**Day 1 Journal Jigsaw**

Done on the first day of lab. I choose a research article or a review article. I have found a review article tends to work best. The article is related to the theme of the class. The example below is for the 2019 glioblastoma (GBM) class project.

**Article**: [https://www.ncbi.nlm.nih.gov/pubmed/29507709 /](https://www.ncbi.nlm.nih.gov/pubmed/29507709%20/) New Therapeutic Strategies to address cellular and genomic complexity.

**If you are doing this for the CBEC as part of the Cancer CURE do not forget the assessment surveys.**

**Time: 2-3 hours.**

1. Students get in their lab research teams. I like groups of 4 or 5. These groups seem large, but it allows the students to better coordinated the cell maintenance through out the semester.
2. For the journal above every student is asked to read the **introduction** and the **cellular complexity of GBM** section of the article. Both are general information sections.
3. The Jigsaw - Each student in the research team is assigned a different section of the article to read. The sections are numbered 1 through 5. The point is that not one team member has read the entire article. I give them 20min to complete this task (intro and assigned section).
4. After 20-min, I break up the lab teams and reorganize students based on their assigned sections. All of the section 1s are together, 2s are together…ect.
5. These new groups are given 15 min to discuss their section and give a 5 min summary to the class. Additionally, each group is asked to come up with 1 or 2 follow up questions. Often these question can be answered by other class groups.
6. Students are then put back into their research team.
7. Students are told the class project. We are interested in looking at novel ways to treat GBM. Specifically, the potential anticancer properties of “natural” over the counter health products. They are given an hour to find a candidate product for investigation. They must find the drug and a research article (not popular press) supporting their drug. Each group will give a 5 min summary of their drug and the article. The article becomes the foundation of their class project. Students are told to relate their new article to the sections discussed in the initial paper.

**Notes: I choose students at random to represent the group. Students do not know in advance who will be chosen to give the summary.**

**As a follow-up assignment, I have students research the availability and cost of their drug.**

**If two groups have the same drug the group with the best presentation is allowed to continue with the project. The least prepared group is told to find a new drug.**