UK-CAB 78: Meeting with Theratechnologies

Friday 11 June 2021

# Meeting report

**Present from Theratechnologies:**
Lowri Feeney – Medical Science Liaison, UK
Maurice Leonard – Medical Director, Europe
Lesley McAdam – Commercial Manager, Europe
Conor Walshe – General Manager, Europe
Brandon Cash – Senior Director, Global Medical Affairs

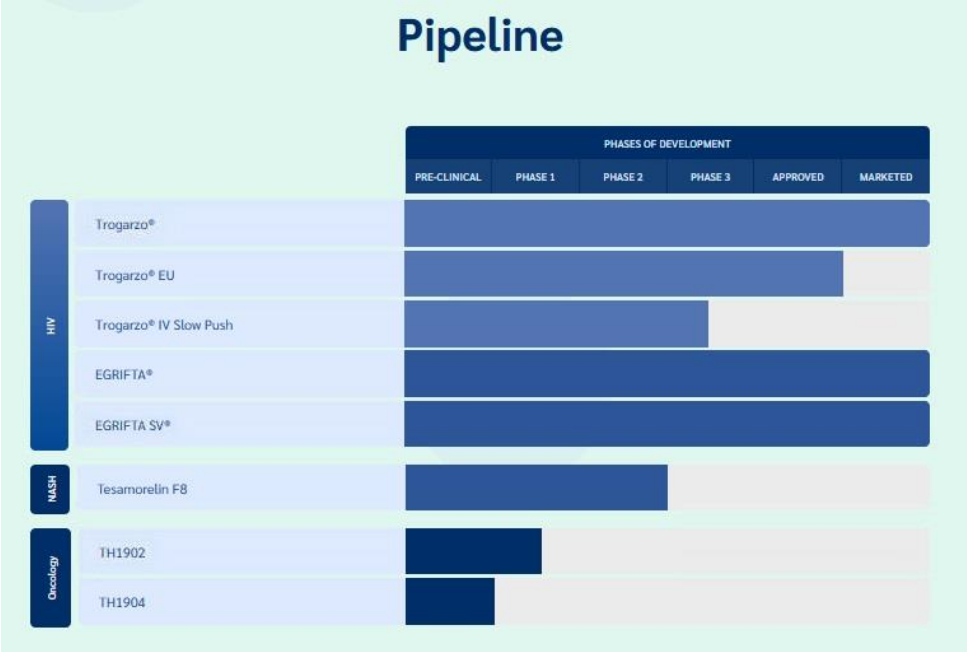
**Meeting Overview**

- Introduction to Theratechnologies
- Ibalizumab
- Tesamorelin

**Introduction to Theratechnologies**

The UK-CAB have not met Theratechnologies before, but have engaged with them previously via teleconferences. Theratechnologies approached the CAB in early 2020 as they expand their presence in Europe and seek the views of the community on the drugs they are developing and want people living with HIV in Europe to be able to access.

Theratechnologies were founded in 1993 in Montreal, Canada. Their work focuses on medical conditions with high unmet needs. They are a small company of 100-150 employees and therefore, have a small number of drugs they are working on. As well as HIV itself they have drugs looking at conditions associated with the virus, and their pipeline is also exploring some therapies in oncology (cancer).



**Ibalizumab**

Theratechnologies provided an overview of their HIV drug, Ibalizumab, branded as 'Trogarzo'. The drug is owned by the Taiwanese company TaiMed who have signed an exclusive marketing and distribution agreement with Theratechnologies.

Ibalizumab is a humanised monoclonal antibody which targets the CD4 cell. A humanised monoclonal antibody is a type of antibody made in the laboratory by combining a human antibody with a small part of a mouse or rat monoclonal antibody. The mouse or rat part of the antibody binds to the target antigen, and the human part makes it less likely to be destroyed by the body's immune system. In this case the antibody is 95% human, and 5% mouse antibodies.

Ibalizumab binds to the CD4 cell but does not impact normal immunology functions in anyway. Due to its mode of action the drug class is known as 'CD4-directed post-attachment HIV-1 inhibitor'. The drug prevents cell to cell fusion. There is no significant impact to liver or kidney function. The drug is unique in HIV as it is delivered by IV (intravenous) infusion every two weeks.

The drug has not been tested in any specific populations, and there have been no specialised studies with people who experience renal (kidney) or hepatic (liver) impairment, but Theratechnologies believe this shouldn't be an issue because of how the drug works and leaves the body. They also advised to date there have been no trials in paediatric (children) or geriatric (older) groups of people.

