# In Vitro Characterization of Gene Silencing Methods With the Potential to Treat Autosomal Dominant Hearing Loss

miR #1

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#### INTRODUCTION

- the gene; most individuals affected by ADHL harbor toxic gain-of-function and/or dominant negative mutations

#### FIGURE 1: Overview of genetically-driven hearing loss



#### METHODS

- In vitro screening of engineered microRNA plasmids using Gene of Interest mScarlet reporter plasmid and Dual Luciferase reporter plasmids
- Evaluate Gene of Interest protein knockdown using fluorescence imaging and Western Blot
- Evaluate guide/passenger strand generation and knockdown using Dual Luciferase reporter assay



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