

**2022 Texas Junior Academy of Science  
Natural Science Division  
FINALISTS**

**Memorial Student Center 2406 A**

- 8:30 a.m.    **Pranav Gorty**, IB World School  
(Biochemistry/Microbiology)  
*Finding a Novel Prerequisite for Homology-Directed Prognosis by Using Molecular Docking to Target RAD51 Function within Cancer Cells*
- 8:50 a.m.    **Madhalasa Iyer**, Plano Senior High School  
(Environmental Science)  
*Co-cultivation of Isochrysis galbana and Bacillus megaterium for maximal TAG production for third-generation biofuels*
- 9:10 a.m.    **Kyler Larsen**, A&M Consolidated High School  
(Medicine and Health/Behavioral and Social Sciences II)  
*A Deep Learning Approach Using Masked Image Modeling for Reconstruction of Undersampled K-spaces*
- 9:30 a.m.    BREAK
- 9:50 a.m.    **Shreya Nair**, Texas Academy of Mathematics and Science  
(Botany/Zoology)  
*Identification and Characterization of Genes Functioning with HR4, a Newly Identified Gene Conferring Resistance to the Green Peach Aphid*
- 10:10 a.m.    **Diya Shah**, Williams High School  
(Medicine and Health/Behavioral and Social Sciences I)  
*The Salt to my Pepper: The Effects of Utilizing the Bioactive Descriptors of Piperoyl Piperidine on B16-F10 as a Neoteric Treatment for Melanoma*

**Participant free time.**

12:00 p.m.    **Awards ceremony MSC 2400**