

2020 CNAS Virtual Undergraduate Research Symposium Winners

Biology: Ecology, Wildlife and Conservation

1st Place: *Kaylene Reyes*

DOES THE ELEMENTAL COMPOSITION OF NORTH AMERICAN GRAPEVINES REFLECT THEIR ENVIRONMENTAL ADAPTATION.

Faculty Advisor: Dr. Laszlo Kovacs

2nd Place: *Abilene Mosher*

BUMBLE BEE BUZZ POLLINATION BEHAVIOR IS ELICITED, BUT LIKELY NOT MANIPULATED, BY ANTHOR CHEMICAL CUES.

Faculty Advisor: Dr. Avery Russell

Biology: Cellular, Microbiology and Genetics

1st Place: *Victoria Davenport*

AN ASSESSMENT OF InP/ZnS AS POTENTIAL ANTI-CANCER THERAPY: QUANTUM DOT TREATMENT INDUCES STRESS ON HeLa CELLS

Faculty Advisor: Dr. Kyoungtae Kim

2nd Place: *Nayeon Son*

HOW DOES NLRP2 CONTROL FETAL DEVELOPMENT?

Faculty Advisor: Dr. Christopher Lupfer

Honorable Mention: *Glory Ehie*

MYOSIN 2'S EFFECT ON Vps10 AND Snc1 TRAFFIC.

Faculty Advisor: Dr. Kyoungtae Kim

Chemistry

1st Place: *Giselle Campos*

NMR STUDIES OF POLY(ETHYLENE GLYCOL) - POLY(LACTIC ACID) (PEG-PLA) BLOCK COPOLYMER MICELLES AT DIFFERENT TEMPERATURES

Faculty Advisor: Dr. Keiichi Yoshimatsu

2nd Place: *Autumn Pilarski*

¹H SOLUTION NMR ANALYSIS OF A NON-PALINDROMIC DNA SEQUENCE CONTAINING A U:G MISMATCH

Faculty Advisor: Dr. Gary A. Meints

Geography, Geology, and Planning: Geology

1st Place: *Hannah Eads*

IMPORTANCE OF COARSE SEDIMENT FOR ASSESSING METAL
CONTAMINATION FROM HISTORICAL MINING IN BIG RIVER, SE MISSOURI

Faculty advisor: Dr. Robert Pavlowsky

2nd Place: *Dorian DeHart*

GEOCHEMICAL ANALYSIS OF SULFATES (NEPHELOMETRIC) AND CHLORIDES
(TITRIMETRIC/ARGENTOMETRIC) WITHIN THE SPRINGFIELD SHALLOW
AQUIFER

Faculty Advisor: Dr. Melida Gutierrez

Hospitality Leadership

1st Place: *Chelsey Traylor*

TOURISTS' PERCEPTIONS OF DOMINICAN REPUBLIC

Faculty Advisor: Dr. Yoshimasa "Nancy" Kageyama.

Physics, Astronomy and Materials Science

1st Place: *Meredith Vogel*

ORBIT PERTURBATIONS OF HABITABLE ZONE PLANETS AND IMPLICATIONS
FOR HABITABILITY

Faculty Advisor: Dr. Sarah Morrison

2nd Place: *Yadira Gaibor*

CONSTRAINTS ON WARM JUPITER FORMATION AND EVOLUTION FROM
PLANETARY COMPANIONS

Faculty Advisor: Dr. Sarah Morrison

Honorable Mention: *Tyler McGilvry-James*

REFERENCE-FREE INTERATOMIC POTENTIAL DEVELOPMENT AND MODELING
OF TRANSITION METAL CARBIDES

Faculty Advisor: Dr. Ridwan Sakidja