INTERNATIONAL
RARE DISEASES RESEARCH
CONSORTIUM

Minutes of the 19th Consortium Assembly Meeting

July 16, 2020

IRDiRC

PARTICIPANTS

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Alba Ancochea – Ibero-American Alliance for Rare Diseases (ALIBER), Spain
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Dixie Baker – Martin, Blanck & Associates, USA
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Katherine Beaverson – Pfizer Inc., USA
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Ning Li – BGI Group, China
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Ramaiah Muthyala – Indian Organization for Rare Diseases (I-ORD), India
Samantha Parker – Lysogene, France
Samuel Agyei Wiafe – Rare Diseases Ghana Initiative (RDGI), Ghana
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Stephen Groft – National Center for Advancing Translational Sciences (NCATS, NIH), USA
Virginie Bros-Facer – EURORDIS-Rare Diseases Europe, France
Virginie Hivert – EURORDIS-Rare Disease Europe, France
Volker Liebenberg – Illumina Inc., Germany

Younjhin Ahn – Korea National Institute of Health (KNIH), South Korea
Yukiko Nishimura – Advocacy Service for Rare and Intractable Diseases' multi-stakeholders in Japan (ASrid), Japan

Daria Julkowska – Coordinator, IRDiRC Scientific Secretariat, France
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Apologies
David Pearce – CA Vice Chair, Sanford Research, USA
Catherine Nguyen – National Institute of Health and Medical Research (INSERM), France
Christopher Gibson – Recursion Pharmaceuticals Inc., USA
Daniel Lavery – Loulou Foundation, UK
Daniel Scherman – French Foundation for Rare Diseases, France
Dominique Dunon-Bluteau – Agence Nationale de la Recherche (ANR), France
Eda Selebasto – Botswana Organization for Rare Diseases (BORDIS), Botswana
Faye Chen – National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS, NIH), USA
James McArthur – Cydan II, USA
Jean-Pierre Gaspard – YposKesi, France
Katherine Needleman – FDA, Office of Orphan Products Development (OOPD), USA
Kelly du Plessis – Rare Diseases South Africa, South Africa
Kristen Nowak – Western Australian Department of Health, Australia
Madhu Natarajan – Takeda Pharmaceuticals, USA
Mathew Pletcher – Roche Inc., USA
Maureen McArthur – Global Genes, USA
Nicole Millis – Rare Voices Australia, Australia
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Sultan Turki Alsedairy – Saudi Human Genome Project, Saudi Arabia
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Shuyang Zhang – National Rare Diseases Registry System of China (NRDRS), China

REPORT

1. Introduction

a. Presentation of new members

i. Illumina

- Illumina has appointed Dr Volker Liebenberg, Medical Affairs Director EMEA, to represent them on the IRDiRC Consortium Assembly and Companies Constituent Committee.
- Illumina is a global leader in genomic solutions. Its technology is responsible for generating more than 90% of the world's sequencing data
- Illumina's mission is that of shortening the diagnostic odyssey through a better diagnosis
- Projects and initiatives in RDs with which Illumina is involved:
  - Genomic England
  - Undiagnosed Disease Network (NIH)
  - The Medical Genome Initiative
  - Project Baby Bear
  - iHope Network

b. Update on new Committee Chairmanship and Representation

i. Funders Constituent Committee (FCC)

- As of April 2020, Dr Catherine Nguyan, Director of Research at the French Institute of Health and Medical Research (INSERM), is the new Vice Chair of FCC. She takes over from Adam Hartman, who's now chairman of the FCC
- Dr Yoshinao Mishima is the new president of Japan's Agency for Medical Research & Development (AMED) and has been appointed to replace Makoto Suematsu on the Consortium Assembly and Funders Constituent Committee

ii. Companies Constituent Committee (CCC)

- As of May 2020, Dr Katherine Beaverson, Senior Director, Patient Advocacy Led, Rare Disease Research Unit, Pfizer (USA) is the new Chair of the CCC. She takes over from Mathew Pletcher
- Lysogene has appointed Dr Samantha Parker, Chief Patient Access Officer, to replace Karen Aiach on the Consortium Assembly and Companies Constituent Committee
- Sanofi-Genzyme is now represented by Dr Alaa Hamed, Global Head of Medical Affairs, Rare Diseases, USA

