *Q15·COVID-19: A disease or a virus?*
- ▶ *Q16·COVID-19: What do we know about SARS·CoV·2?*
- ▶ *Q17·COVID-19: What is a pandemic?* *Introduction to epidemiology*

The case of COVID-19

- ▶ *Q15·COVID-19: A disease or a virus?*
- ▶ *Q16·COVID-19: What do we know about SARS·CoV·2?*
- ▶ *Q17·COVID-19: What is a pandemic?*
- ▶ *Q18·COVID-19: Is there any treatment?* *How patients are being treated (very briefly)*

The case of COVID-19

- ▶ *Q15·COVID-19: A disease or a virus?*
- ▶ *Q16·COVID-19: What do we know about SARS-CoV-2?*
- ▶ *Q17·COVID-19: What is a pandemic?*
- ▶ *Q18·COVID-19: Is there any treatment?*
- ▶ *Q19·COVID-19: Shall we expect a vaccine soon?* *Ethical concerns about accelerated development*

The case of COVID-19

- ▶ *Q15·COVID-19: A disease or a virus?*
- ▶ *Q16·COVID-19: What do we know about SARS·CoV·2?*
- ▶ *Q17·COVID-19: What is a pandemic?*
- ▶ *Q18·COVID-19: Is there any treatment?*
- ▶ *Q19·COVID-19: Shall we expect a vaccine soon?*
- ▶ *Q20·COVID-19: What can we do in the meantime?* *How to prevent spread*

Organization:

1. School request
2. Organization meeting
 - Date and content
 - Platform to be used
3. School invites students
4. Webinar
5. Feedback forms
 - School
 - Scientist
 - Students

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Platforms used:

- ▶ Zoom
- ▶ Google meet
- ▶ Jitsi

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*Webinar request form +
Scientist volunteering form*