Stanford

Pau Badia i Mompel

Postdoctoral Scholar, Genetics

Bio

PROFESSIONAL EDUCATION

- PhD, Ruprecht-Karls-Universität Heidelberg , Computational Biology (2025)
- MSc, Universitat Pompeu Fabra , Bioinformatics in Health Science (2020)
- BSc, Universitat Autònoma de Barcelona , Biology (2018)

STANFORD ADVISORS

- Anshul Kundaje, Postdoctoral Faculty Sponsor

LINKS

- Bluesky: https://bsky.app/profile/paubadiam.bsky.social
- GitHub: https://github.com/paubadiam
- Google Scholar: https://scholar.google.com/citations?user=125jlSUAAAAJ&hl

Research & Scholarship

LAB AFFILIATIONS

- Anshul Kundaje, Kundaje Lab (7/1/2025)

Publications

PUBLICATIONS

- **Cell type mapping reveals tissue niches and interactions in subcortical multiple sclerosis lesions.** *Nature neuroscience*
  Lerma-Martin, C., Badia-I-Mompel, P., Ramirez Flores, R. O., Sekol, P., Schäfer, P. S., Riedl, C. J., Hofmann, A., Thäwel, T., Wünnemann, F., Ibarra-Arellano, M. A., Trobisch, T., Eisele, P., Schapiro, et al
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- **Defining the molecular response to ischemia-reperfusion injury and remote ischemic preconditioning in human kidney transplantation** *PLOS ONE*
  Nordstrom, J., Badia-I-Mompel, P., Witasp, A., Schwarz, A., Evenepoel, P., Moor, M. B., Wennberg, L., Saez-Rodriguez, J., Wernerson, A., Olauson, H.
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- **LIANA plus provides an all-in-one framework for cell-cell communication inference** *NATURE CELL BIOLOGY*
  Dimitrov, D., Schaefer, P., Farr, E., Rodriguez-Mier, P., Lobentanzer, S., Badia-i-Mompel, P., Dugourd, A., Tanevski, J., Flores, R., Saez-Rodriguez, J.
  2024; 26 (9): 1613-1622

- **Assessing the impact of transcriptomics data analysis pipelines on downstream functional enrichment results** *NUCLEIC ACIDS RESEARCH*
  Paton, V., Ramirez Flores, R., Gabor, A., Badia-i-Mompel, P., Tanevski, J., Garrido-Rodriguez, M., Saez-Rodriguez, J.
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- **Spatially resolved multiomics on the neuronal effects induced by spaceflight in mice** *NATURE COMMUNICATIONS*
  Masarapu, Y., Cekanaviciute, E., Andrusivova, Z., Westholm, J. O., Bjorklund, A., Fallegger, R., Badia-i-Mompel, P., Boyko, V., Vasisht, S., Saravia-Butler, A., Gebre, S., Lazar, E., Graziano, et al
  2024; 15 (1): 4778

- **Gene regulatory network inference in the era of single-cell multi-omics.** *Nature reviews. Genetics*
  Badia-I-Mompel, P., Wessels, L., Müller-Dott, S., Trimbour, R., Ramirez Flores, R. O., Argelaguet, R., Saez-Rodriguez, J.
  2023; 24 (11): 739-754

- **Expanding the coverage of regulons from high-confidence prior knowledge for accurate estimation of transcription factor activities** *NUCLEIC ACIDS RESEARCH*
  Mueller-Dott, S., Tsirvouli, E., Vazquez, M., Flores, R., Badia-i-Mompel, P., Fallegger, R., Tuerei, D., Laegreid, A., Saez-Rodriguez, J.
  2023: 10934-10949

- **Molecular consequences of SARS-CoV-2 liver tropism** *NATURE METABOLISM*
  Wanner, N., Andrieux, G., Badia-I-Mompel, P., Edler, C., Pfefferle, S., Lindenmeyer, M. T., Schmidt-Lauber, C., Czogalla, J., Wong, M. N., Okabayashi, Y., Braun, F., Luetgehetmann, M., Meister, et al
  2022; 4 (3): 310-+

- **decoupleR: ensemble of computational methods to infer biological activities from omics data.** *Bioinformatics advances*
  Badia-I-Mompel, P., Vélez Santiago, J., Braunger, J., Geiss, C., Dimitrov, D., Müller-Dott, S., Taus, P., Dugourd, A., Holland, C. H., Ramirez Flores, R. O., Saez-Rodriguez, J.
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- **A community challenge for a pancancer drug mechanism of action inference from perturbational profile data** *CELL REPORTS MEDICINE*
  Douglass, E. F., Allaway, R. J., Szalai, B., Wang, W., Tian, T., Fernandez-Torras, A., Realubit, R., Karan, C., Zheng, S., Pessia, A., Tanoli, Z., Jafari, M., Wan, et al
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- **Bioactivity descriptors for uncharacterized chemical compounds.** *Nature communications*
  Bertoni, M., Duran-Frigola, M., Badia-I-Mompel, P., Pauls, E., Orozco-Ruiz, M., Guitart-Pla, O., Alcalde, V., Diaz, V. M., Berenguer-Llergo, A., Brun-Heath, I., Villegas, N., de Herreros, A. G., Aloy, et al
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- **Bioactivity Profile Similarities to Expand the Repertoire of COVID-19 Drugs** *JOURNAL OF CHEMICAL INFORMATION AND MODELING*
  Duran-Frigola, M., Bertoni, M., Blanco, R., Martinez, V., Pauls, E., Alcalde, V., Turon, G., Villegas, N., Fernandez-Torras, A., Pons, C., Mateo, L., Guitart-Pla, O., Badia-i-Mompel, et al
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