

*November 14-15, 2018*  
*Deerfield, IL, USA*

Host: Takeda

# **FALL 2018**

# **PRISME Forum Technical Meeting**

PRISME Forum Chair: **Olivier Gien**  
VP, Global Head, Medical IT, *Sanofi*

Technical Meeting Chair: **Christian Baber**  
Head, R&D IT, *Shire*

# PRISME Forum

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“All meetings, working groups and communications will be open to all Members and any records thereof will be non-confidential and available for inspection by any Member.

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**Host**



**David Sedlock**, Head, Global Research IT

**Cindy Etta**, Senior Administrative Professional, IT

# PRISME Forum

## Fall 2018 Technical Meeting Advisory Committee

**Christian Baber** (PRISME Forum Technical Meeting Chair), Head, R&D IT, *Shire*

**Nick Brown**, Head, AI and Data Science, *AstraZeneca*

**Dan Chapman**, Head, IT New Medicines Information Management, *UCB*

**David Christie**, Vice President, Enterprise Applications Group, *CSL Behring*

**Lars Greiffenberg**, Director R&D Information Research, AbbVie Library Sci & Academic Partnerships, *AbbVie*

**Carol Rohl**, Executive Director, Global Research IT, *Merck*

**Martin Romacker**, Principal Scientist, Data and Information Architecture, *F. Hoffmann-La Roche*

**Nico Stanculescu**, Logistics Coordinator, *PRISME Forum*

**Jianchao (JC) Yao**, Head of Translational Medicine IT & SSF IT Lead, *Merck*

**Jason Tetrault**, Global Head Data Engineering and Emerging Technologies, *Takeda*

**John CM Wise**, Program Coordinator, *PRISME Forum*

1

**NETWORK:**

unique gathering of  
industry and  
technology experts

2

**LEARN:**

exposure to new  
companies, ideas and  
applications

3

**EXPLORE:**

act on identified  
opportunities post-  
meeting

# PRISME Forum Technical Meeting Goals

2018 Fall

PRISME Forum Technical Meeting Theme:

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**Data-readiness in a World of AI**

# PRISME Forum Technical Meeting Agenda (morning)

THURSDAY, November 15, 2018

08:30	Welcome Notes & Introductions	<b>Olivier Gien</b> , VP, Global Head Medical IT, <i>Sanofi</i> ; Chair, <i>PRISME Forum</i> <b>Christian Baber</b> , Head, R&D IT, <i>Shire</i> ; Tech Mtg Chair, <i>PRISME Forum</i>
SESSION I A: PLENARY PRESENTATIONS		Chair: <b>Christian Baber</b> , Head, R&D IT, <i>Shire</i>
08:50	Plenary #1 – Data for Drug Discovery	<b>John Overington</b> , CIO, <i>Medicines Discovery Catapult</i>
09:30	Plenary #2 – Data First - Information Procurement based on FAIR Data	<b>Martin Romacker</b> , Principal Scientist, Pharma Research Early Development Informatics, <i>Roche Innovation Center Basel</i>
10:00	Coffee Break	
SESSION II: START-UP COMPANY “PITCH” SESSION		Chair: <b>David Christie</b> , VP, Enterprise Applications Group, <i>CSL Behring</i>
10:25	Introduction	
10:30	1 Outlier: Automated and Useful Insights from Your Data, Personalized to Your Needs	<b>Sean Byrnes</b> , CEO, <i>Outlier</i>
10:45	2 HealthVerity: Activating Clinical Data for AI	<b>Andrew Goldberg</b> , COO, <i>HealthVerity</i>
11:00	3 Healthdata.link: Increasing the Availability of High-Quality Data	<b>Jake Plummer</b> , CEO, <i>Health Data Link</i>
11:15	4 PathAI: Artificial Intelligence for Pathology: From Discovery to Companion Diagnostics	<b>Andy Beck</b> , CEO and Co-founder, <i>PathAI</i>
11:30	5 rMark Bio: Data Preparedness for Machine Learning	<b>Jason Smith</b> , CEO & Co-founder, <i>rMark Bio</i>
11:45	Conclusions	
PRISME Forum Start-up Company “Pitch” Session Evaluation Panel Members: <b>Carol Rohl</b> , Global Research IT Head, Merck; <b>Nick Brown</b> , Head of AI and Data Science, AstraZeneca; <b>Martin Romacker</b> , Principal Scientist, Pharma Research Early Development Informatics, Roche Innovation Center Basel; <b>Jason Tetrault</b> , Global Head, Data Engineering and Emerging Technologies, Takeda; <b>Jianchao (JC) Yao</b> , Head of Translational Medicine IT & SSF IT Lead, Merck		

