

Methodology: Explain briefly the methods used to complete the study (approximately 150 words).

Scientific Inquiry:

The investigation of the mutated Ig4 domain will use cosedimentation assays and NMR spectroscopy. These methods will compare how the mutation differs from the wild type, both structurally and its interaction with actin. Attaching a maltose-binding protein (MBP tag) to Patu2 has allowed the protein to remain soluble for *in vitro* studies. The protein will be purified using a cation-exchange column. Incorporating stable isotopes (^{13}C and ^{15}N) into the media will allow the use of nuclear magnetic resonance (NMR) spectroscopy to observe the structural change of the Patu2 protein. Employing such methods will depict how the mutated Ig4 domain alters the protein structure and promotes cell motility during cancer metastasis.

Creative Activities:

The methods used to complete the study are fairly simple. Red, green and blue lasers will be used, all doing the same thing but at different positions around the subject. Each laser is pointed to where the beam emitted will hit both the holographic plate and the subject. The light recorded on the plate is neither directly from the laser itself or from the reflected beam from the subject, but from an interference pattern that is created when the beam reflected from both the plate and subject are crossed. After the light has been captured onto the plate from all three lasers, the plate self-develops and can be viewed instantly.

Travel to Conference for Humanities Research:

This research relies on a case study methodology reviewing primary sources including European Economic Community, European Political Cooperation, and United Nations resolutions, period news media accounts, and interviews with political and military figures, as well as secondary sources including studies utilizing case study and statistical analysis methodologies, each examining a particular cause of the conflict on a particular level of analysis.

Travel for Site-Based Inquiry:

I will conduct 14 interviews (7 transplant, 7 native), collecting information for comparison regarding their perceptions of authenticity. During my stay in New Orleans, I will be lodging with a transplant individual with whom I will correspond prior to arriving in the city; she will serve as my first informant. From there, I will engage in snowball sampling—concluding interviews by asking informants for other transplant or native contacts that may be willing to be interviewed. If I cannot make contacts for at least 14 interviews through the snowball sampling, I will engage with individuals in public to find additional informants, relying on the friendly, talkative nature of the city and its people. Semi-structured interviews will be conducted in-person at public locations, such as a coffee shop, using a tape recorder