

Cross-Curricular Discussion: Q

Directions: The following list of discussion questions is provided to help you take notes, brainstorm ideas and test your thinking in order to be more actively engaged in class discussions related to this article. All questions in this section are related to topics covered in "[Fatal fix](#)."

CHEMICAL AND BIOLOGICAL SCIENCES**Discussion questions:**

1. Name some opioids that are made by the body and describe what they do.
2. What are the differences between natural, semisynthetic and synthetic opioids? What are the molecular structures of natural opioids and opioid drugs?
3. What are opioid receptors and their agonists and antagonists?

Extension prompts:

4. What are the medical uses of opioids?

5. What is opioid tolerance?

ENGINEERING AND EXPERIMENTAL DESIGN

Discussion questions:

1. How would you reconcile the graph “Deadly direction” in this week’s issue and the accompanying description that roughly 64,000 people died in the United States from a drug overdose in 2016?

2. What biochemical methods might be useful to prevent or reverse opioid addiction?

3. What non-biochemical methods might be useful to prevent or reverse opioid addiction?