

Student Supervision & Teaching

Kaspar Rufibach, PhD
Biostatistician

Last updated: 2nd March 2021

THESIS AND INTERN SUPERVISION:

Chen, X. (2019). *Sample size for prediction models*. Three month full-time internship with Roche Biostatistics, Basel. Co-supervised with Markus Elze and Gian Thanei.

Li, K. (2018). *Optimism-corrected treatment effect estimates in subgroups displayed in forest plots for time-to-event outcomes*. Master thesis to obtain Master in Biostatistics, University of Zurich. Initiated within three month full-time internship with Roche Biostatistics, Basel. Co-supervised with Marcel Wolbers. Academic supervisor: Prof. Torsten Hothorn, University of Zurich.

Meller, M. (2016). *Joint Modelling of Overall Survival and Progression Free Survival*. Master thesis to obtain Master in Biostatistics, University of Ulm. Initiated within four month full-time internship with Roche Biostatistics, Basel. Academic supervisor: Prof. Jan Beyersmann, University of Ulm. Winner of the Bernd Streitberg Award 2018 of the German Region of the International Biometric Society.

Hebeisen, M. (2014). *Estimation from Interval-censored Time-to-event Data: Method Comparison by Simulation based on GALLIUM Study for Follicular Lymphoma*. Master thesis to obtain Master in Biostatistics, University of Zurich. Prepared within seven month full-time internship with Roche Biostatistics, Basel. Academic supervisor: Prof. Torsten Hothorn, University of Zurich. download thesis

Hubeaux, S. (2013). *Analysis of time-to-event data with interval- or left-censored covariates*. Six month full-time internship with Roche Biostatistics, Basel.

Boutellier, P. (2013). *What does a PSA bounce look like? A numerical and graphical description of the prostate-specific antigen (PSA) bounce phenomenon in patients treated for prostate cancer with brachytherapy only*. Master thesis to obtain Master in Medicine, University of Zurich.

Loiero, D. (2012). *Inter- and Intrareader variability of Ratingen score in the Swiss Clinical Quality Management database*. Master thesis to obtain Master in Medicine, University of Zurich.

Scherer, A. (2011). *Determinants of TNF α inhibitor prescription in the Swiss Clinical Quality Management cohort of axial Spondylarthropathy patients*. Semester thesis in Master of Biostatistics program, University of Zurich.

Achermann, R. (2008). *Netrin-1 und DCC Expression bei Hirntumoren*. Semester thesis in Master of Biostatistics program, University of Zurich.

Lanz, K., Weber M. (2005). *Schleistung unter körperlicher Anstrengung*. Swiss Technical School for Optometrics, Olten, Switzerland.

TEACHING LEADERSHIP

- At Roche, I am responsible for the technical training planning of ~ 220 biostatistics staff.
- I coordinate a major chunk of the biostatistics courses for non-statistics functions.
- I co-lead the official roll-out of the ICH E9 addendum within Roche, for statisticians and partner functions (such as clinical science, regulatory, biometrics, early research).
- A full-day introductory biostatistics course that I have given together with Marcel Wolbers has been selected as part of the official training program for all Roche affiliates globally.

SHORT COURSES FOR STATISTICALLY TRAINED AUDIENCES

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| 01/2021 | <i>Answering Old Questions with New Tools: Application of the ICH E9 Addendum in Oncology.</i> (Two 2.5-hour shortcourses for all Roche biostatisticians, with Godwin Yung.) |
| 12/2020 | <i>Answering Old Questions with New Tools: Application of the ICH E9 Addendum in Oncology.</i> (Half-day shortcourse at 76th Annual Deming Conference on Applied Statistics, with Evgeny Degtyarev.) |
| 06/2020 – 12/2020 | <i>A Toolbox for Innovative Confirmatory Trial Designs. Four 2h modules on group-sequential, adaptive, and multiarm multistage designs.</i> (Virtual course for all Roche biostatisticians, with Marcel Wolbers) |
| 10/2019 | <i>Advanced methods for group-sequential and adaptive trials.</i> (Summer school organized on behalf of the German Region of the IBS, Lambrecht, Germany. With Marc Vandemeulebroecke, Gernot Wassmer, and Marcel Wolbers. 3-day course.) |
| 07/2019 | <i>Advanced methods for group-sequential trials.</i> (ISCB40, Leuven, Belgium. With Marcel Wolbers. Half-day pre-conference course.) |
| 03/2019 | <i>Group-sequential clinical trial designs, advanced topics.</i> (Roche, Basel. With Marcel Wolbers. Half-day course.) |
| 03/2018 | <i>Group-sequential and adaptive clinical trial designs, with R practicals.</i> (Organized by the Basel Biometrics Section, Basel. With Daniel Sabanés Bové, Marc Vandemeulebroecke, Marcel Wolbers. Full-day course.) |
| 06/2013 | <i>Analysis of Longitudinal data.</i> (Roche, Basel. 8-hour course.) |
| 01/2011 | <i>Analysis of Longitudinal data.</i> (Institut for Medical Biometry, Epidemiology, and Informatics, University of Mainz. 3-day course, with Leo Held.) |
| 06/2010 | <i>Analysis of Longitudinal data, as part of Master in Medical Biometry.</i> (Department of Medical Biometry, University of Heidelberg, Heidelberg. 3-day course, with Leo Held.) |

GRADUATE LEVEL TEACHING FOR STATISTICIANS

Preparing and teaching lecture to Master students, preparing and discussing exercises (blackboard and with R), preparing and grading exams.

