

## ACE2-Fc, decoy antibody blocks SARS-CoV-2 entry and infection



Prof. Pan-Chyr Yang

National Taiwan University College of Medicine

### Experience:

As the leader of this international collaboration joint project, he is a Distinguished Professor and Chair Professor of Internal Medicine at National Taiwan University (NTU). He served as President of NTU (2013-2017), the Superintendent of the Cancer Research Center of National Taiwan University Hospital (2011-2013), Dean of the College of Medicine (2007-2013), and the Vice Superintendent of National Taiwan University Hospital (2004-2007). His major research interests include lung cancer genomics, and personalized cancer therapy.

### Market Needs:

The COVID-19 pandemic has been causing devastating damage worldwide. To date, there are no effective strategies to combat SARS-CoV-2 infection. This decoy antibody market can spread all over the world.

### Our Technology:

We design a humanized decoy antibody (ACE2-FC fusion protein) that specifically binds to the SARS-CoV-2 Spike protein and blocks entry of six clinical isolates including the D614G variant strains with high infectivity, thus inhibiting SARS-CoV-2 infection of host cells. The preservation of the peptidase activity in the ACE2-Fc fusion protein was shown to reduce the angiotensin II-mediated cytokine cascade. This decoy antibody could also activate the degranulation of NK cells.

### Strength:

This decoy antibody could block virus infection and impair inflammation.

### Competing Products:

Full length ACE2 is the competing product. The half-life of full length ACE2 is shorter than our decoy antibody. According to paper report, the enzymatic activity of shorter ACE2 is better than full length ACE2.

### Intellectual Properties:

### Contact (do not need to fill out):

Center for Industry-Academia Collaboration, NTU

This information herein is intended for potential license of NTU technology only. Other usage of all or portion of this information in whatever form or means is strictly prohibited. Kindly contact us and we will help to achieve your goal the best we can.

Tel: 02-3366-9945, E-mail: ordiac@ntu.edu.tw



This information herein is intended for potential license of NTU technology only. Other usage of all or portion of this information in whatever form or means is strictly prohibited. Kindly contact us and we will help to achieve your goal the best we can.