



# High Level Summary

## 7<sup>th</sup> Statistics Leaders Meeting

July 5, 2016

Paris, France





# 7<sup>th</sup> Stats Leaders Meeting 2016

- Venue: Paris (Sanofi facilities), France
- Date: **Tuesday, July 5, 2016**
  
- Chair: Stefan Driessen
- Local Org Ctee: Sylvain Nicolas
- Program Ctee: Marisa Bacchi, Hans-Ulrich Burger, Stefan Driessen, Chrissie Fletcher, Maylis Coste
  
- Attendance: 34 (fee: € 195)
- Topics: Regulatory and Public Interactions, SIGs (Small Populations, Modelling & Simulation, AIMS), Precision Medicine & Biomarkers, Present & Future Stats Depts Europe)

# Participants

|              |            |              |
|--------------|------------|--------------|
| Jens-Otto    | Andreas    | UCB          |
| Marisa       | Bacchi     | Actelion     |
| Anna         | Berglind   | Astra Zeneca |
| Egbert       | Biesheuvel | Danone       |
| Bruno        | Boulanger  | Arlenda      |
| Hans         | Burger     | Roche        |
| Simon        | Cleall     | Biogen       |
| Daniele      | Compagnone | AbbVie       |
| Maylis       | Coste      | Servier      |
| Stefan       | Driessen   | Abbott       |
| Cécile       | Dubois     | Grunenthal   |
| Chrissie     | Fletcher   | Amgen        |
| Daniel       | Evans      | Pfizer       |
| Christoph    | Gerlinger  | Bayer        |
| Kerry        | Gordon     | Quintiles    |
| Ingrid Sofie | Harbo      | Lundbeck     |
| Ray          | Harris     | Eisai        |

|               |             |                      |
|---------------|-------------|----------------------|
| Delyth        | Jones       | GSK                  |
| Niels Michael | Kamp        | Novo Nordisk         |
| Frances       | Lynn        | Bio Marin            |
| Pierre        | Mancini     | Sanofi               |
| William       | Malbecq     | MSD                  |
| Craig         | McIlloney   | PPD                  |
| Stephane      | Munier      | BMS                  |
| Sylvain       | Nicolas     | Sanofi               |
| Michael       | O'Kelly     | Quintiles            |
| Emmanelle     | Pham        | Ipsen                |
| Justine       | Rochon      | Boehringer Ingelheim |
| Armin         | Schueler    | Merck                |
| Paul          | Terrill     | CROS NT              |
| Liz           | Thompson    | Roche                |
| Torsten       | Westermeier | Bayer                |
| John          | Whittaker   | GSK                  |
| Josephine     | Wolfram     | Astellas             |

# Statistical Leaders Meeting

| Year        | Venue        | Host                 | # attendees |
|-------------|--------------|----------------------|-------------|
| <b>2016</b> | <b>Paris</b> | <b><i>Sanofi</i></b> | <b>34</b>   |
| 2015        | Brussels     | <i>MSD</i>           | 32          |
| 2014        | Basel        | <i>Roche</i>         | 31          |
| 2013        | Copenhagen   | <i>Novo Nordisk</i>  | 23          |
| 2012        | Amsterdam    | <i>Abbott</i>        | 26          |
| 2011        | London       | <i>Amgen</i>         | 22          |
| 2010        | Berlin       | <i>Bayer</i>         | 26          |



