SIMBEC-ORION

FINANCIAL AND REGULATORY ADVANTAGES OF CONDUCTING EARLY PHASE CLINICAL RESEARCH STUDIES IN THE UK.

Simbec-Orion with the Department for International Trade (DIT) hosted an expert panel discussion to examine the financial and regulatory advantages for the US companies conducting Early Phase research in the UK.

The event was facilitated by Professor Trevor Jones CBE FMedSci – former Director General, Association of the British Pharmaceutical Industry (ABPI). He was joined by:

MARC BLAUSTEIN
CEO,
AKASHI THERAPEUTICS
A 20-year biotechnology industry veteran with experience spanning executive leadership, and product development.

HEMANT PATEL
MANAGING DIRECTOR,
SIMBEC-ORION
18+ years' experience leading and transforming clinical pharmacology units in the early phase environment.

Dr SIMON HUTCHINGS
DIRECTOR OF SCIENTIFIC AFFAIRS,
SIMBEC-ORION
An expert in the drug development process focused on the transition between pre-clinical and clinical pharmacology.

RONALD OPENSHAW
GROUP CEO,
SIMBEC-ORION
Former CEO of Plethora Solutions Holding PLC, experienced in leading Biotech to IPO status.

This whitepaper is a summary of the extensive discussion held at Café ArtScience, Boston, MA, USA on March 7TH 2017. The audience comprised of members of the Boston biotech community, Pharmaceutical and Academic representatives.

INTRODUCTION

The UK has a deserved reputation for accredited research centres where volunteers and patients, are well looked after by staff qualified to the highest level and engaged in the highest standards of clinical development.

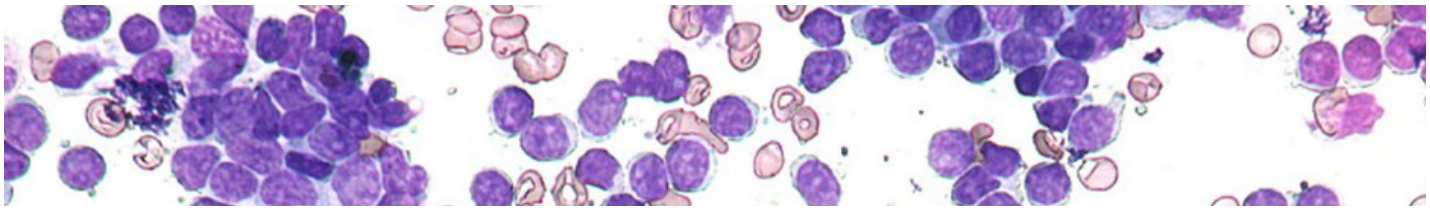
To ensure the highest possible standards the UK regulatory authority MHRA introduced a voluntary accreditation scheme in 2007, whereby units carrying out Early Phase studies are inspected by the authority against classification criteria including clinical trial design and set up, medical emergency management, facilities, staff, subject identification and quality systems.

Our site which conducts First-In-Human studies is located within a 10 minute transfer time of a local hospital if emergency treatment is required; the safety of the individual is paramount.
This ensures a constant approach to quality and safety from leading UK pharmacology units.

FIRST IN HUMAN CLINICAL TRIAL APPLICATIONS

Approximately 52% of Phase I Clinical Trial Applications (CTAs), to the UK regulatory MHRA are for First In Human Studies, between April 2016 until January 2016*.

At Simbec Research (established 1976) our Early Phase Research unit, we have seen a marked increase in the number of US-based Bio-Pharma partners choosing to run their Early Phase studies – in particular First In Human – in the UK.



KEY REASONS TO SELECT THE UK FOR EARLY PHASE RESEARCH

1. THE MHRA IS TRUSTED BY THE FDA, AND ALLOWS SPONSORS, SMOOTH CO-OPERATIVE DIALOG

The reputation of the MHRA and its partnership with the EMA – is recognised by the FDA for providing reputable quality data for its submissions.

Recent changes by the FDA has resulted in a more prescriptive process. For example, when requesting a meeting, you now have to submit the briefing package at the same time. This can result in a significant delay just to answer a simple question.

