

DAVID PERIS NAVARRO, Research Associate

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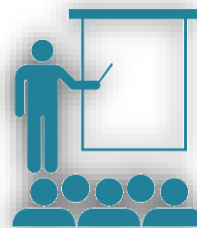
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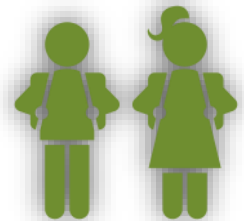
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ADDRESS

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Avenida Catedrático Agustín Escardino 7
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#University of Oslo (UiO)

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SUMMARY

Dr. Peris has a Ph.D. in Biotechnology (University of Valencia, 2012). David Peris has expertise in comparative genomics, fungal evolution, highthroughput microbial phenotyping, bioinformatics and biotechnological applications. Since 2021, he is Principal Investigator at University of Oslo (Norway) and since 2022 Distinguished Researcher at IATA-CSIC. Dr. Peris is studying mechanisms of speciation and adaptation in fungal organisms. His FunGIALab team performs bioprospecting expeditions, and implements bioinformatics tools to study evolution and adaptation of fungi, the development of new molecular methods for generating new strains with applications in the production of healthy, safe and sustainable food products. He is actually supervisor of 3 PhDs and 2 postdocs.

He has developed his research in five countries (Spain, UK, USA, Norway, Germany). Dr. Peris has been lecturer of basic genetics, evolutionary biology, mycology and synthetic biology. He has mentored undergraduates, PhD students, and postdocs. He was president of the regional Section of Spanish Scientists in USA (ECUSA) - Midwest from 2015 to 2017, developing mentoring and outreach programs. He is IATA-CSIC: point of contact in the Inndromeda@Demostradores initiative and member of the Biosecurity Committee. Dr. Peris is co-author of 29 (2 under review) papers in indexed international journals (2 of them were journal covers and 1 was top 1% cited in 2018), 3 reviews (1 top cited in 2018/19), 2 national

journals and he was involved in 23 research projects. He is member of 2 journal editorial boards, he has been project reviewer (one country) and journal reviewer of 20 international journals. He has participated in different international conferences (3 as invited speaker), contributing with posters and talks. He has also been awarded with 6 research grants, 2 small company grants, 2 computational grants, 6 travel grants, 1 professional development award, 1 oral talk prize, 1 poster prize, and he has displayed 3 intellectual disclosure reports and 2 patents.

Publications in google scholar: <http://goo.gl/jfahYH>.

Papers reviewed in publons: <https://goo.gl/K5Btlz>



BIRTH/CITIZENSHIP

Valencia, Spain (details available on request)

EMPLOYMENT

2022	Pointed Tenured Researcher (Científico Titular) in CSIC.
2022-Present	Investigador Distinguido, Department of Biotechnology, Institute of Agrochemistry and Food Technology (CSIC), Spain.
2021-Present	Principal Investigator, Department of Biosciences, University of Oslo, Norway.

FORMER RESEARCH POSITIONS

2021-2022	Senior Researcher. Department of health, Valencian International University (VIU). <u>Tasks</u> : development of research lines related to the biodiversity, evolution and industrial applications of fungi.
2019-2021	Postdoctoral Research Associate (Mentor: Dr. Inger Skrede), Department of Biosciences, University of Oslo, Norway. <u>Tasks</u> : comparative genomics and population genomics of mushroom-like organisms. Implement bioinformatics tools for genome assembly and phylogenomics.
2021 (2 weeks, online due to	Max Planck Institute for Evolutionary Biology (Mentor: Eva Stukenbrock), Plön, Germany. <u>Tasks</u> : develop bioinformatic pipelines for the study of COVID) genomic structural variations, subtelomeric regions, transposable elements and centromeres.
2017-2019:	Postdoctoral Marie Sklodowska Curie at Institute of Agrochemistry and Food Technology (CSIC, Department of Biotechnology), Spain (Mentor: Dr. Amparo Querol). <u>Tasks</u> : characterization of the genomic and phenotypic effects of mitochondrial DNA inheritance in synthetic interspecies hybrids. Implementation of bioinformatics tools for the analysis of biological big data.
2012-2017:	Postdoctoral researcher at University of Wisconsin-Madison (Department of Biotechnology), USA (Mentor: Chris Todd Hittinger). <u>Tasks</u> : population genomics, comparative genomics and phenotypic characterization of wild

Saccharomyces yeasts and interspecies hybrids. Development of molecular methods to generate synthetic yeast hybrids with applications to biofuel production and brewing.

2010 (6 months): Manchester University (Department of Computational and Evolutionary Biology) (Mentor: Daniela Delneri), UK. Tasks: proteome characterization and check formation of chimeric protein complexes in interspecies hybrids.

2007-2012: FPI fellowship at Institute Cavanilles of Biodiversity and Evolutionary Biology (ICBiBE-UV, Department of Genetics), Spain (Mentor: Eladio Barrio & Carmela Belloch). Tasks: genome characterization of interspecies hybrids isolated from industrial processes.

BREAK PERIODS

2022-2023 Break period (187 days):
#. Paternity leave (twins): 100% 9th September - 20th October 2022 + 100% vacations 21st October 2022 – 3rd November 2022 + 50% 4th November 2022 – 6th April 2023 (132 days).
#. Milkfeeding leave: 100% 7th April – 1st June 2023 (55 days).



EDUCATION

2007-2012: Ph.D Biotechnology.
2008 Teaching Certificate (CAP)
2006-2007: M.S. in Molecular Biology, Cellular and Genetics. Mentor: Amparo Latorre, University of Valencia (Department of Genetics), Spain.
2005-2007: B.S. in Biochemistry, University of Valencia, Spain.
2000-2005: B.S. in Biology, University of Valencia, Spain.



HONORS & AWARDS

A21. Poster Award to Marianna ([G4](#)) & Kathleen ([G5](#)) in Oslo (Norway) by UiO:Life Sciences 2023
A20. I3(=R3) Certification by the Ministry of Universities – General Secretary of Universities, 2023.
A19. Poster Award in the ECFG15 (15th European Conference on Fungal Genetics) in Rome (Italy) by Sapienza Innovazione 2020.
A18. Certified Professor for Private Universities by ANECA (Agencia Nacional de Evaluación de la Calidad y Acreditación), 2019.
A17. Certified Associate Professor by ANECA (Agencia Nacional de Evaluación de la Calidad y Acreditación), 2019.
A16. Certified Assistant Professor by ANECA (Agencia Nacional de Evaluación de la Calidad y Acreditación), 2019.
A15. AdaptNet Grant to attend the Phylogenomics and Population Genomics: Inference and Applications course, Barcelona (Spain) 2019.

- A14. EMBO Travel Grant to attend EMBO Workshop: Experimental Approaches to Evolution and Ecology Using Yeast and Other Model Systems, Heidelberg (Germany) 2018.
- A13. DeLill Nasser Award for Professional Development in Genetics. Genetics Society of America (GSA), 2018
- A12. Fellowship to attend ISSY34 (34th International Specialised Symposium on Yeasts) in Bariloche, Argentina: CONICET-IPATEC, 2018.
- A11. Certified Assistant Professor by AVAP (Agència Valenciana d'Avaluació i Prospectiva), 2017.
- A10. Awarded with a Juan de la Cierva Fellowship. Spanish National Research Council (Agencia Estatal de Investigación) 2017.
- A9. Oral Talk Prize in the ISSY33 (33rd International Specialised Symposium on Yeasts) in Cork, Ireland: Microbiology Society 2017.
- A8. International bursary travel award to attend the ISSY33 (33rd International Specialised Symposium on Yeasts) in Cork, Ireland: Microbiology Society 2017.
- A7. Certified Professor by AQU (Catalan University Quality Assurance Agency), 2017.
- A6. Marie Sklodowska-Curie IF-RI Fellowship. European Union H2020 2017.
- A5. Selected as one of the 5 best proposals for InvestiguES MSCA-IF fellowship competition – 2016 Spain: Youth program of Ministry of Employment and Social Security Migratory department of Spanish Government.
- A4. Genetics Society of America travel award to attend The Allied Genetics Conference (TAGC) in Orlando, FL, USA: GSA 2016.
- A3. Illumina Abstract Competition - *Saccharomyces* diversity applied to biotechnology industry – 2014 UW-Madison, USA.
- A2. Young Scientist Meeting Grant to attend the Sant Feliu de Guixols EMBO Conference, Spain - 2011.
- A1. F.P.I fellow, Ministerio de Educación y Ciencia, Spain.