7th EU Statistics Leaders Meeting

# Agenda morning

| Time          | Topic   | Presenter / Facilitator  |
|---------------|---|--|
| 8:30-9:00     | <i>Registration</i>   |  |
| 9:00 - 9:15   | <ul style="list-style-type: none"> <li>• <b>Welcome address + Intro</b> <ul style="list-style-type: none"> <li>○ Org. Ctee</li> <li>○ EFSPI President</li> <li>○ Recap Stats Leaders meeting 2015</li> </ul> </li> </ul>  | <b>Stefan Driessen + Sylvain Nicolas</b><br><b>Marisa Bacchi</b><br><b>Stefan Driessen</b> |
| 9:15 – 10:15  | <ul style="list-style-type: none"> <li>• <b>Regulatory and Public Interactions</b> <ul style="list-style-type: none"> <li>○ Results Survey</li> <li>○ Estimands, Data Transparency, PRIMES</li> <li>○ 1<sup>st</sup> EFSPI workshop on Regulatory Statistics</li> <li>○ GET REAL</li> </ul> </li> </ul>                                 | <b>Chrissie Fletcher</b><br><b>Christoph Gerlinger</b>                                     |
| 10:15 – 10:45 | <ul style="list-style-type: none"> <li>• <b>SIG Small Populations</b> <ul style="list-style-type: none"> <li>○ Short update and Q&amp;A</li> </ul> </li> <li>• <b>SIG Modeling &amp; Simulation</b> <ul style="list-style-type: none"> <li>○ Best Practices document</li> </ul> </li> </ul>   | <b>Egbert Biesheuvel (Chair SIG)</b><br><b>Michael O’Kelly (Member SIG)</b>                |
| 10:45 – 11.15 | <i>Coffee Break</i>   |  |
| 11:15 – 12:00 | <ul style="list-style-type: none"> <li>• <b>Precision Medicine &amp; Biomarkers</b> <ul style="list-style-type: none"> <li>○ R&amp;D is now biomarker-driven; move from broad-spectrum therapies to targeted therapies</li> <li>○ Statistician’s role and skill set needed</li> <li>○ Current support strategies</li> </ul> </li> </ul> | <b>Armin Schüler</b><br><b>Hans Ulrich Burger</b>  |
| 12:00 – 12:30 | <ul style="list-style-type: none"> <li>• <b>SIG AIMS</b> <ul style="list-style-type: none"> <li>○ Background</li> <li>○ Charter, composition, goals</li> <li>○ Plans 2016-2018</li> <li>○ Interaction with other SIGs</li> </ul> </li> </ul>  | <b>Craig McIloney (Chair SIG AIMS)</b>   |

# Agenda afternoon

| Time          | Topic  | Presenter / Facilitator   |
|---------------|--|---|
| 14:45 – 15:00 | <i>Refreshments Break</i>  |   |
| 13:45 – 16:15 | <ul style="list-style-type: none"> <li>• <b>Present &amp; Future Statistical Depts in EU</b> <ul style="list-style-type: none"> <li>○ Survey results</li> <li>○ Rapidly changing environment</li> <li>○ Covering early development to HTA</li> <li>○ Top 1-2 Challenges for Stats Manager</li> <li>○ Contents (keep up), Operations (keep by)</li> <li>○ SME, Big Pharma, CRO</li> </ul> </li> </ul> | <b>Maylis Coste</b><br><b>Sylvain Nicolas</b><br><br><b>(table discussions + plenary)</b> |
| 16:15 – 16.30 | <ul style="list-style-type: none"> <li>• <b>Idea Generation Meeting 2017</b></li> </ul>  | <b>Stefan Driessen</b>  |
| 16:30         | <i>2016 Meeting Closure</i>  |   |



# Regulatory & Public Interactions

- **Key Take Aways / Messages:**

- Broad EU participation in regulatory committee
- EFSPi engaging in key regulatory forums
  - EMA workshops, BSWG, MHRA
- Expert/working groups in key areas, e.g. data transparency, estimands, statistics in quality
- Good links with EFPIA and other key partner groups via SIGs

- **Action items for EFSPi?:**

- Chrissie/Frank Bretz to meet with EFSPi and EFPIA estimand expert groups to debrief and discuss ICH E9(R1) progress / latest thinking
- Strategy for communicating stats methods/topics from consortiums, e.g. IMI

- **Action items for Stats Leaders group?:**

- Support 1<sup>st</sup> regulatory statistics workshop Sept 2016 (excellent value for money)
- Continue to discuss estimands with your clinical colleagues
- Volunteers for methodologists to attend IMI GetReal methods workshop (15<sup>th</sup> Sept, London) – names to Chrissie Fletcher
- Support sharing anonymisation case studies at cross-functional workshop (27<sup>th</sup> Sept, London) – look out for flyer for more details

