Risk Assessment Form (3) Must be completed before experimentation.

Sumaiyah Khwaja Student's Name(s)
Title of Project Enhanced Mitochondrial Reductive Stress and Cell Death Observed Via the Synergistic
Effect of Glucose Starvation and Ceftriaxone/N-acetylcysteine Treatment on Human Glioma Cells
To be completed by the Student Researcher(s) in collaboration with Designated Supervisor/Qualified Scientist: (All questions must be answered; additional page(s) may be attached.)
 List all hazardous chemicals, activities, or devices that will be used; identify microorganisms exempt from pre-approval (see Potentially Hazardous Biological Agent rules). Glycine, Hydrazine Sulphate, Potassium Hydroxide (KOH), L-lactase Dehydrogenase (LDH), Nicotinamide Adenine Dinucleotide (NAD), Dithiothreitol (DTT), Phosphate Buffer Solution (PBS), Bradford Reagant, Bovine Serum Albumin (BSA), NP LDS Sample Buffer (4x), (see next page)
 Identify and assess the risks involved in this project. Irritation to the skin, mouth, and eyes if chemicals come into direct contact. Swallowing chemicals may induced toxicity and/or respiratory tract irritation.
 Describe the safety precautions and procedures that will be used to reduce the risks. Appropriate protective attire will be worn at all times, including gloves, goggles, closed toed shoes, long pants and lab coats.
 Describe the disposal procedures that will be used (when applicable). Hazardous waste will be properly disposed of in designated containers and will be routinely collected by the Weill Cornell Medicine Environmental Health and Safety Department.
5. List the source(s) of safety information.
Safety data sheets provided by the chemical manufacturer.
To be completed and signed by the Designated Supervisor (or Qualified Scientist, when applicable): I agree with the risk assessment and safety precautions and procedures described above. I certify that I have reviewed the Research Plan/Project Summary and will provide direct supervision.
Evan Noch Evan 7/9 Designated Supervisor's Printed Name Signature Signature Date of Review (mm/dd/yy)
Instructor/Weill Cornell Medicine 6469626173/elch 9001@med. Position & Institution Phone or email contact information cornellaed
MDJPhD Neurocientist Junior Faculty / training of 710 undergraduates Experience/Training as relates to the student's area of research and technicians in neuro-
International Rules: Guidelines for Science and Engineering Fairs 2019 – 2020, societyforscience.org/ISEF2020

Risk Assessment Form (3)

1. List all hazardous chemicals, activities, or devices that will be used; identify microorganisms exempt from pre-approval (see Potentially Hazardous Biological Agent rules). (continuation from previous page)

Ceftriaxone (CTX), N-Acetylcysteine (NAC), Methanol, Seahorse XF Analyzer Buffers, 4-Morpholinepropanesulfonic acid (MOPS), Protease Inhibitor (PI), Cell Signaling Technology Buffer (CST), Tris Buffered Saline with Tween (TBST), Dulbecco's Modified Eagle Medium (DMEM)

PHBA used: 667 Human Glioblastoma cell line originally establish at MSKCC and gifted to the Cantley Laboratory at Weill Cornell Medicine.