

Albert Mas

Training:

BSc in Biology, University of Barcelona (SPAIN), 1975; PhD Biochemistry, University of Barcelona, 1984

Postdoctoral Positions:

State University of New York at Buffalo (USA), 1984-1985;
Hospital for Sick Children, Toronto, Canada, 1985-1988.

Academic Positions:

Lecturer at Universitat Laboral Tarragona (Spain), 1977-1984;
Assistant Professor University of Barcelona 1988-1992,
Tenured Associated Professor Universitat Rovira i Virgili (Tarragona, Spain) 1992-2002,
Full Professor Universitat Rovira i Virgili (Tarragona, Spain) 2002 to date.

Academic responsibilities:

Director of the Dept of Natural Sciences (Universitat Laboral Tarragona 1983-84),
Director of the Dept of Biochemistry and Biotechnology, Universitat Rovira i Virgili 1992-1995;
Dean of the Faculty of Oenology, Universitat Rovira i Virgili 1995-2001, 2011-2013.

Present situation:

Full Professor of Food Science and Technology, speciality Oenology. Tutor of Master and PhD Thesis;

Research:

1. Articles

Main indicators: H number: 33 (Scopus), 42 (Google Scholar)

Number of articles: 150

Total citations (Scopus, last ten years March 2018): 3046

Most relevant articles:

MJ Torija, N Rozès, M Poblet, JM Guillamón, A Mas. Yeast population dynamics in spontaneous fermentations: Comparison between two different wine producing areas over a period of three years. *Anton van Leeuwenhoek International Journal of General Microbiology*, 79, 345-352, 2001.

G Beltran, MJ Torija, M Novo, N Ferrer, M Poblet, JM Guillamon, N Rozes, A Mas. Analysis of yeast populations during alcoholic fermentation: a six year follow-up study. *Systematic and Applied Microbiology* 25, 287-293, 2002

MJ Torija, N Rozès, M Poblet, JM Guillamón, A Mas. Effects of fermentation temperature on the strain population of *Saccharomyces cerevisiae*. *International Journal of Food Microbiology*, 80, 47-53, 2003.

MJ Torija, G Beltran, M Novo, M Poblet, JM Guillamón, A Mas, N Rozès. Effects of fermentation temperature and *Saccharomyces* species on the cell fatty acid composition and presence of volatile compounds in wine. *International Journal of Food Microbiology*, 85, 127-136, 2003.