Many of our US customers have specifically chosen to place their studies in the UK because of the cooperative nature with the MHRA, which allows for open dialogue without being held to a specific meeting, as well as the smooth application process for CTA submissions.

HEMANT PATEL – MD SIMBEC-ORION CLINICAL PHARMACOLOGY
SIMBEC-ORION

"The MHRA have always been very open to dialog and talking with us. Simbec Research has been established for 41 years, we are able to contact them directly for generic advice on study design or to clarify points in a GNA letter, this is a very pragmatic way to work for our clients."

2. COLLABORATIVE & INTEGRATED PROTOCOL DESIGN

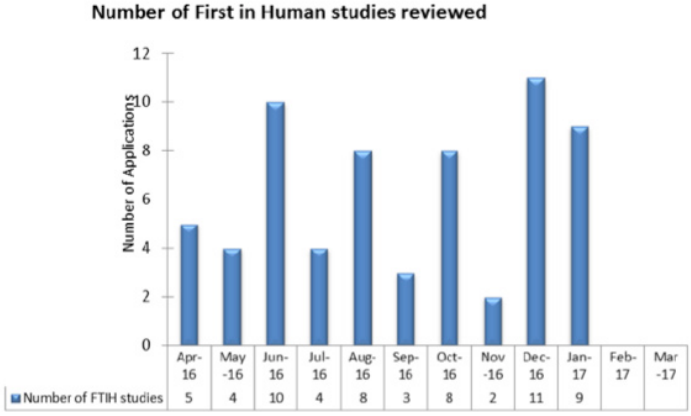
Integrated protocols can accelerate First In Human (FIH) to Proof of Concept (PoC) in patients as soon as possible, by combining multiple standard trials within a single protocol, including single ascending dose, multiple ascending dose, food effect, age and gender studies, as well as efficacy in patients.

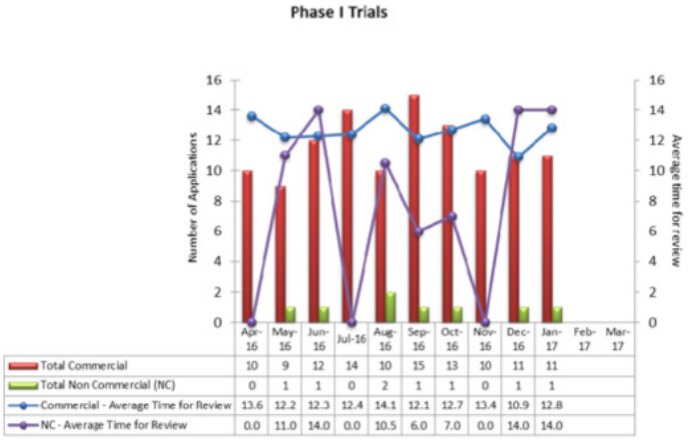
The MHRA are flexible with integrated or umbrella protocol designs – a smooth application process allows a one time clinical trial application versus multiple applications with this approach.

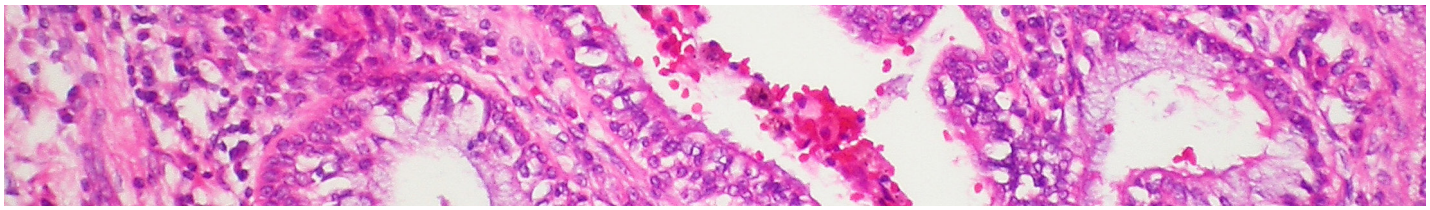
"Although the FDA has historically taken a more cautious approach to umbrella protocols compared with the MHRA, they have accepted data from such trials conducted in the UK for inclusion in IND applications. Therefore, it is important to keep the authority informed throughout the process. A number of USA-based biotech organisations use this approach when working in the UK. This provides key data for funding milestones to attract investors, adds value and de risks."