# SESSION IA: Plenary Presentations:

Chair: **Christian Baber**, Head, R&D IT, *Shire*



**John Overington**

CIO, *Medicines Discovery Catapult*

**Data for Drug Discovery**



**Martin Romacker**

Principal Scientist, Pharma Research Early Development  
Informatics, *Roche Innovation Center Basel*

**Data First - Information Procurement based on FAIR Data**



## SESSION II

# START-UP COMPANY “PITCH” SESSION

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Chair: David Christie

Vice President, Enterprise Applications Group, *CSL Behring*

The session's objective is to provide a constructive yet relaxed activity to encourage interaction between PRISME Forum members and five start-up companies with a value proposition relevant to the context of the meeting's theme, i.e., Data-readiness in a World of AI.

## RATIONALE



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graph LR; R[RATIONALE] --> A[PRISME Forum members get introduced earlier than they otherwise would to AI-based business propositions relevant to life science R&D/healthcare]; R --> B[Start-up companies have an opportunity to interact with members of the PRISME Forum and get some constructive feedback about their business propositions.];
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**PRISME Forum members** get introduced earlier than they otherwise would to AI-based business propositions relevant to life science R&D/healthcare

**Start-up companies** have an opportunity to interact with members of the PRISME Forum and get some constructive feedback about their business propositions.

# START-UP COMPANY “PITCH” SESSION

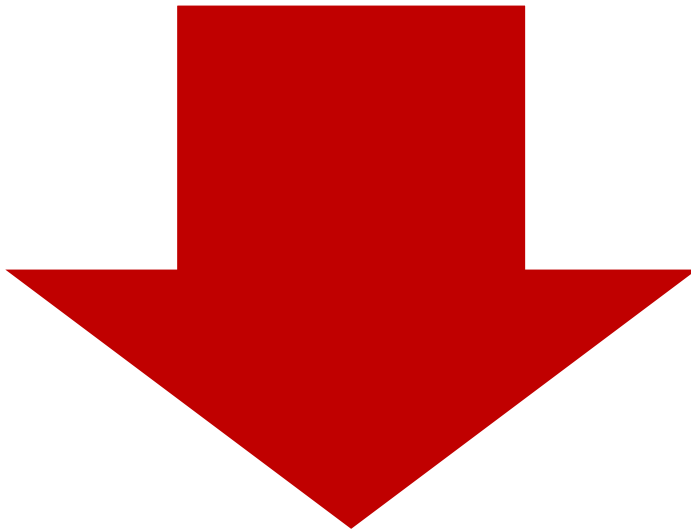
Time	Agenda Item	Comments
10:40-10:45	Brief Introductions	<ul style="list-style-type: none"><li>• Introduce Moderator and Panel</li><li>• Explain process</li><li>• Quick introduction of startup name</li></ul>
10:45-11:45	Each Startup Pitches followed by Q&A (panel and audience)	<ul style="list-style-type: none"><li>• Panel take notes and completes scoring spreadsheet provided, alongside helpful feedback</li></ul>
11:45-11:50	Conclusion	<ul style="list-style-type: none"><li>• Panel thanks the start-ups for their participation</li></ul>
13:00-14:00	Results	<ul style="list-style-type: none"><li>• Panel consolidates results and declares “winner” or “favorite” startup (Panel Assessment Sheet)</li></ul>
16:45	Awards & Networking Reception	<ul style="list-style-type: none"><li>• Announce the “Favorite Presentation” and readout feedback</li></ul>

# Questions Guide



## ASK QUESTIONS ABOUT:

- the unmet need that the start-up is trying to address
- the proposed solution
- the value proposition
- the anticipated users/customers
- the estimated market size, etc.



