

Curriculum Vitae (22th May 019)

DAVID PERIS NAVARRO, Research Associate

Index

[Address](#)

[Summary](#)

[Birth/Citizenship](#)

[Employment](#)

[Short stays](#)

[Education](#)

[Honors & Awards](#)

[Research Publications](#)

[Teaching, Outreach & National Articles](#)

[Students and Scientists Trained and Advised](#)

[Professional Membership and Service](#)

[Institutional Responsibilities](#)

[Participation in Funded Research Projects](#)

[Intellectual Properties & Patents](#)

[Congress & Conference Communications](#)

[Poster Presentations](#)

[Advanced Course Attending](#)

[Skills](#)

[Scientific Interests](#)

[References](#)

[Collaborations](#)

ADDRESS

Systems Biology of Yeast with Biotechnological Interest (SBYBI)
Biotechnology Department, Institute of Agrochemistry and Food Technology (IATA)
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SUMMARY

Dr. Peris has a Ph.D. in Biotechnology, in 2012 at University of Valencia. David Peris has a yeast evolutionary biology and biotechnological applications background. He is a Marie Skłodowska Curie Postdoctoral Fellow at Institute of Agrochemistry and Food Technology (IATA) – CSIC for studying the generation of yeast biodiversity, mitochondrial introgression, and their applications to alcoholic beverage industry. He has also developed his research in the Institute Cavanilles of Biodiversity and Evolutionary Biology at University of Valencia, in the University of Manchester and in the University of Wisconsin-Madison. Dr. Peris has been lecturer of basic genetics and evolutionary biology. He has mentored undergraduates, PhD students, and postdocs, and he was also president of the regional Section of Spanish Scientists in USA (ECUSA) - Midwest from 2015 to 2017, developing mentoring and outreach programs. Dr. Peris is co-author of 20 papers in indexed international journals (2 of them were journal covers, 1 is top 1% cited in 2018), 1 review, 1 in a national journal (1 was submitted) and he was involved in 11 research projects. He has written 2 articles in Spanish journals. He has been reviewer of 9 international journals, and he has participated in different international conferences, contributing with posters and talks. He has also been awarded with 5 travel grants, 1 professional development award, 2 research grants, 1 oral talk prize and he has displayed 3 intellectual disclosure reports and 2 patents are under licensing.

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

2017-Present: Postdoctoral Marie Skłodowska-Curie Fellow (Supervisor: Dra. Amparo Querol), Institute of Agrochemistry and Food Technology (IATA)-CSIC, Spain.

SHORT STAYS

2010 (6 months): Manchester University (Department of Computational and Evolutionary Biology) (Mentor: Daniela Delneri), UK.

EDUCATION

- 2012-2017: Postdoctoral Research Associate (Mentor: Chris Todd Hittinger), University of Wisconsin-Madison, USA.
- 2007-2012: Ph.D Biotechnology. (Mentor: Dr. Eladio Barrio & Dra. Carmela Belloch), University of Valencia (Department of Genetics), Spain.
- 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

- 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
- 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 Skłodowska-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 **h-index = 11**, **iCite RCR = 40.77**)

22. **Peris D**, Moriarty RV, Alexander WG, Wrobel RL, Hittinger CT (*Submitted*). Allododecaploid yeasts: synthetic hybrids of six species.
21. Langdon QK, **Peris D**, Baker ECP, Opulente DA, Nguyen HV, Bond U, Gonçalves P, Sampaio JP, Libkind D, Hittinger CT (*Submitted*). Fermentation innovation through complex hybridization of wild and domesticated yeasts.

20. Baker EC, **Peris D**, Moriarty RV, Li XC, Fay JC, Hittinger CT (2019). Mitochondrial DNA and thermal adaptation in industrial and synthetic lager-brewing yeast hybrids. Science Advances 5(1): eaav1869
19. 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
18. Langdon Q, **Peris D**, Kyle B, Hittinger CT (2018). sppIDer: a species identification tool to investigate hybrid genomes using high-throughput sequencing data. Molecular Biology and Evolution 35(11): 2835-2849.
17. 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.
16. 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.
15. Gonçalves C, Wisecaver JH, Kominek J, Oom MS, Leandro MJ, Shen XX, Opulente 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.
14. **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 (2nd most accessed paper).
13. **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 C (2017) Hybridization and directed evolution of diverse *Saccharomyces* species for cellulosic biofuel production. Biotechnology for Biofuels 10: 78.
12. **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.
11. 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.
10. **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.
9. McIlwain SJ, **Peris D**, Sardi M, Moskvin 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.
8. **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.
7. Alexander WG, **Peris D**, Pfannenstiel BT, Opulente DA, Kuang M, Hittinger CT (2016). Efficient engineering of marker-free synthetic *Saccharomyces* allotetraploids. Fungal Genetics and Biology 89: 10-17.
6. 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).

