Cystic fibrosis (CF) is the second most common lethal genetic disease in the United States. One thousand new cases are diagnosed each year, usually in young children. There is no cure, but thanks to dedicated medical researchers, life expectancy for those living with the disease continues to increase.

Hwang is among these dedicated researchers. He focuses his research on a protein molecule in the body, called the CFTR channel, by which chloride moves in and out of cells. CF is caused by mutations that reduce activity in this channel. Hwang identified two amino acids in the CFTR protein that act as a gate, regulating the flow of chloride ions through this important transport protein.

Funded by leading scientific organizations including the Cystic Fibrosis Foundation and the National Institutes of Health, Hwang has made discoveries that shed light on the mechanisms of CF. His advancements could potentially provide information for new drug development and treatments. Dr. Tzyh-Chang Hwang is a professor emeritus of medical pharmacology and physiology in the School of Medicine.