



**Dr. ARGYRO BEKATOROU**  
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### SHORT PRESENTATION / PROFILE

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Dr. Argyro Bekatorou obtained her Diploma in Chemistry in 1995 from the Aristotle University of Thessaloniki, and her Ph.D. in 2001 from the Department of Chemistry, University of Patras (UP), Greece. In 2001, she worked as postdoctoral researcher (*environmental biotechnology*) at the School of Biological & Environmental Sciences of the University of Ulster (N. Ireland, UK), and during 2002-2006 she worked at the Department of Chemistry of UP, as full-time researcher (*food chemistry & biotechnology*) and part-time Lecturer. She was appointed full-time Lecturer in 2006, and Assistant Professor in 2011, and since 2018 she is Associate Professor of *Food Chemistry & Technology* at UP. She has participated in 18 funded research projects and 4 funded educational programs. She is active reviewer in more than 30 scientific journals, and co-author of more than 86 research papers in peer-reviewed international scientific journals, 18 book chapters, more than 125 Conference presentations and has 2 patents (Scopus 2019; h index 24).

### RESEARCH INTERESTS / OBJECTIVES

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- Chemistry & Technology of fermented foods (alcoholic beverages, dairy products, probiotics, fermented cereal products, industrial by-products).
- Technology of Immobilized cells in foods and beverages production.
- Extremely low temperature fermentations / Cold adapted yeasts.
- Single cell protein production (SCP) / Starter culture production / Culture drying techniques.
- Biotechnological utilization of food industry wastes & by-products to produce novel foods and products of added-value (ethanol, organic acids, single cell oil, SCP, bacterial cellulose, etc.) / Biorefineries.
- Industrial bioprocesses / Scale-up.

### ACADEMIC STUDIES / POSITIONS

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- 1990-1995:** B.Sc. in Chemistry of the Department of Chemistry, Aristotle University of Thessaloniki, Greece
- 1996-2001:** Ph.D. in Chemistry of the Department of Chemistry, UP, Greece  
 (thesis title: *Freeze-dried immobilized Saccharomyces cerevisiae cells for use in brewing*)
- 2001:** Post-doctoral researcher (Research Officer, Spine point 6, Grade 1 A) - School of Biological & Environmental Sciences, University of Ulster, N. Ireland, UK (*Biodegradation of organosulfonates by white-rot fungi / Bionitrification of groundwater using immobilized cells technology*)
- 2003-2006:** Post-doctoral researcher (*Food Biotechnology*) and Temporary Lecturer (*Food Chemistry & Technology / Instrumental Chemical Analysis*) at the Department of Chemistry, UP
- 2006-2011:** Lecturer of Food Chemistry & Technology at the Department of Chemistry, UP
- 2011-2018:** Assistant Prof. of Food Chemistry & Technology at the Department of Chemistry, UP
- since 2018:** Associate Prof. of Food Chemistry & Technology at the Department of Chemistry, UP

## FUNDED RESEARCH / EDUCATIONAL PROJECTS

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- 1) 1996-1998. **“Method of alcohol production using biocatalyst”** - DISCINOVAION, STRIDE HELLAS/EU [EU-STRIDE, code 360; 1000000 ECU].
- 2) 1997. **“Conservation and traditional production of local livestock farming products”** - Educational project [Greek Centre for Productivity (ELKEPA)/EU].
- 3) 1998-1999. **“Quality control in the food and packaging materials industry”**- EPEAEK [Greek State/EU; 106000000 drh (19%)].
- 4) 1999-2001. **“Exploitation of whey for the production of food products employing biotechnological methods”**- EPET II [GSRT/EU; 256000000 drh (30%)].
- 5) 1999-2000. **“Viticulture and restructuring of vineyards”** - Educational project, Centre for Professional Learning (KEK) of the University of Patras [Prefecture of Western Greece/EU; SEK 1-318-2801; 34000000 drh].
- 6) 2001. Research projects **“Biodegradation of organosulfonates by white-rot fungi”** and **“Biodenitrification of groundwater using immobilized cells technology”** [University of Ulster; P. Nigam–G. McMullan].
- 7) 2002-2003. **“MSc Food Biotechnology”**- funded course by EPEAK II [Greek State; 152000 € (50%)].
- 8) 2003-2005. **“Solid wastes & by-products of agricultural industries as substrates for cell immobilization for use as starter cultures in baking processes”**- EPEAK II, HERAKLITOS I [Greek State/EU; 34500 €].
- 9) 2003-2005. **“Production of wine and beer using freeze-dried immobilised cells in various bioreactor configurations. Potential production of commercial dry biocatalysts”** - JOINT RESEARCH AND TECHNOLOGY PROGRAMMES: GREECE-SERBIA [GSRT/EU; 23480 €].
- 10) 2004-2007. **“Utilization of brewer’s spent grains for production of fungal biomass and products of high added value”**- EPEAK II, PYTHAGORAS I [Greek State/EU; 80000€].
- 11) 2004-2007. **“The dairy liquid waste as raw material for the production of probiotic kefir cultures for use in cheese ripening”**- EPEAK II, PYTHAGORAS I [Greek State/EU; 80000 €].
- 12) 2007-2010. **“Production of dried starter cultures using whey as raw material for use in food production”** - Regional Operational Programme (ROP) of Western Greece [Greek State/EU; 750000€].
- 13) 2009-2012. (scientific coordinator) **“Products of added value based on SCP produced by biotechnological utilization of mixed agro-industrial wastes”**. PROJECT KARATHEODORI [Greek State/UP; 27360 €].
- 14) 2011-2015. **“Production of single cell protein, edible mushrooms and food additives through biotechnological exploitation of mixed food industry wastes”** - HERACLITUS, ESPA 2007-2013 [Greek State/EU; 45000 €].
- 15) 2011-2015. **“Production of biodiesel from food industry wastes”** - HERACLITUS, ESPA 2007-2013 [Greek State/EU; 45000 €].
- 16) 2013-2015. **“Agroindustrial liquid and solid wastes as raw materials for the production of a new generation biofuel”** - ESPA 2007-2013 – SYNERGASIA 2011 [Greek State/EU; code 11SYN\_8\_839; 1221809 €].
- 17) 2013-2015. **“Cellulose nano- and micro- biotechnology: applications in food industries”** - ESPA 2007-2013 – SYNERGASIA 2011 [Greek State/EU; code 11SYN\_2\_1374; 1112716 €].
- 18) 2013-2015. **“Production of new functional foods (sausages and dairy products) adding probiotics isolated from dairy products”** - ESPA 2007-2013 – SYNERGASIA 2011 [Greek State/EU; code 11SYN\_2\_1580; 889605 €].
- 19) 2013-2015. **“Cellulose nano- and micro-biotechnology: Fermentations at extremely low temperatures for food production”** - ESPA – ARISTEIA II [Greek State/EU; code 4392; 180000 €].
- 20) 2015-2016. **“Exploitation of Raisin Finishing Side-stream”**. Grant from the Agricultural Cooperatives Union of Aeghion SA, Aeghion, Greece [code E420; 18689 €].
- 21) 2018-2020: **“Research Infrastructure on Food Bioprocessing Development and Innovation Exploitation - Food Innovation RI”** - ΕΠΑΝΕΚ 2014-2020 [Greek State/EU; code 5027222; 3000000 €].