5. **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).
4. **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.
3. **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.
2. **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.
1. 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) & NATIONAL ARTICLES (N)

- O8 2019: Yeast biodiversity, biotechnological applications and Fungus Olympics 2019. [FungiTown](#).
- N2 2019: **Peris D**. La domesticación de las levaduras cerveceras entendida desde la genética. Revista Alimentaria 502:40-42.
- O7 2019: Quantification of yeast genomic and phenotypic diversity. Institute of Agrochemistry and Food Technology, Paterna (Spain).
- N1 2018: **Peris D** and Pérez-Torrado R. La biodiversidad de levaduras como fuente de innovación en la industria cervecera. TecniFood Magazine 118:76-78.
- O6 2018,2019: Expociència – Industrial applications of yeasts, Paterna (Spain).
- O5 2018: Before the Flood – Climatic Change Talk, Paiporta (Spain).
- O4 2017: Yeast biodiversity and strategies for industrial applications. Institute of Agrochemistry and Food Technology, Paterna (Spain).
- O3 2017: Yeast domestication for industrial processes (beer, wine & biofuel). 2nd grade Biology degree Sala Darwin, Valencia (Spain).
- O2 2014,2016: Wisconsin Science Festival.
- O1 2012-2017: Evolution Seminar Series (ESS) J. F. Crow Institute for the Study of Evolution.
- 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 (when I was: *PhD Student, &UW Postdoc, ^ΔMSCA Postdoc)

Undergraduate: Carla Perpiñá^Δ, Alejandro Aguilar^Δ, Ryan Moriarty[&], Kayla Sylvester[&], Daniel Rodriguez[&], Russell Mendez[&], Julia Boix*.

Master thesis: Lainy Ramírez^Δ

PhD candidates: Sebastian Tapia^Δ, Miguel Morard^Δ, Laura Gutiérrez^Δ, Emily Baker[&], Quinn Langdon[&], Juan Eizaguirre[&]

Postdocs: Laura Pérez-Través^A, Fani García^A, Qi-Ming Wang[&]

PROFESSIONAL MEMBERSHIP AND SERVICE

Member: Society for Molecular Biology and Evolution (SMBE), Spanish Microbiology Society (SEM), Genetics Society of America (GSA), Marie Curie Alumni Association (MCAA), Returned Spanish Scientists Professional Network (CRE).

Reviewer: PeerJ, Yeast, BMC Genomics, Environmental Microbiology, FEMS Yeast Research, Applied Microbiology and Biotechnology, Bioresource Technology, Plos ONE, Molecular Biology and Evolution.

Award panelist I local prizes Paiporta 2018.

INSTITUTIONAL RESPONSIBILITIES

S4. Chair, *34th International Specialized Symposium on Yeasts*, Bariloche (Argentina) 2018.

S3. Search and development of supercomputing data science analysis for IATA-CSIC researchers. Access to Tirant Supercomputing – University of Valencia (Spain) 2018.

S2. Co-chair of Evolutionary Genomics and Domestication of Yeasts, *34th International Specialized Symposium on Yeasts*, Bariloche (Argentina) Scheduled.

2015-2017: President of Midwest Regional Section of ECUSA

S1. Chair of Earth, Environmental and Conservation Sciences panel, *2nd Spanish Scientist in USA Meeting*, MIT Boston, MA (USA) 2017.

PARTICIPATION IN FUNDED RESEARCH PROJECTS

11. Project 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*. 2018-2020. P.I: Sergi Puig.

10. Project 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. P.I: Carmela Belloch.

9. Project Marie Curie No. 747775 – MITOGRESSION: Generating yeast biodiversity by mitochondrial introgression for wine innovation. *Horizon 2020 – Marie Curie Actions* (Europe). 2017. P.I: David Peris.

8. Project 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.

7. Project 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.

6. Project 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. Project DEB-1253634: *Saccharomyces* diversity and the rapid evolution of hybrid lager-brewing yeast. *National Science Foundation* 2013-Present. P.I: Chris Todd Hittinger.

4. Project 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. Project 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. Project 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. Project 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.
- I2. P160162US01 - New wild strains of *Saccharomyces eubayanus*, the non-*S. cerevisiae* parent of hybrid lager-brewing yeasts. WARF UW-Madison, 3rd DEC 2015.
- 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.
- P2. P180359US01 – Controlling temperature tolerance in industrial and synthetic lager-brewing hybrids. WARF UW-Madison.
- P1. P160107US01 – Efficient engineering of marker-free synthetic *Saccharomyces* allotetraploids. WARF UW-Madison.

CONGRESS & CONFERENCE COMMUNICATIONS

(& Presenter ^Δ Invited talks)

- C20. **Peris D^Δ**. TBD. *EMBO Comparative Genomics of Eukaryotic Microbes*, Sant Feliu de Guixols, Gerona (Spain), 2019 (Scheduled).
- C19. **Peris D^Δ**. TBD. *Physiology of Yeasts and Filamentous Fungi*, Milan (Italy), 2019 (Scheduled).
- C18. **Peris D[&]**. *Saccharomyces* genus as a model of evolution and industrial applications. *IV Jornadas Conjuntas Valencia-La Rioja* (Spain), 2019.
- C17. **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.
- C16. **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.
- C15. **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.
- C14. 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.
- 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 and beer production. *ISSY33-Exploring and Engineering Yeasts for Industrial Application*, Cork (Ireland) 2017.

