#### What is Undergraduate Research/Scholarly Activity?

An inquiry or investigation conducted by an undergraduate student that makes an original intellectual or creative contribution to the discipline (as defined by the <u>Council on Undergraduate Research</u>).

Not limited to science and engineering majors, but rather encompasses all disciplines, including the arts, humanities, social sciences, behavioral sciences, health sciences, and STEM (science, technology, engineering, and mathematics).









# Office of Undergraduate Research (UGR)

- ✓ Open to all undergraduate students, all majors
- ✓ Connect students with on-campus/off-campus research & scholarly opportunities.
- ✓ Students are exposed to and prepare for future opportunities and careers.
  - ✓ Explore UGR: <a href="http://undergraduateresearch.wvu.edu">http://undergraduateresearch.wvu.edu</a>
  - ✓ <u>Visit UGR:</u> 305/306 Student Services Center
  - ✓ Contact UGR: undergradresearch@mail.wvu.edu; (304)293-9354
  - ✓ Dr. Michelle Richards-Babb (Director), Dr. Kimberly Quedado (Asst. Director), and Kevin Walden (Program Specialist)



## Undergraduate Research Examples

- ✓ <u>Kayla Tokar</u> (Major: Music; Mentor: Travis Stimeling)

  Why the South Carolina Negro Code of 1740 Matters in 2019.
- ✓ <u>Kailee Gokey (Major: Geology; Mentor: Ken Brown)</u> *Urban Legacies: Linking Glass Manufacturing to Soil Pollution in Morgantown, WV*
- ✓ <u>Brian Kotson</u> (Major: Psychology; <u>Mentor</u>: <u>Steven Kinsey</u>)

  The Cannabinoid Drug ZCZ011 Does not Alter Anxiety or Reward in Mice
- ✓ <u>Nolan Holley</u> (Major: Biochemistry; Mentor: Laura Gibson)

  Identification of a Sulfonamide Analog that Reduces Cell Viability in B-cell Acute Lymphoblastic Leukemia
- ✓ <u>Cornell Brown</u> (Major: Marketing; Mentor: Olga Bruyaka Collignon) **Airline Dissolution**



# How Students Begin

Begin by volunteering/shadowing faculty members/grad students as they carry out research/scholarly activities. If thrived in that environment, continue via:

- ✓ Volunteer/Shadow: Continue the activity as academic schedule permits.
- ✓ Course Credit: Enroll in an undergraduate research course. Many WVU majors offer a 497-level UG research course (e.g., CHEM, ACE, HONR, OTH) or capstone experience (e.g., BIOL 386) to earn credit.
- ✓ Research Program: Continue research through a summer UG research experience program (e.g., <u>SURE</u>) or an academic year program (e.g., <u>RAP</u>).
- ✓ Faculty Supported: Some faculty members have grant funding to support UG researchers. Typically this funding is reserved for advanced UGs with documented experience in research with the faculty member.



# Finding a Faculty Mentor for Research/Scholarly Activity

✓ We encourage students to think about their background, interests, and professional goals.



- ✓ Example: Majoring in chemistry with an interest in toxicology & a desire to work in the pharmaceutical industry?
  - ✓ Then, do not limit search to chemistry department faculty.
  - ✓ Also consider faculty members from the School of Pharmacy & Biomedical Sciences program.
- ✓ <u>Search</u> websites of relevant WVU schools, departments, and programs and read up on faculty research interests.
- Narrow down search for a faculty mentor to three or fewer. Finding a faculty research mentor is the hardest part. UGR can help!



### Research Apprenticeship Program (RAP)

- Academic year and 2-semesters
- No research experience required to participate in apprenticeships with WVU research faculty.
- Students participate in wide array of disciplines (business, geography, women's studies, chemistry, pharmacy, medicine, public health).
- Federal work study and/or course credit
- Assistance with finding a research mentor
- Professional development through 1-credit research course
- Questions: Contact Dr. Kimberly Quedado <u>RAP@mail.wvu.edu</u> or (304)293-7382



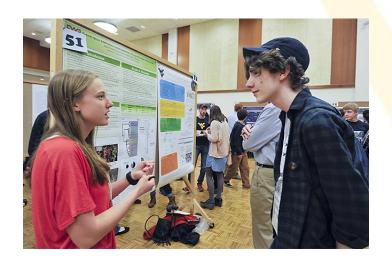
#### WVU Summer Undergraduate Research Experience (SURE)

