

# IMMUNOLOGY WITH PROFESSOR BRIAN SEYMOUR

## TALKING POINTS

### KNOWLEDGE

1. What are T helper cells?
2. What do you know about the population of Health Zone 1?

### COMPREHENSION

3. What was Professor Seymour's team able to do by blocking cytokine release?
4. How did animal models prove the connection between second-hand cigarette smoke and asthma?

### APPLICATION

5. How did Professor Seymour ensure he had a control group in his studies using animal models?
6. How could Professor Seymour's community outreach help address health inequality?
7. Why is it important to consider social, economic and environmental factors in immunologic diseases?

### ANALYSIS

8. In what way do you think poverty has an impact upon asthma rates in Health Zone 1?

### EVALUATION

9. What do you think are the ethical considerations of using animal models in studies?
10. How do you think the COVID-19 pandemic has affected public understanding of health?

## ACTIVITIES

**Achieving health equity through community outreach is an important part of Professor Seymour's work.**

Devise your own ideas for activities to help community outreach and get people engaged in health science.

- Who will you target with your campaign? (For example, younger students or adults in a certain age bracket.)
- What are your key messages for them?
- Do you want them to do anything in response to your campaign (such as quit smoking or walk to get fit)?
- Could you incorporate games, workshops or a creative element as part of your outreach?
- Could you link your activities to a citizen science project?

### Keep track of pollen levels in your area

You can keep a record and see how levels change over the year. See if there is a relationship between pollen and other factors such as temperature, humidity and location. You should be able to find pollen information online, and you can record temperature and rainfall using a thermometer and a rain gauge.

- What are the impacts of pollen on people's health?
- Which times of the year are most problematic for allergy sufferers?
- What treatments are available to help them?

## MORE RESOURCES

- You can find out more about the immune system here: [www.niaid.nih.gov/research/immune-system-overview](http://www.niaid.nih.gov/research/immune-system-overview) and [www.niaid.nih.gov/research/immune-cells](http://www.niaid.nih.gov/research/immune-cells)
- The American Association of Immunologists (AAI) has a useful education section on its website: [www.aai.org](http://www.aai.org)
- Here is a video explaining how asthma works: [www.youtube.com/watch?v=PzfLDi-sL3w](https://www.youtube.com/watch?v=PzfLDi-sL3w)
- The American Academy of Allergy, Asthma & Immunology (AAAAI) provides lots of information about Professor Seymour's areas of interest: [www.aaaai.org](http://www.aaaai.org)
- The American Public Health Association (APHA) explores disparities in public health: [www.apha.org/What-is-Public-Health/Generation-Public-Health/Disparities-in-the-US](http://www.apha.org/What-is-Public-Health/Generation-Public-Health/Disparities-in-the-US)