



CURRICULUM VITAE (CVA)

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION

CV date	04/12/2023
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First name	Álvaro		
Family name	Sánchez de Andrés		
Gender (*)	Male	Birth date (dd/mm/yyyy)	26/05/1979
ID number	70869273V		
e-mail	Alvaro.sanchez@usal.es	URL Web	www.sanchezlaboratory.weebly.com
Open Researcher and Contributor ID (ORCID) (*)	https://orcid.org/0000-0002-2292-5608		

A.1. Current position

Position	Científico Titular		
Initial date	07/12/2021		
Institution	Consejo Superior de Investigaciones Científicas		
Department/Center	Instituto de Biología Funcional y Genómica		
Country	Spain	Teleph. number	923294903
Key words	Microbial Consortia, Evolutionary Engineering, Biotechnology		

A.2. Previous positions (research activity interruptions, art. 14.2.b))

Period	Position/Institution/Country/Interruption cause
01/07/2016-07/12/2021	Associate Professor / Yale University / USA
01/07/2013-01/07/2016	Junior Fellow / Harvard University / USA
01/01/2011-01/07/2013	Postdoctoral Associate / MIT / USA

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD	Brandeis University/USA	2011
Licenciado	Universidad Autónoma de Madrid	2002

Part C. RELEVANT MERITS (sorted by typology)

C.1. 10 Recent Selected Publications

[1] [Sanchez, A.](#)^[AC], Golding, I.*^[AC] (2013). Genetic determinants and physical constraints in noisy gene expression. **Science** 342:1188-1193.

[2] Goldford, J.*, Lu, N.*, Bajic, D., [...], [Sanchez, A.](#)^[AC] (author order: 9/9). (2018) Emergent simplicity in microbial community assembly. **Science** 361:469-74

[3] Bajic, D.*, Vila, J.C.C.*, Blount, Z.D., [Sanchez, A.](#)^[AC] (2018) On the deformability of an empirical adaptive landscape by microbial evolution. **PNAS**. 115(44):11286-11291

[4] Sanchez-Gorostiaga, A.*, Bajic, D.*, Osborne, M.L., Poyatos, J.F., [Sanchez, A.](#)^[AC] (2019) High-order interactions distort the functional landscape of microbial consortia. **PLoS Biology** 17(12): e3000550



- [6] Chang C-Y.*, Vila J.C.C.*, Bender M., [...] & Sanchez A.^[AC] (author order: 15/15); (2021). Engineering complex communities by directed evolution. **Nature Ecology & Evolution** 5: 1011-1023
- [8] Estrela S., Vila J.C.C., Lu N., Bajic D., Rebolleda-Gomez M., Chang C-Y., & Sanchez, A.^[AC] (2021). Functional attractors in microbial community assembly. **Cell Systems** doi: 10.1016/j.cels.2021.09.011
- [9] Diaz-Colunga J.*, Lu N. *, Sanchez-Gorostiaga A. *, Chang C-Y, Cai H., Goldford, J.G., Tikhonov, M., & Sanchez A.^[AC] (2022). Top-down and bottom-up cohesiveness in microbial community coalescence. **PNAS** 119:6 e211126119
- [9] Sanchez A.^[AC], Bajic D., Diaz-Colunga J., Skwara A., Villa J.C.C & Kuehn S. (2023) The community-function landscape of microbial consortia. **Cell Systems** 119:6 e211126119
- [9] Diaz-Colunga J.*, Sanchez A.^[AC] & Ogbunugafor C.B.^[AC]. (2023) Environmental modulation of global epistasis in a drug resistance fitness landscape. **Nature Communications** 14: 8055
- [10] Chang C-Y.*, Bajic D*., Vila J.C.C, Estrela S. & Sanchez A.^[AC] (2023) Emergent coexistence in multispecies microbial communities. **Science** 381(6655) 343-348

C.2. Selected Invited Lectures (*travel and accommodation paid by inviting institution*)

Selected Invited Seminars at international universities and research institutes (out of 48 invited seminars over the past 10 years)

- **Europe & Middle East (10 selected):** Gulbenkian Institute (2024), ETH (2023), Weizmann Institute (2023), University of Jena (2023), Wageningen University (2023), Ecole Normale Supérieure, Paris (2022), University of Innsbruck (2021), Ludwig-Maximilian University (2020), University of Cologne (2018)
- **North America (10 selected):** Stanford University (2024), NYU (2021), UC Berkeley (2021), MIT (2021), University of Illinois (2021), University of Chicago (2020), Dartmouth University (2019), Harvard University Medical School (2019), University of Pennsylvania (2019) Princeton University (2018)

Selected Invited Seminars at international conferences (15 selected out of 47 invited over the past 10 years).