- G Beltran, B. Esteve-Zarzoso, N Rozès, A Mas, JM Guillamón. Influence of the timing of nitrogen additions during wine fermentations on the fermentation kinetics and nitrogen consumption. *Journal of Agricultural and Food Chemistry* 53, 996-1002. 2005
- A González, N Hierro, M Poblet, A Mas, JM Guillamón. Application of molecular methods to demonstrate species and strain evolution of acetic acid bacteria population during wine production. *International Journal of Food Microbiology*, 102, 295-304, 2005
- N Hierro, B Esteve-Zarzoso, A González, A Mas, JM Guillamón. Real-time quantitative PCR (QPCR) and reverse transcription-QPCR (RT- QPCR) for the detection and enumeration of total yeasts in wine. *Applied and Environmental Microbiology*, 72, 7148-7155, 2006
- I Andorrà, S Landi, A Mas, JM Guillamón, B Esteve-Zarzoso: Effect of enological practices on microbial populations using culture-independent techniques. *Food Microbiology*, 25, 849-856, 2008. doi:10.1016/j.fm.2008.05.005.
- MJ Torija, E Mateo, JM Guillamón, A Mas. Identification and quantification of acetic acid bacteria in wine and vinegar by TaqMan-MGB probes. *Food Microbiology*, 27, 257-265, 2010.
- I Andorrà, M Berradre, N Rozés, A Mas, JM Guillamón, B Esteve-Zarzoso. Effect of pure and mixed cultures of the main yeast species on grape must fermentations. *European Food Research and Technology* 231, 215-224, 2010.
- I Andorrà, B Esteve-Zarzoso, JM Guillamón, A Mas: Determination of viable wine yeast using DNA binding dyes and quantitative PCR. *International Journal of Food Microbiology*, 144, 257-262, 2010.
- I Andorra, M Monteiro, B Esteve-Zarzoso, H Albergaria, A Mas. Analysis and direct quantification of *Saccharomyces cerevisiae* and *Hanseniaspora guilliermondii* populations during alcoholic fermentation by fluorescence *in situ* hybridisation, flow cytometry and quantitative PCR. *Food Microbiology* 28, 1483-1491, 2011.
- MI Rodríguez -Naranjo, MJ Torija, A Mas, E Cantos-Villar, MC García-Parrilla. Production of melatonin by *Saccharomyces* strains under growth and fermentation conditions. *Journal of Pineal Research* 53, 219-224, 2012.
- C Hidalgo, MJ Torija, A Mas, E Mateo. Effect of inoculation on strawberry fermentation and acetification processes using native strains of yeast and acetic acid bacteria. *Food Microbiology*, 34, 88-94, 2013.
- MJ Valera, MJ Torija, A Mas, E Mateo. *Acetobacter malorum* and *Acetobacter cerevisiae* identification and quantification by Real-Time PCR with TaqMan-MGB probes. *Food Microbiology*, 36, 30-39, 2013.
- C Wang, B Esteve-Zarzoso, A Mas. Monitoring of *Saccharomyces cerevisiae*, *Hanseniaspora uvarum*, and *Starmarella bacillaris* (synonym *Candida zemplinina*) populations during alcoholic fermentation by fluorescence *in situ* hybridisation. *International Journal of Food Microbiology*, 191, 1-9, 2014.
- E González-Royo, O Pascual, N Kountoudakis, M Esteruelas, B Esteve-Zarzoso, A Mas, JM Canals, F Zamora. Oenological Consequences of Sequential Inoculation with Non-*Saccharomyces* Yeasts (*Torulaspora delbrueckii* or *Metschnikowia pulcherrima*) and *Saccharomyces cerevisiae* in Base Wine for Sparkling Wine Production. *European Food Research and Technology*, 240: 999-1012, 2015
- C Wang, A Mas, B Esteve-Zarzoso. Interaction between *Saccharomyces cerevisiae* and *Hanseniaspora uvarum* during alcoholic fermentation. *International Journal of Food Microbiology*, 206, 67-74, 2015
- C Wang, D García-Fernández, B Esteve-Zarzoso, A Mas. Fungal diversity in grape must and wine fermentation assessed by massive sequencing, quantitative PCR and DGGE. *Frontiers in Microbiology*, 6:1156. 2015
- J Lleixà, V Martín, MC Portillo, F. Carrau, G Beltran, A. Mas. Comparison of the performances of *Hanseniaspora vineae* and *Saccharomyces cerevisiae* during winemaking. *Frontiers in Microbiology*, 7, 338, 2016.
- C Wang, A Mas, B Esteve-Zarzoso. The Interaction between *Saccharomyces cerevisiae* and Non-*Saccharomyces* Yeast during Alcoholic Fermentation is Species and Strain Specific. *Frontiers in Microbiology*, 7, 502, 2016.
- V Martín, A. Mas, F Carrau, E Dellacasa, E Boido. Effect of yeast assimilable nitrogen on the synthesis of phenolic aroma compounds by *Hanseniaspora vineae* strains. *Yeast*, 33: 323-328, 2016
- C Jara, F Laurie, A Mas, J Romero. Microbial terroir in Chilean valleys. Diversity of non-conventional yeast. *Frontiers in Microbiology*, 7: 663, 2016
- MC Portillo, A Mas. Analysis of microbial diversity and dynamics during wine fermentation of Grenache grape variety by high-throughput barcoding sequencing. *LWT-Food Science and Technology*, 72, 317-321, 2016
- Lleixà J, Manzano M, Mas A and Portillo MC (2016) *Saccharomyces* and non-*Saccharomyces* Competition during Microvinification under Different Sugar and Nitrogen Conditions. *Frontiers in Microbiology* 7:1959.
- MJ Valera, F. Sainz, A Mas, MJ Torija: Effect of chitosan and SO₂ on viability of *Acetobacter* strains in wine. *International Journal of Food Microbiology*, 246, 1-4, 2017
- González B, Mas A, Beltran G, Cullen PJ and Torija MJ (2017) Role of Mitochondrial Retrograde Pathway in Regulating Ethanol-Inducible Filamentous Growth in Yeast. *Frontiers in Physiology* 8:148.
- Vázquez J, González B, Sempere V, Mas A, Torija MJ, Beltran G (2017) Melatonin Reduces Oxidative Stress Damage Induced by Hydrogen Peroxide in *Saccharomyces cerevisiae*. *Frontiers in Microbiology* 8:1066.
- Padilla B, Zulian L, Ferreres À, Pastor R, Esteve-Zarzoso, B Beltran G, Mas A (2017) Sequential Inoculation of Native Non-*Saccharomyces* and *Saccharomyces cerevisiae*, Strains for Wine Making. *Frontiers in Microbiology* 8:1293.

C Vendramini, G Beltran, Nadai C, Giacomini A, Mas A, Corich C (2017). The role of nitrogen uptake on the competition ability of three vineyard *Saccharomyces cerevisiae* strains. *International Journal of Food Microbiology*, 259, 1-11

Kioroglou D., LLeixá J., Mas A., Portillo M.C. (2018). Massive Sequencing: A New Tool for the Control of Alcoholic Fermentation in Wine? *Fermentation*, 4, 7;

Sunyer-Figueres M, Wang C, Mas A. Analysis of RNA stability for the detection and quantification of wine yeast by quantitative PCR. *International Journal of Food Microbiology*, 270, 1-4, 2018.

2. Research responsibilities:

Research Group leader (Oenological Biotechnology). Leader of several European and National Grants and contracts with private industries. Editor of *International Journal of Food Microbiology* and Associate editor of *Frontiers in Microbiology*.