- Provides Stipend of \$3,700 per UG for 8-weeks of full-time mentored research and \$500 of enrichment. Accompanied by 1-credit class involving workshops, career mentoring, trainings, and culminating poster symposium.
- Applications due in early March
- # UG supported 50 UG/summer. Competitive application process.
- <u>Limitations?</u> UG must permanently reside in WV or attend WV institutions, and be U.S. citizens or permanent residents of U.S. Also, must be interested in research and attending graduate school.
- <u>Funding</u> By state of WV: Research Challenge Fund grant, HEPC Division of Science and Research. Augmented by internal funding provided by Provost, Statler, Eberly, Davis, HSC, Chemistry and Biology Depts., CPASS, Business and Creative Arts.



#### **On-Campus Programming**

 Spring Undergraduate Symposium: Campus-wide symposium to celebrate scholarly activities. Coordinated with Decide WVU Day for current high school students and parents. This year's event was held April 12-13 (180 posters & 6 orals).





 Workshops: Such as NSF GRF, Introduction to UG Research, How to Communicate Research

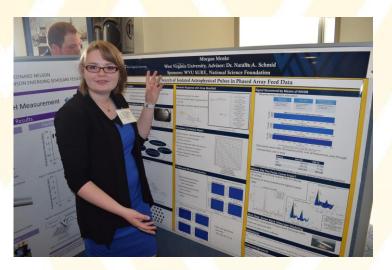


#### Other Programming (cont.)

Support undergraduates in applying and attending:

 NIST SURF: 11-week research opportunity at a national lab. 2016-18: 32 applicants, 12 offers and 10 participants.





 CUR Posters on the Hill: Competitive abstract submission for 2-day conference to promote research in Nation's Capitol and to Legislators. WVU undergrad representative in each of 2016, 2017, 2018 & 2019.



#### Other Programming (cont.)

Support undergraduates in applying and attending:

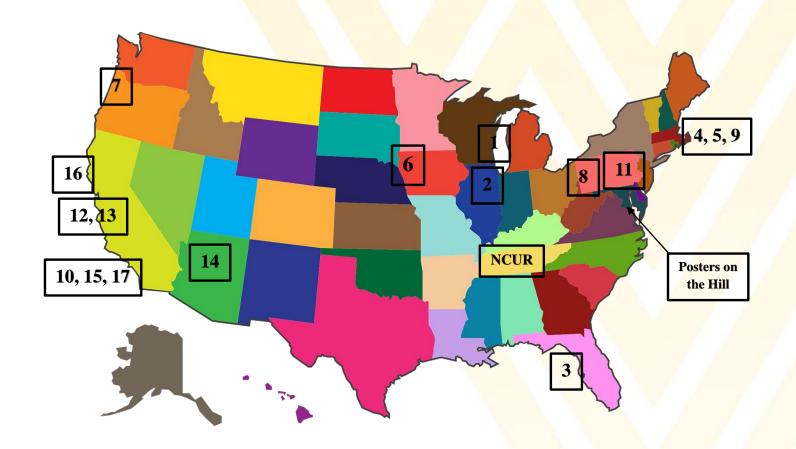
<u>NCUR</u>: Nationwide <u>undergraduate</u> research conference. Eighteen (18) student representatives (chemistry, biology, biochemistry, engineering, history) in <u>spring 2017-2019</u>.



Competitive Travel Funding: \$500 for 10 UG/year. UG must apply.
 Application includes budget and budget justification.



# Conference Locations at which WVU Undergraduates Presented Their Research in 2017





# External Opportunities



- ✓ Explore External Opportunities at UGR:
  <a href="https://undergraduateresearch.wvu.edu/research">https://undergraduateresearch.wvu.edu/research.wvu.edu/research.poportunities</a>
- ✓ Explore External Opportunities at the S.O.C.: <a href="https://honorswvu.wufoo.com/forms/q1808uq71">https://honorswvu.wufoo.com/forms/q1808uq71</a> <a href="https://kspyiw/">k5pyiw/</a>

