Congratulations to all students selected to participate in the 2021 Georgia Junior Science & Humanities Symposium. The Georgia JS HS provides an opportunity for high school students from across the state to present the results of their original science, engineering, technology, or mathematics research before a panel of judges to compete for military-sponsored scholarships and other awards. The top five presenters are selected to advance to the National JS HS.

The Departments of the Army, Navy and Air Force jointly sponsor undergraduate tuition scholarships and cash awards for student finalists in the Regional and National Symposia. Additionally, one teacher from each region is recognized for their exceptional contributions to promoting student research. The following undergraduate tuition scholarship and cash awards are supported by the Tri-Service sponsors. All scholarships are payable upon matriculation to college and upon meeting the JS HS scholarship conditions.

## ORAL PRESENTATION COMPETITION AWARDS

<table>
<thead>
<tr>
<th>PLACE</th>
<th>Scholarship</th>
<th>Invitation</th>
<th>Featured in At-Home Planetarium Show</th>
<th>School</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1ST</td>
<td>$2,000</td>
<td>Oral</td>
<td>Fernbank Science Center</td>
<td>Gwinnett School of Mathematics, Science &amp; Technology</td>
<td>Observation of Kibble-Zurek Scaling Across a Classical First-Order Phase Transition</td>
</tr>
<tr>
<td>2ND</td>
<td>$1,500</td>
<td>Oral</td>
<td>Fernbank Science Center</td>
<td>Gwinnett School of Mathematics, Science &amp; Technology</td>
<td>Kinect Analysis of Obstacles and Feedback for the Visually-Impaired</td>
</tr>
<tr>
<td>3RD</td>
<td>$1,000</td>
<td>Poster</td>
<td>Fernbank Science Center</td>
<td>Denmark High School</td>
<td>My Skin: A Deep Convolutional Neural Model for Skin Cancer Identification with Coarse-to-Fine Contextual Memory (CFCM)</td>
</tr>
<tr>
<td>4TH</td>
<td>Invitation</td>
<td>Poster</td>
<td>National JS HS</td>
<td>Chamblee Charter High School</td>
<td>Designing Impact Resistant STF Composites for Various Weather Conditions</td>
</tr>
<tr>
<td>5TH</td>
<td>Invitation</td>
<td>Poster</td>
<td>National JS HS</td>
<td>Denmark High School</td>
<td>Improving Multiclass Classification of Alzheimer’s Disease using Cortical Volumetry and Inter-Cortical Ratios as Combined Markers</td>
</tr>
<tr>
<td>6TH</td>
<td>Alternate</td>
<td>Poster</td>
<td>National JS HS</td>
<td>Lakeside High School Evans</td>
<td>Effects of Embryological Exposure to Cortisol on Gene Expression during Tailfin Regeneration in Adult Zebrafish</td>
</tr>
</tbody>
</table>
POSTER COMPETITION AWARDS

BIOMEDICAL SCIENCE
1ST PLACE
DEEKSHA KHANNA
Chamblee Charter High School
Identification of a Viable Combination of Transcription Factors to Facilitate Cell Reprogramming to Generate Mature Hepatocytes

CHEMISTRY
1ST PLACE
AADITYA SAHA
Chamblee Charter High School
Designing Impact Resistant STF Composites for Various Weather Conditions

ENGINEERING & TECHNOLOGY
1ST PLACE
AADHAV PRABU
Chattahoochee High School
A Machine Learning Approach to Diagnose Cardiopulmonary Diseases utilizing a Digital Auscultation Device and Audio Biomarkers

ENVIRONMENTAL SCIENCE
1ST PLACE
ROMIL MEHTA
Wheeler High School
Green-Bricks: A Sustainable Solution to COVID-19 Waste

PHYSICAL SCIENCES
1ST PLACE
VINOD RUPPA-KASANI
Chattahoochee High School
Rapid and Low-Cost Method to Determine the Efficacy of Facemasks in Preventing the Spread of COVID-19

LIFE SCIENCES
1ST PLACE
KRISH MATHUR
Lakeside High School Evans
Effects of Embryological Exposure to Cortisol on Gene Expression during Tailfin Regeneration in Adult Zebrafish

MATHMATICS & COMPUTER SCIENCE
1ST PLACE
AMEYA JADHAV
Denmark High School
My Skin: A Deep Convolutional Neural Model for Skin Cancer Identification with Coarse-to-Fine Contextual Memory (CFCM)

MEDICINE & HEALTH / BEHAVIORAL SCIENCE
1ST PLACE
VELDA WANG
Parkview High School
Association Rule Mining to Determine Pharmaceutical and Supplement Usage Associated with Alzheimer’s Disease

PHYSICAL SCIENCES
2ND PLACE
KRISH WADHWANI
Denmark High School
Using Neuromarkers to Develop Molecular Biosynthetic Treatment Network

3RD PLACE
ASHIKA SRIVASTAVA
Chamblee Charter High School
A Tool to Alleviate Perceived Stress in Adolescents
ORAL PRESENTATION COMPETITION FINALISTS

Listed Alphabetically

ALEXANDRA CAREY
The Walker School
The Effects of Preoperative Meditation on Propofol Dosage for Wisdom Tooth Extraction Surgery

SRIHITHA DASARI
Denmark High School
Improving Multiclass Classification of Alzheimer's Disease using Cortical Volumetry and Inter-Cortical Ratios as Combined Markers

SAMAD HAKANI
Gwinnett School of Mathematics, Science & Technology
Observation of Kibble-Zurek Scaling Across a Classical First-Order Phase Transition

AMEYA JADHAV
Denmark High School
My Skin: A Deep Convolutional Neural Model for Skin Cancer Identification with Coarse-to-Fine Contextual Memory (CFCM)

KRISH MATHUR
Lakeside High School Evans
Effects of Embryological Exposure to Cortisol on Gene Expression during Tailfin Regeneration in Adult Zebrafish

ROMIL MEHTA
Wheeler High School
Green-Bricks: A Sustainable Solution to COVID-19 Waste

NATHANIEL MORGAN
Gwinnett School of Mathematics, Science & Technology
Automated UVC Sanitization of Money

JOHN PREWITT
Gwinnett School of Mathematics, Science & Technology
Kinect Analysis of Obstacles and Feedback for the Visually-Impaired

AADITYA SAHA
Chamblee Charter High School
Designing Impact Resistant STF Composites for Various Weather Conditions

KRISH WADHWANI
Denmark High School
Using Neuromarkers to Develop Molecular Biosynthetic Treatment Network