## *DO NOT ASK:*

- questions which could lead to the exposure of any competitive information and/or IP, e.g.
  - regarding technical details
  - regarding how the solution works in detail
- or voice too many opinions about viability or presumed success in the market.

# Panel Assessment Sheet

***1=unclear to 5 = clear/excellent***

Criteria	Startup #1 Outlier	Startup #2 HealthVerity	Startup #3 Health Data Link	Startup #4 PathAI	Startup #5 rMark Bio
The value proposition, business value					
The clarity and energy of the 'pitch'					
Response to Q&A					
Any other compelling points					
<b>Total Points:</b>					

# Panel Assessment Sheet – Company Feedback

*Please provide any helpful feedback and advice to our startup companies*

Start-up	Comment / Advice
#1: Outlier	
#2: HealthVerity	
#3: Health Data Link	
#4: PathAI	
#5: rMark Bio	

# PRISME Forum Start-up Company “Pitch” Session

## Evaluation Panel Members:



**Carol Rohl**

Global Research IT  
Head, Merck



**Nick Brown**

Head of AI and  
Data Science,  
AstraZeneca



**Martin Romacker**

Principal Scientist,  
pREDInformatics,  
Roche Innovation  
Center Basel



**Jason Tetrault**

Global Head, Data  
Engineering and  
Emerging Tech,  
Takeda



**Jianchao (JC) Yao**

Head of  
Translational  
Medicine IT & SSF  
IT Lead, Merck

# Start-ups

## OUTLIER

**Automated and Useful Insights from Your Data, Personalized to Your Needs**

## HEALTHVERITY

**Activating Clinical Data for AI**

## HEALTH DATA LINK

**Increasing the Availability of High-Quality Data**

## pathAI

**Artificial Intelligence for Pathology: From Discovery to Companion Diagnostics**

## rMARK BIO

**Data Preparedness for Machine Learning**



**Sean Byrnes**  
CEO, *Outlier*



**Andrew Goldberg**  
COO, *HealthVerity*



**Jake Plummer**  
CEO, *Health Data Link*



**Andy Beck**  
CEO/Co-founder, *PathAI*



**Jason Smith**  
CEO/Co-founder, *rMark Bio*



# SESSION III

## Posters

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Chair: Dan Chapman, Head, IT New Medicines Information Management, *UCB*

SESSION III A: POSTERS

Chair: Dan Chapman, Head, IT New Medicines Information Management, *UCB*

11:55 Introduction

12:00 Poster Rotations (Three 15-minute rotations)

P <sub>1</sub>	DISQOVER	<b>Hans Constandt</b> , CEO, <i>ONTOFORCE</i> <b>Filip Pattyn</b> , Scientific Lead, <i>ONTOFORCE</i>
P <sub>2</sub>	Quantum Molecular Design (QMD)	<b>Ed Addison</b> , CEO, <i>Cloud Pharmaceuticals</i>
P <sub>3</sub>	Lab Data to Machine Learning in 30 seconds in PK/Tox and Solid Dose Formulations	<b>Tim Gardner</b> , CEO & Founder, <i>Riffyn</i>
P <sub>4</sub>	Partnering around ADMET Data	<b>Guido Lanza</b> , CEO, <i>Numerate</i>
P <sub>5</sub>	Data-readiness in a World of AI	<b>Narayanan Ramaswamy</b> , Global Director Solutions Architecture & Technology Enablement, <i>Otsuka</i>
P <sub>6</sub>	Measuring and Optimizing Time to Data	<b>Tim Delisle</b> , CEO, <i>Datalogue</i>

