

Creating Scientific and Graphical Abstracts as an Interactive Session in a Summer Research Fellowship

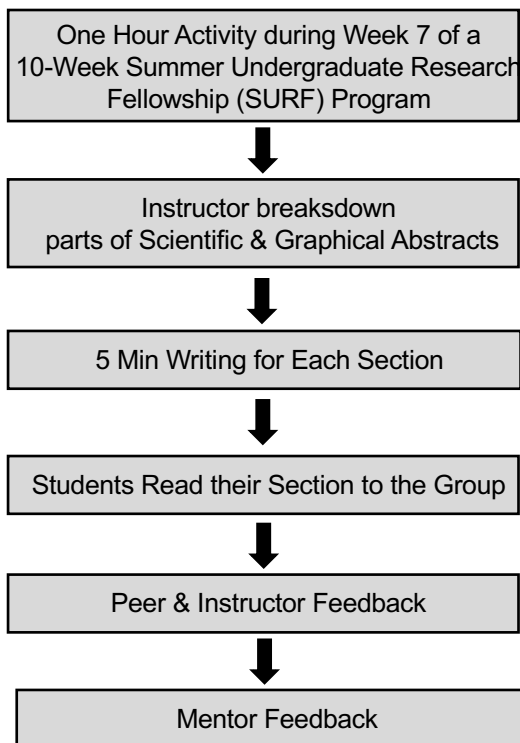
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Abstract

Short-term research experiences such as summer fellowship programs provide students with an opportunity to develop their research skills, explore career options, and improve written and oral communication skills. Most summer research programs for undergraduate students require a final poster or podium presentation. At Rutgers University, we developed an interactive session for undergraduate students to conceptualize and draft written and graphical abstracts that would summarize the major findings of their research and be distributed at our research symposium. During week 7 of a 10-week summer undergraduate research fellowship, students learned about the major components of an abstract using a variety of examples. Students were also taught common pitfalls to avoid in communicating research findings. After the discussion of each of the opening sections (title introduction, hypothesis, and methods), students were provided 5-minutes for writing. After each portion of the abstract was composed, students volunteered to share their writings with the group, and the moderator provided constructive comments. Different examples of graphical abstracts were also presented to the students. Twenty-seven students submitted abstracts during week 9 of the summer fellowship program which were assembled into booklets for the final research presentations. This interactive activity received the highest programmatic rating of the summer fellowship with a mean score of 4.39 (± 0.71 SD) on a Likert scale of 1 to 5 with 5 representing the highest possible rating. Other weekly activities were also well-received with mean scores ranging from 3.57 to 4.32. Taken together, an interactive session that includes didactic instruction and student responses allow undergraduate students to begin writing and designing their written and graphical abstracts as part of a summer research fellowship.

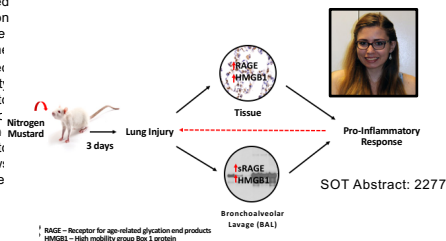
Approach



Example Graphical Abstracts

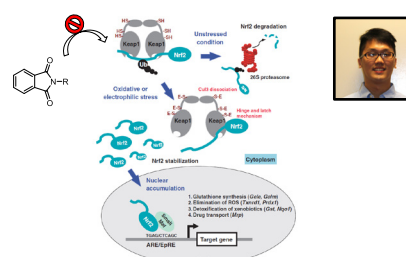
RAGE Expression in Nitrogen Mustard Induced Acute Lung Injury in the Rat

Alyssa Bellomo & Debra Laskin
Kean University and Rutgers University



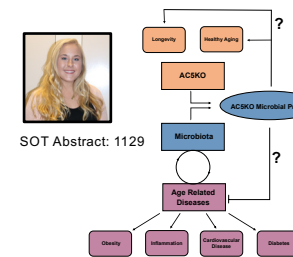
Design and Synthesis of Potential Phthalimide-Based Inhibitors of Keap1-Nrf2 Protein-Protein Interaction

Jensan Liu & Longqin Hu
Rutgers University



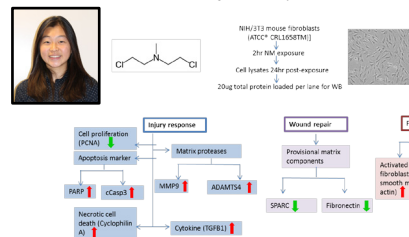
Examining the Contribution of the Microbiota to the Healthy Aging AC5KO Phenotype

Erin Jennings & Sara Campbell
King University and Rutgers University



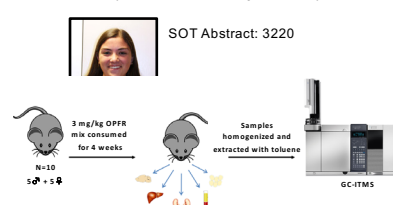
Dose-Response Toxicity of Nitrogen Mustard on Mouse 3T3 Fibroblasts

Amy Hu, Donald Gerecke & Yoke-Chen Chang
Rutgers University



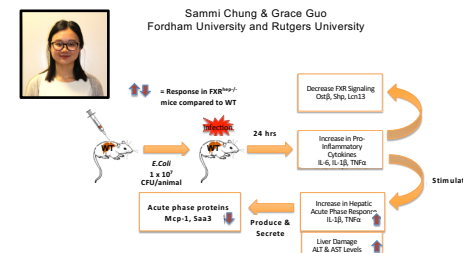
Gender Impacts on the Uptake of Organophosphate Flame Retardants by C57BL/6 Mice

Brittany Rickard & Brian Buckley
University of the Sciences and Rutgers University



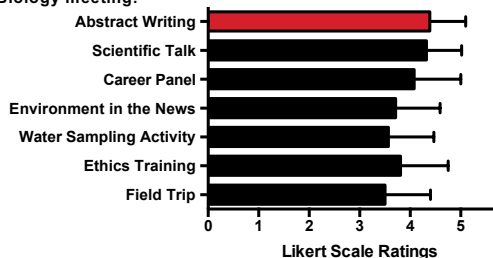
Role of FXR in Regulating the Hepatic Acute Phase Response in a Bacterial Model

Sammi Chung & Grace Guo
Fordham University and Rutgers University



Assessment & Outcomes

- Weekly fellowship activities are well-received by participants.
- Notably, the Abstract Writing activity had the highest rating.
- Four SURF participants are presenting research posters at the 2018 Society of Toxicology meeting
- Three SURF participants are presenting research posters at the 2018 Experimental Biology meeting.



Acknowledgments