- *Comments from CCC Chair:*
  - *Several interviews are being conducted with new companies to expand the CCC representation in IRDiRC*
  - *New CCC Vice Chair is soon to be identified*

- *Survey targeted to CCC members is in the plan to clarify the Committee's strategy and actions they want to implement in the coming year*

i. Interdisciplinary Scientific Committee (ISC)
   - The mandate of Stephen Groft as ISC Chair ended on June 30. The Vice Chair, Dixie Baker, has assumed the interim chairmanship until a new chairperson is elected. The elections for the next ISC Chair are ongoing.

ii. Diagnostics Scientific Committee (DSC)
   - There will be three vacancies in the DSC until the end of this year. A call for experts remained opened for over a month until the 10th of July and was broadly disseminated through the IRDiRC website and social media. The Consortium has received more than 30 applications. The selected candidates will be announced in September to be validated by the Consortium Assembly at the next meeting taking place in October.

2. Update on ongoing activities

a. Orphan Drug Development Guidebook (ODDG)
   - Task Force led by Diego Ardigo, Chair of the Therapies Scientific Committee (TSC) and Virginie Hivert, TSC Vice Chair
     - The Galaxy Guide has been the main activity of the TSC over the past months. The first article was published as a short commentary in the Nature Reviews Drug Discovery (https://www.nature.com/articles/d41573-020-00060-w). It's the core outcome of this task force and provides a description of all materials that were produced by the Task Force, that is, supportive tools available (factsheets, initiatives, resources etc) available worldview to support the development of drugs for rare diseases. The material is also available on the iRDiRC website, including the recommendations issued by the TF, and a tutorial video
     - Currently in the phase II, i.e. the communication campaign. The plan is to organize workshops, webinars and cover all geographical regions in order to disseminate the work as broadly as possible
     - Moving toward a collaboration with the European Joint Programme on RDs (EJP RP) to put in place a process for sustainability and measure impact

b. Clinical Research Networks for Rare Diseases
   - Task Force led by Stephen Groft, former Chair of the ISC
   - Co-Chair: Rima Nabbout, Necker Hospital, ERN EpiCare, France
     - The activity started in the summer of last year
     - 7 conference calls hold so far
     - Composition: 22 members representing 11 countries across 4 continents
     - The goal is to map and analyze the current ecosystem of different networks, both nationally and internationally, to develop a landscape with policy recommendations focused on the Interoperability of networks

- A questionnaire has been developed by the Task Force and beta-tested by 10 networks. The survey will now be sent to all the identified networks. The collection of results and analysis is foreseen to September 2020

c. Indigenous Populations
   - Task Force led by Gareth Baynam, Chair of DSC
     - Task force formed in Q3 2019
     - The goal is to identify the barriers for the diagnosis of rare diseases in Indigenous peoples and areas in which there are opportunities for improvement to develop recommendations resulting from findings
     - The first output of the Task Force, the article *Barriers and Considerations for Diagnosing Rare Diseases in Indigenous populations* has been submitted to publication in a special issue of the journal Frontiers
     - The group is currently working on the development of recommendations for advancing rare diseases diagnosis for Indigenous populations globally. The main output is a next frontiers/ guiding manuscript.
     - The task force is foreseen to be completed within the next 2-3 months

d. Rare Diseases Treatment Access
   - Working group led by Durhane Wong-Rieger (PACC Chair)
     - Working group formed in Q1 2020
     - Composition: 20 members representing 16 countries across 4 continents
     - The group is working on the development of a list of standard of care products. A pre-list of 275 drugs to treat RDs (with or without OD designation) has been compiled from existent lists of RD products in the USA, EU, and China, as well as the WHO list of essential medicines.
     - The drugs in the pre-list were grouped according to their disease(s) indication(s). The next step will involve revising the list and selecting drugs based on the predefined criteria (eg, effectiveness, disease prevalence, cost) :
     - It foresees the publication of a white paper containing the list of drugs and identified barriers to access

e. Chrysalis Project
   - Task force led by Adam Hartman (FCC Chair) and Katherine Beaverson (CCC Chair)
     - Task force formed in July 2021
     - Composition: 22 members representing 12 countries across 5 continents
     - The goals are to identify key criteria (financial and non-financial) that would make rare diseases research more attractive to industry for R&D to identify gaps that could be addressed by IRDiRC funders and other constituencies
     - Co-Chairs are currently refining the scope of work based on the discussion that took place in the first meeting held on July 6

3. Roadmap 2020 update

- Following the round of new proposals assessment that took place last year at the Consortium Assembly meeting in Paris, 4 activities were prioritized to get started in 2020:
  - Rare Diseases Treatment Access
  - Chrysalis Project

- Shared Molecular Etiologies (SaME)
- New Technologies

- Rare Diseases Treatment Access started at the beginning of this year and Chrysalis Project has just recently been launched.

