

Mohsin Ishaq

I'm a Molecular Biology Researcher

I am currently in the process of completing my master's degree in molecular and cellular biology at the Illinois Institute of Technology. Prior to becoming a full-time master's student, I was a high school science teacher in the Chicago Public School system. I've taught physics, biology, and environmental science for high school students.

A molecular biologist studies the structure and function of the cell at the level of the molecule. The cell itself is composed of many molecules that have functions woven together in an intricate manner that allow for life to be possible. The cell consists of many organelles and their functions aren't always so defined, in fact the cellular organelles actually depend on each other in order to carry out their own individual functions.



Molecular biologists use various lab techniques, tools, and data to explore the hidden secrets of the cell and to improve upon existing theories regarding the cell.

Current Project

I currently work in a lab that specializes in biological questions related to human diseases. I am currently working on a project related to a gene that is known to have proapoptotic functions. One of the genes that was isolated is shown to have been a prognostic marker for cancer chemotherapy.

I use a technique called immunostaining which is a long procedure used to identify cancer cells within a tissue sample. After identifying the cancer cells within the tissue sample, we then use various techniques to see if there is the presence of a gene known as Bax that is dormant within these cancer cells.

What do you think?

What are some of the most pressing advances to make in cancer research? What are some of the ways that gene therapy research regarding Bax will shape the healthcare and pharmaceutical approaches to treating cancer in the future?