Peer-reviewed journal papers

- [1] M. van Santvoort, Ó. Lapuente-Santana, M. Zopoglou, C. Zackl, F. Finotello, P. van der Hoorn, and F. Eduati. "Mathematically mapping the network of cells in the tumor microenvironment". In: Cell Reports Methods (2025). ISSN: 2667-2375. DOI: 10.1016/j.crmeth.2025.100985. URL: https://doi.org/10.1016/j.crmeth.2025.100985.
- [2] M. N. G. van Genderen, J. Kneppers, A. Zaalberg, E. M. Bekers, A. M. Bergman, W. Zwart, and F. Eduati. "Agent-based modeling of the prostate tumor microenvironment uncovers spatial tumor growth constraints and immunomodulatory properties". In: npj Systems Biology and Applications 10.1 (Feb. 2024). ISSN: 2056-7189. DOI: 10.1038/s41540-024-00344-6. URL: http://dx.doi.org/10.1038/s41540-024-00344-6.
- [3] S. A. Genet, E. Visser, M. Youssef-El Soud, H. N. Belderbos, G. Stege, M. E. de Saegher, S. C. v. '. Westeinde, L. Brunsveld, M. A. Broeren, D. van de Kerkhof, F. Eduati, B. E. van den Borne, and V. Scharnhorst. "Strengths and challenges in current lung cancer care: Timeliness and diagnostic procedures in six Dutch hospitals". In: Lung Cancer 189 (Mar. 2024), p. 107477. ISSN: 0169-5002. DOI: 10.1016/j.lungcan.2024.107477. URL: http://dx.doi.org/10.1016/j.lungcan.2024.107477.
- [4] Ó. Lapuente-Santana, J. Kant, and F. Eduati. "Integrating histopathology and transcriptomics for spatial tumor microenvironment profiling in a melanoma case study". In: npj Precision Oncology 8.1 (2024), p. 254. ISSN: 2397-768X. DOI: 10.1038/s41698-024-00749-w. URL: https://www.nature.com/articles/s41698-024-00749-w.
- [5] Ó. Lapuente-Santana, G. Sturm, J. Kant, M. Ausserhofer, C. Zackl, M. Zopoglou, N. McGranahan, D. Rieder, Z. Trajanoski, N. F. da Cunha Carvalho de Miranda, F. Eduati, and F. Finotello. "Multimodal analysis unveils tumor microenvironment heterogeneity linked to immune activity and evasion". In: *iScience* (July 2024), p. 110529. ISSN: 25890042. DOI: 10.1016/j.isci.2024.110529.
- [6] M. Mason, Ó. Lapuente-Santana, A. S. Halkola, W. Wang, R. Mall, X. Xiao, J. Kaufman, J. Fu, J. Pfeil, J. Banerjee, V. Chung, H. Chang, S. D. Chasalow, H. Y. Lin, R. Chai, T. Yu, F. Finotello, T. Mirtti, M. I. Mäyränpää, J. Bao, E. W. Verschuren, E. I. Ahmed, M. Ceccarelli, L. D. Miller, G. Monaco, W. R. L. Hendrickx, S. Sherif, L. Yang, M. Tang, S. S. Gu, W. Zhang, Y. Zhang, Z. Zeng, A. Das Sahu, Y. Liu, W. Yang, D. Bedognetti, J. Tang, F. Eduati, T. D. Laajala, W. J. Geese, J. Guinney, J. D. Szustakowski, B. G. Vincent, and D. P. Carbone. "A community challenge to predict clinical outcomes after immune checkpoint blockade in non-small cell lung cancer". In: Journal of Translational Medicine 22.1 (Feb. 2024). ISSN: 1479-5876. DOI: 10.1186/s12967-023-04705-3. URL: http://dx.doi.org/10.1186/s12967-023-04705-3.
