

# Case Study

## CAPSUGEL, CAMBRIDGE, UK

### THE OBJECTIVE:

**To develop a high containment solution for Xcelodose® precision powder micro-dosing system.**

The Xcelodose precision powder micro-dosing system is used extensively in the production of small scale batches for clinical trials.

Capsugel had received an increasing number of requests to handle high potency compounds.

PSL were chosen to design and produce a high containment solution with operator exposure levels (OELs) of  $< 1\mu\text{g per m}^3$ .

### THE SOLUTION:

#### **The Xceloprotect™ Isolator.**

Capsugel and PSL decided from the onset that they would strive for an innovative, highly ergonomic solution rather than simply placing an Xcelodose system inside a standard glovebox.

Both parties agreed with a passion to devise a revolutionary new product, utilising a radical approach to the design.

PSL thoroughly assessed the Xcelodose system's operations to ensure high performance without any compromise including generating several 3D models.

Extensive full scale ergonomic studies were undertaken to refine a design which allowed good viewing ability and reach, through applying novel engineering construction methods.

PSL carefully considered capsule filling accuracy during design with a series of operational trials, including OEL measurements.

