

Supplemental File S3.**Instructor's Rubric for Grading of Group Role-play Assignment:**

Performance Criteria / Levels	Poor	Adequate	Good	Excellent
Engagement of all group members in the activity	Not all group members participated or provided a description of their protein's role in the process.	Some group members showed minimal engagement with the exercise	All group members showed good engagement in the exercise	All group members showed good engagement and some exceptional engagement with the exercise
Effort put into production of the video	Many errors, mistakes or instances of forgetting the script. Sound or visuals not clear.	Sound and visuals are clear and performance mostly free of errors.	Sound and visuals clear, few errors, editing of the video to enhance professionalism.	Exceptional use of editing or special effects. Excellent use of location or props for the video.
Accuracy of portrayal of assigned cell biology process	Several scientific inaccuracies in the video or lack of detail in the portrayal.	Reasonable scientific detail with one or two minor inaccuracies.	Good level of detail, minor details omitted, no inaccuracies.	High level of detail, no inaccuracies.
Creativity of the portrayal of process	Portrayal did not go much beyond a text based description of the process.	Process portrayed in a standard manner, adequately executed	Process portrayed in a standard manner, well executed	Process portrayed in an unusual/ original manner, very well executed
Success in engaging the audience	Poor visuals / props, scripts read in non-engaging manner	Good concept and visuals but only adequate deliver of script of the video.	Good delivery of the script and use of dramatic effect, visuals, comedy etc. to engage the audience.	Exceptional delivery and use of dramatic effect, visuals, comedy etc. to engage audience.

Guide to Grading

>80% - Excellent in all criteria

70-79% - Mostly good; excellent in some criteria

60-69% - Mostly good; adequate in some criteria

50-59 – Mostly adequate; good in some criteria

40-49 – Mostly adequate; poor in some criteria

< 40% – Poor in all criteria