- [7] C. Dinis Fernandes, A. Schaap, J. Kant, P. van Houdt, H. Wijkstra, E. Bekers, S. Linder, A. M. Bergman, U. van der Heide, M. Mischi, W. Zwart, F. Eduati, and S. Turco. "Radiogenomics Analysis Linking Multiparametric MRI and Transcriptomics in Prostate Cancer". In: Cancers 15.12 (June 2023), p. 3074. ISSN: 2072-6694. DOI: 10.3390/cancers15123074. URL: http://dx.doi.org/10.3390/cancers15123074.
- [8] M. Passier, M. N. van Genderen, A. Zaalberg, J. Kneppers, E. M. Bekers, A. M. Bergman, W. Zwart, and F. Eduati. "Exploring the Onset and Progression of Prostate Cancer through a Multicellular Agent-based Model". In: Cancer Research Communications 3.8 (Aug. 2023), pp. 1473—1485. ISSN: 2767-9764. DOI: 10.1158/2767-9764.crc-23-0097. URL: http://dx.doi.org/10.1158/2767-9764.CRC-23-0097.
- [9] E. Visser, S. A. Genet, R. P. de Kock, B. E. van den Borne, M. Youssef-El Soud, H. N. Belderbos, G. Stege, M. E. de Saegher, S. C. van 't Westeinde, L. Brunsveld, M. A. Broeren, D. van de Kerkhof, B. A. Deiman, F. Eduati, and V. Scharnhorst. "Liquid biopsy-based decision support algorithms for diagnosis and subtyping of lung cancer". In: Lung Cancer 178 (Apr. 2023), pp. 28–36. ISSN: 0169-5002. DOI: 10.1016/j.lungcan.2023.01.014. URL: http://dx.doi.org/10.1016/j.lungcan.2023.01.014.
- [10] E. Visser, R. de Kock, S. Genet, B. v. d. Borne, M. Y.-E. Soud, H. Belderbos, G. Stege, M. de Saegher, S. v. 't Westeinde, M. Broeren, F. Eduati, B. Deiman, and V. Scharnhorst. "Upfront mutation detection in circulating tumor DNA by droplet digital PCR has added diagnostic value in lung cancer". In: Translational Oncology 27 (Jan. 2023), p. 101589. ISSN: 1936-5233. DOI: 10.1016/j.tranon.2022.101589. URL: http://dx.doi.org/10.1016/j.tranon.2022.101589.

- [11] M. Yelleswarapu, S. Spinthaki, T. F. A. de Greef, and F. Eduati. "Bilayer Microfluidic Device for Combinatorial Plug Production". In: *Journal of Visualized Experiments* 202 (Dec. 2023). ISSN: 1940-087X. DOI: 10.3791/66154. URL: http://dx.doi.org/10.3791/66154.
- [12] L. Kolmar, A. Autour, X. Ma, B. Vergier, F. Eduati, and C. A. Merten. "Technological and computational advances driving high-throughput oncology". In: *Trends in Cell Biology* 32.11 (Nov. 2022), pp. 947–961. ISSN: 0962-8924. DOI: 10.1016/j.tcb.2022.04.008. URL: http://dx.doi.org/10.1016/j.tcb.2022.04.008.
- [13] Ó. Lapuente-Santana, M. van Genderen, P. A. Hilbers, F. Finotello, and F. Eduati. "Interpretable systems biomarkers predict response to immune-checkpoint inhibitors". In: *Patterns* 2.8 (Aug. 2021), p. 100293. ISSN: 2666-3899. DOI: 10.1016/j.patter.2021.100293. URL: http://dx.doi.org/10.1016/j.patter.2021.100293.
- [14] F. Eduati, P. Jaaks, J. Wappler, T. Cramer, C. A. Merten, M. J. Garnett, and J. Saez-Rodriguez. "Patient-specific logic models of signaling pathways from screenings on cancer biopsies to prioritize personalized combination therapies". In: *Molecular Systems Biology* 16.6 (June 2020). DOI: 10.15252/msb.209690. URL: https://doi.org/10.15252%2Fmsb.209690.
