



Eleni-Rosalina Andrinopoulou

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Birthday: 31/12/1987

EDUCATION AND TITLES

- | | |
|---|-------------|
| Assistant Professor of Biostatistics | 2019 - now |
| <ul style="list-style-type: none">• Erasmus MC - Department of Biostatistics and Department of Epidemiology | |
| Postdoctoral fellow | 2014 - 2019 |
| <ul style="list-style-type: none">• Erasmus MC - Department of Biostatistics and Department of Epidemiology | |
| Researcher | 2017 - 2018 |
| <ul style="list-style-type: none">• Rotterdam Eye Hospital - ROI | |
| Doctorate | 2010 - 2014 |
| <ul style="list-style-type: none">• Erasmus MC - Department of Biostatistics and Department of Cardio-Thoracic Surgery• Promotors: Prof. dr. E. Lesaffre and Prof.dr. J.J.M. Takkenberg• Supervisor: Prof. dr. D. Rizopoulos• Thesis title: Joint Modelling of Longitudinal and Survival Data with Applications in Heart Valve Data. | |
| Bachelor | 2006 - 2010 |
| <ul style="list-style-type: none">• Athens University of Economics and Business - Department of Statistics | |

PERSONAL STATEMENT

My long term research interests involve the development of theory and applications in novel models for longitudinal and survival data and individualized predictions, as well as working with applied biostatisticians and clinical investigators to ensure their use in real biomedical applications. I finished my PhD studies at the Department of Biostatistics and Department of Thoracic Surgery at Erasmus MC, which has brought opportunities for me to apply novel methods to cardiac surgery studies in which biomarkers are monitored simultaneously with events. I have published several papers in the field of biostatistics investigating several extensions of these models including the implementation of dynamic predictions. I have programmed many of the modern joint model applications being used by statisticians in R. I am already leading these research efforts in my field, and serve as a reviewer for top-tier biostatistics journals, including Statistics in Medicine; Statistical Methods in Clinical Research; Biometrical Journal. I have introduced these types of models to biostatisticians and in medical practice by presenting them at conferences. Furthermore, together with clinical researchers I have published them in several medical journals. After completing my PhD studies, I have been invited to mentor and collaborate with researchers based on my expertise in the joint modelling and dynamic predictions. I have collaborated with clinicians within and outside Erasmus MC on developing and improving the statistical methodology that is motivated by real-life applications.

NATIONAL ACTIVITIES

Collaborations:

1. Dr. Ruud Selles, Department of Rehabilitation Medicine and Department of Plastic and Reconstructive Surgery and Hand Surgery and Dr. Harm Slijper, medical performance officer of Equipe: Active collaboration since May 2018 in the field of longitudinal dynamic prediction and hand surgery.
2. Prof. Harm A. W. M. Tiddens, Department of Pediatrics/Respiratory Medicine, Erasmus MC: Active collaboration since February 2015 in the field of cystic fibrosis. This collaboration has led to 7 published papers.
3. Dr. Bart J. A. Rijnders, Department of Internal Medicine and Infectious Diseases. Past collaboration between September 2015 until September 2018. This collaboration has led to 3 published papers.
4. Prof. Johanna J. M. Takkenberg, Department of Cardio-Thoracic Surgery, Erasmus MC – former PhD promoter: Past collaboration between October 2014 and December 2017 in the field of degenerative aortic stenosis. After the completion of the PhD this collaboration has led to 3 published papers.
5. Dr. Koen Vermeer, Rotterdam Ophthalmic Institute: Past collaboration between January 2017 and April 2018 in the field of Uveitis. This collaboration has led to 1 accepted abstract at the 14th International Ocular Inflammation Society Meeting in conjunction with SOIE, 1 published paper and 1 paper under review.

Teaching:

1. Using R for Statistics in Medical Research, NIHES MSc Program Erasmus MC - 2018
2. 1st and 4th year medical students at Erasmus MC - since 2016
3. Courses for the Quantitative Researcher, NIHES MSc Program Erasmus MC - 2016 and 2017

Statistical Consulting:

1. Statistical consulting to the members of Erasmus MC since September 2010.
2. Statistical consulting to the members of Rotterdam Ophthalmic Institute (01/2017 – 04/2018).

