Kelsey Sheard, Ph.D.
Silver Spring, MD 20902
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EDUCATION

2016 – 2022 **Ph.D. Molecular and Cell Biology,** Uniformed Services University of the Health Sciences
Dissertation Title: "Clueless is a novel stress-responsive ribonucleoprotein particle"
Thesis Advisor: Rachel Cox, Ph.D.

2009- 2011 **B.S. Biology,** Georgia Institute of Technology

RESEARCH EXPERIENCE

2016 – 2022 **PhD Candidate**
Uniformed Services University, Thesis Advisor: Rachel Cox, Ph.D.

- Investigation of the protein Clueless as an uncharacterized ribonucleoprotein particle in *Drosophila*
- Elucidation of Clu's molecular mechanisms and effects on mitochondrial function in *Drosophila*

2014 **ORISE Fellow**
Biochemical Mass Spectrometry Laboratory, Advisor: Victor de Jesus, Ph.D.
Project Title: "Analysis of Thyroxine (T_4) from Dried Blood Spots by Tandem Mass Spectrometry"

- Research and development to integrate thyroxine into the existing mass spectrometry screening screen for inborn errors of metabolism

2014 **ORISE Fellow**
Biochemical Mass Spectrometry Laboratory, Advisor: Donald Chace, Ph.D.
Project Title: "Development of Amino Acid, Acylcarnitine, and Total Protein Assays from Dried Milk Spots"

- Research to develop immunoassays and mass spectrometry assays for biochemical markers on the newborn screening panel from dried milk spots

2011 **Senior Research Experience**
Georgia Institute of Technology, Advisor: Kirill Lobachev, Ph.D.
Project Title: "The Role of DNA Helicases Rvb1 and Rvb2 on DNA Repair and Metabolism"

- Investigated the effects of chromosomal mutations and rearrangements on eukaryotic genome instability in yeast

PROFESSIONAL EXPERIENCE

2012 – 2016 **Biologist ORISE Fellow**
Centers for Disease Control and Prevention
- Responsible for the congenital hypothyroidism quality control and hormone proficiency testing programs within the Newborn Screening Quality Assurance Program

2010 – 2011 **Cleanroom Technical Staff Member**
Institute for Electronics and Nanotechnology, Nanotechnology Research Center
- Trained under experienced engineers to become proficient in the operation, application, and technical support of nanotechnology in support of applications to academic and industrial research

AWARDS

2019 Vice President of Research's Travel Award
Uniformed Services University

2018 Vice President of Research's Travel Award
Uniformed Services University

2007 – 2009 NASA Science, Technology, Engineering, and Mathematics Scholarship
Georgia Southwestern State University

PUBLICATIONS

Sheard, Kelsey M. and Cox, Rachel T. (2021) "Addition of Hydrogen Peroxide to Drosophila Egg Chambers During Live Imaging." *Journal of Visualized Experiments.*

Sheard, K.M., Thibault-Sennett, S.A., Sen, A., Shewmaker, F., and Cox, R.T. (2020). "Clueless forms dynamic, insulin-responsive bliss particles sensitive to stress." *Developmental Biology.*

PRESENTATIONS

Sheard, Kelsey. June 2021. Clu bliss particles function in the translation and import of nucleus-encoded mitochondrial proteins. Molecular and Cell Biology Student Seminar Series, Uniformed Services University, Bethesda, Maryland. Student seminar speaker.

Sheard, Kelsey. May 2021. Clu bliss particles function in the translation and import of nucleus-encoded mitochondrial proteins. Graduate Student Colloquium, Uniformed Services University Research Days, Uniformed Services University, Bethesda, Maryland. *Invited speaker*.

Sheard, Kelsey. April 2021. Clu bliss particles function in the translation and import of nucleus-encoded mitochondrial proteins. *61th Annual Drosophila Research Conference*. Virtual. Poster presenter.

Sheard, Kelsey. May 2020. Clu bliss particles respond to nutritional regulation in *Drosophila* germ cells. Molecular and Cell Biology Student Seminar Series, Uniformed Services University, Bethesda, Maryland. Student seminar speaker.

Sheard, K.M and Cox, R.T. May 2020. Clu bliss particles function in the translation and import of nucleus-encoded mitochondrial proteins. Uniformed Services University Research Days, Uniformed Services University, Bethesda, Maryland. Poster presenter.

Sheard, Kelsey. April 2020. Clu bliss particles respond to nutritional regulation in *Drosophila* germ cells. *The Allied Genetics Conference 2020*, Virtual. *Invited speaker*.

Sheard, Kelsey. March 2020. Clu bliss particles respond to nutritional regulation in *Drosophila* germ cells. *Drosophila* Neurobiology Colloquium, National Institutes of Health, Bethesda, Maryland. Seminar speaker.

Sheard, Kelsey. May 2019. Clueless forms dynamic, insulin-responsive bliss particles sensitive to stress. Molecular and Cell Biology Student Seminar Series, Uniformed Services University, Bethesda, Maryland. Student seminar speaker.

Sheard, K.M., Thibault-Sennett, S.A., Sen, A., Shewmaker, F., and Cox, R.T. 2019. Clueless forms dynamic, insulin-responsive bliss particles sensitive to stress. 2019 NHLBI Mitochondrial Biology Symposium on Mitochondrial Networks & Energetics, Bethesda, Maryland. Poster presenter.

Sheard, K.M., Thibault-Sennett, S.A., Sen, A., Shewmaker, F., and Cox, R.T. 2019. Clueless forms dynamic, insulin-responsive bliss particles sensitive to stress. Uniformed Services University Research Days, Uniformed Services University, Bethesda, Maryland. Poster presenter.

Sheard, K.M., Thibault-Sennett, S.A., Sen, A., Shewmaker, F., and Cox, R.T. 2019. Clueless forms dynamic, insulin-responsive bliss particles sensitive to stress. *60th Annual Drosophila Research Conference*. Dallas, TX. Poster presenter.

Sheard, K.M., Sen, A., Cox, R.T. 2018. The role of Clueless in mitochondrial function. Uniformed Services University Research Days, Uniformed Services University, Bethesda, Maryland. Poster presenter.

Sheard, K.M., Sen, A., Cox, R.T. 2018. The role of Clueless in mitochondrial function. *59th Annual Drosophila Research Conference*. Philadelphia, PA. Poster presenter.

PROFESSIONAL AFFILIATIONS AND ASSOCIATION MEMBERSHIPS

American Association for the Advancement of Science
Genetics Society of America