- [15] S. A. Genet, E. Visser, B. E. v. d. Borne, M. Y.-E. Soud, H. N. Belderbos, G. Stege, M. E. d. Saegher, F. Eduati, M. A. Broeren, J. v. Dongen, L. Brunsveld, D. v. d. Kerkhof, and V. Scharnhorst. "Correction of the NSE concentration in hemolyzed serum samples improves its diagnostic accuracy in small-cell lung cancer". In: Oncotarget 11.27 (July 2020), pp. 2660–2668. ISSN: 1949-2553. DOI: 10.18632/oncotarget.27664. URL: http://dx.doi.org/10.18632/oncotarget.27664.
- [16] Ó. Lapuente-Santana and F. Eduati. "Toward Systems Biomarkers of Response to Immune Checkpoint Blockers". In: Frontiers in Oncology 10 (June 2020). ISSN: 2234-943X. DOI: 10.3389/fonc. 2020.01027. URL: http://dx.doi.org/10.3389/fonc.2020.01027.
- [17] F. Eduati, R. Utharala, D. Madhavan, U. P. Neumann, T. Longerich, T. Cramer, J. Saez-Rodriguez, and C. A. Merten. "A microfluidics platform for combinatorial drug screening on cancer biopsies". In: Nature Communications 9.1 (June 2018). ISSN: 2041-1723. DOI: 10.1038/s41467-018-04919-w. URL: http://dx.doi.org/10.1038/s41467-018-04919-w.
- [18] F. Finotello and F. Eduati. "Multi-Omics Profiling of the Tumor Microenvironment: Paving the Way to Precision Immuno-Oncology". In: Frontiers in Oncology 8 (Oct. 2018). ISSN: 2234-943X. DOI: 10.3389/fonc.2018.00430. URL: http://dx.doi.org/10.3389/fonc.2018.00430.
- [19] F. Eduati, V. Doldàn-Martelli, B. Klinger, T. Cokelaer, A. Sieber, F. Kogera, M. Dorel, M. J. Garnett, N. Blüthgen, and J. Saez-Rodriguez. "Drug Resistance Mechanisms in Colorectal Cancer Dissected with Cell Type-Specific Dynamic Logic Models". In: Cancer Research 77.12 (June 2017), pp. 3364-3375. ISSN: 1538-7445. DOI: 10.1158/0008-5472.can-17-0078. URL: http://dx.doi.org/10.1158/0008-5472.can-17-0078.
- [20] P. Traynard, L. Tobalina, F. Eduati, L. Calzone, and J. Saez-Rodriguez. "Logic Modeling in Quantitative Systems Pharmacology". In: *CPT: Pharmacometrics & Systems Pharmacology* (July 2017). DOI: 10.1002/psp4.12225. URL: https://doi.org/10.1002%2Fpsp4.12225.
- [21] T. Cokelaer, M. Bansal, C. Bare, E. Bilal, B. M. Bot, E. C. Neto, F. Eduati, A. de la Fuente, M. Gönen, S. M. Hill, B. Hoff, J. R. Karr, R. Küffner, M. P. Menden, P. Meyer, R. Norel, A. Pratap, R. J. Prill, M. T. Weirauch, J. C. Costello, G. Stolovitzky, and J. Saez-Rodriguez. "DREAMTools: a Python package for scoring collaborative challenges". In: F1000Research 4 (Apr. 2016), p. 1030. DOI: 10.12688/f1000research.7118.2. URL: https://doi.org/10.12688%2Ff1000research.7118.2.
- [22] B. Di Camillo, A. Carlon, F. Eduati, and G. M. Toffolo. "A rule-based model of insulin signalling pathway". In: *BMC Systems Biology* 10.1 (June 2016), p. 38. ISSN: 1752-0509. DOI: 10.1186/s12918-016-0281-4. URL: https://doi.org/10.1186/s12918-016-0281-4.