12:45 Lunch

SESSION III B: POSTERS

Chair: Dan Chapman, Head, IT New Medicines Information Management, *UCB*

14:00 Poster Session (Remaining three 15-minute rotations)



Hans Constandt, CEO, ONTOFORCE  
Filip Pattyn, Scientific Lead, *ONTOFORCE*

P1: DISCOVER



Ed Addison, CEO, *Cloud  
Pharmaceuticals*

P2: Quantum Molecular Design



Tim Gardner, CEO & Founder, *Riffyn*

P3: Lab Data to Machine Learning in 30  
seconds in PK/Tox and Solid Dose  
Formulations



Guido Lanza, CEO, *Numerate*

P4: Partnering around ADMET Data



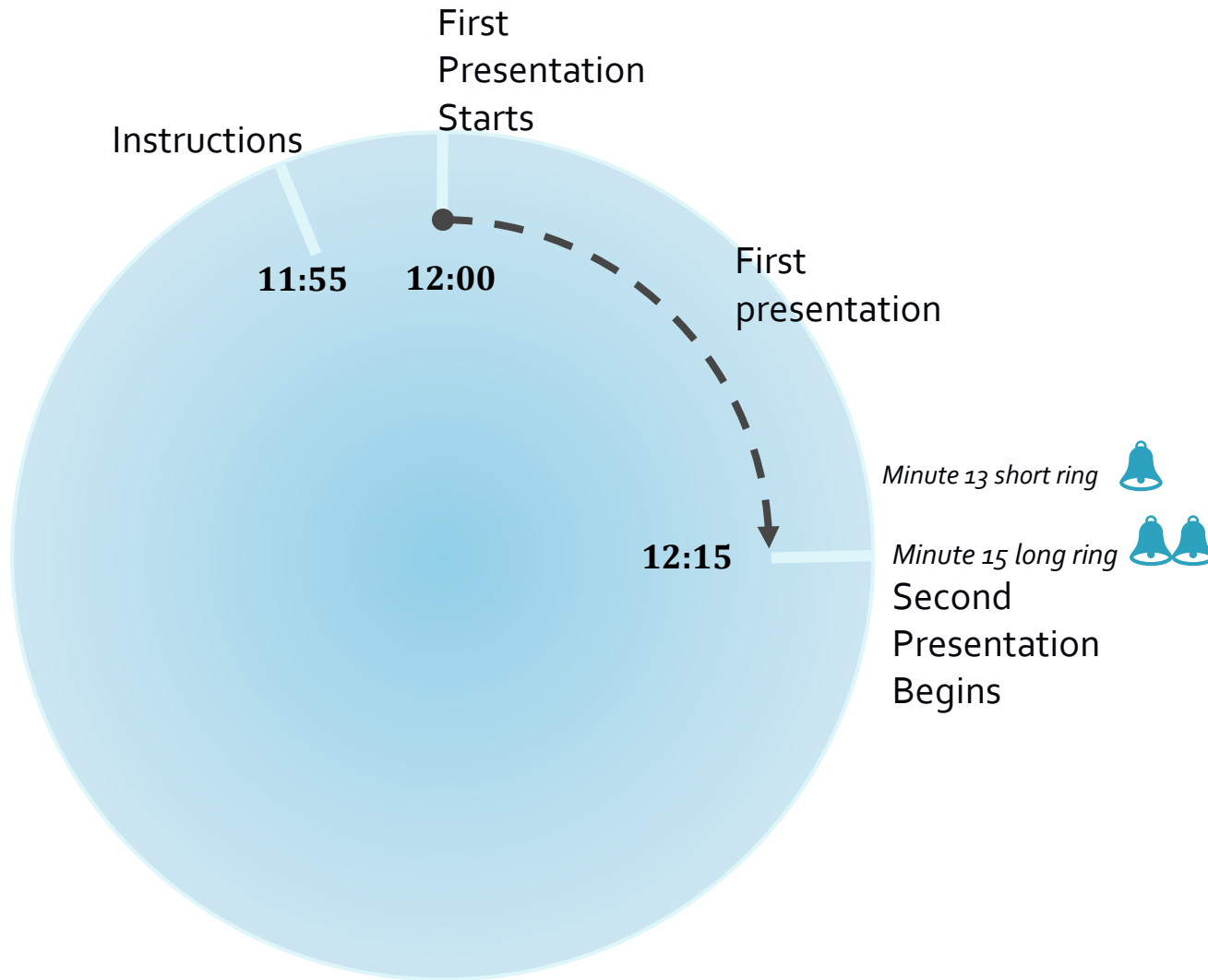
Narayanan Ramaswamy, Global Director  
Solutions Architecture & Technology  
Enablement, *Otsuka*

