

## Northeast Florida

### Junior *Animal Sciences*

Liam H Hughes	Kirby Smith Middle School	Ms. Melanie Boyer
J0114	Effects of Noise Pollution on Hatching Rate of Brine Shrimp	

Honorable Mention

Joel Valan	Darnell Cookman Middle/High School of Medical Arts	Ms. Madge Nanney
J0115	Preventing Zika: The Effect of the pH of Water on the Growth and Survivability of Mosquito Larvae <i>Culex pipiens</i>	

Third Place

### Junior *Biomedical & Health Sciences*

Izabelle J Young	San Jose Catholic School	Mr. Patrick Madigan
J0315	Solving the Bioload of Xerostomia	

Second Place

### Junior *Cellular/Molecular Biology & Biochemistry*

Grace M Frazier	San Jose Catholic School	Mr. Patrick Madigan
J0407	Do Different Types of Kitchen Knives Affect the Amount of Cross-Contamination of Gluten?	

Recognition

### Junior *Chemistry*

Megan S Erne	San Jose Catholic School	Mr. Patrick Madigan
J0514	The UV and Sunscreen Battle	

Fourth Place

### Junior *Earth & Environmental Sciences*

Andrew J Horkan	San Jose Catholic School	Mr. Patrick Madigan
J0625	Converting Yard Waste and Paper into Clean Energy	

First Place

Juliana R Namen	San Jose Catholic School	Mr. Patrick Madigan
J0626	The Effect of Bioadsorbent Materials on the Concentration of Heavy Metals in River Water	

Second Place

Jasmine Roncevic	Julia Landon College Preparatory Middle School	Mr. Daniel Geary
J0627	Biodegradation of Polystyrene by <i>Tenebrio molitor larvae</i>	

Second Place

### Junior *Engineering*

Liam X Leahy	Holy Family Catholic School	Mrs. Yanny Salom
J0720	Designing a Buoyant Wind Turbine Platform	

Recognition

**Junior**      *Intelligent Machines, Robotics, & Systems Software*

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John Blake Caven	Julia Landon College Preparatory Middle School	Mrs. Pamela Smith
J0910	Athletic Drones? The Effect of Autonomous Algorithms on Robotic Intelligence	

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Third Place

**Junior**      *Physics & Astronomy*

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Jack W Brophy	San Jose Catholic School	Mr. Patrick Madigan
J1224	Using Body Heat to Create Electricity	

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Second Place

**Junior**      *Plant Sciences*

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Mailene G Miranda	Saint Joseph Catholic School	Mrs. Lizette Woodward
J1317	What Makes Science A-Peel-ing: Tensile Strength of Banana Fibers	

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Third Place

**Senior**      *Animal Sciences*

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William G Canty	Bishop John J. Snyder High School	Mr. Joseph Waas
S0111	The Effects of Genetic Mutation and Aspartame Exposure on <i>Drosophila melanogaster</i> Olfactory Response	

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Fourth Place

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Katelyn S Nicholson	Episcopal School of Jacksonville	Mrs. Marion Zeiner
S0112	Analyzing the Correlations Between Genetically Modified Soybean Oil and the Development of <i>Gallus domesticus</i> Embryos	

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Fourth Place

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James A Staman	The Bolles School	Dr. Kathryn Halloran
S0135	Blue Light Effect Study-Impact on <i>Drosophila</i> 's Cognitive Ability and Changes in Gender Ratios	

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Honorable Mention

**Senior**      *Biomedical & Health Sciences*

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Lindsay S Poulos	Episcopal School of Jacksonville	Mrs. Marion Zeiner
S0316	The Effects of Secondhand E-Cigarette Vapor on <i>Drosophila melanogaster</i>	

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Second Place

**Senior**      *Cellular/Molecular Biology & Biochemistry*

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Caroline E Anderson	Episcopal High School of Jacksonville	Mrs. Marion Zeiner
S0412	The Effects of pH on Antigen-Antibody Interactions in Saline Agar	

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Fourth Place

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Grant B Szymanski	The Bolles School	Dr. Kathryn Halloran
S0413	The Effect of Cell Phone EMR on Bioluminescence	

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Honorable Mention

Honghao Zhu	Episcopal School of Jacksonville	Mrs. Marion Zeiner
S0414	Exploration of Serum-based Biomarkers of Benign versus Malignant Renal Masses	

Honorable Mention

**Senior**      *Chemistry*

Zhaoxian Zhang	Episcopal School of Jacksonville	Mrs. Marion Zeiner
S0514	Aluminum Recovery in Al-Air Primary Batteries for Innovative Fuel Cell Design	

Fourth Place

**Senior**      *Earth & Environmental Sciences*

Graham P Ungrady	The Bolles School	Dr. Kathryn Halloran
S0647	Comparing Viability and Photosynthetic Capability of Algae Cultures Versus Algae Beads	

Second Place

**Senior**      *Engineering*

Tara M Martin	Episcopal School of Jacksonville	Mrs. Marion Zeiner
S0712	Piezoelectric Biomechanical Energy Harvesting Using Direct Impact and Contactless Magnetic Plucking to Power Wearable Biometric Devices	

Recognition

Devanik Biswas	Stanton College Preparatory School	Ms. Tamla Simmons
S0735	Fabrication of a Novel Nanoporous Hybrid and Multi-layer Membrane for a Drug Delivery System	

Third Place

**Senior**      *Environmental Engineering*

Sneha Reddy	The Bolles School	Dr. Kathryn Halloran
S0812	Introduction of Mycorrhizae into Non-Mycorrhizal Plants: A Model to Reduce Phosphorous Fertilizer	

Third Place

Ann M Walton	The Bolles School	Dr. Kathryn Halloran
S0812	Introduction of Mycorrhizae into Non-Mycorrhizal Plants: A Model to Reduce Phosphorous Fertilizer	

Third Place

**Senior**      *Microbiology*

Shreyas K Chetan	The Bolles School	Dr. Kathryn Halloran
S1107	Finding Optimal Concentrations and Solvents for Turmeric- A Fight against <i>Streptococcus pyogenes</i>	

Fourth Place

Kathleen M McClellan	Bishop Kenny High School	Mrs. Victoria Schmitt
S1108	Sterilization of Bacteria on Restaurant Menus to Reduce Cross Contamination	

Fourth Place

**Senior**      *Physics & Astronomy*

Kavitha Vudatha	Stanton College Preparatory School	Ms. Tamla Simmons
S1214	Low Cost Patient-Nurse Communication System	

Fourth Place

MaryAlice D Young	Bishop Kenny High School	Mrs. Victoria Schmitt
S1215	Using a System of Electromagnetic Fields to Create a Cumulative Force that Simulates the Effects of Earth's Gravity in Outer Space	

Second Place

**Senior**      *Plant Sciences*

Hannah N Lee	The Bolles School	Dr. Kathryn Halloran
S1307	Effectiveness of Water Hyacinth as a Fertilizer on Basil Growth	

Fourth Place

***30 awards for Northeast Florida Region***