DR SIMON HUTCHINGS – DIRECTOR OF SCIENTIFIC AFFAIRS
SIMBEC-ORION

source *MHRA www.Gov.UK 2016 – 2017







MARC BLAUSTEIN – CEO
AKASHI THERAPEUTICS

"Think about what the goal of the study is - and once you are focussed on that - then move into the trial design. Another aspect is practicality. And that's where the team at Simbec Research comes in. Their feedback might say, "This piece is not practical for us but maybe we can achieve the goal this way." At Akashi, we had experience with a trial that we were going to implement, an aspect of the trial that we would really like to do, but we thought simply wasn't feasible.

"Simbec Research actually came back and said, "This is how we would like to do it". They were confident enough to do this. And we agreed collectively that this method and approach would it give us much better data. And Simbec actually pushed that; because I think they felt that it would generate better data for us as a client."

"There's an internal process of designing the protocol to achieve the goals, and then there's a practical process, where, you have to work with CRO's such as Simbec Research, who are going to run the study to make sure you can achieve that."

3. FINANCIAL ADVANTAGES: DEFER OPENING AN IND UNTIL YOU HAVE REAL PATIENT DATA TO SUBMIT

There are a number of financial scenarios to prepare for early on; including, raising investment, selling the company or licensing your compound, to be prepared you need to make sure that you are maximizing your compounds value, and what you have to sell is commercially viable. To speed your clinical development program more reliably at a lower cost to reduce the financial risk, whilst maintaining high quality clinical research the solution is that you partner with a UK Clinical Pharmacology Unit like Simbec-Orion.

OPENING AN IND IS AN EXPENSE WITH COSTS RANGING FROM $60,000 - $1M WHICH YOU CAN DEFER FOR 12 – 24 MONTHS, BY USING A UK APPROACH FOR YOUR EARLY PHASE STUDIES.

Wait until you have real human data, which has been through rigorous approval allowing you to run Phase IIb and Phase III studies in the US or another region. Whilst running these studies It is important to have conversations with the FDA at points throughout the process, so when you reach the point of opening an IND you know what data package you will eventually submit.

RONALD OPENSHAW – GROUP CEO
SIMBEC-ORION

"Make the investment when you have the data and this could result in a substantial difference. It could be 25% of the cost of writing an IND to get through to the CTA which is clinically meaningful, so why not do that study in the UK with companies such as Simbec-Orion? It' is cost-effective for biotechs, where you do your clinical studies. But it's also time-effective in terms of both getting further approval by the FDA or the eventual time in market for peak sales."

WHAT MAKES THE UK THE RIGHT PLACE TO CHOOSE FOR YOUR FIRST IN HUMAN RESEARCH?