RESEARCH PUBLICATIONS

(& equal contribution, ^ corresponding author **WoS h-index = 19, Citations = 901, iCite Weighted RCR = 56.72, A: article, R: review**)

- A32. Lu DS, Methlie ISH, Sønstebo JH, **Peris D**, Maurice S, Kauserud H, Skrede I (*Submitted*). Postglacial history of a widespread forest fungus in Europe: Migration out of multiple refugia followed by admixture. [BioRxiv](#).
- A31. Lu DS, **Peris D**, Sonstebo JH, James TY, Rieseberg LH, Maurice S, Kauserud H, Ravinet M, Skrede I (*Submitted*). Reticulate evolution and rapid development of reproductive barriers upon secondary contact pose challenges for species delineation in a forest fungus. [BioRxiv](#).
- A30. Kinneberg VB, Lu DS, **Peris D**, Ravinet M, Skrede I (2023). Introgression between highly divergent fungal sister species. [Journal of Evolutionary Biology](#) 36:1133-1149.
- A29. **Peris D**[^], Ubbelohde EJ, Kuang MC, Kominek J, Langdon QK, Adams M, Koshalek JA, Hulfachor AB, Opulente DA, Hall DJ, Hyma K, Fay JC, Leducq JB, Charron G, Landry CR, Libkind D, Gonçalves C, Gonçalves P, Sampaio JP, Wang QM, Bai FY, Wrobel RL, Hittinger CT[^] (2023). Macroevolutionary diversity of traits and genomes in the model yeast genus *Saccharomyces*. [Nature Communications](#) 14: 690.
- A28. Sorribes-Dauden R, Jordá T, **Peris D**, Martínez-Pastor MT, Puig S (2022). Adaptation of *Saccharomyces* species to high-iron conditions. [International Journal of Molecular Sciences](#) 23: 13965.
- A27. **Peris D**[^], Lu DS, Kinneberg VB, Methlie IS, Dahl MS, James TY, Kauserud H, Skrede I[^] (2022). Large-scale fungal strain sequencing unravels the molecular diversity in mating loci maintained by long-term balancing selection. [Plos Genetics](#) 18: e1010097.
- A26. Bendixsen, Devin P, **Peris D**, Stelkens R (2021). Patterns of genomics instability in interspecific yeast hybrids with diverse ancestries. [Frontiers in Fungal Biology](#) 2:52.
- A25. Sorribes-Daudén R, **Peris D**, Martínez-Pastor MT, Puig S (2020). Structure and function of the vacuolar Ccc1/VIT1 family of iron transporters and its regulation in fungi. [Computational and Structural Biology](#) 18:3712-3722.
- A24. Flores MG, Rodríguez ME, **Peris D**, Barrio E, Querol A, Lopes CA (2020). Human-associated migration of Holarctic *Saccharomyces uvarum* strains to Patagonia. [Fungal Ecology](#) 48: 100990.
- A23. **Peris D**[^], Alexander WG, Fisher KJ, Moriarty RV, Basuino MG, Ubbelohde EJ, Wrobel RL, Hittinger CT[^] (2020). Synthetic hybrids of six species. [Nature Communications](#) 11(1): 2085 (ranked 1st of tracked articles of similar age).
- A22. Langdon QK, **Peris D**, Eizaguirre JI, Opulente DA, Buh KV, Sylvester K, Jarzyna M, Rodríguez ME, Lopes CA, Libkind D, Hittinger CT (2020). Postglacial migration shaped the genomic diversity and global distribution of the wild ancestor of lager-brewing hybrids. [PloS Genetics](#) 16 (4): e1008680
- R2. Libkind D, **Peris D**, Cubillos FA, Steenwyk JL, Opulente DA, Langdon QK, Bellora N, Rokas A, Hittinger CT (2020). Into the wild: new yeast genomes from natural environments and new tools for their analysis. [FEMS Yeast Research](#) 20 (2): foaa008 <Invited Review>
- A21. Langdon QK, **Peris D**, Baker ECP, Opulente DA, Nguyen HV, Bond U, Gonçalves P, Sampaio JP, Libkind D, Hittinger CT (2019). Fermentation innovation through complex hybridization of wild and domesticated yeasts. [Nature Ecology and Evolution](#) 3(11): 1576-1586
- A20. Perea-Sanz L, **Peris D**, Belloch C, Flores M (2019). *Debaryomyces hansenii* metabolism of sulfur amino acids as precursors of volatile compounds of interest in meat products. [Journal of Agricultural and Food Chemistry](#) 67(33):9335-9343

- A19. Baker EC, **Peris D**, Moriarty RV, Li XC, Fay JC, Hittinger CT (2019). Mitochondrial DNA and temperature tolerance in lager yeasts. Science Advances 5(1): eaav1869
- A18. Li XC, **Peris D**, Hittinger CT, Sia Elaine A, Fay JC (2019). Mitochondria-encoded genes contribute to the evolution of heat and cold tolerance among *Saccharomyces* species. Science Advances 5(1):eaav1848
- A17. Langdon Q, **Peris D**, Kyle B, Hittinger CT (2018). sppDer: a species identification tool to investigate hybrid genomes using high-throughput sequencing data. Molecular Biology and Evolution 35(11): 2835-2849.
- A16. Eizaguirre JI, **Peris D**, Rodríguez ME, Lopes CA, De Los Ríos P, Hittinger CT, Libkind D (2018). Phylogeography of the wild Lager-brewing close relative (*Saccharomyces eubayanus*) in Patagonia. Environmental Microbiology 20(10):3732-3743.
- A15. Higgins DA, Young MK, Tremaine M, Qin L, Sardi M, Fletcher JM, Agnew M, Liu L, Dickinson Q, **Peris D**, Wrobel RL, Hittinger CT, Gasch AP, Singer SW, Simmons BA, Landick R, Thelen MP, Sato TK (2018). Natural variation in multidrug efflux pump *SGE1* underlies Ionic Liquid tolerance in yeast. Genetics 210:219-234.
- A14. Gonçalves C, Wisecaver JH, Kominek J, Oom MS, Leandro MJ, Shen XX, Ofulente DA, Zhou X, **Peris D**, Kurtzman CP, Hittinger CT, Rokas A, Gonçalves P (2018). Evidence for loss and reacquisition of alcoholic fermentation in a fructophilic yeast lineage. eLife 7:e33034.
- R1. **Peris D**[^], Pérez-Torrado R, Hittinger CT, Barrio E, Querol A (2018). On the origins and industrial applications of *Saccharomyces cerevisiae* x *Saccharomyces kudriavzevii* hybrids. Yeast 35(1): 51-69 (Top cited 2018-2019) <Invited Review>.
- A13. **Peris D**, Moriarty RV, Alexander WG, Baker E, Sylvester K, Sardi M, Langdon QK, Libkind D, Wang QM, Bai FY, Leducq JB, Charron G, Landry CR, Sampaio JP, Gonçalves P, Hyma KE, Fay JC, Sato TK, Hittinger CT (2017). Hybridization and adaptive evolution of diverse *Saccharomyces* species for cellulosic biofuel production. Biotechnology for Biofuels 10: 78.
- A12. **Peris D**[^], Arias A, Orlić S, Belloch C, Pérez-Través L, Querol A, Barrio E (2017). Mitochondrial introgression suggests extensive ancestral hybridization events among *Saccharomyces* species. Molecular Phylogenetics and Evolution 108:49-60.
- A11. Zhou X, **Peris D**, Kominek J, Kurtzman CP, Hittinger CT, Rokas A (2016). *in silico* Whole Genome & Analyzer (iWGS): a computational pipeline to guide the design and analysis of *de novo* genome sequencing studies. G3: Genes/Genomes/Genetics 6: 3655-3670.
- A10. **Peris D**[&], Langdon Q[&], Moriarty RV, Sylvester K, Bontrager M, Charron G, Leducq JB, Landry CR, Libkind D, Hittinger CT (2016). Complex origins of lager-brewing yeasts were shaped by standing variation in *Saccharomyces eubayanus*. PLoS Genetics 12: e1006155 (Cover).
- A9. McIlwain SJ, **Peris D**, Sardi M, Moskvina OV, Zhan F, Myers K, Riley NM, Buzzell A, Parreiras LS, Ong IM, Landick R, Coon JJ, Gasch AP, Sato TK, Hittinger CT (2016). Genome sequence and annotation of a stress-tolerant, wild-derived strain of *Saccharomyces cerevisiae* used in biofuels research. G3: Genes / Genomes / Genetics 6:1757-1766.
- A8. **Peris D**[&], Pérez-Través L[&], Belloch C, Querol A (2016). Enological characterization of Spanish *Saccharomyces kudriavzevii* strains, one of the closest relatives to the parental strains of winemaking and brewing *S. cerevisiae* x *S. kudriavzevii* hybrids. Food Microbiology 53: 31-40.
- A7. Alexander WG, **Peris D**, Pfannenstiel BT, Ofulente DA, Kuang M, Hittinger CT (2016). Efficient engineering of marker-free synthetic *Saccharomyces* allotetraploids. Fungal Genetics and Biology 89: 10-17.
- A6. Baker EC, Wang B, Bellora N, **Peris D**, Hulfachor A, Koshalek J, Adams M, Libkind D, Hittinger C (2015). The genome sequence of *Saccharomyces eubayanus* and the

