Item	Title of document	Action
7	Early stage drug accelerator for AMR	Discussion, proposal for decision

Early stage drug accelerator for AMR

Description

Development of an early stage AMR drug development global platform as a drug discovery incubator.

Link to the supporting document

Enclosed

Questions for the Management Board representatives

- Are JPIAMR supportive of this initiative?
- Should this be part of the JPIAMR-Virtual Research Institute framework/activity?
- Would your country would like to contribute to this initiative?

Decision Sought

Decision: support of the proposal

Document prepared by

Richard Gordon, South Africa

An early stage drug accelerator for AMR

Context:

There has been a wave of renewed interest in the impact of Anti-Microbial Research (AMR) of global health. A topic that was almost forgotten by pharmaceutical companies and funding bodies has had a resurgence in the last 3 years. Led by governments, the area of One Health is now on the forefront of global interest with a plethora of new initiatives that have been set up to address this issue. These initiatives include: the Joint Program In Anti-Microbial Research (JPIAMR), JPIAMR-VRI, G20Hub, the Global Antibiotic Research & Development Partnership (GARDP), The Combating Antibiotic-Resistant Bacteria Biopharmaceutical Accelerator (**CARB**-**X**) / Wellcome Trust, the BRICS programs, Newton Fund, Ross Fund, Fleming Fund, Grand Challenges etc. There are also several diagnostic groups moving into this space – Foundation for Innovative New Diagnostics (FIND) and Program for Appropriate Technology in Health (PATH) to name a few.

The Space is crowded and everyone is seeking to ensure there is alignment with their national needs. The JPIAMR has taken the lead to develop a Virtual Research Institute (VRI), which has received a lot of international support; however, it has been tricky to get this initiative moving as it involves more than 25 countries agreeing on how to take it forward.

This concept note serves as an initial catalyst to start the process of developing an early stage pipeline of drug discovery projects to address AMR. This program will build on the current collaboration between the South African Medical Research Council (SAMRC) and United Kingdom Medical Research Council (UKMRC), as well activities of the Wellcome Trust (and other partners) with the goal of:

- Developing a global pipeline of early stage drug discovery projects;
- Integration of this pipeline with the activities of the VRI, forming a glass pipeline of global research projects;
- Ensure promising projects are taken forward by existing groups such as CARB-X, GARD-P and National institutions with suitable core expertise.

How would it work?

The concept is derived from seeking to combine a number of planned and existing activities between funding partners in order to build a platform of value. To this end, the SAMRC and the UKMRC have agreed to solicit a call for proposals in 2019 to build drug discovery networks in South Africa and the UK for a 3 year period. The networks will be funded to conduct drug discovery programs and will seek to build a portfolio of early stage projects targeting WHO priority pathogens of global need - but customised to relevant local priorities. This will include: (suggestions)

- A focus on identifying new drug targets for the pathogens in question
- Identify tractable chemical starting points through a variety of approaches that may include:
    - Homology modeling and screening on compounds against closely related targets
    - Fragment screening
    - Diverse or targeted High throughput screening (HTS) campaigns using target based or whole cell screens
- Confirmation of hits and synthesis of analogues
- Hit to Lead programs and Lead Optimisation.

- Validate the drug targets as viable targets will be carried out in parallel

Once this portfolio is formed, the Wellcome Trust (and other philanthropic partners) will work to scale this incubator to include projects from other countries through an open call. Selected projects will be funded and will be included to build a global drug discovery pipeline for AMR.

Can anyone else join?

The goal is to be inclusive and recognize the presence of a number of global platforms and organisations who could join this partnership through a variety of different interactions. These interactions could take multiple forms and may include, but are not limited to:

- Joining the partnership with initiatives such as the VRI with the goal to build a global glass pipeline for drug discovery into priority pathogens. This will be of great value and will ensure duplication of resources is limited.
- Join the partnership as funding partners who are seeking to access the skills and capabilities of the network (and potentially leverage significant cost savings)
- Work with established reference and pathology laboratories around the world to screen interesting compounds / candidates against panels of circulating and drug resistant strains for human and animal health.
- Work with established drug discovery platforms/networks seeking to be included in the partnership.

The intention is to allow willing international partners to join this initiative and become members in the global partnership.

Governance.

There will several layers of governance that need to be set up for the program. These will include:

A secretariat. Hosted in South Africa whose function will be:

- To execute and manage the global calls with funding partners,
- oversee the peer-review process
- make grants awards
- manage the grants
- coordinate meetings with stakeholders

Steering Committee. The steering committee will be comprised of funding partners and selected representatives of global organisations and will have the following function:

- Have strategic oversight of the platform
- Make award recommendations based on the peer review process, funder expectations and global priorities.
- Ensure alignment with international partners programs
- Promote synergies and prevent duplication with international partners programs

Scientific oversight. A Scientific Advisory Board of 5-10 drug discovery and disease domain experts will be established to oversee the scientific progress of projects and whose specific roles will be:

- To develop target product profiles for drug candidates
- To ensure that resources are channeled to the projects with most impact
- To make recommendations of scientific strategy and project progress
- Mentor scientists as required
- Provide context on local disease priorities to ensure programs are relevant

The goal is to establish the drug discovery incubator in late 2019 and build the portfolio of projects over a 3-5 year period. It will be subject to annual compliance audits and a formal funders review after 4 years - following which further funding decisions can be made.