

Subject Spotlight Lesson Plan

| Title of Session | Subject Spotlight: Neuroscience – Stroke Strikes Fast |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: | The Stroke Strikes Fast workshop talks about the two main types of stroke, the effects a stroke could have, available therapy and ongoing research. It incorporates two group activities that can also be run individually which look at stroke effects and life-style interventions to minimise the risk of a stroke. It should provide students with general knowledge about stroke and the research done in this field, hoping to excite students about science and medicine. |

| Duration of session: | ~35 mins | Target Audience: | Y9/10/11 |
|----------------------|----------|------------------|----------|
| | | | |

| Regional Progression Framework - Learning Outcomes: | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| LO1 - Awareness of HE and the different opportunities available. Be able to challenge any myths relating to HE. | | | | |
| LO2 - Identify the link between GCSE attainment and progression opportunities and how these can support life or career goals | | | | |
| LO5 - Learner knows how to research different routes into HE and how to make an application | | | | |
| Gatsby Benchmarks: | | | | |
| 7. Encounters with Further and Higher Education - All students should understand the full range of learning opportunities that are available to | | | | |
| them. This includes both academic and vocational routes and learning in schools, colleges, universities and in the workplace. | | | | |

Please note: This workshop focuses on a sensitive topic and some students who have had personal or familial experience of stroke may find it difficult to watch. Please direct students to https://www.stroke.org.uk/ for support.

| Timings: | Activity/Task/Information: | Instructions for teacher: | Resources needed: |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 0.00 - 1.48 | My pathway in Higher Education | | |
| 1.48 - 2.11 | Activity 1: Brainstorm What do you know about strokes? | Pause video at 2.11. Give students a few minutes to discuss what they already know about stokes. Prompts: what causes it, what part of the body does it effect, what are the signs? | |
| 2.11 - 7.10 | What is a stroke? How to recognise a stroke How to image a stroke Brain functions | | |
| 7.10 – 9.28 | Activity 2: Case Studies Students must diagnose 4 patients with the probable location of the stroke in the brain | Pause video at 8.16. Give students 5mins to work out the location of the brain. Can be done in groups or individually. | Case studies/brain featured in video and on worksheet Answers provided in video |
| 11.39 - 18.54 | Therapies for stroke Stroke research Risk factors | | |
| 18.54 - 21.18 | Activity 3: Intervention Activity Students must come up with at least 5 life-style interventions that people could make to prevent a stroke | Pause video at 19.25. Give students 5mins to come up with lifestyle interventions. They can use the diagram on the video for tips. | Can fill in answers on worksheet. Answers provided on video. |
| 21.18 - end | Summary How can you study this? Further resources Extra activity for own time | | |

| Overview of all resources: | | | | |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| Video | | | | |
| Resources to share with students | Read Ioana's blog: <u>http://www.ypu.manchester.ac.uk/blog/from-undergraduate-to-phd-and-everything-in-between</u> Find out more about Strokes: <u>https://www.nhs.uk/conditions/stroke/</u> Find out more about the Brain Inflammation Group: <u>https://braininflamelab.org/</u> Read more about Stroke research: <u>https://www.bmh.manchester.ac.uk/research/domains/neurosciencemental-health/stroke/</u> Stroke Association: <u>https://www.stroke.org.uk/</u> Find courses at UOM: <u>https://www.manchester.ac.uk/study/undergraduate/courses/</u> | | | |
| | | | | |
| | | | | |