# SIG Small Populations

- Key Take Aways / Messages:
  - 6 members; industry and academic
  - Review technical methods, conferences, other initiatives
  - EFSPI website functioning well
- Action items for EFSPI?:
  - Reconsider legal status EFSPI out of UK with present Brexit
    - FP7 requirement to acquire money for services
- Action items for Stats Leaders group?:
  - Promote within company and provide additional members, if possible
  - Provide with real case studies, if possible

# SIG Modelling & Simulation

- Key Take Aways / Messages:
  - Best Practices guidance available
    - Developed by SIG together with MID3
    - Published in Pharmaceutical Statistics
    - Part of pre-read material
- Action items for EFSPi?:
  - Announce in Newsletter seminar on Best Practices guidance
- Action items for Stats Leaders group?:
  - Promote use of Best Practice guidance
  - Give feedback to SIG based on use of guidance

## Key Take Aways / Messages:

- Support concept differs across companies e.g.
  - special biomarker stats expert group
  - support by early stats group
  - support by 'classical' phase II/III statistician
  - support by Bioinformatics
- Not many success stories available
  - how would success look like, i.e. clarification on expectation what's possible?
- Collaboration across companies and with academics is needed (being fully aware about the competition between companies)
  - foster the use of innovative adaptive designs?
- Promotion of value of statisticians for Biomarker development
- Historical data sources to be used to identify and validate potential biomarker
- Need of more statisticians with biomarker expertise, but still a generalist to have topics like regulatory requirements in mind
  - within company qualification is time consuming (e.g. to understand technology and operational characteristics of an assay)
  - => qualification via external education
  - => development of best practice in early biomarker development
  - => education on biological understanding
- Early involvement of stats is important
- Besides pure stats topics, it's important to think about handling of data, data standards, validation<sub>11</sub>



# Precision Medicine & Biomarkers

## Action items for EFSPi?:

- Collaboration: Foster collaboration across companies and with academics?
- Education: Special Biomarker meetings (across functions) with focus on education?

## Action items for Stats Leaders group?:

- Promote the value of statisticians within Biomarker development?

- Key Take Aways / Messages:
  - SIG recently kicked off – Charter presented
  - 7 members
    - Industry, Academia
    - Software vendors might be added in future
  - List of (25) possible topics proposed with initial prioritisation
- Action items for EFSPi?: None for now
- Action items for Stats Leaders group?:
  - At meeting list of 25 was discussed in break out groups
  - Request for adding to list of topics and indicate alternative prioritisation
  - SIG Chair Craig McIloney will report back, but noted already:
    - R Validation: high priority in companies
    - Improving Table generation in R
    - More prioritisation to graphical applications
    - Less to modelling techniques but

## Key Take Aways: Survey on Stat Groups in Europe: # 30

- Involvement mainly in worldwide clinical development (100%) and post approval phases (85%)
- Mostly internal statisticians (vs external programmers), high PhD presence (95%)
- Competencies in (60-70%) and responsibility for Model.&Simul., Data Mining & Methodological development
  - to note: the more strategic the less outsourced
- Presence of expertise (60-70%) in CT Simul, Bayesian, sBRA, Evidence synthesis & interactions with Authorities (vs low for Computational biology, HE model)
- Presence (70-80%) in topics such as Biomarkers, Rare disease, Decision making, Transparency
- High involvement in trainings, publications and communications
- Lower involvement in Pharmaco-Epidemiology & pre-clinics, discovery, Pharmaco-Vigilance and new areas as Big data, Connected objects
- Areas for improvement: strategic activities project portfolio management, interactions with Authorities and internal organisation



