



## X-STEM All Access – *Shattering STEM Stereotypes*

[Dr. Mika Sovak](#) and [Dr. Greg Gage](#)

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### TEACHER & PARENT TIPS:

Prior to the video, ask students to read the speaker biographies on our [website](#). To keep students engaged during the session, we have listed some key facts to look for during the talk, listed below. In addition, ask the students to answer a list of follow up questions for a deeper analysis of the subject matter. Some sample questions are listed on page 2 of this worksheet.

Looking for more talks? Our video library filters the videos by subject matter to make the selection process easier for your lesson plans. Access the video library here: [X-STEM Videos](#) | [Festival Videos](#)

**Note:** If you or your students would like to engage in the chat feature during the presentations to ask speakers questions during the live talk, be sure to click on the “chat” icon on the upper right hand side.

### ENGAGEMENT & FACT QUESTIONS:

**Dr. Mika Sovak - read her biography before the talk [here](#).**

Dr. Sovak’s job is to transform \_\_\_\_\_ into \_\_\_\_\_.

Communicating is both about speaking up and as important, is \_\_\_\_\_ up.

Dr. Sovak highlighted three things to create the right environment for a highly experienced and dedicated team of people. List two. Bonus: List all three

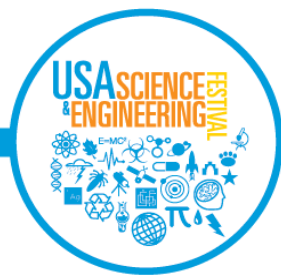
What is something new you learned from this presentation about being a medical oncologist?

**Dr. Greg Gage - read his biography before the talk [here](#).**

\_\_\_\_\_ and humans have very similar nervous systems: both are based on the same neurons, which evolved 1/2 billion years ago.

What is a term that neuroscientists lovingly refer to "action potentials" of neurons... the electrical charge that conveys information in the brain?

What was invented to allow students to hear and see neurons in action?



### **REFLECTION AND ANALYSIS QUESTIONS:**

Who did you learn about in this session? What is his/her name and what kind of work does he/she do?

Why is this speaker's work important?

How does his/her work have a direct impact on your life?

Tell me what you remember most from the speaker's presentation? What did you find most interesting?

What other kinds of jobs can you think of in his/her area of work?

Are you interested in learning more about this topic?

Can you predict what will change about this topic in the future? How will this impact your life?

If you could ask this speaker anything, what would it be?

Pick one fact from this talk and do your own follow up research. Provide a list of what you have learned.

### **BONUS Options:**

Do some research on your own about "spikes". Write a one-page essay explaining what they are and how they are part of everything we see, touch, hear and remember.

Do some research on your own about oncology. Write a one-page essay explaining what it is and what impact the study oncology has in our world and perhaps even your own life.