- C12. **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.
- C11. **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.
- C10. 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.
- C9. Pachón CS, Revenga C, Ortega MS, **Peris D**, Estupinyà P. Roundtable of Biodiversity, Conservancy and Green Energies at *1st Spanish Scientist in USA Meeting*, Georgetown, DC (USA) 2015.
- 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)

- P23. **Peris D**[&], **XXX**. TBD. *SMBE2019*, Manchester (UK) (Scheduled).
- P22. **Peris D**[&], Moriarty RV, Alexander WG, Wrobel R, Hittinger CT. TBD. *Physiology of Yeasts and Filamentous Fungi*, Milan (Italy) (Scheduled).
- 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 QL[&], **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

- 2019: Phylogenomics and Population Genomics: Inference and Applications (Scheduled)
- 2016: Advancing learning through evidence-based STEM teaching (Non-official)
- 2016: An introduction to evidence-based undergraduate STEM teaching (Non-official)
- 2015: The Data Science Specialization
- 2014: Data Analysis for Genomics
- 2013: Introduction to Next-Gen. Sequence Analysis.
- 2011: Introduction to sequence analysis: next generation sequencing
- 2010: Informatics for life sciences: Unix and Python

SKILLS

- Languages: Spanish (Native), Catalan (Native), English (Intermediate)
- OS: Windows, Linux (Ubuntu, CentOS).
- Computer language: Python (Intermediate), R (Intermediate).
- Bioinformatics tools: Comparative Genomics, Population Genomics, Sequence analysis, Phylogenetic tree reconstruction (NJ, ML, Bayesian), Phylogenetic Networks reconstruction, Population Genetics, Cytoscape, Microarray analysis, Gene Ontology Enrichment, Databases related with yeast and proteins, DIVA-GIS, Scripting, NGS tools, Notepad++, GitHub.
- 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 application of yeasts
Yeast Biodiversity, Evolution and Ecology

REFERENCES

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Dr. Chris T. Hittinger, Population genomics, Phenotyping and Comparative Genomics of *Saccharomyces* yeasts, Great Lakes Bioenergy Research Center – University of Wisconsin-Madison, USA
Dr. Diego Libkind, Biogeography of *S. eubayanus*, Centro Regional Universitario Bariloche, Argentina
Dr. Eladio Barrio, Comparative genomics of *Saccharomyces* yeasts, University of Valencia & CSIC, Spain
Dr. Emilia Matallana, Physiological characterization of oenological yeasts, i2SysBio (University of Valencia & CSIC), Spain
Dr. Francisco Cubillos, Biogeography of *S. eubayanus*, allele-specific expression (ASE) assays, University of Santiago de Chile, Chile
Dr. Harmit Malik, Evolutionary studies of genetic conflict, Fred Hutchinson Cancer Research Center, USA
Dr. Huan Fan, Metagenomics, University of Wisconsin-Madison, USA
Dr. José Paulo Sampaio, Biogeography of *S. uvarum* and *S. kudriavzevii*, Universidade Nova de Lisboa, Portugal
Dr. Juan Miguel Rodríguez, Human milk microbiome, Complutense University of Madrid, Spain
Dr. Justin C. Fay, Phenotyping *S. uvarum* and mitonuclear ecology, Washington University in St. Louis, USA
Dr. Ken Wolfe, Comparative genomes of yeast species, University College Dublin, Ireland
Dr. Lucía Morales, Bioinformatics and Comparative Genomics, International Laboratory for Human Genome Research, UNAM, Mexico
Dr. Mayte Martínez, Biochemistry of yeast iron concentration response, University of Valencia, Spain
Dr. Nerve Zhou, Yeast biogeography in Africa, Bostwana International University of Science and Technology, Bostwana
Dr. Paula Gonçalves, Genetic characterization of sugar transporters, Universidade Nova de Lisboa, Portugal
Dr. Qi-Ming Wang, Phylogenetics of *S. mikatae*, *S. kudriavzevii* and *S. arboricola* Chinese Academy of Sciences, China

Dr. Ramón González, Prion characterization in *Saccharomyces* species, Wine and Grapevine Science Institute, Spain

Dr. Roberto Pérez-Torrado, Yeast applications to beer, Institute of Agrochemistry and Food Technology, Spain

Dr. Rossana Tofalo, Yeast biodiversity of industrial environments, Università di Teramo, Italy

Dr. Sergi Puig, Biochemistry of iron deficiency regulatory pathways, Institute of Agrochemistry and Food Technology – CSIC, Spain

Dr. Trey Sato, Biofuel production using *Saccharomyces* yeasts, Great Lakes Bioenergy Research Center – University of Wisconsin-Madison, USA