

# HARVARD MEDICAL SCHOOL

## Research Assistant Position at Massachusetts General Hospital

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### GENERAL SUMMARY:

A research technician position is available in the laboratory of oncologist Dr. Andrew Elia at Harvard Medical School and Massachusetts General Hospital Cancer Center. The candidate will assist in characterizing DNA damage response pathways necessary for maintaining genomic stability and thereby preventing cancer. This work will also focus on elucidating pathways involved in DNA damage activation of immune signaling. Overall, these studies will help to find new targets for the treatment of tumors with specific DNA repair defects and will help to improve the efficacy of combining genotoxic cancer treatments with immunotherapy. Principal investigator has strong track record of technicians placing into top medical and graduate school programs. Graduating seniors are encouraged to apply. Position will commence between May – August 2024.

### PRINCIPAL DUTIES:

1. Characterize novel proteins involved in DNA damage and immune signaling pathways using cell biology and biochemistry techniques (CRISPR, RNAi, western blotting, immunofluorescence, immunoprecipitation, chromatography, flow cytometry, and reporter gene assays).
2. Perform standard molecular biology techniques (cloning, site-directed mutagenesis, production and purification of recombinant proteins).
3. Perform tissue culture work doing plasmid transfection, retroviral transduction, and lentiviral transduction.
4. Assist in CRISPR functional genomic screen to identify genes required for the selective survival of tumor cells with specific DNA repair or immune signaling defects.
5. Assist with quantitative mass spectrometry proteomics to characterize novel post-translational modifications involved in the DNA damage response.
6. Assist with cancer gene mouse model.
7. Establish new and modify existing research techniques.

### QUALIFICATIONS:

- Bachelor degree in biology, biochemistry, chemistry, biotechnology or related science field
- 1-3 years experience in a molecular laboratory preferred
- Self-motivated, excited by science and medicine
- Independent thinker who takes ownership of work and who performs well as a team member
- Meticulous attention to detail with excellent organizational and analytical skills
- Committed to producing accurate and high-quality work

**APPLICATION:** Please email your CV to Dr. Andrew Elia, MD, PhD at [aelia@mgh.harvard.edu](mailto:aelia@mgh.harvard.edu)