domestication of lager-brewing yeasts. Molecular Biology and Evolution 32: 2818-2831 (2018 MBE Citation Classic).

- A5. **Peris D**, Sylvester K, Libkind D, Gonçalves P, Sampaio JP, William GA, Hittinger CT. (2014). Population structure and reticulate evolution of *Saccharomyces eubayanus* and its lager-brewing hybrids. Molecular Ecology 23: 2031-2045 (Cover).
- A4. **Peris D**, Lopes CA, Arias A, Barrio E. (2012). Reconstruction of the evolutionary history of *Saccharomyces cerevisiae* x *S. kudriavzevii* hybrids based on multilocus sequence analysis. PLoS ONE 7(9): e45527.
- A3. **Peris D**, Lopes CA, Belloch C, Querol A, Barrio E. (2012). Comparative genomics among *S. cerevisiae* x *S. kudriavzevii* natural hybrids strains isolated from wine and beer reveals different origins. BMC Genomics 13: 407.
- A2. **Peris D**, Belloch C, Lopandić K, Álvarez-Pérez JM, Querol A, Barrio E. (2012). The molecular characterization of new types of *S. cerevisiae* x *S. kudriavzevii* hybrid yeasts unveils a high genetic diversity. Yeast 29(2): 81-91.
- A1. El-Sharoud WM, Belloch C, **Peris D**, Querol A. (2009). Molecular identification of yeasts associated with traditional Egyptian dairy products. JFS: Food Microbiology and Safety 74(7): M341-M346.



TEACHING (T), OUTREACH (O) & ARTICLES (A)

- O20 2024: **TBD**, XXVII Curso de Iniciación a la Investigación a la Microbiología (Julio Rodríguez Villanueva). Universitat de València, Valencia (Spain). <Scheduled>
- O19 2024: **TBD**, I2SysBio Seminar talks. CSIC, Valencia (Spain). <Scheduled>
- O18 2024: *Hongos y aplicaciones industriales*, en Proyecto de formación “de la vid al vino” para el profesorado del IES Requena, Requena (Spain) <Scheduled>
- O17 2024: *Levaduras y vino y otras aplicaciones*, IES Requena (1º Bachillerato), Requena (Spain) <Scheduled>
- O16 2023: *Biodiversitat de fongs i les seues aplicacions industrials*, Col.legi Sagrada Família (3^r ESO), Manises (Spain).
- O15 2023: *Biodiversitat de fongs i les seues aplicacions industrials*, IES La Sènia (4º Batxillerat), Paiporta (Spain).
- O14 2023: *Biodiversitat de fongs i les seues aplicacions industrials*, IES Andreu Alfaro (4º Batxillerat), Paiporta (Spain).
- O13 2023: Wild yeasts and their domestication for brewing applications, Carlsberg Group, Copenhagen (Denmark).
- T8 2022: *Las levaduras: los genios invisibles del pan, el vino y la cerveza*. Distintas levaduras para distintas cervezas. Cursos Complutense Verano El Escorial, Madrid (Spain).
- O12 2021: *Fungal Genomics & Industrial Applications*, Max Planck Institute for Evolutionary Biology, Plön (Germany).
- T7 2021: Ingeniería en Enología y Viticultura, *Microbiología y Biotecnología Enológica*, Universidad Privada San Juan Bautista, Ica (Peru). The genomic revolution and its impact on oenological biotechnology.
- O11 2021: *Reticulate evolution in yeasts and its industrial applications*, Stockholm University (Sweden).
- T6 2020: *Els nostres amics microscòpics, els llevats: domesticació i aplicacions industrials*. IES Riu Túria de Quart de Poblet (Spain).
- T5 2020,2022: Master BIOS4260, BIOS5217: *Evolution and systematics of organismal groups. The fungal kingdom*. Reticulate evolution in yeasts and its industrial success. Oslo (Norway)
- O10 2019: Scientists speed up the evolution of yeast to create tastier and healthier alcohol. [Horizon Magazine](#). [Video](#)
- O9 2019: The rise of the model genus *Saccharomyces*: biodiversity and evolution. Seminars at EvoGene University of Oslo, (Norway).
- O8 2019: Situació de la ciència en Espanya, [ApuntDirecte](#)
- O7 2019: Yeast biodiversity, biotechnological applications and Fungus Olympics 2019. [FungiTown](#).
- A2 2019: **Peris D**. La domesticación de las levaduras cerveceras entendida desde la genética. [Revista Alimentaria](#) 502:40-42.
- O6 2019: Quantification of yeast genomic and phenotypic diversity. Institute of Agrochemistry and Food Technology, Paterna (Spain).
- A1 2018: **Peris D** and Pérez-Torrado R. La biodiversidad de levaduras como fuente de innovación en la industria cervecera. [TecniFood Magazine](#) 118:76-78.
- O5 2018,2019: Expociència – Industrial applications of yeasts, Paterna (Spain).
- O4 2018: Before the Flood – Climatic Change Talk, Paiporta (Spain).
- O3 2017: Yeast biodiversity and strategies for industrial applications. Institute of Agrochemistry and Food Technology, Paterna (Spain).

