

Expected Outcomes: Discuss the expected results and how these contribute to the academic field of study (approximately 150 words).

**Scientific Inquiry:**

The Patu2 mutation involves replacing the hydrophobic core of the amino acid tryptophan with a hydrophilic amino acid, cysteine. We expect that the replacement of even a single amino acid with one so chemically different from the one occurring in the wild type will dramatically alter the structure and stability of the protein; therefore, the mutated structure could alter the function of the cell. Cosedimentation assays and NMR spectroscopy will examine how Patu2 interacts with the cytoskeletal protein actin. The results obtained from such methods will assist in future studies of palladin's association with metastatic cancerous cells. Research uncovering the protein-protein interaction associated with Patu2 could assist with peptide based pharmaceuticals associated with pancreatic cancer.

**Creative Activities:**

Holography as an art form is rare today, and with the majority of the original holography institutions closed it will be difficult to know what has and has not been successful in the past in terms of techniques due to the lack of resources. In the beginning I expect my results to be weak in exposure but will guide me into the right direction for how long the plates need to be exposed for certain subjects. As I progress into the portraits, I expect my results to be strong and become more creative. The portraits will become more extravagant and the way light is recorded and presented will become more unique. I expect to have numerous successful portraits by the end.

**Travel to Conference for Humanities Research:**

While Argentina and the United Kingdom have maintained their mutually exclusive positions regarding the legitimacy of their claims to the Falkland Islands, and while a robust economy has emerged in the Falkland Islands in part due to fruitful petroleum exploration in surrounding maritime territory, it appears unlikely that this dispute will erupt into another full-scale military conflict in the immediate future. Such a military conflict would damage the islands' resources; international norms provide alternative methods for resolving resource disputes; Argentina has emerged as a consolidated democracy with phenomenal respect for human rights; the British populace is experiencing demonstrable war weariness after a decade of involvement in the Middle East. This research applies the concepts of the realist and liberal theories of international relations to the specific conflict and generalizes these concepts to the potential future causes of global conflict by examining the causes of three decades of peace in spite of demonstrably larger incentives for dispute that have emerged since the ceasefire agreement.

**Travel for Site-Based Inquiry:**

I predict that my findings will support previous claims regarding transplant and native perceptions of New Orleans as inherently different. The identification of characteristics or patterns among and between these populations may lead to insights into the concept of authenticity and how it is constructed.