Potential update and adjustment of the Roadmap 2020

- *Delay in starting the Task Forces on New Technologies & Shared Molecular Etiologies*
  - The Consortium Assembly was informed about the postponement of *SaME* and *New Technologies* from Q3-Q4 2020 to Q1 2021 due to the effects of the COVID-19 pandemic. This request by the proposers of these task forces (PJ Brooks and Sarah Bowdin, respectively) was discussed previously with the Op Comm (report 53).

- *Reconsider/Refine unprioritized activities: Pluto, Big Bang, Alternative Business Models, Primary Care*
  - The postponement of *SaME* and *New Technologies* to next year left an opportunity gap for Q3-Q4 in terms of budget and human resources that could be fulfilled with the early start of activities that were not prioritized for 2020 but still considered valid by the Consortium Assembly:
    - Primary Care
    - Big Bang / Repurposing Project
    - Alternative Business Models
    - Pluto Project
    - Machine Readable Consent

  - This possibility was investigated with the proposers of such 'de-prioritized' actions
    - What is the status of these activities?
    - Are they still valid?
    - Ready to be implemented?
    - What are the financial and human resources needs?
    - What is the envisaged timeline?

      - **TSC proposal**
        - Elicitation of alternative business models in drug repurposing approaches
          - Step 1 – Identification of successful repurposing cases that led to approved products by the Sci Sec + work with FCC members to identify beneficiaries of previous funding grant for repurposing projects that have progressed with drug development
          - Step 2 – Targeted interviews via semi-structured questionnaire on the business models that they used or are planning to use in the development phase (managed by the Sci Sec)
          - Step 3 – Workshop/webinar to reflect on interviews outcomes & draft IRDiRC recommendations about most successful approaches

            - *Comments:*

        - *CCC Chair: this action provides an opportunity to work with CCC as the challenges in drug repurposing could come from companies who hold these products.*
        - *FCC Chair: uncertain if 'successful' cases could be measured by approval rates as the reasons for not getting a drug approved drug are multiple*

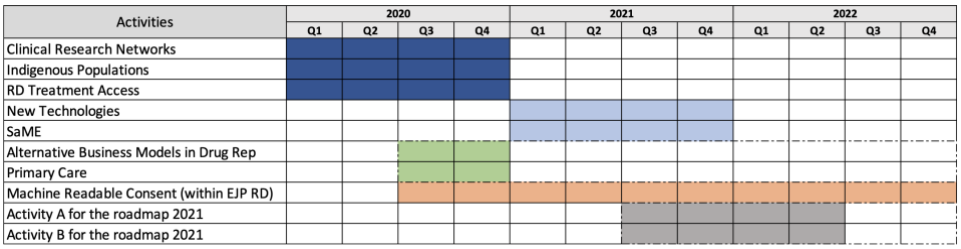
- **Primary Care proposal**
    - Proposers: Gareth Baynam (DSC Chair), Steve Groft (former ISC Chair), Adam Hartman (FCC Chair)
    - Objectives: To bring together representatives from the stakeholders required to identify current state of play and identify challenges and opportunities in rare diseases research in primary care. This may include the following area: diagnosis, therapies, ELSI, patient engagement
    - Timeline of planned activities:
        - Propose a working group and possibly a workshop in 2021 to address these issues.
        - Identify Expanded Partnerships with Collaborators from International Health Organizations: UNESCO, World Health Organization, International Red Cross and Red Crescent, RD societies: ICORD, WODC, Global Commission to End the Diagnostic Odyssey for Children Living with Rare Diseases, Other Major Conference Organizers
        - Ä Establish Guidance and Direction to Facilitate Collaborative Research, Training and Treatment Programs and Initiatives
        - ¨Identify key primary care health care providers and organizations for connections with family practitioners, internists, pediatricians, nurse practitioners, physical therapists, genetic counselors, respiratory therapists, occupational therapists, pharmacists, nurses.