P5: Data-readiness in a World of AI



Tim Delisle, CEO, *Datalogue*

P6: Measuring and Optimizing Time to  
Data



## INSTRUCTIONS @11:55am

Session Chair will invite participants to take their seats.

Chair will open the session by introducing the presenters, their posters, along with the session structure and flow.

PRISME Forum staff will ring the bell on each rotation (*one ring at minute 13 of each presentation and then a longer ring at minute 15 when the presentation must end*).

Delegates are invited to identify the color of their lanyard and match to rotation called out by staff: "Rotation 1, 2, ...n".

Rotations will involve shift of participants' groups to the next poster on their right.

## FIRST SET OF ROTATIONS:

ROTATION 1 – 12:00	ROTATION 2 – 12:15	ROTATION 3 – 12:30
P1 – Orange	P1 – Green	P1 – Yellow
P2 – Gray	P2 – Orange	P2 – Green
P3 – Red	P3 – Gray	P3 – Orange
P4 – Purple	P4 – Red	P4 – Gray
P5 – Yellow	P5 – Purple	P5 – Red
P6 – Green	P6 – Yellow	P6 – Purple

*BREAK FOR LUNCH*

## SECOND SET OF ROTATIONS:

ROTATION 4 – 14:00	ROTATION 5 – 14:15	ROTATION 6 – 14:30
P1 – Purple	P1 – Red	P1 – Grey
P2 – Yellow	P2 – Purple	P2 – Red
P3 – Green	P3 – Yellow	P3 – Purple
P4 – Orange	P4 – Green	P4 – Yellow
P5 – Gray	P5 – Orange	P5 – Green
P6 – Red	P6 – Grey	P6 – Orange

# Lunch served in Fairness A

ORANGE	
Andy Beck	<i>Path AI</i>
Alastair Binnie	<i>BMS</i>
Nick Brown	<i>AstraZeneca</i>
Kelly Caruso	<i>Shire</i>
Jake Plummer	<i>Health Data Link</i>
Jean-Luc Schmidt	<i>Sanofi</i>
Michael Shanler	<i>Gartner</i>
Sandy Tremps	<i>Merck</i>
JC Yao	<i>Merck</i>
RED	
Christian Baber	<i>Shire</i>
Edsel Calliste-David	<i>Astellas</i>
Andrew Carroll	<i>GoogleAI</i>
David Christie	<i>CSL Behring</i>
Andrew Goldberg	<i>HealthVerity</i>
John Overington	<i>Medicines Discovery Catapult</i>
Carol Rohl	<i>Merck</i>
Jon Stevens	<i>AbbVie</i>
Charles Scott Wilkin	<i>NCSA</i>
PURPLE	
Sean Byrnes	<i>Outlier AI, Inc.</i>
Thomas Frei	<i>Novartis</i>
Klaus Hofenbitzer	<i>Celgene</i>
Martin Leach	<i>Alexion</i>
Mike Montello	<i>GSK</i>
Arun Nayar	<i>Amgen</i>
Martin Romacker	<i>Roche</i>
Tatsuyuki Takahashi	<i>Mitsubishi Tanabe</i>
Ashok Upadhyay	<i>Otsuka</i>