- T4 2017: *Procesos y mecanismos evolutivos*. Yeast domestication for industrial processes (beer, wine & biofuel). 2nd grade Biology degree Sala Darwin, Valencia (Spain).
- O2 2014,2016: Wisconsin Science Festival.
- O1 2014: Lab open doors
- T3 2013: Evolution Seminar Series (ESS) J. F. Crow Institute for the Study of Evolution. Graduate students.
- T2 2009-2011: Practical course on Basic Genetics for students of 2n year (Biology degree)
- T1 2009-2011: Practical course on Phylogenetic reconstruction for students of 1st year (Biology degree)



STUDENTS AND SCIENTIST TRAINED AND ADVISED

10 Undergraduate (G): Carla Perpiñá, Alejandro Aguilar, Ryan Moriarty, Daniel Rodriguez, Russell Mendez, Julia Boix, Elise Nygård, Nora Helene Borg, Marianna Khodabandehlou, Kathleen T. Helleland.

•G1 – 2015. Ryan Moriarty. Mining diversity in *Saccharomyces* genus for biofuel improvement. UW-Madison, USA.

•G2 – 2022. Elise Nygård. Biodiversity in Oslo. University of Oslo, Norway.

•G3 – 2022. Nora Helene Borg. Biodiversity in Oslo. University of Oslo, Norway.

•G4 – 2023. Marianna Khodabandehlou. Biodiversity in Oslo. University of Oslo, Norway.

•G5 – 2023. Kathleen Theresia Helleland. Biodiversity in Oslo. University of Oslo, Norway.

5 Master thesis (M): Laura Varón, María Bonet Aparici, Ine-Susanne Hopland Methlie, Vilde Bruhn Kinneberg, Lainy Ramírez.

•M5 - 2025. Laura Varón. **Title TBD**. IATA-CSIC.

•M4 - 2024. María Bonet Aparici. **Title TBD**. IATA-CSIC.

•M3 - 2021. Vilde Bruhn Kinneberg. Ancient introgression between highly divergent fungal sister species. University of Oslo, Norway.

•M2 - 2021. Ine-Susanne Hopland Methlie. Investigating local adaptation in the wood-decay fungus *Trichaptum abietinum* through common garden experiments and population genomics. University of Oslo, Norway.

•M1 - 2019. Lainy Ramirez-Aroca. Influencia del genoma mitocondrial en el fenotipo de híbridos interespecíficos durante condiciones industriales. University of Valencia, Spain.

8 PhD candidates (P): Luis Araque, Alejandro Aguilar Díaz, Ingvild Myhre Ekeberg, Dabao Sun Lu, Raquel Sorribes Daudén, Emily Baker, Quinn Langdon, Juan Eizaguirre.

•P4 - *In process*. Luis Araque Borrás. **Title TBD**.

•P3 – *In process*. Alejandro Aguilar Díaz. **Title TBD**.

•P2 – *In process*. Ingvild Myhre Ekeberg. **Title TBD**.

•P1 – 2023. Dabao Sun Lu. Fungi contain multitudes: Tempo and modes of evolution in the purplepore bracket fungus *Trichaptum*.

5 Postdocs: Qi-Ming Wang, Sara Orellana Muñoz, Gabriel Schweizer, Guillaume Robert-Siegwald, Bálint Csoboz.

1 Technician: Ana María Pérez Adrián.



PROFESSIONAL MEMBERSHIP AND SERVICE

Project reviewer Agencia Nacional de Promoción de la Investigación, el Desarrollo Tecnológico y la Innovación (ANPIDTYI), Argentina.

Journal editorial board: Frontiers in Fungal Biology (Review Editor 2020-...), BMC Genomics (Editor 2021-...).

Journal reviewer: Applied Microbiology and Biotechnology, Bioresource Technology, BMC Biology, BMC Genomics, Current Opinion in Genetics and Development, Environmental Microbiology, FEMS Yeast Research, Food and Bioproducts Processing, Frontiers in Genetics, Frontiers in Microbiology, Fungal Ecology, G3:Genes|Genomes|Genetics, International Journal of Food Microbiology, Journal of Applied Microbiology, Molecular Biology and Evolution, Nature Communications, PeerJ, Plos Genetics, Plos ONE, Yeast.

Member: Asociación de Científicos y Científicas del Plan GenT (ACCENT:2022), Society for Molecular Biology and Evolution (SMBE:2013), Spanish Microbiology Society (SEM:2013), Marie Curie Alumni Association (MCAA), Spanish Evolutionary Biology Society (SESBE:2021), Spanske Forskere i Norge (SFNO.IENO:2019).

Past membership: Spanish Society of Bioinformatics and Computational Biology (SEBiBC, 2022), Spanish Scientist in USA (ECUSA, 2015-2017), Genetics Society of America (GSA, 2014-2022), Returned Spanish Scientists Professional Network (CRE, 2017-2019).

Award panelist I and IV local studies of Paiporta prizes (2018 and 2022).



INSTITUTIONAL RESPONSIBILITIES

- S10. 2024: Raquel Sorribes Dauden Thesis Committee - Secretary
- S9. 2024: Organizer and chair of the I Workshop about Addressing the effects of polyploidization and their evolutionary implications. *University of Oslo, Oslo (Norway)*
- S8. 2023: Member of the IATA-CSIC Biosecurity Committee. <In preparation>
- S7. 2022: IATA-CSIC point of contact in Inndromeda@Demostradores initiative.
- S6. 2021: Chair, CRISPR, Past, Present and Future. *SFNO.IENO, Oslo (Norway) 2021.*
- S5. 2020-Present: Co-chair of Oslo Mycology Group seminar series.
- S4. 2018: Chair, *34th International Specialized Symposium on Yeasts*, Bariloche (Argentina).
- S3. 2018-Present: Search and development of supercomputing data science analysis for IATA-CSIC researchers. Access to Tirant Supercomputing – University of Valencia (Spain).
- S2. 2015-2017: President of Midwest Regional Section of ECUSA
- S1. 2017: Chair of Earth, Environmental and Conservation Sciences panel, *2nd Spanish Scientist in USA Meeting*, MIT Boston, MA (USA).



PARTICIPATION IN FUNDED RESEARCH PROJECTS

P.I: Principal Investigator; R.T: Research Team

24. Summer Student Project - Characterization of yeasts in Oslo. *UiO:Life Sciences (Norway)*. 2023. P.I: **David Peris**.
23. Swedish VR 780713-3421 grant – Adapting to a Warmer World: Leveraging Model Microbes, Experimental Evolution, and Comparative Genomics 2023. P.I: Rike Stelkens. R.T: **David Peris**.
22. TED2021-131349B-I00 – eCuYeast: Strategies to increase copper resistance and accumulation in yeast species of enological interest. *Agencia Estatal de Investigación (Spain)*. 2022. P.I: Sergi Puig, **David Peris**.
21. PID2021-123184OA – MYSCOSPITALOMICS: Unraveling the hospital mycobiomes associated with the invasive fungal infections and the emergence of antimicrobial resistance. *Ministerio de Economía y Competitividad (MINECO)*. 2022. P.I: Pedro María Martín. R.T: **David Peris**
20. PID2021-126380OB – OPTIWINE: Design of sustainable wine fermentations through innovative approaches based on yeast biodiversity, multi-omics, and model-based optimization. *Ministerio de Economía y Competitividad (MINECO)*. 2022. P.I: Amparo Querol, Eva Balsa, Eladio Barrio. R.T: **David Peris**
19. Summer Student Project n°10 - Characterization of the yeast biodiversity from Oslo and Kveik beer. *UiO:Life Sciences (Norway)*. 2022. P.I: **David Peris**.
18. CIDEAGENT/2021/039: Sacchar2Omics - *Saccharomyces* como modelo de estudio de los mecanismos de especiación / *Saccharomyces* as a model for speciation mechanisms. *Generalitat Valenciana plan GenT (Spain)*. 2022-2026. P.I: **David Peris**
17. RCN 324253: PloidYeast - Effects of polyploidization during adaptive evolution in yeasts. *Research Council of Norway (Norway)*. 2021-2026. P.I: **David Peris**
16. BCV-2021-1-0001: Caracterització genòmica del reguló del ferro en *Saccharomyces*. *Tirant UV - Red de Supercomputación Española (Spain)*. 2021-2022. P.I: **David Peris**.
15. Collaborations SMRT Grant Program: *Saccharomyces*, a yeast model for the study of genomic speciation and biotechnological applications. *PacBio*. 2021. P.I.: **David Peris**, Amparo Querol, Chris Hittinger, Rike Stelkens.