As the drug is delivered by IV there are fewer DDIs (drug-drug interactions) than many HIV treatments. It does not interact with metabolic enzymes in the gut and there are no food requirements. The Liverpool DDI database has information about the drug and taking other medicines with it.

The drug is active against all major clades of HIV-1, and there is no cross-resistance or issues with other HIV drugs, this is one reason why it is being marketed for people with multidrug resistant HIV.

Members were shocked to find out the drug had been discovered as far back as 1991. The Phase I study did not take place until 2001, Phase II in 2005 and Phase III in 2016. The US approved the drug in 2018 and it was approved in Europe in 2019. It has taken so long to bring to market that the patent in Europe has expired, but it is a difficult drug to make so no one has attempted to do so.

Trials of the drug were largely done in North America, but Phase III was also carried out in Taiwan and Puerto Rico. Of those enrolled, 15% were women. The PIII trial recruits had a median age of 53, 45% were from racial minority communities, had been living with HIV for up to 27 years, 18% had a viral load of <100,000, 50% had a CD4 count of <100, and 33% <10.

The drug will be provided to very small numbers of people globally who have run out of treatment options. Theratechnologies advised these people are hard to define or categorise but typically they have been living with the virus for a very long time. They estimate about 50 people in Europe are currently using it.

Adherence in clinic of directly observed therapy saw adherence to the infusion of 95%, furthermore adherence of additional oral therapies also improved. Of those who had accessed the drugs in trials, 53% had been treated with ten or more drugs previously.

In the trial week 25 data showed that 43% had achieved an undetectable viral load, and 50% a VL of <200. CD4 counts recovered at a slow rate, at week 25 those with a baselines CD4 of <50 saw their counts rise by 7 on average, those of baseline 50-200 saw it rise by 75, and those with CD4 >200 saw their count improve by 81.

The drug is not yet available in the UK. It was rejected by NICE, who now have to recommend all new HIV drugs to NHS England before they can be commissioned. Instead the drug is proceeding through the NHS England Specialised Commissioning Process.

CAB members questioned why Orphan Drug Status wasn't sought to make it available sooner, especially as the company advised expanded access programmes have helped people access the drug. The drug is costing $100,000 a year in the USA, CAB members were advised it is being marketed significantly cheaper in Europe.

**Tesamorelin**
Members received a brief overview of this drug, with the company keen to return later in the year to discuss in more detail.

Tesamorelin is a synthetic form of growth-hormone-releasing hormone (GHRH) which is used in the treatment of HIV-associated lipodystrophy, however, Theratechnologies have explored its use for treatment of NASH.

Non-alcoholic fatty liver disease (NAFLD) is being seen more frequently as people living with HIV are ageing. NAFLD results from a fat deposition into the liver parenchyma that may evolve to non-alcoholic steatohepatitis (NASH).

The company believe there is a high unmet need, estimating in the USA and Europe there are >100,000 people living with HIV who experience issues not related to alcohol use or post-cure HCV. Some estimates are as high as >300,000 and the numbers are expected to increase as people with HIV live longer.

There are no other NASH/HIV drugs and their trials are actively looking to enrol our population. Tesamorelin increases endogenous growth hormone secretion which leads to improved liver function and decrease in progression of fibrosis. PII results found that 35% of people had fatty liver results return to normal, just 4% in placebo arm, and progressive fibrosis was found in 10.5% of those taking the drug, and 32.5% of those on placebo arm.

The drug has been sent for approval and then removed previously in Europe which means there are some complications in making it available for NASH. CAB members questioned how we would inform people living with HIV that this 'old' drug was now back with a new use.

**Next steps**
A second meeting will be arranged later in the year to discuss Tesamorelin.

**Attendee list:**

| | Name | Organisation | Destination |
|---|---|---|---|
| 1 | Alex Sparrowhawk | UK-CAB Steering Group, THT | Manchester |
| 2 | Ana Maria Rodrigues de Oliveira | UK-CAB | Manchester |
| 3 | Ant Babajee | Positively UK | London |
| 4 | Christopher Buckley | Individual | London |
| 5 | Harun Tulunay | Positively UK and personal | London |
| 6 | James Dunworth | HIV i-Base | London |
| 7 | Jo Josh | UK-CAB Steering Group, BHIVA Comms Officer | Redhill |
| 8 | Memory Sachikonye | UK-CAB | London |
| 9 | Richard Desmond | Switchboard, Positively UK UK-CAB | London |
| 10 | Simon Collins | HIV i-Base | London |
| 11 | Simon Horvat-Marcovic | Positively UK/UK-CAB/THT | London |
| 12 | Suzanne Thompson | HIV i-Base | London |