Invited Seminars:

1. Ladies Rotterdam, February 2018: Using R for my Research - modern uses: Markdown and Shiny app.
2. Biostatistics section of Department of Epidemiology and Biostatistics VU university medical center, Amsterdam, June 2014: Combined Dynamic Predictions using Joint Models of Multiple Longitudinal Outcomes and Competing Risk Data.

INTERNATIONAL ACTIVITIES

Collaborations:

1. Dr. Rhonda Szczesniak, Department of Biostatistics Epidemiology and the department of Pulmonary Medicine at Cincinnati Children's Hospital Medical Center (CCHMC), Cincinnati, United States: Active collaboration in the field of cystic fibrosis since February 2016. This collaboration has led to 1 published paper, 1 ready to submit paper, 1 CFF (Cystic Fibrosis Foundation) grant and an NIH R01 grant (score within the fundable range).
2. Dr. Lidija Turkovic, Australian Respiratory Early Surveillance Team for Cystic Fibrosis (AREST CF): Past collaboration in the field of cystic fibrosis between 2016 and 2017. This collaboration has led to 1 published paper.
3. Dr. Montserrat Rué, Department of Basic Medical Sciences, Universitat de Lleida-IRBLLEIDA, Spain: Past collaboration in the field of biostatistics between 2016 and 2017. This collaboration has led to 1 published paper.
4. Dr. Xavier Piulachs Lozada-Benavente, Institute of Statistics, Biostatistics and Actuarial Science, UCLouvain, Belgium: Past collaboration in the field of biostatistics between 2016 and 2018. This collaboration has led to 1 submitted paper.

Invited Seminars:

1. Department of Mathematics, University of Oslo, Norway, February 2019: Assessing Risk Indicators in Clinical Practice with Joint Models of Longitudinal and Time-to-Event Data.
2. Center for Clinical & Translational Science Training. Ground Rounds, University of Cincinnati, USA, September 2018: Assessing Risk Indicators in Clinical Practice with Joint Models of Longitudinal and Time-to-Event Data.
3. Department of Biostatistics, Fairbanks School of Public Health and School of Medicine, Indiana University, Indianapolis, USA, September 2018: Assessing Risk Indicators in Clinical Practice with Joint Models of Longitudinal and Time-to-Event Data.
4. Statistics seminars at the Institute of Statistics, Biostatistics and Actuarial Sciences in UCL Louvain, Belgium, May 2018: Joint Modelling of Longitudinal and Survival Data.
5. EORTC course on: Clinical Trial Statistics for Non Statisticians, Brussels, Belgium, June 2015: Prognostic Factor Models.

Peer Reviewer International Scientific Journals:

1. Statistics in Medicine
2. Statistical Methods in Clinical Research
3. Biometrical Journal
4. Statistical Modelling
5. Biometrics

6. Biostatistics
7. IEEE Transactions on Biomedical Engineering
8. European Journal of Cardio-Thoracic Surgery (statistical reviewer)
9. Interactive CardioVascular and Thoracic Surgery (statistical reviewer)

Awards:

1. International Society for Clinical Biostatistics (2013): 1,000 euros.
2. State Scholarship Foundation (IKY) (2005): 2,500 euros.

Grants:

1. co-I on a NIH R01 grant titled "Mapping environmental contributions to rapid lung disease progression in cystic fibrosis" (18/01/2019 - 31/12/2023): 171,450 US dollars.
2. co-PI on a Cystic Fibrosis Foundation award to develop best practices for the analysis of lung function Decline (01/05/2018 – 01/05/2019): 33,585 US dollars.

Invited Speakers at Conferences:

1. Computational and Methodological Statistics, Pisa, Italy, December 2018: Joint Modelling of Longitudinal and Survival Data: recent extensions and applications.
2. American College of Epidemiology, Cincinnati, USA, September 2018: Making Dynamic Predictions Flexible: Monitoring Post-Surgical Outcomes.

Workshops at Conferences:

1. American College of Epidemiology, Cincinnati, USA, September 2018: Joint Modelling of Longitudinal and Survival Data: Tools to Evaluate Exposures and Predict Outcome Across the Lifespan.