# Present & Future for the Stats groups Europe: items to develop or improve

## **Round table:** *New and future activities*

- Responsibility for the strategy of evidence generation
- Influential on mind-set as well as open to change
- Importance of multidisciplinary skills and/or collaborations for cross-fertilisation
- Operational feasibility key to develop innovation (internally, with external experts)
- Need for a new breath on key but still-non-mature areas (eg: BM, decision-making), with e.g. pre-competitive effort (including interaction with Agencies)
- Acceptance of uncertainty and Play with data attitude

## **Round table:** *Areas of influence & Organisation*

- Increase biostat activities outside of traditional Phase II & III (eg, discovery, Early Clinical Development, Biomarkers, Pharmaco-Eco)
- Network organisation
- Increase Statistical group capacity (and areas of expertise); Identification of talented collaborators; Training rather than recruiting
- High motivation on strategic topics such as Portfolio strategy (risk evaluation, Prob.of Success, ...)



# Present & Future Stats groups Europe

- Action items for EFSPi?:
  - Influence on Educational programs towards new scientific knowledge and collaborative skills
    - R, Bayesian, Decision making, etc.
  - Is there need and support for a position Paper on the Future of Statistical groups
    - availability of round tables syntheses, volunteers welcomed
- Action items for Stats Leaders group?:
  - Anticipate for the 8<sup>th</sup> Stat Leader meeting a session on specific topics, sharing successful cases of biostats broadening its influence, e.g.
    - Support for Decision-making
    - Biostatistics in Pre-clinical area



# Discussion topics, for Round 1 and Round 2

Portfolio strategy:  
-Portfolio management  
-Decision making support  
(need for –good- POS methodology)

Product Global Life cycle  
-from discovery to M.A.  
-translational approach  
- model-informed development plan

More complex development plan  
-Use innovative designs and methods  
(Adaptive, bayesian)  
-Biomarkers

New focus:  
-Real World Evidence  
-PharmacoEpidemiology  
-Evidence synthesis  
-Comparative effectiveness -  
PharmacoEconomy

Organizational strategy:  
-Re-organization/engineering  
-Transversal/multidisciplinary activities

Capacity & Resources  
-Collaborators: nb & skills  
-Productivity & timelines  
-Project teams vs methodo teams (&exploratory)  
-Outsourcing

Interaction with Regulators  
- Marketing Authorization  
- HTA  
- Europe, US and worldwide

New mindset to generate knowledge  
- 2ndary use of Database  
- Multidisciplinary collaboration  
- Data Mining

Structure & mindset:  
-Europe vs US  
-Joint devlpt with partner  
-Clinical project vs methodology work

New operational activities:  
-Transparency: disclosure, anonymisation  
-DSUR, PBRER  
-CDISC

New data sources  
-Connected objects  
-Longitudinal data  
Health records  
-Digital  
- Big Data

New technics and softwares:  
- Advanced analytics,  
-Modelisation/Simulation  
-Decision making calculations



# Round 1: new/future activities

## **Groups of ~5-6 participants**

Discuss a topic about the new activities or upcoming changes.

Try to answer the following questions as applicable

-Which extent of involvement should Biostatistics groups have ?

Initiate, develop and produce / R.A.C.I

internalize or externalize, partially or totally

-What do we need to be ready for and proficient: methodology, know-how, development, production, interpretation, robustness, ...

-What expertise shall we need? what profile/background/training for Statisticians ?

-Should we have more input in Statistical education programs?

-Should we support multidisciplinary skills?

-Which role for the external experts ?

-Should we consider new collaborations with academic groups ?



# Round 2: adjustment of our organization and models ?

## **Groups of ~5-6 participants**

Discuss a domain where adaptation or evolution of the organisation of our statistical groups should be relevant as well as new commitments for Statistical leaders in our Company

Try to answer the following questions as applicable

- What is the benefit for us to be involved in each theme ?
- What is the benefit for the Company to involve Statistical skills?
- What are the risks for our discipline not to be included in these areas ?
- What do we need to be ready and proficient ?
- Do we identify opportunities and/or needs to develop new internal or external partnerships ?
- Do we need to develop other skills to be influential ?
- Could we identify new opportunities for professional careers of Statisticians ?