Minutes
Cross-Party Group on Life Sciences
Tuesday 8th of October 2019, Committee Room 4
Sir Mike Ferguson, Dr Julie Brady and Dr George Tofaris

MSPs Present:
Kenneth Gibson MSP; Convener
Graham Simpson MSP; Vice Convener
Tom Mason MSP
Lewis Macdonald MSP

Apologies:
Ivan McKee MSP
Miles Briggs MSP
Willie Rennie MSP

Opening, Welcome and Introductions

The Convener, Kenneth Gibson MSP, welcomed everyone to the third meeting of the Cross-Party Group (CPG) in 2019 and outlined the agenda for the evening.

Minutes of the previous meeting (28th May 2019)

The minutes of the previous meeting were proposed by Graham Simpson MSP, accepted by the group and seconded by George Davidson (GSK).

AGM

- Kenneth Gibson MSP summarised the work of the group in 2019 before moving to the formal AGM where he thanked the nine MSPs who have pledged to continue supporting the group.
- ABPI Scotland Director and group Secretariat, Alison Culpan MSP, presided over the election of office bearers.
- Tom Mason MSP nominated Kenneth Gibson MSP as Convenor which was seconded by Lewis Macdonald MSP.
- Kenneth Gibson MSP nominated Graham Simpson MSP as Vice-Convenor which was seconded by Tom Mason MSP.
- Kenneth resumed chairing the meeting where ABPI Scotland were returned, unanimously, as secretariat for the coming year.
- Kenneth discussed the 2020 workplan, which aims to cover some of the following areas; Advanced Medicinal Therapies, Scotland's blood sciences, Diagnosis, the work of the Chief Scientist and celebrating innovation. Meeting dates will be sent out in due course.

Sir Mike Ferguson, Regius Professor of Life Sciences, University of Dundee.

- Sir Mike Ferguson opened his presentation by discussing the strengths of the sector in Scotland and those of the University of Dundee, where he is based.
- Despite these clear strengths with Scotland responsible for around 14% of the UK's research excellence (London area is 19% for comparison) we receive far fewer life science

investments compared to the South-East. Sir Mike explained the current model, where scientific research scopes out opportunities before the private sector provides capital and risk sharing to take ideas to the next stage.

- Scotland is not as adept at commercialisation and job creation, and Sir Mike believes it is the job of universities and those involved in the sector to put this right.
- Sir Mike explained that there are a number of reasons why Scotland is not creating as many high growth spin-out companies as it should.
    - The first issue identified is the "investment-gap", where good ideas fail to receive funding to take them beyond innovation and into an investible asset. This is in part due to our geographic dislocation from major VC markets. Sir Mike estimated that there around 20 "good ideas" which fail to receive the funding to undertake the "killer experiments" and/or market research needed to provide further evidence to attract investment.
    - Secondly, the surrounding infrastructure to root a university spin-out in a community has previously been or is, depending on the location, insufficient to support high-growth companies.
    - Thirdly, international and London-based investors tend to require more in terms of proof-of-concept from potential spinouts outside of Cambridge/Oxford/London prior to investment.
- After identifying the challenges, Sir Mike presented a number of solutions.
- Firstly, a Scotland-specific "pre-seed" fund could help provide initial funding gap to support ideas into the "killer experiment" and/or market research stage where they would either attract more funding or cease operating. He has applied to Innovate UK via "Strength in Places wave 2" for such a Scotland-wide fund, but it could be more than 2 years before a response is received. He believes the Scottish Government and our enterprise agencies have a role to play in creating such a fund.
- Secondly, there needs to be a drive to root innovation sites closer to the location of initial IP discovery. Amphista Therapeutics (which recently exited Dundee where it was created) is an example of a why it is important to locate vital infrastructure close to where a company is born.
- Thirdly, smaller start-ups require additional business support to navigate red-tape barriers.
- The rewards are significant, and Sir Mike detailed a Scottish spin-out that has gone on to achieve "unicorn" status (Exscientia) and others in high-growth phase.