SOFTWARE

<https://github.com/erandrinopoulou>

PRESENTATIONS

1. Annual Conference of the International Society for Clinical Biostatistics, Leuven 2019 - Dynamic prediction modelling in hand disorders after stroke using a latent class multivariate mixed model. (oral presentation)
2. Computational and Methodological Statistics, Pisa, Italy, December 2018 - Joint Modelling of Longitudinal and Survival Data: recent extensions and applications. (invited oral presentation)

3. International Biometrics Conference, Barcelona 2018 - Dynamic predictions of visual acuity in uveitis (oral presentation)
4. Rotterdam Ophthalmic Institute 2017 - Dynamic predictions of visual acuity in uveitis. (oral presentation) 14th International Ocular Inflammation Society Meeting in conjunction with SOIE, Lausanne 2017 - Dynamic predictions of visual acuity in uveitis. (oral presentation)
5. Annual Conference of the International Society for Clinical Biostatistics, Vigo 2017 - Integrating Latent Classes in the Joint Model of Longitudinal and Survival Outcomes. (oral presentation)
6. Eastern Mediterranean Region International Biometric Society and Italian Region conference, Thessaloniki 2017 - Integrating Latent Classes in the Joint Model of Longitudinal and Survival Outcomes. (oral presentation)
7. Department of Radiology (Erasmus MC) 2017 - Multiple testing (oral presentation) 28th International Biometric Conference (IBC), Victoria, Canada, 2016: Bayesian Joint Models of Longitudinal and Survival Outcomes with Time-Varying Effects using P-splines. (oral presentation)
8. Joint models and beyond workshop, Hasselt, Belgium, 2016: Bayesian Joint Models of Longitudinal and Survival Outcomes with Time-Varying Effects using P-splines. (poster presentation)
9. 36th Annual Conference of the International Society for Clinical Biostatistics (ISCB), Utrecht, The Netherlands, 2015: Bayesian Variable Selection with Joint Modeling of Longitudinal and Survival Outcomes Assuming Different Association Structures. (oral presentation)
10. 3rd Meeting on Statistics, Athens, Greece, 2015: Bayesian Variable Selection with Joint Modeling of Longitudinal and Survival Outcomes Assuming Different Association Structures. (oral presentation)
11. 8th Eastern Mediterranean Region International Biometric Society (EMR-IBS), Cappadocia, Turkey, 2015: Bayesian Variable Selection with Joint Modeling of Longitudinal and Survival Outcomes Assuming Different Association Structures. (oral presentation)
12. International Biometric Society Channel Network Conference, Nijmegen, The Netherlands, 2015: Bayesian Variable Selection with Joint Modeling of Longitudinal and Survival Outcomes Assuming Different Association Structures. (oral presentation)
13. 35th Annual Conference of the International Society for Clinical Biostatistics (ISCB), Vienna, Austria, 2014: Combined Dynamic Predictions using Joint Models of Multiple Longitudinal

- Outcomes and Competing Risk Data. An Application in Heart Valve Data. (oral presentation)
14. 27th International Biometric Conference (IBC), Florence, Italy, 2014: Combined Dynamic Predictions using Joint Models of Multiple Longitudinal Outcomes and Competing Risk Data. An Application in Heart Valve Data. (oral presentation)
 15. Statistical Analysis of Multi-Outcome Data Workshop, Cambridge, UK, 2014: Combined Dynamic Predictions using Joint Models of Multiple Longitudinal Outcomes and Competing Risk Data. An Application in Heart Valve Data. (poster presentation – chosen as one of three posters to receive a prize)
 16. 6th Annual Joint Scientific Session of the Heart Valve Society of America (HVSA) and Society for Heart Valve Disease (SHVD) Valves in the Heart of the Big Apple VIII, New York, US, 2014: How Can Complex Statistical Models Help Cardiologists with VHD Patients Prognostication? The Example of Allograft Valve Function to Predict Patient Outcome. (oral presentation)
 17. 7th Biennial Congress of the SHVD and HVSA, Venice Italy: Dynamic Event Prediction using Joint Models for Longitudinal and Time-to-Event Data. Concept Applied to Patients with Severe Aortic Stenosis. (oral presentation)
 18. BAYES2013, Rotterdam, The Netherlands, 2013: Dynamic Predictions in a Joint Model of Two Longitudinal Outcomes and Competing Risk Data. An Application in Heart Valve Data. (oral presentation)
 19. 7th meeting of the Eastern Mediterranean Region of the International Biometric Society (EMR-IBS), Tel Aviv, Israel, 2013: Dynamic Predictions in a Joint Model of Two Longitudinal Outcomes and Competing Risk Data. An Application in Heart Valve Data. (oral presentation)
 20. WEON 2012 Health and disease during the life course, Rotterdam, The Netherlands, 2012: Factors influencing natural course of Congenital Aortic Stenosis in young adults: a multicenter study. (oral presentation)
 21. 27th International Workshop on Statistical Modelling (IWSM), Prague Czech, Republic, 2011: Joint Modeling of Two Longitudinal Outcomes and Competing Risk Data. An Application in Cardio Data. (oral presentation – award for the extraordinary student presentation)

