

DJORDJE BAJIĆ

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APPOINTMENTS

Yale University , New Haven, CT. Postdoctoral associate, <i>Department of Ecology & Evolutionary Biology</i>	2016 - present
Biological Research Center , Hungarian Academy of Science, Szeged, Hungary Research Associate, <i>Synthetic and Systems Biology Unit</i>	2015

EDUCATION

Universidad Autonoma de Madrid , Cantoblanco, Spain. PhD in <i>Biophysics</i>	2016
Universidad Autonoma de Madrid , Cantoblanco, Spain. MSc in <i>Biophysics</i>	2010
Universidad Autonoma de Madrid , Cantoblanco, Spain. BSc in <i>Biochemistry</i>	2009

SELECTED HONORS & AWARDS

EMBO Short Fellow , European Molecular Biology Organization	2015
Master Fellow , Universidad Autonoma de Madrid	2009 - 2010
Collaboration Scholarship , Universidad Autonoma de Madrid	2008 - 2009
Erasmus Student Exchange Program Fellow , European Commission	2006 - 2007

PUBLICATIONS

- [15] *Complex yeast-bacteria interactions shape the yield of industrial ethanol fermentations.*
Lino F.S.O., [Bajić D.](#), Vila J.C.C., Sanchez A., Sommer M.O.A.
Nat. Communications (2021), Accepted (preprint: <https://doi.org/10.21203/rs.3.rs-38002/v1>)
- [14] *Computation Of Microbial Ecosystems in Time and Space (COMETS): An open source collaborative platform for modeling ecosystems metabolism.*
Dukovski I.*, [Bajić D.*](#), Chacón J.M.*, Quintin M.*, Vila J.C.C., Sulheim S., Pacheco A.R., Bernstein D., Korolev K., Sanchez A., Harcombe W.D., Segrè D.
submitted, Nat. Protocols (pending minor revisions) (preprint: <https://arxiv.org/abs/2009.01734>)
- [13] *Suboptimal global transcriptional response increases the harmful effects of loss-of-function mutations in yeast.*
Kovács K.*, Farkas Z.*, [Bajić D.*](#), Kalapis D., Kintses B., Notebaart R.A., Poyatos J.F., Kemmeren P., Holstege F.C.P., Pál C.#, Papp B#.
Molecular Biology and Evolution (2020) msaa280 (<https://doi.org/10.1093/molbev/msaa280>)
- [12] *Artificially selecting microbial communities using propagule strategies*
Chang C.*, Osborne M.L.*, [Bajić D.](#) & Sanchez A.
Evolution (2020) 74:10, 2392-2403 (<https://doi.org/10.1101/2020.05.01.066282>)
- [11] *Metabolic rules of microbial community assembly*
Estrela S., Vila J.C.C., Lu N., [Bajić D.](#), Rebolleda-Gomez M., Chang CY., Sanchez A.
BioRxiv 2020 (<https://doi.org/10.1101/2020.03.09.984278>)
- [10] *The ecology and evolution of microbial metabolic decision-making*
[Bajić D.](#) & Sanchez A.
Current Opinion in Biotechnology (2020), 62:123–128.
- [9] *High order interactions distort the functional landscape of microbial consortia*
Sanchez-Gorostiaga A.*, [Bajić D.*](#), Osborne M.L., Poyatos J.F., Sanchez A.
PLoS Biology (2019) 17(12): e3000550