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| 12/2019 | <i>Introduction to Applied Mathematics and Informatics in Drug Discovery (AMIDD), one session: Interim look into pivotal clinical trials - why it matters and how to do it</i> (Graduate level, University of Basel) |
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| 11/2013 | <i>Statistical Methods for Clinical Research, one session on group-sequential designs in clinical research</i> (Graduate level, University of Zurich) |
| 11/2012 – 12/2012 | <i>Statistical Methods for Clinical Research, two sessions: group-sequential designs in clinical research and measures of agreement</i> (Graduate level, University of Zurich) |
| 09/2011 – 12/2011 | <i>Statistical Methods for Clinical Research</i> (Graduate level, University of Zurich) |
| 02/2010 – 06/2010 | <i>Longitudinal data analysis</i> (joint with Prof. L. Held, graduate level, University of Zurich) |
| 09/2009 – 12/2009 | <i>Biostatistical methods, Part II: Statistical methods for clinical trials</i> (graduate level, University of Zurich) |
| 02/2009 – 05/2009 | <i>Likelihood inference</i> (joint with Prof. L. Held, graduate level, University of Zurich) |
| 10/2005 – 02/2006 | <i>Introduction to Statistics</i> (undergraduate level, University of Bern) |

SHORT COURSES FOR NON-STATISTICAL AUDIENCES

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| 01/2021 | <i>Introduction to statistics.</i> (Two 2-hour courses for all Medical Science Liaison colleagues within Roche Medical Affairs, Roche, Basel (virtual event)) |
| 12/2020 | <i>Survival analysis in rheumatology.</i> (1-hour course for medical doctors, organized by Roche Switzerland at St. Gallen Hospital (virtual event).) |
| 11/2020 | <i>Introduction to statistics.</i> (Two 2-hour courses for all product development colleagues, Roche, Basel (virtual event)) |
| 09/2020 | <i>Introduction to survival and interim analyses.</i> (Half-day course for Regulatory Documentation Department, Roche, Basel & Welwyn (virtual event)) |
| 08/2020 | <i>Introduction to statistics.</i> (Half-day course for Regulatory Documentation Department, Roche, Basel & Welwyn (virtual event)) |
| 01/2020 | <i>Introduction to survival and interim analyses.</i> (Half-day course for Regulatory Documentation Department, Roche, Basel) |
| 01/2020 | <i>How to interpret subgroup analyses in clinical trials?</i> (2-hour course for medical doctors, organized by Roche Switzerland at University Hospital Zurich.) |
| 11/2019 – 01/2020 | <i>Design of Experiments & Effective Statistical Practices.</i> (Three two-hour courses for early development organization, Roche, Basel) |
| 10/2019 | <i>Introduction to statistics.</i> (Half-day course for Regulatory Documentation Department, Roche, Basel) |
| 01/2019 | <i>Introduction to statistics in clinical trials.</i> (2-hour course for Medical Science Liaison group, Roche Swiss Affiliate, Reinach) |
| 01/2019 | <i>Introduction to survival analysis and clinical trial designs, Part II.</i> (2-hour course for medical doctors, organized by Roche Switzerland at Baden Hospital.) |
| 01/2019 | <i>Estimands and real-world data in drug development.</i> (Half-day course for early development Neuroscience, Ophthalmology and Rare Disease scientists, Roche, Basel) |
| 11/2018 | <i>Introduction to survival analysis and clinical trial designs.</i> (Half-day course for early development Neuroscience, Ophthalmology and Rare Disease scientists, Roche, Basel) |
| 03/2018 | <i>Introduction to survival analysis and clinical trial designs.</i> (3-hour course for medical doctors, organized by Roche Switzerland at Baden Hospital.) |