Key points from the Q and A with Sir Michael Ferguson

- Sir Michael explained that the fund, as currently envisaged, will sit under the Scottish Committee on UKRI and would have representation from universities, Scottish angel and VC investors and other interested parties.
- He also explained that whilst other funds exist, like the Medical Research Council's DPFS, there is nothing that currently offers funding at an embryonic stage without advanced evidence.
- When asked why the public purse should take on this initial risk, Sir Michael explained that the fund would create around 10 high-growth companies (30-100 employees) with a GVA payback of around £40m per year.
- Sir Michael explained that Scottish Enterprise will not fund directly into universities and the Scottish National Investment Bank will only invest with a VC partner who has undertaken thorough due diligence.
- The Convenor, asked if there was a role for the CPG to play as he believes this is something that the Minister for Trade and Investment would be interested in.

Dr Julie Brady, Drug Discovery Unit, and Dr George Tofaris, University of Oxford

- Dr Julie Brady explained that the University of Dundee's Drug Discovery Unit was established in 2006, and now employees over 110 people.
- The unit was created to model a biotech company within a university.
- The initial remit of the centre was to conduct research in areas not traditionally deemed investible for large pharmaceutical companies, including work on tropical diseases. They now have drugs in phase 2 trials in malaria and work on TB through support from the Bill and Melinda Gates Foundation.
- In 2009 they expanded to begin translating drug targets across indications, including cancer and neurodegenerative diseases.
- There have been a number of successful spinouts including IOmet which was sold to Merck for around 400m dollars.
- The profile of funding for the DDU has changed since it started, with pharmaceutical companies now providing 20% of capital, but the Wellcome Trust is still the largest single funder.
- There is now a significant level of activity into the treatment of Parkinson's disease and Dr Brady handed the presentation to Dr Tofaris to explain his research at Oxford and Dundee.
- Dr Tofaris explained the challenge of treating and diagnosing Parkinson's disease with the current therapy having been developed around 60 years ago.
- Parkinson's is the UK's second most common neurological disease and every hour a new patient is diagnosed, underlining the extent of the problem.
- It was explained that Parkinson's is a multi-system disease which presents around 15 years before the physical symptoms appear.
- Finding a drug to slow the onset of this condition is therefore very important.
- Dr Tofaris explained how their molecule works by accelerating the clearance of toxic proteins that build up in the area of the brain associated with movement.
- The promise of this treatment has resulted in a 3-year partnership with Bukwang Pharm in South Korea to deliver efficacy in human neuronal cell based and animal models of the disease.
- This funding will support up to 12 jobs in Dundee and 2 in Oxford. Bukwang will complete clinical development and regulatory approval before launching any new drug with Dundee and Oxford receiving license-based returns.

Key points from the Q and A with Dr Julie Brady and Dr George Tofaris

- Dr Tofaris was asked why he chose to collaborate with the DDU, and he explained it was in part due to their reputation, and the ability to collaborate with colleagues who have research excellence in this area.
- When asked how early treatment will work given the broadness of initial symptoms it was explained that future therapies will act on genetic markers. It is expected that in the near future everyone will have their genome fully sequenced and it was stressed that the developers of precision medicine have to think in parallel not in linear time.
- Julie Brady explained why Bukwang was chosen as a partner and discussed her work in attracting investment to Dundee from around the world.

7. Closing Remarks

The Convener thanked the contributors for their presentation and reminded members to submit suggestions for upcoming meetings in 2020. He also confirmed that the date and timing of the next meeting will be sent to members in due course.

Non-MSP attendees:

Alison Culpan (ABPI), Claire Headspeath (ABPI), Graeme Rose (ABPI), Sir Mike Ferguson (Dundee University), Dr Julie Brady (Dundee University), Dr George Tofaris (Oxford University), Aaron Gowson (Cheisi), Barbara Blaney (The University of Edinburgh), Steven Burke (PPD), Barbara Adams (Servdee), George Davison (GSK), Sarah Nimmo (Ettrickburn), John MacGill (Ettrickburn), Damian Crombie (Astrazeneca), Frank Gunn-Moore (SULSA), Gail Grant (AbbVie), Jen Ferguson (Private Consultant), Jennie Hampson (Kyowakirin), Phillip Jones (Bioascent), Kathleen Grieve (MSD), Mary Canning (Epidarex), Henning Steinhagen (Epidarex), Toby Reid (BioCity), Marion Butchart (Novartis)