- [23] F. Eduati, L. M. Mangravite, T. Wang, H. Tang, J. C. Bare, R. Huang, T. Norman, M. Kellen, M. P. Menden, J. Yang, X. Zhan, R. Zhong, G. Xiao, M. Xia, N. Abdo, O. Kosyk, S. Friend, A. Dearry, A. Simeonov, R. R. Tice, I. Rusyn, F. A. Wright, G. Stolovitzky, Y. Xie, and J. Saez-Rodriguez. "Prediction of human population responses to toxic compounds by a collaborative competition". In: Nature Biotechnology 33.9 (Sept. 2015), pp. 933–940. ISSN: 1546-1696. DOI: 10.1038/nbt.3299. URL: http://dx.doi.org/10.1038/nbt.3299.

- [24] S. Videla, C. Guziolowski, F. Eduati, S. Thiele, M. Gebser, J. Nicolas, J. Saez-Rodriguez, T. Schaub, and A. Siegel. "Learning Boolean logic models of signaling networks with ASP". In: *Theoretical Computer Science* 599 (2015). Advances in Computational Methods in Systems Biology, pp. 79–101. ISSN: 0304-3975. DOI: http://dx.doi.org/10.1016/j.tcs.2014.06.022. URL: http://www.sciencedirect.com/science/article/pii/S0304397514004587.
- [25] B. D. Camillo, F. Eduati, S. K. Nair, A. Avogaro, and G. M. Toffolo. "Leucine modulates dynamic phosphorylation events in insulin signaling pathway and enhances insulin-dependent glycogen synthesis in human skeletal muscle cells". In: *BMC Cell Biology* 15.1 (2014), p. 9. DOI: 10.1186/1471-2121-15-9. URL: https://doi.org/10.1186%2F1471-2121-15-9.
- [26] C. Guziolowski, S. Videla, F. Eduati, S. Thiele, T. Cokelaer, A. Siegel, and J. Saez-Rodriguez. "Exhaustively characterizing feasible logic models of a signaling network using Answer Set Programming". In: *Bioinformatics* 29.18 (July 2013), pp. 2320–2326. DOI: 10.1093/bioinformatics/btt393. URL: https://doi.org/10.1093%2Fbioinformatics%2Fbtt393.
- [27] F. Eduati, J. D. L. Rivas, B. D. Camillo, G. Toffolo, and J. Saez-Rodriguez. "Integrating literature-constrained and data-driven inference of signalling networks". In: *Bioinformatics* 28.18 (June 2012), pp. 2311–2317. DOI: 10.1093/bioinformatics/bts363. URL: https://doi.org/10.1093%2Fbioinformatics%2Fbts363.
- [28] S. Videla, C. Guziolowski, F. Eduati, S. Thiele, N. Grabe, J. Saez-Rodriguez, and A. Siegel. "Revisiting the Training of Logic Models of Protein Signaling Networks with ASP". In: *Computational Methods in Systems Biology*. Springer Berlin Heidelberg, 2012, pp. 342–361. DOI: 10.1007/978-3-642-33636-2_20. URL: https://doi.org/10.1007%2F978-3-642-33636-2_20.
- [29] G. D. Palo, M. Zampieri, C. Altafini, F. Eduati, B. D. Camillo, and G. Toffolo. "Adaptation as a genome-wide autoregulatory principle in the stress response of yeast". In: *IET Systems Biology* 5.4 (July 2011), pp. 269–279. DOI: 10.1049/iet-syb.2009.0050. URL: https://doi.org/10.1049% 2Fiet-syb.2009.0050.
- [30] F. Eduati, A. Corradin, B. D. Camillo, and G. Toffolo. "A Boolean Approach to Linear Prediction for Signaling Network Modeling". In: *PLoS ONE* 5.9 (Sept. 2010). Ed. by M. Isalan, e12789. DOI: 10.1371/journal.pone.0012789. URL: https://doi.org/10.1371%2Fjournal.pone.0012789.