



## COVID-19 VACCINE: NUCLEOCOUNTER® USED TO MANUFACTURE ChAdOx1 nCoV-19

### Introduction

The Edward Jenner Institute at the University of Oxford is at the forefront in the battle against COVID-19. They are producing the novel peptide-based coronavirus vaccine, ChAdOx1 nCoV-19, renamed AZD1222.

Dr. Carina Joe invented the large scale cGMP manufacturing process: *“I am a lead scientist for upstream and downstream process development for large-scale cGMP manufacturing for AZD1222. Our COVID-19 vaccine candidate is currently in the last stage of clinical trial. It has now been produced in 16 cGMP labs worldwide.”* [October 2020]



*“I chose the NucleoCounter® NC-202™ because of its precision in cell counting, and because it is smaller compared to the other cell counters on the market. I work with mammalian cells that grow to a very high cell density, at which they tend to aggregate. NC-202™ gives a very precise measure for aggregated cells with minimal error.”*

**Dr. Carina Joe, Lead Scientist, Edward Jenner Institute, University of Oxford**

### Challenges

When developing their COVID-19 vaccine, the Jenner Institute works primarily with the T-REx™-293 cell line for vaccine expression studies. They found cell counting challenging because the T-REx™-293 cell line aggregates at high densities. The previous instruments they had used were producing inconsistent results and did not provide the required precision, making process control and standardization difficult.

Looking for alternatives, they tested the NucleoCounter® NC-202™ and found its precision and consistency in counting aggregated cells to be superior.

Learn more about the Edward Jenner Institute at:  
[www.jenner.ac.uk](http://www.jenner.ac.uk)



### ACHIEVE RAPID AND PRECISE CELL COUNTING FOR COVID-19 VACCINE MANUFACTURING

The NucleoCounter® NC-202™ is the most precise automated cell counter on the market. Stable, high quality components and advanced calibrations bring you robust data and unrivaled performance.

- Dedicated assay for counting aggregated cells in a few simple steps
- Minimal data variation across instruments, users and sites
- No interference from debris or noncellular particles
- 21 CFR Part 11 / GMP-ready software handles data automatically
- Standardizes process control
- No calibration or manual focusing necessary



NucleoCounter® NC-202™