YELLOW	
Pete Dhillon	<i>Daiichi-Sankyo</i>
Joel Ekstrom	<i>Ionis</i>
Martin Erkens	<i>Roche</i>
M. Hall Gregg	<i>Pfizer</i>
Phil Hayduk	<i>AbbVie</i>
Jay Krishna	<i>Shire</i>
Francois Midili	<i>Ferring</i>
David Sedlock	<i>Takeda</i>
Jason Smith	<i>rMark Bio, Inc.</i>
Deep Vaswani	<i>Astellas</i>
GREEN	
Andrew Allen	<i>Regeneron</i>
John Apathy	<i>Celgene</i>
Michael Cassidy	<i>Regeneron</i>
John Conway	<i>AstraZeneca</i>
Massimo de Francesco	<i>UCB</i>
Lars Greiffenberg	<i>AbbVie</i>
Hongmei Huang	<i>Genentech</i>
Scott Oloff	<i>Boehringer Ingelheim</i>
Susie Stephens	<i>Pfizer</i>
Jason Tetrault	<i>Takeda</i>
GREY	
Dan Chapman	<i>UCB</i>
Ramesh Durvasula	<i>Eli Lilly</i>
Roy Ladd	<i>AbbVie</i>
Bruno Larmurier	<i>Servier</i>
Tomoyuki Matsunaga	<i>Takeda</i>
Natalie Mirutenko	<i>Takeda</i>
Mark Musen	<i>Stanford University</i>
Andy Newsom	<i>CSL Behring</i>
Etzard Stolte	<i>Roche</i>

POSTER ROTATIONS (daily and colors)

# PRISME Forum Technical Meeting Agenda (afternoon)

## SESSION I B: PLENARY PRESENTATIONS

Chair: Christian Baber, Head, R&D IT, *Shire*

14:45	Identifying and Exploiting Diverse and Difficult Datasets for Training ML	<b>Andrew Carroll</b> , Product Lead, GoogleBrain, <i>GoogleAI</i>
15:15	CEDAR: Semantic Technology in Support of Open Science and Improved Knowledge Management	<b>Mark Musen</b> , Professor, Biomedical Informatics and Biomedical Data Science, <i>Stanford University</i>

## SESSION IV: BREAK-OUTS, READOUTS & COFFEE

Chair: **Lars Greiffenberg**, Director R&D Information Research, AbbVie Library Sciences & Academic Partnerships, *AbbVie*

15:45	Breakout Session – Members and meeting guests will be divided into four groups led by co-captains	Co-captains: Group A (Start-up Pitches): Carol Rohl and Sean Byrnes Group B (Plenaries 1&2): Nick Brown and Andrew Goldberg Group C (Posters 1-3): Martin Romacker and Jake Plummer Group D (Posters 4-6): Jason Tetrault and Andy Beck Group E (Plenaries 3-4): Jianchao (JC) Yao and Jason Smith
16:15	Plenary Session – Readouts from breakout groups	

## SESSION V: MEETING SUMMARY, AWARDS & RECEPTION

Chair: Christian Baber, Head of R&D IT, *Shire*

16:45	Meeting Summary	
17:00	Awards & Networking Reception	



# SESSION IB:

## Plenary Presentations - AI in Biopharma R&D

Chair: Christian Baber, Head of R&D IT, Shire



**Identifying and Exploiting Diverse and Difficult Datasets  
for Training ML**

**Andrew Carroll**, Product Lead, GoogleBrain, *GoogleAI*



**CEDAR: Semantic Technology in Support of Open  
Science and Improved Knowledge Management**

**Mark Musen**, Professor, Biomedical Informatics and  
Biomedical Data Science, *Stanford University*

**SESSION IV**

# **BREAKOUT SESSION**

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**Chair: Lars Greiffenberg, Director R&D Information Research,  
AbbVie Library Sciences & Academic Partnerships, *AbbVie***