14. RCN 274337: Genomics of speciation: dissecting mechanisms of reproductive barriers in fungi. *Research Council of Norway* (Norway). 2018-2021. P.I: Inger Skrede.
13. BCV-2018-2-0002: Anàlisi de seqüenciació de RNA utilitzant dades de NGS. *Tirant UV - Red de Supercomputación Española* (Spain). 2018-2021. P.I: **David Peris**.
12. BIO2017-87828-C2-1-P: Transcriptional and post-transcriptional regulation of metabolic processes that depend on copper and iron availability in yeasts and plants. *Spanish Ministry of Economy and Competitiveness* (Spain). 2018-2021. P.I: Sergi Puig.
11. AGL2015-64673-R: Yeast utilization as strategy for the production of natural aroma for meat products matured with low levels of nitrites/nitrates. *Research, Development and Innovation National Program* (Spain). 2017-2019. P.I: Carmela Belloch.
10. Marie Curie No. 747775 – MITOGRESSION: Generating yeast biodiversity by mitochondrial introgression for wine innovation. *Horizon 2020 – Marie Curie Actions* (Europe). 2017-2019. P.I: **David Peris**.
9. Robert Draper Technology Innovation Fund: Potential of yeast hybrids for the production of alcoholic beverages. *Wisconsin Alumni Research Foundation (WARF)* (USA). 2017. P.I: Chris T. Hittinger, James L. Steele.
8. DIMENSIONS DEB-1442148: Collaborative Research: The making of biodiversity across the yeast subphylum. *National Science Foundation (NSF)* (USA). 2015-2020. P.I: Chris T. Hittinger, Cletus Kurtzman, Antonis Rokas.
7. Illumina Abstract Competition: *Saccharomyces* diversity applied to biotechnology. *Illumina Inc.* 2014. P.I: **David Peris**.
6. BRC WIP#1703: High-throughput and high-dimensional biodesign approaches to improve yeast xylose conversion and stress tolerance (GLBRC *Department of Energy, D.O.E.* (USA)) 2014-Present. P.I: Chris Todd Hittinger, Robert Landick, Audrey Gasch.
5. DEB-1253634: *Saccharomyces* diversity and the rapid evolution of hybrid lager-brewing yeast. *National Science Foundation* 2013-2017. P.I: Chris Todd Hittinger.
4. BER DE-FC02-08ER64494: Screening, engineering, and evolving newly discovered species of *Saccharomyces* yeast for biofuel potential. (*GLBRC Department of Energy, D.O.E.* (USA)) 2012-2016. P.I: Chris Todd Hittinger.
3. AGL2009-12673-CO2-02: Molecular basis of physiological properties of non-conventional yeasts from *Saccharomyces* genus with biotechnological interest. *Ministerio de Ciencia y Tecnología* (Spain) 2009-2012. P.I.: Eladio Barrio.
2. GV2008-037: Growth characterization of interesting wine yeast for industrial sector. *Consellería de Educación de la Generalitat Valenciana* (Spain) 2008. P.I.: Francisco Noé Arroyo López.
1. AGL2006-12703-CO2-02/ALI: Genome characterization and comparative genomics of hybrids from *Saccharomyces* genus of biotechnological interest. *Ministerio de Ciencia y Tecnología* (Spain) 2006-2009. P.I.: Eladio Barrio.



INTELLECTUAL PROPERTIES (I) & PATENTS (P)

- I3. P170039US01 – Marker-free synthetic *Saccharomyces* allotetraploids and the constructs to create them. 19th AUG 2016. Inventors: William Gerald Alexander, David Peris Navarro, Christopher Todd Hittinger.
- I2. P160162US01 - New wild strains of *Saccharomyces eubayanus*, the non-*S. cerevisiae* parent of hybrid lager-brewing yeasts. WARF UW-Madison, 3rd DEC 2015. Inventors: Chris T. Hittinger, Kayla Sylvester, Kelly V. Buh, Ryan V. Moriarty, Quinn K. Langdon, David Peris Navarro.
- I1. P140088US01 - Wisconsin strains of *Saccharomyces eubayanus*, the cold-adapted parent of the lager-brewing yeast *S. pastorianus* (*S. cerevisiae* x *S. eubayanus*). WARF UW-Madison, 17th OCT 2013. Inventors: Chris Hittinger, David Peris Navarro, Kayla Sylvester. <http://bit.ly/30BdjeY>
- P2. P180359US02 (Pub. No. US-20200048645-A1) – Yeast strains with selected or altered mitotypes and methods of making and using the same. WARF UW-Madison, 13th FEB 2020. Inventors: Chris T. Hittinger, EmilyClare Baker, David Peris Navarro. <https://bit.ly/3EC3VM2>
- P1. P160107US03 (Pub. No. US-2018127784-A1) – Synthetic Yeast Cells and Methods of Making and Using the Same. WARF UW-Madison, 10th MAY 2018. Inventors: William Gerald Alexander, David Peris Navarro, Christopher Todd Hittinger. <https://bit.ly/3Aux7SI>



CONGRESS & CONFERENCE COMMUNICATIONS

(& Presenter ^Δ Invited talks)