- Gordon Research Conference in Ecological and Evolutionary Genomics, Biddeford, ME, USA, July 12-17 2015.
- John Hopkins University M³ Microbiome Meeting, Baltimore, MD, USA, January 9, 2019. (**Keynote Speaker**)
- American Society of Microbiology Annual Meeting, San Francisco, CA, USA, June 20-24 2019
- Gordon Research Conference in Microbial Population Biology, Andover, NH, USA, July 7-12 2019
- Microbiology Society Annual Meeting, Belfast, Northern Ireland, 2022
- Annual Meeting of the Israeli Society of Microbiology (**Keynote Speaker**),
- Environmental Genomics and Systems Biology (EGSB) Division Annual Meeting, Lawrence Berkeley National Laboratory, Berkeley, CA. (**Keynote Speaker**)
- Microbiology Society Annual Meeting 2022, Belfast, UK, 2022
- Rhode Island Microbiome Symposium, (**Keynote Speaker**), University of Rhode Island, 2022



- Israeli Society for Microbiology Annual Meeting, (**Keynote Speaker**), BGU, Israel
- SEBIOT '23 Annual meeting of the Spanish Society for Biotechnology, Madrid, Spain, 2023 (**Keynote Speaker**)
- EMBO | EMBL Symposium: *New approaches & concepts in microbiology*, Heidelberg, Germany, 2023
- Gordon Research Conference: *Ecological & evolutionary genomics*, Bryant University 2023, (**Keynote Speaker**) *Declined*
- Max Planck Institute for Chemical Ecology Symposium: *Frontiers in chemical ecology*, Jena, Germany, 2024
- EMBO | EMBL Symposium: *Molecular mechanisms in evolution & ecology*, Heidelberg, Germany, 2024, (**Plenary Speaker**)

C.3 Other Honors, Awards, Grants awarded as IP and fellowships

Grants & Fellowships awarded as IP:

- **ERC Consolidator Grant** (€2.000.000) 2023-28
- **AEI**, Proyectos de Generación de Conocimiento (€240.000) 2022-24
- **Contract: Addiseo** (French Biotechnology company) (€50.000) 2022-23
- **Packard Fellow**, The David and Lucile Packard Foundation (USD \$875.000). 2019-2022
- **NIH MIRA Award**, The National Institutes of Health (USD \$2.000.000). 2019-2022
- **Young Investigator Award**, Human Frontier Science Program (USD \$1.100.000). 2016-2019
- **Scialog Fellow**, Moore Foundation & Research Corporation (USD\$125.000). 2015-2017
- **Yale University**, Internal setup account (USD\$1.050.000).
- **Rowland Junior Fellowship**, Harvard University (est. USD\$1.000.000).

Evaluation and Consulting

- **EMBL Genome Biology Unit**, Member of the external review panel scheduled in April 2024
- **AEI – BIO/BTC Commission Panel Member**, Proyectos de Generación Conocimiento, Spanish Research Agency 2023
- **Chan-Zuckerberg Biohub Investigator Awards** selection panel, 2021
- **Institut Pasteur**, External review panel for the creation of new research units 2023
- **Selection committees for new faculty hire**: University of Vienna (2023), University of Leipzig (2023) Yale University (2020,2021)
- **Tenure evaluation committee**, University of California Riverside (2022), University of Massachusetts (2022), Boston College (2022), Bar Ilan University (2022)
- **Editorial Board**, Cell Systems. 2019-, Environmental Microbiology, 2023-, Current Opinion in Microbiology 2023
- **PhD Thesis Committees**, (2016-22) Yale University (8 students); (2021) INRAE, Dijon, France. (2021) Université Claude Bernard of Lyon, France. (2019) UAM, Madrid, Spain. (2015) University of Helsinki, Finland.
- **Grant reviewer**, (2014-23) ERC Advanced Grant (2022, 2023); Novo Nordisk Foundation (2020), DFG, Germany (2020, 2021), NSF, USA (2020), AEI, Spain (2020, 2022), Dutch Research Council (2020), NRF Singapore National Research Foundation (2020), Human Frontier Science Program (2016, 2018), Israeli Science Foundation (2018), FNRS Belgium (2015, 2016), etc.