Course: Fashion a scientific story by implementing the elements of craft

Instructor: Rafael Luna, Ph.D.
Rafael_Luna@HMS.Harvard.edu

This course will utilize a peer review workshop format to present your scientific work within the confines of a story. This interactive workshop will discuss the elements of craft used by seasoned fictional storytellers and relate these elements to a scientific story: Title, Abstract, Introduction, Results and Discussion. Be prepared to go into a critical analysis of an accepted scientific manuscript via a workshop format. Time will also be allotted to workshop the scientific work of the participants in this course with the intent of implementing elements of craft into your scientific story.

Before class: The scientist should submit their manuscript by Friday at 3pm. This is an interactive workshop, hence it is important for each participant to submit his or her respective research article (past/present) for workshop discussion. These manuscripts could be either unpublished or published. It may be more helpful for the participants, if the work is unpublished. There is a limit of one manuscript per participant for our workshop. In order to foster an atmosphere of professional development and collegiality, all of the materials in the course should be considered confidential, especially unpublished manuscripts.

Each participant will be assigned six manuscripts to workshop. Before class, please print your assigned manuscripts and read them twice (if possible). The first time should be read for the flow without any markings. The second read should be done with pen in hand. It is during the second read that one should mark the manuscript for comments, which will be given to the scientific writer at the end of the course.

Every participant should write a 1-2 page critical analysis of his or her assigned manuscripts. Each scientist will workshop two manuscripts per day. Please bring two printed copies of the critical analysis to class: one for the scientific writer and one for the instructor.

The 1-2 page critical analysis should be divided into two halves: 1.) the areas that worked well and 2.) the areas that may need improvement. One must remember that we are focusing on improving the scientific story by elements of storytelling craft. If there are grammar mistakes, please note them on the manuscript. However, please keep the emphasis of the analysis of the story. Let's write our commentaries in a positive and helpful manner.

The critical analysis should be addressed to the scientific writer. Please consider the following major aspects of the story in your analysis:

1.) Big Picture of the story—What is this scientific story about? Is it important? What are the stakes? Are the stakes sufficiently high for a story?

2.) Scene/setting—Does the scientist adequately develop the scene? Does he or she set the stage effectively to draw in the reader?
3.) Conflict—Is the conflict within the story apparent, particularly in the introduction?
4.) Character development—Does the scientist have a clear role for the main character of the story/research article? The main character can be considered as any of the following: biomolecules, cells and/or in vivo model. Is the main character sufficiently developed in the Introduction and Results? What are the supporting characters? Do the supporting characters provide a compelling story by impacting the main character?
5.) Point of View (POV)—Where is the camera pointed? Is it consistently held on the main character? Is the POV contract violated between the writer and reader? Is the POV held consistently throughout the entire story/research article?
6.) Structure—Is there a clear beginning, middle and end. Does the Introduction begin to increase the tension, which is enhanced in the Results section? Is there a clear dramatic arc with heightened tension before the climax of the story?
7.) Resolution—Is there a resolution for the both the conflict and/or tension in the scientific story?
8.) Reader/Writer's Arc—Is there an unnecessary data dump by the scientific writer? Are there too many scenes/characters (experiments) for one story? Is the scientific storyteller writing too much and not allowing the reader to do any work? Is the scientific storyteller leaping to conclusions not founded in logic and/or data?