Here's your chance to be a scientist at home!

Many of us may be wishing that there was more we could do to contribute and help others these days. I am going to share with you some things you can be doing AT HOME that can help scientists. Some are directly related to helping the fight against COVID-19, and some are aimed at helping scientists take care of our planet and each other. All that these tasks require are you, a computer and internet access.

Fold.it is a game you play on your computer, trying to solve puzzles that are designing proteins that can help treat diseases like COVID-19. Scientists need to figure out which protein structures can be effective, but because there are so many possibilities and combinations, it is hard work that takes a lot of time. By playing the game, you can help identify protein designs that could lead to important medical breakthroughs.

Covid Near You is a way to contribute to the scientific database of where disease is spreading, by reporting your daily health status. Epidemiologists in the US are struggling to track this disease because of limited testing, so by reporting how you are feeling, you will contribute to the base of knowledge. Similarly, Covid-19 Citizen Science has an app you can download and share that allows scientists to perform public health studies that are difficult to do in times of social distancing, but important for helping determine how disease spreads.

There are many citizen science initiatives unrelated to the current pandemic. Zooniverse has many projects that let you capture real data to help scientists study things like disease and the environment. Bash the Bug asks you to inspect patient samples to help identify which antibiotics are effective in fighting tuberculosis. Penguin Watch asks you to monitor video footage and count the penguins you see. You can try to identify muon rings in space, listen for earthquakes or see what kind of animals are using watering holes in East Africa. Or more locally, track the birds that come to your backyard with eBird, or as flowers start to bloom this spring, look for bees and log what you find at the Bumblebee Watch.

We may be confined these days, but we all have the opportunity to contribute to global science.