# Fall 2018 Awards

#### **Biological Sciences Department**

Faculty Sponsor: Dianne Baker Student: **Rachel Summers -** Embryonic development of the stress hormone axis in teleosts

Faculty Sponsor: Rosemary Barra Student: **Sara Fioretti** – Combined Effects of Statins and Chemotherapeutic Agents on Cancer Cells

Faculty Sponsor: Lynn Lewis Student: **William Harrison** – The Effects of Digoxin and Doxorubicin on a breast cancer cell line

Faculty Sponsor: Abby Tomba Student: **Anna Ruuskanen**– Trematodes of Cyprinids

Faculty Sponsor: Deborah O'Dell Student: **Olivia Blake**– Dopamine Receptor Expression on Worker Honey Bees in response to Queen Mandibular Pheromone

Faculty Sponsor: Parrish Waters Student: **Sarah Balenger -** Behavioral acquisition and analysis techniques in bilaterally bulbectomized CD-1 mice Student: **Anna Rinko-** Patterns of Wheel-Running in Bulbectomized Mice

Faculty Sponsor: April Wynn Student: **Emily Contompasis -** The Effects of Environmental Conditions on Expression of the ETTIN Gene in Perianthia Mutant Arabidopsis Thaliana

#### **Chemistry Department**

Faculty Sponsor: Leanna Giancarlo Student: **Daniel Arango** – Metal Content of VA Reservoirs

Faculty Sponsor: Davis Oldham Student: **Lindsey Jones** – Synthesis of piperidine-based inhibitors of KasA, an essential enzyme in M. Tuberculosis

Faculty Sponsor: Randall Reif Student: **Catherine Zwemer** – The Temporal Dynamics of the Extrinsic Process of Apoptosis

Faculty Sponsor: Kelli Slunt Student: **Catherine Zwemer -** Investigating the Temporal Dynamics of the Intrinsic Process of Apoptosis

#### Classics, Philosophy, & Religion Department

Faculty Sponsor: Daniel Hirshberg Student: **Jarrett Ashby** – Secularism in Nepal: Case Study on the Transition from Monarchy to Secular State

### Earth & Environmental Science Department

Faculty Sponsor: Pam Grothe
Student: Kathleen Elliott - Isotope Hydrology: the seasonality of oxygen and hydrogen isotopes in meteoric, fluvial and groundwater
Student: Andrea Moore - Constraining the Mid-Holocene ENSO Minimum in the Central Pacific Using Geochemistry of a 5,000 year-old Porites Fossil Coral
Student: Cheyenne Palmo - Water Isotope Semantics: A survey of paired salinity and ō180 in Chesapeake Bay and its tributaries
Faculty Sponsor: Ben Kisila

Student: Grace Rihl - Sediment Accumulation and trace metal input in Lake Manassas and Lake Occoquan Students: Grace Rihl, Daniel Argo, & David Jett - Sediment accumulation and trace metal input history in Lake Manassas and the Occoquan Reservoir

Student: Lauren Chartier - The Effects of Sand Mining on Crop Quality Student: Thanh-Binh Duong - Assessment of Spatial and Temporal Distribution of Micro plastics in the Lower Chesapeake Bay Basin, USA

#### **Geography Department**

Faculty Sponsor: Dawn Bowen Students: **Darby Libka & Jordan Chandler**- Memorialization of World War II on the National Mall

Faculty Sponsor: Jackie Gallagher

Student: Eli McCleary - Earthquake Preparedness in Children and Young Adults in Northern Virginia

Faculty Sponsor: Joe Nicholas Students: - Team VA in the SEDAAG World Geography Bowl Competition

Faculty Sponsor: Melina Patterson Students: Lilly Lester, Hannah Woehrle, Lindsey Minges, & Sarah Giuseppe- Exploring the Geographies of Children

#### **Historic Preservation Department**

Faculty Sponsor: Andrea Livi Smith Student: **Ilana Bleich**- The First Competition: Environmental & Cultural Sustainability in the Olympics' Built Environment

Faculty Sponsor: Lauren McMillan Student: **Elizabeth O'Meara**- Wine Bottle Seals at Nomini Plantation Archaeological Site

#### Mathematics Department

Faculty Sponsor: Jeb Collins Students: **Makenzie Clower & Riley Anderson** - Predicting Parameters for Bertini Using Neural Networks

#### Modern Languages and Literature Department

Faculty Sponsor: Maysoon Al-Sayed Ahmad Students: Gail Crunkhorn, Mackenzie Poust, & Chase Lacy - Capital Area Regional Model Arab League Conference

## Music Department

Faculty Sponsor: Michael Bratt Students: Arthur Dragone & Samuel Bradshaw - Electro Acoustic Barn Dance

#### **Psychological Science Department**

Faculty Sponsor: Hilary Stebbins Student: **Megan Jacobs** - Sleep deprivation, circadian rhythm, cortisol, and stress

### Theatre and Dance Department

Faculty Sponsor: Gregg Stull Student: **Patrick Regal** – All the Fine Boys Students: **Aaron Hoffman, Victoria Fortune, Erin Foster, & Madeline Petroskey** – First Year Showcase Festival