**Objective & Impact of Professor’s Research**

The Chung research group develops techniques to overcome the limitations of clinical solutions by concentrating on drug delivery, gene therapy, nanomedicine, and biomaterials synthesis. The research done by the lab primarily focuses on uncommon, inherited and chronic illnesses.

**Methods and Results**

**Scaffold Synthesis**

Starting Monomers

Condensation Reaction

Incorporating Hydroxyapatite (HA)

**Results**

GFP Coating on mCherry Cell Activation

**Skills Learned**

- Micropipetting
- Nanoparticle and biomaterial synthesis and characterization
- Cell culture and sterile technique
- Peptide purification by high performance liquid chromatography (HPLC)
- Fluorescent Microscopy

**Advice for Future SHINE Students**

My advice I would give to future SHINE students would be to interact with everyone in your cohort. By connecting with my peers, I learned about people from different backgrounds, with different interests and built lasting relationships. Also, learning about the various career paths within the research lab helped me better prepare for applying to college and exploring different undergraduate programs.

**Acknowledgements**

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**Introduction**

**Goal:** Recapitulate *in vivo* properties for Bone-Tendon-Muscle Mesenchymal Stem Cell (MSC) transition *in vitro* on scaffolding

**Bioactive Scaffolds:** Citric acid-based materials for engineering tissues with a hierarchical structure