QUALITY

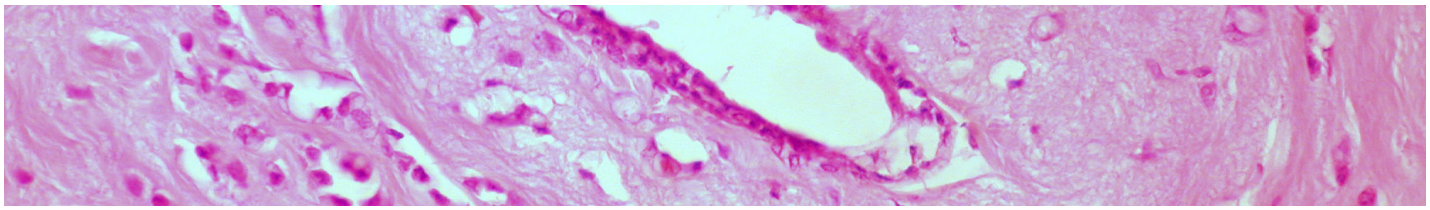
COMMITMENT TO SAFETY

REPUTABLE DATA APPROVED BY THE MHRA

CURRENT EXCHANGE RATES

DELAYING IND APPLICATIONS UNTIL YOU HAVE REAL HUMAN DATA

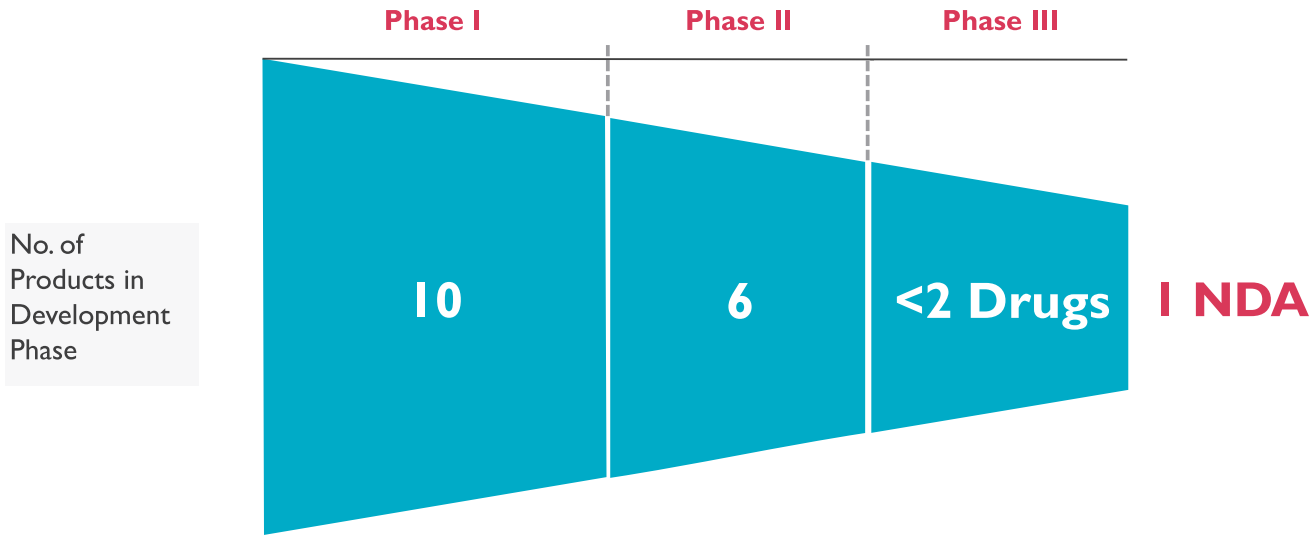
Publication date August 2017



WHY CHOOSE THE UK FOR YOUR CRITICAL FiH STUDIES?

ONLY 1 IN 10 DRUGS ENTERING PHASE 1 WILL RECEIVE AN NDA

Probability Of Drug (All Molecules) Progressing Between Clinical Development Phases*



* Hay M et al. Clinical development success rates for investigational drugs. Nature Biotechnology 2014

ONLY 60% OF ALL MOLECULES ENTERING INTO PHASE I MAKE IT TO PHASE II

With these facts in mind, strategically for your business, where is the best place for you to conduct your early phase clinical studies?

REGULATORY COSTS PRIOR TO FIRST PHASE I STUDY PER MOLECULE

USA	UK
IND Preparation/Submission	CTA Preparation/Submission
$120,000	$30,000
Cost Saving	**$90,000**
Cost Saving to Reach NDA	**$900,000**

REGULATORY TIME PRIOR TO FIRST PHASE I STUDY PER MOLECULE

USA	UK
IND Preparation/Submission	CTA Preparation/Submission
~ 4 – 6 Months	~ 2 Months
Time Saving	**2 – 4 Months**
Extra Revenue Generated*	**Up to $83,000,000**

Simbec-Orion can help you design a program of Early Phase studies to assist your financial and data driven objectives. To discover how email **information@SimbecOrion.com**. Or go to **www.SimbecOrion.com**