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| 02/2018 | <i>Introduction to survival analysis and clinical trial designs.</i> (Half-day course for Regulatory Documentation Department and Global Project Managers, Roche, Basel) |
| 11/2017 | <i>Introduction to statistics.</i> (Half-day course for Regulatory Documentation Department and Global Project Managers, Roche, Basel) |
| 07/2017 | <i>Sample size planning and survival analysis in clinical trials.</i> (Full-day course for Medical Affairs and Clinical Science Departments, Roche, Basel, jointly with Marcel Wolbers) |
| 04/2017 | <i>Introduction to statistics.</i> (Half-day course for Competitive Intelligence Group, Roche, Basel) |
| 03/2017 | <i>Introduction to statistics.</i> (2-hour course for Finance Department, Roche, Basel) |
| 11/2016 | <i>Introduction to statistics.</i> (Half-day course for Regulatory Documentation Department, Roche, Mississauga) |
| 10/2016 | <i>Introduction to statistics.</i> (Half-day course for Regulatory Documentation Department, Roche, Basel) |
| 08/2016 | <i>Introduction to statistics.</i> (3-hour course for Media Group Roche, Basel) |
| 03/2016 – 11/2016 | <i>Five workshops on specific biostatistical topics in clinical trials.</i> (3-hour courses for medical doctors, organized by Roche Switzerland at hospitals in Sion, St. Gallen, Frauenfeld, Aarau, Zürich.) |
| 05/2016 | <i>Introduction to statistics.</i> (Half-day course for Regulatory Documentation Department, Genentech, South San Francisco and Roche, Basel) |
| 02/2016 | <i>Introduction to statistics in clinical trials.</i> (Half-day course for Medical Science Liaison group, Roche Swiss Affiliate, Reinach) |
| 01/2016 – 02/2016 | <i>Introduction to statistics. Certificate of Advanced Studies (CAS) course, as part of the Master of Advanced Studies in Managed Health Care.</i> (2-day course, ZHAW Zurich University of Applied Sciences, School of Management and Law, Winterthur Institute for Health Economics, Winterthur) |
| 11/2015 | <i>Introduction to statistics.</i> (1-day course for Statistical Programming and Analysis Department, Roche Basel) |
| 10/2015 | <i>Introduction to statistics.</i> (Two 1-day courses for Regulatory Documentation Department, Roche Basel & Welwyn) |
| 05/2015 | <i>Introduction to statistics.</i> (1-day course for Product Development Department, Roche Basel) |
| 02/2015 | <i>Introduction to statistics. Certificate of Advanced Studies (CAS) course, as part of the Master of Advanced Studies in Managed Health Care.</i> (2-day course, ZHAW Zurich University of Applied Sciences, School of Management and Law, Winterthur Institute for Health Economics, Winterthur) |
| 06/2014 – 11/2014 | <i>Four workshops on specific biostatistical topics in clinical trials.</i> (3-hour courses for medical doctors, organized by Roche Switzerland at hospitals in Zürich, Lausanne, Basel, Baden.) |
| 01/2014 – 03/2014 | <i>Introduction to statistics. Certificate of Advanced Studies (CAS) course, as part of the Master of Advanced Studies in Managed Health Care.</i> (3-day course, ZHAW Zurich University of Applied Sciences, School of Management and Law, Winterthur Institute for Health Economics, Winterthur) |
| 11/2013 | <i>Workshop on survival analysis in oncology.</i> (3-hour course for Roche Oncology sales force, Reinach) |

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| 06/2013 – 04/2014 | <i>Seven workshops on survival analysis in oncology.</i> (3-hour courses for medical doctors organized jointly by Roche Switzerland and Novartis Switzerland at hospitals in Basel, Zürich, Bern, Luzern, Lausanne, Lugano, Olten.) |
| 01/2012 – 03/2012 | <i>Introduction to statistics. Certificate of Advanced Studies (CAS) course, as part of the Master of Advanced Studies in Managed Health Care.</i> (3-day course, ZHAW Zurich University of Applied Sciences, School of Management and Law, Winterthur Institute for Health Economics, Winterthur) |
| 09/2011 | <i>Statistics in oncology.</i> (1-day course, cancer biology PhD program, University of Zurich) |
| 04/2011 | <i>How to write a scientific paper – statistical aspects.</i> (4-hour course as part of medical curriculum, University Hospital, Zurich) |
| 02/2011 | <i>Introduction to biostatistics.</i> (3-hour course, continuing education for radiologists, University Hospital, Bern) |
| 03/2010 | <i>Samples, confidence intervals, statistical tests, and p-values.</i> (1-hour talk, Medical radiology department, University Hospital Zurich, Zurich) |
| 01/2010 – 05/2010 | <i>Introduction to statistics. Certificate of Advanced Studies (CAS) course, as part of the Master of Advanced Studies in Managed Health Care.</i> (3-day course, ZHAW Zurich University of Applied Sciences, School of Management and Law, Winterthur Institute for Health Economics, Winterthur) |
| 09/2010 | <i>Statistics in oncology.</i> (1-day course, cancer biology PhD program, University of Zurich) |
| 09/2009 | <i>Statistics in oncology.</i> (1-day course, cancer biology PhD program, University of Zurich) |
| 09/2009 | <i>Assessment of agreement between continuous variables.</i> (1-hour talk, Waid Hospital, Zurich) |
| 02/2009 | <i>Introduction to biostatistics.</i> (1-hour talk, Triemli Hospital, Zurich) |
| 01/2009 | <i>Introduction to biostatistics.</i> (1-day course, continuing studies for researchers, University of Zurich) |
| 09/2008 | <i>Statistics in oncology.</i> (1-day course, cancer biology PhD program, University of Zurich) |
| 02/2008 | <i>Linear models.</i> (1-day course, continuing studies for researchers, University of Zurich) |
| 04/2005 – 05/2005 | <i>Introduction to R.</i> (2-day course, continuing studies, University of Bern) |

FURTHER SHORT COURSES

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| 09/2011 | <i>Optimization.</i> (2-hour course, Energy trading academy, BKW FMB Energie AG) |
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