

#### **Basel Biometric Society Webinar**

## Controlling the chances of false discoveries in exploratory analysis of clinical trials

Thursday, August 29, 2024

Organizers: Kostas Sechidis, Frank Bretz, Bibiana Blatna

Introduction: Dominic Magirr

#### **509 registered participants**

...as of Tuesday, 27th August

| Background*      | N   |
|------------------|-----|
| Statistics       | 464 |
| Clinical         | 44  |
| Epidemiology     | 42  |
| Health Economics | 20  |
| Regulatory       | 10  |
| Other            | 36  |



| ountry               | r   |
|----------------------|-----|
| witzerland           | 143 |
| nited States         | 128 |
| ermany               | 65  |
| nited Kingdom        | 52  |
| ıdia                 | 30  |
| rance                | 12  |
| elgium               | 11  |
| hina                 | 7   |
| aly                  | 6   |
| ustria               | 5   |
| apan                 | 5   |
| weden                | 5   |
| enmark               | 4   |
| reece                | 4   |
| pain                 | 4   |
| anada                | 3   |
| lorocco              | 2   |
| etherlands           | 2   |
| akistan              | 2   |
| ingapore             | 2   |
| lbania               | 1   |
| hile                 | 1   |
| inland               | 1   |
| ambia, The           | 1   |
| eland                | 1   |
| eland                | 1   |
| rael                 | 1   |
| orea, South          | 1   |
| lalawi               | 1   |
| igeria               | 1   |
| orway                | 1   |
| ortugal              | 1   |
| erbia and Montenegro | 1   |
| outh Africa          | 1   |
| aiwan                | 1   |
| urkey                | 1   |
| ganda                | 1   |

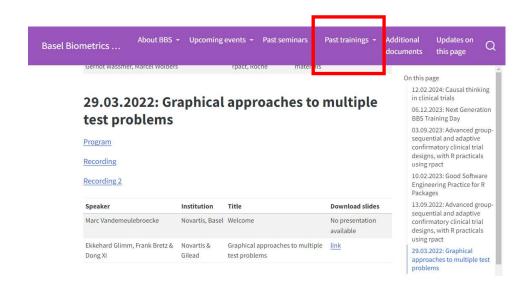
<sup>\*</sup>select all that apply

#### Housekeeping

- The event will be recorded
- Presentations and recording will be made available
- Please mute yourself unless you are speaking
- Q&A
  - At the end of each presentation, we will have time for questions
  - Please enter your questions into the chat during a presentation, or raise your hand during Q&A
- In case of problems during the event, contact <a href="mailto:Bibiana.Blatna@novartis.com">Bibiana.Blatna@novartis.com</a>

#### **Setting the scene**

https://baselbiometrics.github.io/home/docs/

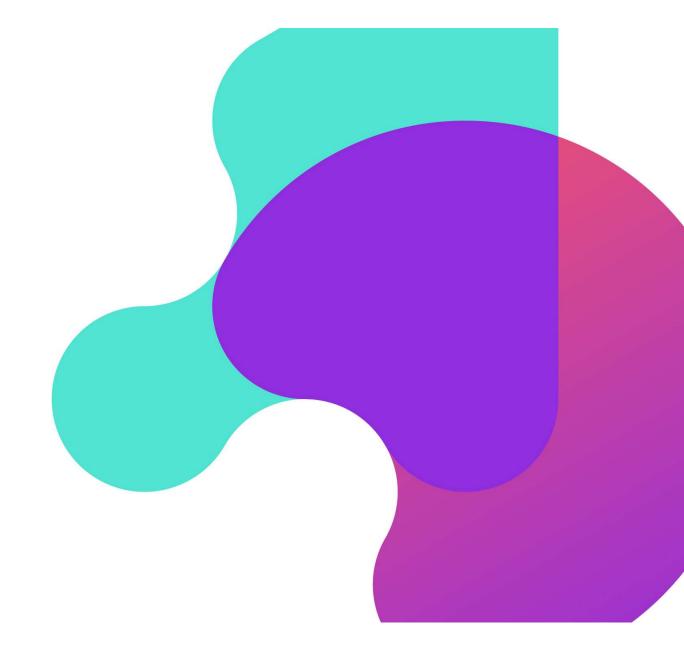




# Controlling the chances of false discoveries in exploratory analysis of clinical trials

| 14.00-<br>14.15 | Welcome remarks and setting the scene   | Dominic Magirr<br>(Novartis, BBS board<br>member) and<br>Frank Bretz (Novartis) |
|-----------------|---|---|
|                 | Part 1: Controlled variable selection   |   |
| 14.15-<br>14.40 | Using knockoffs for type-I error controlled prognostic and predictive variable selection                          | Kostas Sechidis<br>(Novartis)   |
| 14.40-<br>15.05 | Statistical Interpretation of High-Dimensional Prediction Models using Conditional Permutation Importance         | Denis Engemann (Roche)  |
| 15.05-<br>15.30 | Controlled Discovery and Localization of Signals via Bayesian<br>Linear Programming                               | Asher Spector (Stanford<br>University)  |
| 15.30-<br>15.45 | Break   |   |
|                 | Part 2: Controlled subgroup discovery   |   |
| 15.45-<br>16.10 | Overview of modern approaches for identifying and evaluating heterogeneous treatment effects from clinical trials | Ilya Lipkovich (Elli Lilly)   |
| 16.10-<br>16.35 | Subgroup selection with strong type-I error control under monotonicity constraints                                | Manuel M. Müller<br>(University of<br>Cambridge)                                |
| 16.35-<br>17.00 | Interactive identification of individuals with positive treatment effect while controlling false discoveries      | Aaditya Ramdas<br>(Carnegie Mellon<br>University)                               |

### Thank you



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