# Wilton Centre FUJIFILM Diosynth Biotechnologies

**Andy Topping**, Chief Scientific Officer for FUJIFILM Diosynth Biotechnologies, talks about the company's work in contract development and manufacture of biotherapeutics.

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PART OF

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KNOWLEDGE

### Please tell us about FUJIFILM Diosynth Biotechnologies.

A couple of decades ago, FUJIFILM was best known as a manufacturer of 35 mm photographic film. However, digital photography was taking over and so the company diversified into other areas, one of them being healthcare, covered by subsidiaries like FUJIFILM Diosynth Biotechnologies. The company's focus is on contract development and the manufacture of biotherapeutics – complex biological medicines that are made by natural systems, such as microorganisms or mammalian cells. This is a huge growth area; biologics are emerging that treat arthritis, high cholesterol and various cancers, and many of these are monoclonal antibodies. Our services include anything from the initial development work looking for these drugs, through to supporting their experimental use in clinical trials and commercial manufacture.

#### Who are your clients and where are they based?

Our clients are large pharma and biotech companies, and about two thirds of the work carried out by the Wilton team comes from North America. Geography doesn't tend to be a consideration for our kind of work, since the important regulatory bodies such as the Food and Drug Administration (in the US) and the Medicines and Healthcare Regulatory Agency (UK) are quite closely aligned, particularly at the drug substance production stage. This allows companies to contract out projects to facilities with the skills and expertise to undertake the project efficiently and cost effectively, wherever they are in the world.

#### Are you involved in any collaborative projects?

Yes, we have a stake in several projects funded by Innovate UK, and have very close ties with the Centre for Process Innovation (CPI). One of these collaborations is the AMECRYS project, where we are working with CPI in Darlington to establish some completely different technology for the purification of antibody products.

Development and manufacture of biotherapeutics

Nice environment with good facilities Produce monoclonal antibodies

# And what about the Wilton site?

FUJIFILM Diosynth Biotechnologies has two sites in the UK – here at the Wilton Centre and in nearby Billingham – and another two in North Carolina and Texas in the US. This facility was set up specifically to develop processes to produce monoclonal antibodies, from very small scale at 250 ml, to 200 litre processes, before transferring to 2,000 litre-scale production at one of our manufacturing facilities, typically the Texas site. We use a very standard workflow to make the monoclonal antibody products, and have been able to integrate the various disciplines – upstream cell culture, downstream purification and analytics – into one large lab, which is quite different to the way we operate on our other sites. It's a model that works well, and that we'd be happy to replicate.

# Why did you choose this location?

We wanted to establish a monoclonal antibodies facility relatively quickly, but had limited capacity to expand our lab space at Billingham. The Wilton Centre proved ideal; it offered a nice environment with good facilities and had a lot of available space that could be stripped back and equipped to our specification, so we didn't have to compromise on the lab set-up. There was also room for future expansion – we have actually expanded since we set up the original lab and now occupy a larger area of the building.

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