- C31. Krabberød A, Lu DS, **Peris D**, Skrede I. TBD. *Fungal Genetics*, California, US, 2024.
- C31. **Peris D**[&]. Fungal Genomics and Industrial Applications Lab. *CONEXION@GENOMA*, Madrid, 2024.
- C30. Orellana-Muñoz S; Ramirez-Aroca L; Querol A; **Peris D**[&]. Polyploidization: can we predict its evolutionary pathway? *EMBO Workshop: Predicting Evolution*, Heidelberg (Germany) 2023.
- C29. García-Gutierrez L, Rojas BB, Ruiz M, Mellado E, Lucio J, Ruiz-Gaitán AC, Pemán J, Cuétara-García MS, **Peris D**, Martín-Sánchez PM. Mycospitalomics: caracterización del microbioma de ambientes hospitalarios para prevenir las infecciones fúngicas invasivas. *XXIX Congreso Sociedad Española de Microbiología*, Burgos (Spain) 2023.
- C28. Orellana-Muñoz S, Hittinger CT, Querol A, Puig S, **Peris D**[&]. Caracterización de linajes de levadura y su potencial fenotípico para su uso en la industria de los alimentos. *XXIX Congreso Sociedad Española de Microbiología*, Burgos (Spain) 2023.
- C27. Lu DS[&], Peris D; Sønstebø JH, Maurice S, Kauserud H, Ravinet M, Skrede I. Population genomics reveal multiple lineages with leaky intersterility barriers in the widespread forest fungus *Trichaptum abietinum*. *Norwegian Biodiversity Genomics Conference 2023*, Oslo (Norway) 2023.
- C26. Orellana-Muñoz S[&], Borg N, Nygård E, Kauserud H, Skrede I, **Peris D**. Yeast bioprospecting and genomics for a food circular bioeconomy. *Norwegian Biodiversity Genomics Conference 2023*, Oslo (Norway) 2023.
- C25. Lu DS[&], **Peris D**; Sønstebø JH, Maurice S, Kauserud H, Ravinet M, Skrede I. Understanding the nature of the reproductive barriers within the wood decay species *Trichaptum abietinum*. *Fungal Genetics 2022*, Pacific Grove (California) USA 2022.
- C24. **Peris D**[&], Lu DS, Kinneberg VK, Methlie IS, Dahl MS, James TY, Kauserud H, Skrede I. Long-term balancing selection in a white-root fungi. *VIII Meeting of the Spanish Society for Evolutionary Biology – SESBE 2022*, Vigo (Spain) 2022.
- C23. **Peris D**[&], Alexander WG, Fisher K, Moriarty RV, Basuino MG, Ubbelohde EJ, Ramírez-Aroca L, Pérez-Través L, Barrio E, Querol A, Wrobel RL, Hittinger CT. Combining and improving phenotypic traits through the generation of synthetic two- and six-species yeast hybrids. *15th European Conference on Fungal Genetics*, Rome (Italy) 2020.
- C22. Macías LG[&], **Peris D**, Martos A, Hittinger CT, Wolfe KH, Barrio E. Comparative genomics in *Saccharomyces* yeasts using long read sequencing technologies. *EMBO Comparative Genomics of Eukaryotic Microbes*, Sant Feliu de Guixols, Gerona (Spain), 2019.
- C21. **Peris D**^Δ, Moriarty RV, Alexander WG, Wrobel R, Fisher K, Ramírez-Aroca L, Pérez-Través L, Baker E, Langdon QK, Li XC, Fay JC, Oplente DA, Nguyen H, Bond U, Gonçalves P, Sampaio JP, Libkind D, Barrio E, Querol A, Hittinger CT. Reticulate evolution in yeasts and its industrial applications. *EMBO Comparative Genomics of Eukaryotic Microbes*, Sant Feliu de Guixols, Gerona (Spain), 2019.
- C20. **Peris D**^Δ. Developing your career with an MSCA IF. *7th Physiology of Yeasts and Filamentous Fungi*, Milan (Italy), 2019.
- C19. **Peris D**[&]. *Saccharomyces* genus as a model of evolution and industrial applications. *IV Jornadas Conjuntas Valencia-La Rioja* (Spain), 2019.
- C18. **Peris D**[&], Moriarty RV, Alexander WG, Wrobel R, Hittinger CT. iHyPr: a new tool for the generation of synthetic six-species hybrids. *Experimental Approaches to Evolution and Ecology Using Yeast and Other Model Systems*, Heidelberg (Germany) 2018.

- C17. **Peris D**[&], Kominek J, Kuang M, Langdon Q, Wang Q, Bai F, Landry C, Sampaio JP, Gonçalves P, Libkind D, Fay J, Bond U, Hittinger CT. Reticulate evolution in the *Saccharomyces* genus. *ISSY34*, Bariloche (Argentina) 2018.
- C16. **Peris D**[&], Wrobel R, Moriarty R, Baker Emilyclare, Alexander WG, Pérez-Través L, Barrio E, Querol A, Hittinger CT. Hibridación como mecanismo para generar nuevas cepas de levaduras industriales. *6ª Jornadas Sudamericanas de Biología y Biotecnología de levaduras*, Bariloche (Argentina), 2018.
- C15. Macías LG[&], **Peris D**, Morard M, Lairón-Peris M, Alonso del Real J. Bioinformatic pipelines for studying genomes of yeasts of biotechnological interest. *Bioinformatics@VLC*, Valencia (Spain) 2018.
- C14. **Peris D**[&], Moriarty RV, Baker E, Langdon QK, Alexander WG, Sylvester K, Sardi M, Libkind D, Sato TK, Hittinger CT. Mining *Saccharomyces* diversity and experimental evolution for cellulosic biofuel and beer production. *ISSY33-Exploring and Engineering Yeasts for Industrial Application*, Cork (Ireland) 2017.
- C13. **Peris D**[&], Moriarty RV, Baker E, Langdon QK, Alexander WG, Sylvester K, Sardi M, Libkind D, Sato TK, Hittinger CT. Mining *Saccharomyces* diversity and experimental evolution for cellulosic biofuel production. *2nd Spanish Scientist in USA Meeting*, MIT, Boston, MA (USA) 2017.
- C12. **Peris D**[&], Moriarty RV, Alexander WG, Sylvester K, Sardi M, Libkind D, Gonçalves P, Sampaio JP, Wang QM, Bai FY, Leducq JB, Landry C, Hyma K, Fay J, Sato TK, Hittinger CT. Mining *Saccharomyces* diversity and experimental evolution for cellulosic biofuel production. *TAGC GSA*, Orlando, FL (USA) 2016.
- C11. Baker ECP[&], Wang B, Bellora N, **Peris D**, Hulfachor AB, Koshalek JA, Adams M, Libkind D, Hittinger CT. (Eu)byanus brewing: Insights into the domestication and brewing potential of a lager hybrid parent. *SMBE*, Queensland's Gold Coast (Australia) 2016.
- C10. Pachón CS, Revenga C, Ortega MS, **Peris D**^A, Estupinyà P. Roundtable of Biodiversity, Conservancy and Green Energies at *1st Spanish Scientist in USA Meeting*, Georgetown, DC (USA) 2015.
- C9. **Peris D**[&], Sylvester K., Sardi M., Alexander W.G., Libkind D., Gonçalves P., Sampaio J.P., Parreiras L., Sato T., Hittinger C.T. Investigating reticulate evolution in the *Saccharomyces* genus and repeating it for the bioethanol industry. *Midwest Ecology & Evolution Conference*, University of Dayton, OH (USA) 2014.
- C8. **Peris D**[&], Sylvester K., Sardi M., Alexander W.G., Libkind D., Gonçalves P., Sampaio J.P., Parreiras L., Sato T., Hittinger C.T. Investigating reticulate evolution in the *Saccharomyces* genus and repeating it for the bioethanol industry. *Yeast Genetics Meeting*, Seattle, WA (USA) 2014.
- C7. Hittinger CT[&], Alexander WG, Doering DT, **Peris D**, Sylvester K, Libkind D, Gonçalves P, Sampaio JP. Diversity across the *Saccharomyces* genus and the genomic tools to tap it. *Yeast Genetics Meeting*, Seattle, WA (USA) 2014.
- C6. **Peris D**[&] *Saccharomyces* diversity and its application to the Bioethanol industry. *Great Lakes Bioenergy Research Center Retreat*, South Bend, IN (USA) 2014.
- C5. **Peris D**[&], Sylvester K, Libkind D, Gonçalves P, Sampaio JP, Alexander WG, Hittinger CT. Population structure and reticulate evolution of wild and brewing yeast. *Midwest Ecology and Evolution Conference*, Dayton, OH (USA) 2014.
- C4. Barrio E[&], **Peris D**, Toft C, Ibañez C, Querol A. Hybridization as a source of yeast diversity. *ICY 13th Madison*, WI (USA) 2012.
- C3. **Peris D**[&]. Genome characterization of natural and artificial yeast hybrids among *S. cerevisiae* x *S. kudriavzevii*. *III Jornadas del Instituto Cavanilles de Biodiversidad y Biología Evolutiva*. Valencia (Spain) 2011.

- C2. **Peris. D**, Arias A, Lopes CA, Barrio E&. Phylogenetic supernetworks, COX2 footprinting and microarray CGH analysis are indicative of several origins for *S. cerevisiae* x *S. kudriavzevii* hybrids. *ISSY 29* Guadalajara (Mexico) 2011.
- C1. Querol A&, **Peris D**, Lopes CA, Belloch C and Barrio E. Genetic diversity among *S. cerevisiae* and *S. kudriavzevii* hybrid strains from fermentation process. *ISSY 27* Paris (France) 2009.



