IRDiRC
INTERNATIONAL RARE DISEASES RESEARCH CONSORTIUM

Meeting report series

Report of the 7th Companies Constituent Committee Meeting

Teleconference
September 12, 2018

Participants

Dr Mathew Pletcher, Roche, Switzerland – Chair
Dr Katherine Beaverson, Pfizer, USA
Dr Andrea Chiesi, Chiesi Farmaceutici, Italy
Dr Tim Considine, Recursion Pharmaceuticals, USA
Dr Daniel Gruskin, Genzyme, USA
Dr James McArthur, Cydan II, USA
Dr Ellen Welch, PTC Therapeutics, USA
Dr James Zhang, BGI, China
Dr Yafeng Zhang, BGI, China

Dr Lilian Lau, Scientific Secretariat (Sci Sec), France
Dr Anne-Laure Pham Hung d'Alexandry d'Orengiani, Sci Sec, France

Apologies

Dr Madhu Natarajan, Shire, USA – Vice Chair
Ms Karen Aiach, Lysogene, France
Dr Ning Li, BGI, China
Dr Robert Mashal, NKT Therapeutics, USA
Dr Brett Monia, Ionis Pharmaceuticals, USA
Dr Tom Pulles, Ultragenyx, Switzerland
Dr Jame Wu, WuXi AppTec, China

Agenda

1. Roundtable of attendees
2. Activity H: Development of the action plan
3. Update on Activity D Natural history and registry (NH/R) platform for use in real world evidence (RWE) data collection
4. Other business

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REPORT

1. Roundtable of attendees

The Chair of the Companies Constituent Committee (CCC) welcomed all meeting participants, briefly described the purview of the CCC and invited participants to introduce themselves.

The Chair also informed the CCC that its larger role is to provide companies' viewpoint to the organization, so that IRDiRC understands the needs and the gaps thus identify necessary actions that will ultimately lead to the delivery of more medicine to markets for rare diseases.

2. Activity H – Background internal work on common knowledge base to drive rare diseases research: Development of the action plan

One of the main discussion points of the past few months was: Collectively as a group, what action(s) could be beneficial to the rare disease community? The idea is then to come together and form a work group to being building up an expanded rare diseases knowledge base and improve data.

- The central point of Activity H is to fill the data gaps around a collection of rare diseases for which there are currently little or no ongoing efforts
  - The main idea is to get a better overview of the opportunity space in rare diseases
  - For companies involved in the rare disease field, portfolios often focus on the same few rare diseases of which a large proportion of drug discovery efforts are directed
  - Often, a lack of knowledge (e.g. prevalence, natural history) prevents companies from launching development programs on lesser-known diseases
  - There is a need to identify relevant information for these diseases to attract companies' interests and investment
  - A spreadsheet has been shared among CCC members to identify/collect ideas of data that are useful to companies in evaluating the feasibility of launching new programs.

  → *CCC members to fill in this spreadsheet with data types - in particular data type categories yet to be captured thus far, potential resources, and relevant comments*

- Prevalence numbers are tricky in the rare disease field in general
  - European Reference Networks (ERNs)
    - A question was asked if there is an opportunity to access large clinical datasets of the ERNs to estimate prevalence numbers
    - Need to, however, first understand how the clinical datasets are collected and the data access managed by the ERNs
      - To contact coordinator of the ERNs to better grasp how ERNs work

        - Potentially to also contact EURORDIS leadership active in helping the constructing the ERNs and ensuring patient representation
    - Orphanet / RD-Platform report[1]
        - Report postulated that an estimated 350 rare diseases affect 80% of rare disease patients
        - Orphanet is planning to schedule the preparation of an updated report although the work timeline and methodology are currently unknown

- List of diseases
    - A workshop will take place during the GA4GH annual meeting in Basel in October 2018
        - Aims to harmonize approaches to ensure gene-level resources are comparable and interoperable, thus provide consistent and useful resources for the community, including guiding the formation of gene panels for disease-targeted testing and genomic analysis
    - The CCC is interested in the conclusion of this gene-disease validity workshop and potentially help the effort and/or stand behind it, pending goal alignment
        - The Sci Sec will contact participating organization such as Orphanet and OMIM for the information

→ *Sci Sec to obtain conclusion of the gene-disease validity workshop*

- BGI and its activity within the genomic sequencing space put it in a position to provide an important insight from a different aspect
    - Potential to analyze sequenced genomes thus
        - Perform calculations to determine disease gene mutation and carrier rates
        - Estimate accurate prevalence and other disease-related statistics
    - Generated figures could help biopharma to prioritize the more "common" rare diseases and attract drug development investments

→ *BGI delegates to investigate the possibility of mining and analyses of sequenced data to generate information to improve knowledge base*

- Considerable background work still needed before the CCC can put forward Activity H proposal
    - Identification of existing data resources
        - Data sharing may yet remain limited, if possible at all
    - Identification of infrastructure available or needed to facilitate data collection
        - Foundation to a knowledge base to build upon
    - Understanding the methodology and work flow of the ERNs
        - What, how and where data is collected
    - Consideration of directed/focused activity

[1] http://edz.bib.uni-mannheim.de/daten/edz-a/gdgv/11/RDPlatform_final_report.pdf

- Impossible to obtain prevalence number of all rare diseases
- May want to focus on the 350 that affect a majority of patients
- Another avenue is where natural history studies are being carried out
  - Problem: are these data collected useful for drug development and regulatory purposes?
  - Difficulty too in determining in advance what to collect

→ *CCC members to reflect on the topic further in order to put together a solid activity proposal*

3. Update on Activity D Natural history and registry (NH/R) platform for use in real world evidence (RWE) data collection

The importance of this multi-disciplinary activity is reflected in the interest shown by different IRDiRC stakeholders. A planned project will be led by the Interdisciplinary Scientific Committee.

- Basic premise is to produce guiding principles and best practices in generating natural history and registry data
  - A draft proposal is currently in preparation
  - Expected to be ready by the end of September
- The CCC will have critical input into it
  - Members will be sent the draft proposal for further feedback
- Finalized proposal will be put forward to the Consortium Assembly for evaluation and approval

→ *Review and provide feedback to Activity D proposal when the draft is ready*

4. Other business

The face-to-face Consortium Assembly meeting will take place in Brussels, on December 6 and 7, 2018. The Sci Sec will be sending more information out shortly.

Main actions and deliverables

- Fill in the GoogleDoc spreadsheet with data types, resources and comments
- Contact ERNs coordinator for a discussion and to learn about the ERNs data work flow
- Obtain conclusion of the gene-disease validity workshop
- Investigate the possibility of mining and analyses of sequenced data to generate information to improve knowledge base
- Reflect on the topic further in order to put together a solid activity proposal
- Review and provide feedback to Activity D draft proposal (when made available)