

# NEUROENDOCRINOLOGY WITH THE WATCH PROJECT

## TALKING POINTS

### KNOWLEDGE:

1. What are tanycytes?
2. Can you list some of the ways in which tanycytes are unique?

### COMPREHENSION:

3. Why are the properties and functions of tanycytes of particular interest to the WATCH team?

### APPLICATION:

4. How might the team's research help prevent obesity and cognitive impairments?
5. In what ways can slight changes to the processes within the brain have major negative impacts on individuals?

### SYNTHESIS:

6. There is some discussion on the challenges of justifying research for funding above other brilliant ideas. Can you list some of the reasons why you believe the WATCH project was awarded funding? Can you see the greater purpose that the team's work might have?

### EVALUATION:

7. What might a world of the future look like if we can find a way to ensure that messages relating to hormones arrive at their intended destination? Can you see other potential benefits besides curing obesity and preventing dementia?

## MORE RESOURCES

### BRAIN GAMES

We can all use a little brain training! These games from Lumosity are backed by science and will help you discover your strongest brain training area:

[www.lumosity.com/en/brain-games/](http://www.lumosity.com/en/brain-games/)

### THE BRAIN VS. THE UNIVERSE

Read this fascinating article from Universe Today, and see what you make of what is being suggested: [www.universetoday.com/148966/one-of-these-pictures-is-the-brain-the-other-is-the-universe-can-you-tell-which-is-which/](http://www.universetoday.com/148966/one-of-these-pictures-is-the-brain-the-other-is-the-universe-can-you-tell-which-is-which/)

## ACTIVITIES YOU CAN DO AT HOME OR IN THE CLASSROOM

### APPLYING FOR FUNDING

Obtaining a grant is always a big achievement for a researcher. Imagine you are a researcher applying for funding to conduct a similar project to the one that Vincent, Markus and Ruben are doing. Write a letter or speech or prepare a presentation to give to a funding body. You will need to:

- highlight what your research is setting out to achieve
- outline the main focus of your research
- outline the main benefits of the research for individuals
- explain the wider societal impact your research will have
- explain why your research should receive funding above your competitors.

### THE HYPOTHALAMUS

Vincent describes the hypothalamus as, "a window to the brain." Challenge yourself to find out as much as you can about this fascinating part of the brain:

- Where is it located?
- What functions does it perform?
- How is it connected to blood circulation?
- What is the median eminence?
- Which signals does the hypothalamus control?
- Which 'higher' brain functions does it play a part in?

Now, to what extent do you agree with Vincent's description?