

# The Role of Biology in Overcoming Viruses

Biology has been playing a very big role in our society since the ancient times until now. As one of the branches of science assigned in studying life and living things, it allows us to discover and learn about different organisms through testing, reviewing and experimenting using scientific research methods. Biology allows us to learn about the structure, function, behavior and relationships of living things. Fundamentals of Biology starts from the basic concepts which lets us to deeper understand the connection of each specie and how they work today in the world we are existing in. It enables us to ask questions and answer them through scientific investigation. It gives us idea on where and how life began. Biology continuously provides vital information about the existence of living organisms on Earth.

Through the years, we have encountered various biological issues and problems we are able to find solutions to, through the use of Biology. Like how Dr. Edward Jenner was able to find a vaccine in 1980 to smallpox; an infectious disease that has infected and killed people for a thousand years, Louis Pasteur, known as the father of bacteriology also used science to perform various experimentations to immunization. A lot more viruses such as Polio myetelis (polio), Ebola virus and HIV has become less threatening because of the vaccines that were researched and formulated.

In December 2019, the first case of Coronavirus has been detected in Hubei Province, China. Affected people rapidly increased all over Wuhan and then invaded countries all over the world. Coronaviruses are a group of viruses that can be transmitted between animals and people, causing illnesses that may range from the common cold to more severe respiratory syndromes. In February 2020, the International Committee on Taxonomy of Viruses and the World Health Organization announced official names for both the virus and the disease it causes: SARS-CoV-2 and COVID-19, respectively. The name of the disease is derived from the words- corona, virus, and disease, while the number 19 represents the year that it emerged.

This pandemic shook the whole world into panic because of the it's very sudden begin that put everyone's lives to danger. As of now, there is still not much information about the certain virus. There is still no news of how it all began and how to get rid of this virus. Currently, almost 3.3

million cases have been discovered all over the world with 8,488 cases in the Philippines alone. Public is having anxiety attacks as governments announce lockdown in every country as the initial action in order to prevent virus from growing bigger.

March 13, 2020, Philippine President Rodrigo Duterte has announced that lockdown of Manila because of the first case detected in the country. Zambales and other provinces also locked the areas down in order to take precautions on the said dilemma. It has almost been three months since it happened and people are growing more afraid because of the non-existent vaccine and the growing number of deaths and affected people as of now. However, I have observed that not everyone believes the existence of this virus until now. Other people say that they are only “fiction stories” made by the government in order to take full authority over the mass. I believe this is because there is no detailed information about this virus have been told to the public yet. Information such as the symptoms, transmission, prevention and primary precautions are the only thing people know which brings fear into everyone but no understanding of what is really happening. This pandemic not only brought health problem to the world but also brought life-sacrifices, poverty, hunger, fear and anxiety into the situation.

Fortunately, the world is slowly healing. There has been cases of recoveries and that news brought light into the eyes of everyone. Number of recoveries has been greatly increasing as well, and doctors and scientists are also starting to find out more background of COVID-19. There are now number of possible cures that can be used for this disease. Virology can be used to learn the behavior of these viruses. Human Biology can be used to understand how diseases or infections affect the functionality of the body, the parts of the body mainly affected by it and where in the body should be improved in order to prevent diseases from hitting us. Epidemiology is the study of diseases in a given population and examine where and how diseases are transmitted from one person to another and how to effectively treat them. By experimenting, researching, and technology, we gather more learnings and idea and improve them bit by bit in order to formulate the best cure in different types of biological issues including the novel coronavirus or which is known as COVID-19 pandemic.

Whenever there is something that we do not understand, we start to come up with assumptions and feel very curious about them which is why Biology exists in the first place, however as we learn something, we start asking more questions but we gain clarity and understanding into them as we dig deeper.

We define Science as a catalogue of observations or list of information to understand the world around us and a systematic way of explaining a wide range of phenomena in the simplest possible manner which also proves that Biology, being another branch of science is a very huge answer to solve the pandemic we are currently experiencing. Biology covers all the living organisms in the Earth therefore we are able to learn about them through learning and using all the concepts of it that supports each other. Overall, with the help of Biology, we are able to rise questions and find answers by studying every variable in the problem, come up with ideas until we arrive to the closest possible answers to problem we are seeking to know while crossing out the assumptions we had and gaining more knowledge to everything we want to find answers to, meticulously and start another discovery that will benefit everyone in the long run. Sooner or later, as we continue to study the phenomena, we will be able to find the perfect vaccine for this COVID-19 and drive the fears of people as Biology plays the biggest role in this.