

List of publications

Tuomas Borman

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A. PEER-REVIEWED SCIENTIFIC ARTICLES

1. Bianca Cordazzo Vargas, Cameron Martino, Amanda Hazel Dilmore, Jessica L Metcalf, Zachary M Burcham, Leo Lahti, Aituar Bektanov, **Tuomas Borman**, Veikko Salomaa, Teemu Niiranen, Aki S Havulinna, Rachel Gregor, Stav Eyal, Michael M Meijler, Itzhak Mizrahi, Se Jin Song, Andrew Bartko, Pieter C Dorrestein, James T Morton, Daniel McDonald, Rob Knight, Liat Shenhav (2026). Joint-RPCA: domain-aware multi-omics integration for systems microbiology. *Molecular Systems Biology*. <https://doi.org/10.1038/s44320-026-00236-3>
2. Tatu Han, **Tuomas Borman**, Sanja Vanhatalo, Leo Lahti, Eliisa Löyttyniemi, Saija Hurme, Eveliina Munukka, Teemu Kallonen, Antti Hakanen, Maija Hollmén, Paulina Salminen (2026). Uncomplicated and Complicated Acute Appendicitis Induce Different Cytokine Patterns. *APMIS* 134(2). <https://doi.org/10.1111/apm.70168>
3. **Tuomas Borman**, Artur Sannikov, Robert D Finn, Morten Tønsberg Limborg, Alexander B Rogers, Varsha Kale, Kati Hanhineva, Leo Lahti (2025). HoloFoodR: a statistical programming framework for holo-omics data integration workflows. *Bioinformatics* 41(11). <https://doi.org/10.1093/bioinformatics/btaf605>
4. Moiz Khan Sherwani, Matti O Ruuskanen, Dylan Feldner-Busztin, Panos Nisantzis Firbas, Gergely Boza, Ágnes Mór  h, **Tuomas Borman**, Pande Putu Erawijantari, Istv  n Scheuring, Shyam Gopalakrishnan, Leo Lahti (2025). Multi-omics time-series analysis in microbiome research: a systematic review. *Briefings in Bioinformatics* 26(5). <https://doi.org/10.1093/bib/bbaf502>
5. Giulio Benedetti, Ely Seraidarian, Theotime Pralas, Akewak Jeba, **Tuomas Borman**, Leo Lahti (2024). iSEETree: interactive explorer for hierarchical data. *Bioinformatics Advances* 5(1). <https://doi.org/10.1093/bioadv/vbaf107>
6. Emilia K  nig, Shea Beasley, Paulina Heponiemi, Sanni Kivinen, Jaakko R  kk  l  inen, Seppo Salminen, Maria Carmen Collado, **Tuomas Borman**, Leo Lahti, Virpi Piirainen, Anna Valros, Mari Heinonen (2024). Fecal microbiota profiles of growing pigs and their relation to growth performance. *PLOS ONE* 19(5), e0302724. <https://doi.org/10.1371/journal.pone.0302724>
7. Emilia K  nig, Paulina Heponiemi, Sanni Kivinen, Jaakko R  kk  l  inen, Shea Beasley, **Tuomas Borman**, Maria Carmen Collado, Vilja Hukkinen, Jouni Junnila, Leo Lahti, Marianna Norring, Virpi Piirainen, Seppo Salminen, Mari Heinonen, Anna Valros (2024). Fewer culturable Lactobacillaceae species identified in faecal samples of pigs performing manipulative behaviour. *Scientific Reports* 14(1). <https://doi.org/10.1038/s41598-023-50791-0>
8. Yu Gao, Ya  mur   im  ek, Emma Gheysen, **Tuomas Borman**, Yi Li, Leo Lahti, Karoline Faust, Daniel Rios Garza (2023). miaSim: an R/Bioconductor package to easily simulate microbial community dynamics. *Methods in Ecology and Evolution* 14(8), 1967–1980. <https://doi.org/10.1111/2041-210x.14129>

G. THESES

1. **Tuomas Borman** (2023). Turun kaupungin ostolaskuaineiston analyysi [Analysis of the purchase invoice data of the City of Turku]. Master’s thesis (MSc Econ, Accounting and Finance), Turku School of Economics, University of Turku.
2. **Tuomas Borman** (2022). Microbiome data science workflow with an application to appendicitis. Master’s thesis (MSc Tech, Biotechnology), University of Turku.

3. **Tuomas Borman** (2021). Tekoälyn hyödyntäminen asiakassegmentoinnissa [Using artificial intelligence in customer segmentation]. Bachelor's thesis (BSc Econ, Accounting and Finance), Turku School of Economics, University of Turku.
4. **Tuomas Borman** (2020). Creutzfeldt-Jakobin taudin kliininen prionianalytiikka [Clinical prion analytics of Creutzfeldt–Jakob disease]. Bachelor's thesis (BSc Tech, Biotechnology), University of Turku.

I. AUDIOVISUAL MATERIAL, ICT SOFTWARE

1. mia: Microbiome analysis. R/Bioconductor package. Maintainer. <https://bioconductor.org/packages/mia>
2. miaViz: Microbiome analysis plotting and visualization. R/Bioconductor package. Maintainer. <https://bioconductor.org/packages/miaViz>
3. miaTime: Microbiome time series analysis. R/Bioconductor package. Maintainer. <https://bioconductor.org/packages/miaTime>
4. HoloFoodR: R interface to EBI HoloFood resource. R/Bioconductor package. Maintainer. <https://bioconductor.org/packages/HoloFoodR>
5. MGnifyR: R interface to EBI MGnify metagenomics resource. R/Bioconductor package. Maintainer. <https://bioconductor.org/packages/MGnifyR>
6. Orchestrating Microbiome Analysis with Bioconductor (OMA). Open online book. Maintainer. <https://microbiome.github.io/OMA>