## OBJECTIVE

- Create a follow-on paper on the topic of “Data-readiness in a World of AI”

## METHODOLOGY

- Use the Technical Meeting as a primary information source for the paper.
- Use the different breakout groups to examine in details different aspects of the Technical Meeting.
- Provide the paper’s authors with sufficient detail to write the framework of the paper.

GROUP A - SESSION II: Start-up Pitches Co-captains: Carol Rohl and Sean Byrnes	GROUP B - SESSION IA: Plenary Presentations 1 & 2 Co-captains: Nick Brown and Andrew Goldberg	GROUP C - SESSION III: Poster Presentations 1-3 Co-captains: Martin Romacker and Jake Plummer	GROUP D - SESSION IB: Poster Presentations 4-6 Co-captains: Jason Tetrault and Andy Beck	GROUP E - SESSION IB: Plenary Presentations 3 & 4 Co-captains: Jianchao (JC) Yao and Jason Smith
Ed Addison (Cloud Pharmaceuticals)	Brandon Allgood (Nurate)	Christian Baber (Shire)	Michael Cassidy (Regeneron)	Andrew Allen (Regeneron)
Massimo de Francesco (UCB)	John Apathy (Celgene)	Edsel Calliste-David (Astellas)	Phil Hajduk (AbbVie)	Kelly Caruso (Shire)
Pete Dhillon (Daiichi-Sankyo)	Alastair Binnie (BMS)	David Christie (CSL Behring)	Hongmei Huang (Genentech)	Hans Constandt (ONTOFORCE)
Joel Ekstrom (Ionis)	Andrew Carroll (GoogleAI)	Thomas Frei (Novartis)	Bruno Larmurier (Servier)	John Conway (AstraZeneca)
Timothy Gardner (Riffyn)	Dan Chapman (UCB)	Klaus Hofenbitzer (Celgene)	Francois Midili (Ferring)	Tim Delisle (DataLogue)
John Overington (Medicines Discovery Catapult)	M. Hall Gregg (Pfizer)	Brian Martin (AbbVie)	Mike Montello (GSK)	Martin Erkens (Roche)
Filip Pattyn (ONTOFORCE)	Jay Krishna (Shire)	Tomoyuki Matsunaga (Takeda)	Arun Nayar (Amgen)	Lars Greiffenberg (AbbVie)
Narayanan Ramaswamy (Otsuka)	Roy Ladd (AbbVie)	Mark Musen (Stanford University)	Michael Shanler (Gartner)	Martin Leach (Alexion)
Jean-Luc Schmidt (Sanofi)	Guido Lanza (Nurate)	Susie Stephens (Pfizer)	Jon Stevens (AbbVie)	Scott Oloff (Boehringer Ingelheim)
David Sedlock (Takeda)	Natalie Mirutenko (Takeda)	Tatsuyuki Takahashi (Mitsubishi Tanabe)	Deep Vaswani (Astellas)	Leonard Sagalov (AbbVie)
Etzard Stolte (Roche)	Andy Newsom (CSL Behring)			Ashok Upadhyay (Otsuka)

# Captain readouts: (5 min each)

What was the focus of your groups discussion?

What were 2-3 key learnings about which you think the PRISME Forum members should be acting upon, in order to achieve data readiness in a world of AI?

Anything else that you want to share as a learning from your breakout group?

# SESSION V

## MEETING SUMMARY --- AND AWARDS

Chair: Christian Baber, Head, R&D IT, *Shire*;

Technical Meeting Chair, *PRISME Forum*