PUBLICATIONS

1. Majoor, J.E., Vermeer, K.A., **Andrinopoulou, E.R.** and Lemij, H. G. Contrast-to-Noise Ratios for Assessing the Detection of Progression in the Various Stages of Glaucoma. Translational vision science technology, 8(3):8-8. doi: 10.1167/tvst.8.3.8

2. Peltenburg, N.C., Bierau, J., Schippers, J.A., Lowe, S.H., Paulussen, A.D.C., van den Bosch, B.J.C., Leers, M.P.G., **Andrinopoulou, E.R.**, Bakker, J.A. and Verbon, A. Metabolic events in HIV-infected patients using abacavir are associated with erythrocyte inosine triphosphatase activity. *Journal of Antimicrobial Chemotherapy*. 2019 Jan 1;74(1):157-164. doi: 10.1093/jac/dky383.
3. Schauwvlieghe, A.F.A.D., Rijnders, B.J.A., Philips, N., Verwijs, R., Vanderbeke, L., Van Tienen, C., Lagrou, K., Verweij, P.E., Van de Veerdonk, F.L., Gommers, D., Spronk, P., Bergmans, D.C.J.J., Hoedemaekers, A., **Andrinopoulou, E.R.**, van den Berg, C.H.S.B., Juffermans, N.P., Hodiamont, C.J., Vonk, A.G., Depuydt, P., Boelens, J. and Wauters, J.; Dutch-Belgian Mycosis study group. Invasive aspergillosis in patients admitted to the intensive care unit with severe influenza: a retrospective cohort study. *The Lancet Respiratory Medicine*. 2018 Oct;6(10):782-792. doi: 10.1016/S2213-2600(18)30274-1.
4. Viguera-Guillen, J.P., **Andrinopoulou, E.R.**, Engel, A., Lemij, H.G., van Rooij, J., Vermeer, K.A. and van Vliet, L.J. Corneal Endothelial Cell Segmentation by Classifier-Driven Merging of Oversegmented Images. *IEEE Transactions on Medical Imaging*. 2018 Oct;37(10):2278-2289. doi: 10.1109/TMI.2018.2841910. van Leeuwen J., **Andrinopoulou, E.R.**, Hamoen, M., Paulis, W.D., van Teeffelen, J., Kornelisse, K., van der Wijst-Ligthart, K., Koes, B.W. and van Middelkoop, M. The effect of a multidisciplinary intervention program for overweight and obese children on cardiorespiratory fitness and blood pressure. *Family Practice*. 2018 Jun 25. doi: 10.1093/fampra/cmz061.
5. **Andrinopoulou, E. R.**, Nasserinejad, K., Szczesniak, R. and Rizopoulos, D. (2018). Integrating Latent Classes in the Bayesian Shared Parameter Joint Model of Longitudinal and Survival Outcomes. arXiv preprint arXiv:1802.10015.
6. Kuo, W., Ciet, P., **Andrinopoulou, E. R.**, Chen, Y., Pullens, B., Garcia-Peña, P., Fleck, R.J., Paoletti, M., McCartin, M., Vermeulen, F. and Morana, G. (2017). Reference Values for Central Airway Dimensions on CT Images of Children and Adolescents. *AJR. American Journal of Roentgenology*. doi: 10.2214/AJR.17.18597.
7. Wijting, I., Rokx, C., Boucher, C., van Kampen, J., Pas, S., de Vries-Sluijs, T., Schurink, C., Bax, H., Derksen, M., **Andrinopoulou, E.R.** and van der Ende, M. (2017). Dolutegravir as maintenance monotherapy for HIV (DOMONO): a phase 2, randomised non-inferiority trial. *The Lancet HIV*. doi: 10.1016/S2352-3018(17)30152-2.
8. **Andrinopoulou, E. R.**, Rizopoulos, D., Eilers, P. H. and Takkenberg, J. J. (2017). Improved Dynamic Predictions from Joint Models of Longitudinal and Survival Data with Time-Varying Effects using P-splines. *Biometrics*. doi: 10.1111/biom.12814.
9. **Andrinopoulou, E. R.**, Rizopoulos, D., Takkenberg, J. J. and Lesaffre, E. (2017). Combined dynamic predictions using joint models of two longitudinal outcomes and competing risk data. *Statistical methods in medical research*, 26(4), 1787-1801.
10. Kuo, W., **Andrinopoulou, E. R.**, Perez-Rovira, A., Ozturk, H., de Bruijne, M. and Tiddens, H. A. (2017). Objective airway artery dimensions compared to CT scoring methods assessing structural cystic fibrosis lung disease. *Journal of Cystic Fibrosis*, 16(1), 116-123.
11. Bos, A. C., Mouton, J. W., van Westreenen, M., **Andrinopoulou, E. R.**, Janssens, H. M. and Tiddens, H. A. (2017). Patient-specific modelling of regional tobramycin concentration levels

