



Applying NGS Technologies in Precision Medicine

Royal Society of Chemistry, Burlington House Piccadilly, London

10<sup>th</sup> September 2018

- What is the current generation of sequencing?
- What are the different underlying technologies?
- How does one identify which technology is the most suited for the different analytical processes within the life science R&D and healthcare ecosystem?

This Pistoia Alliance Seminar will provide an impartial perspective of the current state-of-the-art in sequencing. The different technologies used by the different leading suppliers will be presented as will use cases where these technologies have been successfully deployed.

### **Background:**

In April 2018, the Pistoia Alliance hosted a workshop at the Royal Society of Chemistry in London on the topic of “NGS, CDx and Regulation”.

The objective of the workshop was to identify opportunities better to align CDx data standards and working practices in the research domain and the clinical domain thereby speeding the development, certification and deployment of safe and effective CDx to support precision medicine.

Speakers from GSK research, MHRA, BSI (a Notified Body), EMQN and Almac Diagnostics presented their different perspectives of the opportunities and challenges facing the use of NGS in CDx ([the slides and notes can be found here](#)).

One of the key outcomes of the workshop was the realisation that there were several specialist areas which were not as well understood by the practitioners (e.g., regulators, notified bodies, management in biopharma, clinicians and other specialists in related areas) as was desirable. As such, the workshop delegates suggested it would be helpful to create a forum where a basic level of understanding of these different NGS technologies could be considered along with presentations of different use cases demonstrating their different applicabilities.

Three key educational themes were identified:

- NGS Technologies
- Clinical Bioinformatics
- Regulations

The first of these themes we are addressing is NGS Technologies. This symposium will bring together the key actors who will provide a basic understanding of their technologies and examples of their potential application in the life science R&D and healthcare continuum.



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### Draft Agenda

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<b>09:00</b>	<b>Registration &amp; Coffee</b>	
<b>09:50</b>	Introduction to the day	<b>Dr Edward Oakeley</b> (Novartis)
10:00	Overview of the Process from Sample to Analysis	<b>Dr Edwina Dobbin</b> (Almac Diagnostics)
10:30	Illumina Sequencing Technology and Application in a Regulated Environment	<b>Bobby Kaura, Illumina</b>
10:45		
<b>11:10</b>	<b>Coffee &amp; Exhibition</b>	
11:35	Thermo Fisher Sequencing Technology and Application in a Regulated Environment	<b>Dr John Mangion</b> - provisional (Thermo Fisher)
11:50		
12:15	Qiagen Gene Reader Sequencing Technology and Application in a Regulated Environment	<b>Dr Jonathan Arnold</b> – provisional (Qiagen)
12:30		
<b>13:00</b>	<b>Lunch &amp; Exhibition</b>	
13:45	Oxford Nanopore Sequencing Technology and Application in a Regulated Environment	<b>Dr Rich Compton</b> – provisional (Oxford Nanopore) <b>Dr James Hadfield</b> – provisional (AstraZeneca)
14:00		
14:25	NanoString HybSeq Sequencing Technology and Application in a Regulated Environment	<b>Dr Jim White</b> – provisional (Nanostring) <b>Dr Michael Rhodes</b> – provisional (Nanostring)
14:40		
<b>15:00</b>	<b>Coffee &amp; Exhibition</b>	
15:30	Overview of Emerging Sequencing Technologies	<b>Dr Edward Oakeley</b> (Novartis)
16:00	Panel Discussion & Questions	Facilitator: <b>(TBD)</b>
16:45	Close followed by Drinks reception	