POSTER PRESENTATIONS

(& Presenter)

- P39. Lu DS[&], Methlie ISH, Vera-Castellanos M, Sønstebø JH, Andersen A, Helleland K, **Peris D**, Maurice S, Kauserud H, Skrede I. Investigating the history and consequences of secondary contact between divergent populations of *Trichaptum abietinum* in Europe. *Fungal Genetics*, California (USA) <Scheduled>.
- P38. Orellana-Muñoz S, García-Ríos E, Sorribes-Daudén R, Vanacloig E, Martínez-Pastor M, Puig S, **Peris D**[&]. Effects of gene-flow in the evolution of *Saccharomyces* yeasts. *IX SESBE*, Málaga (Spain) 2024.
- P37. Lu DS[&], **Peris D**; Sønstebø JH, Maurice S, Kauserud H, Ravinet M, Skrede I. Understanding the nature of the reproductive barriers within the wood decay species *Trichaptum abietinum*. *16th Conference on Fungal Genetics*, Innsbruck (Austria) 2023.
- P36. Sara Orellana-Muñoz[&], Rike Stelkens, Håvard Kauserud, Inger Skrede, **David Peris**. Generating a large collection of *Saccharomyces* polyploids to study their adaptation to food-related industrial conditions. *XXIX Congreso Sociedad Española de Microbiología*, Burgos (Spain) 2023.
- P35. **Peris D**[&], Ubbelohde EJ, Wrobel RL, Hittinger CT. *Saccharomyces*, a yeast genus model for understanding “well-established” metabolic pathways. *X Bioinformatics and Genomics Symposium*, Burjassot (Spain) 2022.
- P34. Orellana-Muñoz S[&], Stelkens R, Kauserud H, Skrede I, **Peris D**. A high-throughput pipeline for studying the effects of polyploidization during adaptive evolution in yeasts. *VIII Congreso Nacional de Microbiología Industrial y Biotecnología Microbiana*, Valencia (Spain) 2022.
- P33. **Peris D**[&], Ubbelohde EJ, Wrobel RL, Hittinger CT. *Saccharomyces*, a yeast genus model for understanding “well-established” metabolic pathways. *VIII Congreso Nacional de Microbiología Industrial y Biotecnología Microbiana*, Valencia (Spain) 2022.
- P32. Sorribes-Daudén R[&], Miró P, Jordá T, Romero AM, **Peris D**, Martínez-Pastor MT, Puig S. Deciphering iron resistance in *Saccharomyces* genus. *VIII Congreso Nacional de Microbiología Industrial y Biotecnología Microbiana*, Valencia (Spain) 2022.
- P31. Kinneberg VB[&], Lu DS, **Peris D**, Ravinet M, Skrede I. Ancient introgression between highly divergent fungal sister species. *Fungal Genetics 2022*, Pacific Grove (California, USA) 2022.
- P30. **Peris D**[&], Lu DS, Kinneberg VB, Methlie IS, Dahl MS, Kauserud H, Skrede I. Northern hemisphere fungal specimens unravel dynamic and polymorphic nature of mating loci. *SMBE2021*, Online 2021.
- P29. Sorribes-Daudén R[&], Solar-Sáez I, Miró P, **Peris D**, Martínez-Pastor MT, Puig S. Exploring iron resistance in *Saccharomyces* genus. *EMBO Molecular Mechanisms in Evolution and Ecology*, Online 2020.
- P28. Langdon Q[&], **Peris D**, Baker EC, Oplente D, Eizaguirre J, Buh K, Sylvester K, Martin J, Libkind D, Hittinger CT. *Saccharomyces eubayanus* population genomics: wild diversity and contributions to domesticated hybrids. *TAGC2020*, Online 2020.
- P27. Lu DS[&], Kauserud H, Maurice S, **Peris D**, Ravinet M, Sønstebø JH, Skrede I. Population genomics of *Trichaptum abietinum* – a window into fungal speciation. *15th European Conference on Fungal Genetics*, Rome (Italy) 2020.
- P26. **Peris D**[&], Alexander WG, Fisher K, Moriarty RV, Basuino MG, Ubbelohde EJ, Ramírez-Aroca L, Pérez-Través L, Barrio E, Querol A, Wrobel RL, Hittinger CT. Combining and improving phenotypic traits through the generation of synthetic two- and six-species yeast hybrids. *15th European Conference on Fungal Genetics*, Rome (Italy) 2020.
- P25. Sorribes-Daudén R[&], Soler-Sáez I, Miró P, **Peris D**, Martínez-Pastor MT, Puig S. Exploring the diversity of Ccc1/Vit1 vacuolar iron transporter: a view to the

Saccharomyces genus. XXIX International Conference on Yeast Genetics and Molecular Biology, Göteborg (Sweden) 2019.

- P24. Sorribes-Daudén R[&], Soler-Sáez I, Miró P, **Peris D**, Martínez-Pastor MT, Puig S. Exploring the diversity of Ccc1/Vit1 vacuolar iron transporter: a view to the *Saccharomyces* genus. *Gordon Conference "Cell Biology of Metals"*, Castelldefels (Spain) 2019.
- P23. **Peris D**[&], Baker EP, Li X, Kuang MC, Kominek J, Langdon QK, Adams M, Koshalek JA, Hulfachor AB, Opulente DA, Wang QM, Bai FY, Leducq JB, Charron G, Landry C, Sampaio JP, Gonçalves P, Libkind D, Hall D, Hyma K, Fay JC, Hittinger CT. Phenotypic diversity through complex ancestries in yeasts. *SMBE2019*, Manchester (UK) 2019.
- P22. **Peris D**[&], Moriarty RV, Alexander WG, Wrobel R, Hittinger CT. Adaptive Laboratory Evoluton (ALE) of allododecaploid *Saccharomyces* six species hybrids. *7th Physiology of Yeasts and Filamentous Fungi*, Milan (Italy) 2019.
- P21. **Peris D**[&], Moriarty RV, Alexander WG, Wrobel R, Hittinger CT. iHyPr: a new tool for the generation of synthetic six-species hybrids. *Experimental Approaches to Evolution and Ecology Using Yeast and Other Model Systems*, Heidelberg (Germany) 2018.
- P20. Langdon Q[&], **Peris D**, Buh K, Moriarty RV, Sylvester K, Eizaguirre J, Lopes C, Libkind D, Hittinger CT. From soil to stein; population genomics of wild and domesticated lineages of the Lager-brewing ancestor; *Saccharomyces eubayanus*. *ISSY34*, Bariloche (Argentina) 2018.
- P19. Li Xueying C[&], **Peris D**, Hittinger CT, Sia Elaine A, Fay Justin C. Mitochondrial-encoded genes contribute to thermal divergence between *Saccharomyces* species. *Population, Evolutionary, and Quantitative Genetics*, Madison (USA) 2018.
- P18. Baker E[&], **Peris D**, Hittinger CT. Beyond the pale ale: Insights into temperature tolerance and carbon source evolution through *Saccharomyces eubayanus*. *Population, Evolutionary, and Quantitative Genetics*, Madison (USA) 2018.
- P17. Langdon Q[&], **Peris D**, Buh K, Moriarty RV, Sylvester K, Eizaguirre J, Lopes C, Libkind D, Hittinger CT. From soil to stein; population genomics of wild and domesticated lineages of the Lager-brewing ancestor; *Saccharomyces eubayanus*. *Population, Evolutionary, and Quantitative Genetics*, Madison (USA) 2018.
- P16. Langdon Q[&], **Peris D**, Hittinger C. sppIDer: Species Identification and Hybrid Detection with Short-Read Data. *Evolution*, Portland, OR (USA) 2017.
- P15. Moriarty RV[&], **Peris D**, Alexander WG, Sylvester K, Sardi M, Libkind D, Gonçalves P, Sampaio JP, Wang QM, Bai FY, Leducq JB, Landry C, Hyma K, Fay J, Sato TK, Hittinger CT. Mining *Saccharomyces* diversity and experimental evolution for cellulosic biofuel production. *TAGC GSA*, Orlando, FL (USA) 2016.
- P14. Baker EC[&], Alexander WG, **Peris D**, Langdon Q, Hittinger CT. Early branching *Saccharomyces* for understanding the genetics and evolution of an industrially important genus. *TAGC GSA*, Orlando, FL (USA) 2016.
- P13. Langdon QK[&], **Peris D**, Moriarty RV, Sylvester K, Charron G, Leducq JB, Landry CR, Libkind D, Hittinger CT. *Saccharomyces eubayanus* population dynamics in nature and industry. *TAGC GSA*, Orlando, FL (USA) 2016.
- P12. Baker EC[&], Wang B, Bellora N, **Peris D**, Hulfachor AB, Koshalek JA, Adams M, Libkind D, Hittinger CT. (Eu)bayanus brewing: Insights into the domestication and brewing potential of a lager hybrid parent. *SMBE*, Queensland's Gold Coast (Australia) 2016.
- P11. **Peris D**[&], Moriarty RV, Alexander WG, Sylvester K, Sardi M, Libkind D, Gonçalves P, Sampaio JP, Wang QM, Bai FY, Sato TK, Hittinger CT. Mining *Saccharomyces* diversity and experimental evolution for cellulosic biofuel production. *Great Lakes Bioenergy Research Center Retreat*, Gran Geneva, WI (USA) 2016.
- P10. **Peris D**[&], Ryan M, Sylvester K, Sardi M, Alexander WG, Libkind D, Gonçalves P, Sampaio JP, Parreiras L, Sato T, Hittinger CT. Mining *Saccharomyces* yeast biodiversity

