**About you**

**Name:**

**Affiliation:**

**email address:**

1. **Brainstorm about the Molecular Case Study (MCS)**

**Note down ideas for the molecular case study**:

* *What is your MCS going to explore?*
* *In what curricular context will you use it - discipline and format (e.g., in class vs homework, or individual vs group project)?*
* *Other ideas*

**Gather resources related to the case study**:

* Images, articles, videos
* Develop a research question
* Identify relevant literature
* Identify relevant structures in the PDB
* What other types of bioinformatics data is relevant to the MCS? Find it.

**Learning Goals**:

* What do you want your students to learn from this case study?
* What pedagogical approaches will you use - e.g., group work, oral or poster presentation, open ended research etc.
1. **Write the MCS**

**Case Title:** *A clear, engaging title for the MCS so that instructors and students are drawn to the case study*

**Hook**: *a story, video, article, image, audio recording etc., to engage audiences*

*and provide a context for the MCS*

**Presentation of case context**: *Describe the context or write a story to engage your present the research question that you will explore in the context of this case study*

**Getting to the structure(s)**: *Guide your audiences to identify the molecule(s) and/or complex(es) that play key roles in exploring this topic*

**Exploring the structure(s)**: *Explore the contents, composition of all components of this structure and relate it to the research topic being explored.*

*How will this structure help with answering the question(s) you are studying?*

*Are there related structures, other bioinformatics data needed to explore this topic?*

**Connecting structure to function**: *Focus on the specific parts of the structure that are relevant to the research question.*

*Where necessary, map information gathered from various bioinformatics resources on the structure(s) to help answer the research question.*

*Present your analysis/answer in at least two formats - using pictures (of molecules and schematic drawings) and in words.*

*Where possible, include numerical and symbolic (equations and formulas) too.*

**Assessing student learning**: *Design questions/scenarios that allow participants to apply their knowledge and skills to a related or new problem.*

1. **Make the MCS Ready for Teaching**

Complete the [Teaching notes Template](https://molecular-casenet.rcsb.org/sites/default/files/2023-11/1B-Write-Teaching-Notes_BLANK-May2023-Final.pdf)