in airways of patients with cystic fibrosis: can we dose once daily?. *Journal of Antimicrobial Chemotherapy*. doi: 10.1093/jac/dkx293.

12. Kuo, W., Soffers, T., **Andrinopoulou, E.R.**, Rosenow, T., Ranganathan, S., Turkovic, L., Stick, S.M. and Tiddens, H.A. (2017). Quantitative assessment of airway dimensions in young children with cystic fibrosis lung disease using chest computed tomography. *Pediatric Pulmonology*. doi: 10.1002/ppul.23787.
13. Rué, M., **Andrinopoulou, E. R.**, Alvares, D., Armero, C., Forte, A. and Blanch, L. (2017). Bayesian joint modeling of bivariate longitudinal and competing risks data: An application to study patient [U+2010]ventilator asynchronies in critical care patients. *Biometrical Journal*. doi: 10.1002/bimj.201600221.
14. Ciet, P., Boisselle, P. M., Heidinger, B., **Andrinopoulou, E. R.**, O'Donnel, C., Alsop, D. C. and Litmanovich, D. E. (2017). Cine MRI of Tracheal Dynamics in Healthy Volunteers and Patients With Tracheobronchomalacia. *American Journal of Roentgenology*, 209(4), 757-761
15. Ciet, P., Bertolo, S., Ros, M., **Andrinopoulou, E.R.**, Tavano, V., Lucca, F., Feiweier, T., Krestin, G.P., Tiddens, H.A. and Morana, G. (2017). Detection and monitoring of lung inflammation in cystic fibrosis during respiratory tract exacerbation using diffusion-weighted magnetic resonance imaging. *European Respiratory Journal*, 50(1), doi: 10.1183/13993003.01437-2016.
16. Milojevic, M., Head, S. J., **Andrinopoulou, E. R.**, Serruys, P. W., Mohr, F. W., Tijssen, J. G. and Kappetein, A. P. (2017). Hierarchical testing of composite endpoints: applying the win ratio to percutaneous coronary intervention versus coronary artery bypass grafting in the SYNTAX trial. *EuroIntervention: journal of EuroPCR in collaboration with the Working Group on Interventional Cardiology of the European Society of Cardiology*. doi: 10.4244/EIJ-D-16-00745.
17. Szczesniak, R., Turkovic, L., **Andrinopoulou, E. R.** and Tiddens, H. A. (2017). Chest imaging in cystic fibrosis studies: What counts, and can be counted? *Journal of Cystic Fibrosis*, 16,175-185.
18. Arabkhani, B., Bekkers, J. A., **Andrinopoulou, E. R.**, Roos-Hesselink, J. W., Takkenberg, J. J. and Bogers, A. J. (2016). Allografts in aortic position: Insights from a 27-year, single-center prospective study. *The Journal of Thoracic and Cardiovascular Surgery*, 152(6), 1572-1579.
19. **Andrinopoulou, E. R.** and Rizopoulos, D. (2016). Bayesian shrinkage approach for a joint model of longitudinal and survival outcomes assuming different association structures. *Statistics in Medicine*, 35(26), 4813-4823.
20. Bos, A.C., Tiddens, H.A., Minh, K.T., Heeres, I., Overweel-Uijterlinde, J.L., Kok, A.E., **Andrinopoulou, E.R.** and Janssens, H.M. (2016). Daily Observations of Nebuliser Use and Technique (DONUT) in children with cystic fibrosis. *Journal of Cystic Fibrosis*, 15(5), 645-651.
21. Ciet, P., Serra, G., **Andrinopoulou, E.R.**, Bertolo, S., Ros, M., Catalano, C., Colagrande, S., Tiddens, H.A. and Morana, G. (2016). Diffusion weighted imaging in cystic fibrosis disease: beyond morphological imaging. *European Radiology*, 26, 3830-3839.
22. **Andrinopoulou E.R.**, Rizopoulos D., Geleijnse M.L., Lesaffre E., Bogers A.J. and Takkenberg J.J. (2015). Dynamic prediction of outcome for patients with severe aortic stenosis: application of joint models for longitudinal and time-to-event data. *BMC Cardiovascular Disorders*, 7, 15-28.