- and its application to the bioethanol industry. *1st Spanish Scientist in USA Meeting*, Georgetown, DC (USA) 2015.
- P9. **Peris D[&]**, Sylvester K, Sardi M, Alexander WG, Libkind D, Gonçalves P, Sampaio JP, Parreiras L, Sato T, Hittinger CT. Investigating reticulate evolution in the *Saccharomyces* genus and repeating it for the bioethanol industry. *Yeast Genetics Meeting*, Seattle, WA (USA) 2014.
- P8. **Peris D[&]**, Sylvester K, Libkind D, Gonçalves P, Sampaio JP, Hittinger CT. Population structure, admixture, and migration of *Saccharomyces eubayanus* and their lager-brewing allopolyploid hybrids. *SMBE*, Chicago, IL (USA) 2013.
- P7. **Peris D[&]**, Alexander WG, Sylvester K, Sardi M, Parreiras L, La Reau A, Zhang Y, Sato T, Hittinger CT. Construction and characterization of yeast hybrids using newly discovered species with native biofuel potential. *Great Lakes Bioenergy Research Center Retreat*, South Bend, IN (USA) 2013.
- P6. **Peris D[&]**, Alexander WG, Sylvester K, Sardi M, Parreiras L, La Reau A, Zhang Y, Sato T, Hittinger CT. Construction and characterization of yeast hybrids using newly discovered species with native biofuel potential. *Great Lakes Bioenergy Research Center Retreat*, Lansing, MI (USA) 2013.
- P5. **Peris D[&]**, Lopes CA, Arias A, Belloch C, Querol A, Barrio E. Genome characterization and reconstruction of the evolutionary history of *S. cerevisiae* x *S. kudriavzevii* hybrids. *ICY 13th*, Madison, WI (USA) 2012.
- P4. **Peris D[&]**, Lopes CA, Arias A, Barrio E. Reconstruction the evolutionary history of *S. cerevisiae* x *S. kudriavzevii* hybrids. *EMBO Comparative Genomics Of Eukaryotic Microorganisms: Understanding The Complexity Of Diversity*, Sant Feliu de Guixols, Gerona (Spain) 2011.
- P3. **Peris D[&]**, Belloch C, Orlić S, Barrio E. Recombination in the mitochondrial genome of *Saccharomyces* shows historical hybridization events. *EMBO Experimental approaches to Evolution and Ecology using Yeast*, Heidelberg (Germany) 2010.
- P2. **Peris D[&]**, Lopes CA, Belloch C, Querol A, Barrio E. Two Genomes one organism: *S. cerevisiae* x *S. kudriavzevii*. *Manchester Molecular and Genome Evolution Symposium*, Manchester (UK) 2010.
- P1. **Peris D[&]**, Lopes CA, Belloch C, Querol A, Barrio E. Comparative genomics of Natural hybrids *S. cerevisiae* x *S. kudriavzevii* hybrids. *EMBO Comparative Genomics of Eukaryotic Microorganisms*, Sant Feliu de Guixols, Gerona (Spain) 2009.



ADVANCED COURSE ATTENDING

2023	Formación Psicoemocional Proyecto #BIEM CSIC 360 (ASPY)
2023	Trabajos de campo en el entorno terrestre: Prevención y control en los centros del CSIC (CSIC)
2022	Making editorial decisions (BMC)
2022	Machine Learning and Big Data for Bioinformatics (AbiertaUGR)
2021	HPC and NIRD Toolkit user (Sigma2 NRIS)
2021	Aprendizaje cooperativo en contextos online (VIU)
2021	Bioinformatics for environmental DNA sequencing (ForBio-UiO/IBV)
2021	Formación básica en el manejo de un aula virtual (VIU)
2021	Data Scientist: Python AND Machine Learning (Datacamp)
2020:	Learn Bioinformatics from home - BioinfoGP
2019:	Phylogenomics and Population Genomics: Inference and Applications (Universitat de Barcelona)
2015:	The Data Science Specialization (Coursera)
2014:	Data Analysis for Genomics (University of Wisconsin)
2013:	Introduction to Next-Gen. Sequence Analysis (University of Wisconsin)
2011:	Introduction to sequence analysis: next generation sequencing (Universitat Politècnica de València)
2010:	Informatics for life sciences: Unix and Python (Universitat Politècnica de València)



SKILLS

Languages:	Spanish (Native), Catalan (Native), English (Intermediate)
OS:	Windows, Linux (Ubuntu, CentOS).
Computer language:	Python (Intermediate), R (Intermediate), HPC (Condor, SLURM).
Bioinformatics tools:	Comparative Genomics, Population Genomics, Sequence analysis, Phylogenetic tree reconstruction (NJ, ML, Bayesian), Phylogenetic Networks reconstruction, Cytoscape, Microarray analysis, Gene Ontology Enrichment, Databases related with fungi and proteins, DIVA-GIS, Scripting, NGS tools (Illumina, PacBio + HiFi PacBio), Notepad++, Jupyter, GitHub, Conda.
Molecular techniques:	DNA extraction, Mate-Pair Library, microarrays (aCGH), PCR, primer design, RT-qPCR, cloning, protein extraction, Tandem Affinity Purification, 2D-gel electrophoresis, yeast micromanipulator, high-throughput growth analysis (SpectroStar, TECAN), yeast genetic engineering, yeast maintenance, basic synthetic engineering.



SCIENTIFIC INTERESTS

Biotechnological applications of fungi
Fungal Biodiversity, Evolution and Ecology



REFERENCES

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Dr. Carmela Belloch: belloch@iata.csic.es



SCIENTIFIC NETWORKS

-Scientific networks

- #. 2024 – Ongoing: SPUN (Society for the Protection of Underground Network) Science Associate Network
- #. 2023 - Ongoing: CONEXIONES CSIC@GENOMA
- #. 2022 – Ongoing: REDIL (Red Española de Investigación en Levaduras).
- #. 2022 - Ongoing: ERGA (European Reference Genome Atlas): generation of reference genomes
- #. 2017 - Ongoing: AdaptNET: adaptation genomics.