            - *Comments:*
                - *Domenica: UNDI could be a partner*
                - *PJ Brooks: There's potential for integrating telemedicine/ tele health in the scope. Would be interesting to know what the best use cases are and what need to be improved in this space, and how it fits more broadly in the system*
                - *Gareth: especially useful for in remote / under resourced regions*
                - *Adam: it addresses goal 1 of IRDiRC: getting the unsolvable solved*
                - *Durhane: PACC should be a primary partner in this. It comes recurrently from the Covid-19 surveys that patients cannot get access to specialist. While tele medicine might be an alternative, the main issue*

is that providers know nothing about their conditions, so how to empower providers is a key question. Patient self-management also important in this scenario.

- **Collaboration with EJP RD: Machine Readable Consent**
  - Development of the application of *Machine Readable and Structured Consent* based on use cases from the EJP-RD;
  - Currently the use case is being developed in the Use Cases Work Focus group:
    - Involving biobanks, registries, researchers, and other stakeholders;
    - Focus on the needs for machine readable consent to enable discovery and access to samples and data for RD researchers within the EJP-RD Virtual Platform.
  - Timeline of planned activities:
    - Use case description (in progress)
    - Evaluation of ADA-M* by biobanks (in progress)
    - Update of ADA-M with additional terms where needed to fit the needs of biobanks and the EJP-RD virtual platform (2021)
    - Aligning of ADA-M with ontologies used within the project (2021)
    - Integration in the Virtual Platform (2021-2023)
    - Development of ADA-M as an online tool as part that can be linked in by biobanks and registries to promote adoption (in progress; Y2-3, 2020- 2021).
  - IRDiRC contribution:
    - The work is financed and has been developed within the frame of EJP-RD.
    - ADA-M is work done by an IRDiRC TF but need update
    - Looking for endorsement by IRDiRC to help with dissemination and sustainability beyond the EJP-RD project.

- *Draft of the new roadmap*
  - The roadmap will be finalized after all the elements are clearly defined (e.g. actions, timeline, work effort)



Activities	2020				2021				2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Clinical Research Networks												
Indigenous Populations												
RD Treatment Access												
New Technologies												
SaME												
Alternative Business Models in Drug Rep												
Primary Care												
Machine Readable Consent (within EJP RD)												
Activity A for the roadmap 2021												
Activity B for the roadmap 2021												

4. Roadmap 2021

- Timeline and Strategy

  - The Sci Sec can implement 4 Task Forces per year
  - The restructuration of the roadmap will allow the validation of 2 new activities for 2021 (*plus* New Technologies and SaME)
  - Summer 2020: The committees are invited to submit their new proposals to the Sci Sec
  - October 2020: The proposals are presented during the CA meeting
  - Fall-Winter 2020: The proposal will be revised based on the comments formulated by the CA
  - January 2021 – IRDiRC CA: Validation of the two new activities

  - *Comments*
    - *It's envisaged that the Committees put forward as many proposals as deemed necessary*
    - *New actions to be approved in January will start as the ongoing activities are completed*
    - *The recommendations from the EJP RD Policy Board on the medium- and long-term approach will be shared with the Consortium Assembly in advance of the meeting to be taken into account in the development of the next years' work plan*

5. COVID-19 Survey

- IRDiRC has put out a survey targeted to its members to understand if and how the RD research community will be affected by the COVID-19 pandemic and how the Consortium could react to such changes. The survey is aimed specifically to:
  - Assess the impact of the COVID-19 outbreak on its members activities to infer if the crisis is going to hinder or delay the achievement of IRDiRC goals
  - Inform the planning of the strategic Roadmap 2021 and investigate whether there are new and unforeseen issues that have arisen that IRDiRC could address through dedicated task forces / working groups
  - Identify requests or needs by the RD research community that IRDiRC may convey to international authorities or bodies
  - Feed reflections for IRDiRC Conference January 2021 session topics

- The Sci Sec presented the partial results of the survey, described below:

- Respondents: 40 out of 97
  - Response rates by Committee:
    - Constituent Committees
      - FCC – 58%
      - CCC – 17%
      - PACC – 44%
    - Scientific Committees
      - DSC – 21%
      - TSC – 54%
      - ISC – 27%
- When asked if they think the IRDiRC goals can be achieved on time by 2027:
  - 26 yes / 14 no
    - Among those who believe the Goals are still reachable, there was a general sense that the epidemic will cause a slowdown in the short term, but this would not impact the goals over the long run.
    - Opportunities brought by the pandemic which could be harnessed for RD and accelerate progress were also often cited, including:
      - Increase in funding for health research that could indirectly benefit RD
      - Lessons learned in terms of approaches to drug development, clinical trial approvals, collaborations (at international level and between public and private stakeholders) that could be translated to the RD space
      - Developments in telemedicine and the use of digital tools
    - The reasons cited by those who think the goals are not achievable included the following:
      - Reduced funding to RDs
      - Delays in research activities
      - Reduced access to care/ hospitals
      - Delay of clinical trials
      - IRDiRC goals are ambitious
- When asked about the need for a dedicated task force / working group to address this specific topic:
  - 20 yes / 20 no
    - Among the proposed actions are:
      - To assess the impact of the pandemic on the RD community
      - To summarize lessons learned from COVID- 19 that could be applied to RD research
      - To study the effect of Covid-19 and other (health) crisis in general (e.g., economic crisis)
    - The goals for carrying out such actions are:
      - to inform future emergency plans for RD patients in unforeseen global crisis
      - to develop mitigating plans
      - to be prepared to deal with changes in the context of the epidemic prevention and control
      - to contribute toward long-term resolutions
      - to develop an RD community pandemic preparedness guideline

            - to adapt changes in research/regulatory related to Covid-19 to rare disease
        - On the other hand, those who don't see a need for an IRDiRC Task Force / Work Group on this topic said that:
            - Shifting efforts and resources towards Covid-19 would put other actions at risk to be delayed
            - IRDiRC should focus efforts on maintaining current projects / achieving its goals
            - Several initiatives around the Covid-19 already ongoing
    - When asked if they would like to see IRDiRC engaging in an action dedicated to the COVID-19:
        - 25 yes / 15 no
            - The majority think IRDiRC should engage in communication activities, and specifically of surveys, webinars etc from their member organizations to increase visibility of existing COVID-19 related resources
            - The reasons not to engage in an action dedicated to Covid-19 are based on the fact that:
                - There are too many actions by many organizations already ongoing
                - There are too much time and money currently spent on that
                - IRDiRC should stay focused on its core goals

- Members who did not answer the survey yet are asked to complete the survey as soon as possible. The full results are going to be presented at the next meeting of the Consortium Assembly in early October.

- *Comments:*
    - *Steve Groft: A small working group could be in charge of summarizing the findings form surveys (being)conducted by member organizations that could inform IRDiRC*
    - *Lucia: It's possible to identify members conducting surveys on the Covid-19 through the IRDiRC survey*
    - *Sharon: Genetic Alliance is running a survey in collaboration with other groups and is sitting in the board of PhenX, which provides a list of COVID-19 related measurement protocols (CRFs, DCFs, instruments, surveys, questionnaires) that are currently in use. Somebody could to look into those instruments to identify which ones are touching RD that could be useful to IRDiRC*
    - *Durhane - IRDiRC could join forces with other global initiatives in the RD space.*

6. CA meeting October 1-2, 2020

- Uncertainties over travel guidance: organization-, country- levels
- Host site in Milan for in-person meeting cannot be confirmed
    - Goals of the CA:
        - Updates on IRDiRC Committees and TFs
        - Decision making on Roadmap 2021 and actions
        - Opportunity as test bed for the IRDiRC conference Jan 2021
        - Discussion on the IRDiRC 10-year anniversary 2021
    - Options
        - Fully virtual meeting

        - Mixture of virtual and teaming up for small physical meetings in different locations

- Working Plan presentation: Goals and Operation
    - These topics will be addressed by the Op Comm and then shared with the CA
        - Organization of a virtual meeting
        - Sessions structure and prioritization
        - Preliminary conference calls before the CA meeting

Actions and deliverables

- Primary Care and TSC proposal (Elicitation of alternative business models in drug repurposing approaches) to be finalized and sent to the Sci Sec as early as possible
- Submission of new proposals for next year to be sent to the Sci Sec before the Consortium Assembly meeting of October when they will be discussed
- All IRDiRC members to complete the IRDiRC survey on the Covid-19 by the end of July. The full results will be presented in the October's meeting of the Consortium Assembly

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