23. Ubels R.J., Mokhles S., **Andrinopoulou E.R.**, Braat C., van der Voort van Zyp N.C., Aluwini S., Aerts J.G. and Nuyttens J.J. (2015). Quality of life during 5 years after stereotactic radiotherapy in stage I non-small cell lung cancer. *Radiation Oncology*, 22, 10-98.
24. **Andrinopoulou E.R.**, Rizopoulos D., Takkenberg J.J. and Lesaffre E. (2015). Joint modeling of two longitudinal outcomes and competing risk data. *Statistics in Medicine*, 33, 3167-3178.
25. Buijs E.A., Reiss I.K., Kraemer U., **Andrinopoulou E.R.**, Zwiers A.J., Ince C. and Tibboel D. (2014). Increasing mean arterial blood pressure and heart rate with catecholaminergic drugs does not improve the microcirculation in children with congenital diaphragmatic hernia: a prospective cohort study. *Pediatric Critical Care Medicine*, 15, 343-54.
26. Buijs E.A., Verboom E.M., Top A.P., **Andrinopoulou E.R.**, Buysse C.M., Ince C. and Tibboel D. (2014). Early microcirculatory impairment during therapeutic hypothermia is associated with poor outcome in post-cardiac arrest children: a prospective observational cohort study. *Resuscitation*, 85, 397-404.
27. Kaman, W. E., **Andrinopoulou, E.R.** and Hays, J.P. (2013). Perceptions of point-of-care infectious disease testing among European medical personnel, point-of-care test kit manufacturers, and the general public. *Patient preference and adherence*, 7, 559.
28. van der Linde, D., **Andrinopoulou, E.R.**, Oechslin, E. N., Budts, W., van Dijk, A.P., Pieper, P.G., Wajon, E.M., Post, M.C., Witsenburg, M., Silversides, C.K. and Oxenius, A. (2013). Congenital valvular aortic stenosis in young adults: Predictors for rate of progression of stenosis and aortic dilatation. *International journal of cardiology*, 168(2), 863-870.
29. van Nistelrooij, A.M., **Andrinopoulou, E.R.**, van Lanschot, J.J., Tilanus, H. W. and Wijnhoven, B.P. (2012). Influence of young age on outcome after esophagectomy for cancer. *World journal of surgery*, 36(11), 2612-2621.
30. Mokhles, M.M., Rizopoulos, D., **Andrinopoulou, E.R.**, Bekkers, J. A., Roos-Hesselink, J.W., Lesaffre, E., Bogers, A.J. and Takkenberg, J.J. (2012). Autograft and pulmonary allograft performance in the second post-operative decade after the Ross procedure: insights from the Rotterdam Prospective Cohort Study. *European heart journal*, 33(17), 2213-2224.
31. **Andrinopoulou, E.R.**, Rizopoulos, D., Jin, R., Bogers, A. J., Lesaffre, E. and Takkenberg, J. J. (2012). An introduction to mixed models and joint modeling: analysis of valve function over time. *The Annals of thoracic surgery*, 93(6), 1765-1772.