- [8] *Tolerance to NADH/NAD+ imbalance anticipates aging and anti-aging intervention*
Alonso-Lavin AJ, [Bajić D.](#), Poyatos J.F.
submitted, iScience (preprint: bioRxiv (2019) <https://doi.org/10.1101/719401>)
- [7] *On the deformability of an empirical fitness landscape by microbial evolution*
[Bajić D.*](#), Vila, J.C.C.*, Blount, Z.D., Sanchez, A.
PNAS (2018) 115(44):11286-11291
- [6] *Emergent simplicity in microbial community assembly*
Goldford, J.*, Lu, N.*, [Bajić D.](#), Estrela, S., Sanchez-Gorostiaga, A., Tikhonov, M., Segre, D., Mehta, P., Sanchez, A.
Science (2018) 361:469-74
- [5] *Deconstructing a multiple antibiotic resistance regulation through the quantification of its input function*
Rodrigo G, [Bajić D.](#), Elola I, Poyatos JF
NPJ Systems Biology and Applications (2017) 3: Article number: 30
- [4] *Antagonistic autoregulation speeds up a homogeneous response in Escherichia coli*
Rodrigo G, [Bajić D.](#), Elola I, Poyatos JF
Scientific Reports (2016) 6: Article number: 36196
- [3] *Biología de sistemas. Book chapter in: Bioinformática con Ñ (editors: Sebastián A, Pascual-García A)*
Aguirre J, [Bajić D.](#), Guantes R.
Independently published (2014), ISBN:978-84-617-1976-X.
- [2] *Rewiring of genetic networks in response to modification of genetic background*
[Bajić D.](#), Moreno-Fenoll C, Poyatos JF
Genome biology and evolution (2014) 6 : 3267–3280.
- [1] *Balancing noise and plasticity in eukaryotic gene expression*
[Bajić D.](#), Poyatos JF
BMC Genomics (2012) 13: 343.

MEETINGS, CONFERENCES, WORKSHOPS AND SEMINARS

INVITED SEMINARS

- Max Planck Institute for Evolutionary Biology, Plon**, Invited speaker, 2020
Boston University, COMETS Hackathon, 2019
Yale University, Microbial Sciences Institute SMALTalk, 2018
Ramon y Cajal University Hospital, Microbiology Research Unit, Madrid, Spain, 2017

NATIONAL AND INTERNATIONAL MEETINGS, CONFERENCES AND WORKSHOPS

- bioSB2020 - 6th Bioinformatics & Systems Biology Conference**, (Contributed talk) Netherlands, 2020 (Virtual)
AEEB Evolutionary Biology Meeting, (Invited talk) Marseilles, France, 2020 (postponed)
Gordon Research Conference in Microbial Population Biology (Poster presentation) Andover, NH USA, 2019
II Joint Congress on Evolutionary Biology (Contributed talk, did not attend for family reasons) Montpellier, France,, 2018
Conference on Evolutionary Systems Biology (Contributed talk), Wellcome Genome Campus, Hinxton, UK, 2018
International Workshop on Systems Biology and Molecular Economy of Microbial Communities (Poster presentation), The Abdus Salam International Center for Theoretical Physics, Trieste, Italy, 2017
Pan-microbial Trait Ecology Workshop (Poster presentation), National Institute for Mathematical and Biological Synthesis, Knoxville TN, USA, 2017
Annual Meeting of the Society for Molecular Biology and Evolution (Poster presentation), Vienna, Austria, 2015
Workshop on the Economy of a Cell: Resource Allocation, Trade-Offs and Efficiency in Living Systems (Poster presentation), The Abdus Salam International Center for Theoretical Physics, Trieste, Italy, 2014
Causality, Information Transfer and Dynamical Networks International Workshop (Poster presentation), Max Planck Institute for Physics of Complex Systems, Dresden, Germany, 2014
XXI National Center for Biotechnology Scientific Workshop (Invited talk), Madrid, Spain, 2013
International Conference on Systems Biology (Poster presentation), Heidelberg, Germany, 2011

TEACHING & PROFESSIONAL SERVICE

TEACHING

Universidad Autonoma de Madrid. Master in Biomedicine, Postgraduate Program in Molecular Biosciences. Guest lecturer, 2012.

Wikillerato. Administrator and contributor of online educational resources for high-school students in Spain, 2012 – 2013

Yale University. E&EB225 Evolutionary Biology, Guest Lecturer, 2018.

EXTERNAL REFEREE FOR SCIENTIFIC JOURNALS

Genome Biology, BMC Systems Biology, ISME Journal, Nature Communications

SERVICE IN GRANT REVIEWING PANELS

Member of Expert NASA Exobiology Grant Reviewing Panel, August 2020

MEMBER OF SCIENTIFIC SOCIETIES

Society for the Study of Evolution