## TEACHING EXPERIENCE

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### Undergraduate level

1. **DEPT. OF CHEMISTRY, UP:** FOOD CHEMISTRY; FOOD CHEMISTRY & TECHNOLOGY – OENOLOGY I; FOOD CHEMISTRY & TECHNOLOGY – OENOLOGY II; INSTRUMENTAL CHEMICAL ANALYSIS (Lab); RENEWABLE SOURCES & CHEMICAL STORAGE OF ENERGY; VITICULTURE
2. **DEPT. OF BIOLOGY, UP:** FOOD CHEMISTRY & TECHNOLOGY

**Postgraduate level**

1. **MSc FOOD BIOTECHNOLOGY; UP/UNIV. OF ULSTER, UK:** ADVANCED EXERCISES IN FOOD CHEMISTRY AND BIOTECHNOLOGY I; ADVANCED EXERCISES IN FOOD CHEMISTRY AND BIOTECHNOLOGY II; FOOD BIOTECHNOLOGY
2. **MSc FOOD BIOPROCESSES & BIOREFINERIES; AGR. U. ATHENS:** UTILIZATION OF FOOD INDUSTRY WASTES; UTILIZATION OF RENEWABLE RESOURCES
3. **PHD PROGRAM, DEPT. OF CHEMISTRY, UP:** ADVANCED FOOD CHEMISTRY; ADVANCED EXERCISES IN FOOD CHEMISTRY & TECHNOLOGY; FOOD BIOTECHNOLOGY

**RESEARCH PROJECT SUPERVISION- TRAINEES****A. Msc in Food Biotechnology (SELECTED TITLES)**

1. Agiomirgiannaki Despina. Treatment of brewery spent grains with the filamentous fungus *Aspergillus oryzae* for the production of protein enriched animal feed. Patras, 2005.
2. N. Droushiotis. Treatment of brewer's spent grains (BSG) and brewer's spent malted barley rootlets (MSR) with *Phanerochaete chrysosporium* (PC) for potential animal feed production. Patras, 2007.
3. A. Anthopoulos. Unfolding Kefir for food starter culture production: Sourdough bread production using *Kluyveromyces marxianus* and *Leuconostoc mesenteroides* subsp. *cremoris* and study of volatile composition by GC/MS. Patras, 2007.
4. A. Karapatakis. Cheese production using dried co-culture of *Kluyveromyces marxianus* and *Lactobacillus helveticus* as starter culture. Patras, 2009.
5. A. Rapti. Protein enriched animal feed production by solid state fermentation of brewer's spent grains, spent malted barley rootlets, and their mixtures with molasses and orange pulp, in tray-type bioreactors, using the ligninolytic white-rot fungus *Phanerochaete chrysosporium*. Patras, 2007.
6. S. Zogkari-Nousi. Chemical, "in vitro", evaluation of animal feeds produced by treatment of brewer's spent grains with *Aspergillus* species. Patras, 2007.
7. P. Matsokis. Brewing with yeast immobilised on malt spent rootlets. Patras, 2009.
8. T. Solomonidis. Production of Air-Dried Cultures of *Lactobacillus bulgaricus* Grown on Cheese Whey, and Evaluation of their Efficiency for Lactose and Whey Fermentations. Patras, 2009.
9. A. Niothavrianakis. Production of Yeast Single Cell Protein Using Mixed Agroindustrial Wastes. Patras, 2011.
10. E. Gkrimpoura. Evaluation of yeast SCP grown exclusively on food industry wastes as yeast extract and food additive. Patras, 2012.

**B. Msc in Medicinal Chemistry**

1. D. Diamantopoulou. Production and evaluation of viability of formulates consisting of probiotics and plant extracts. Patras, 2015.
2. G. Giannoulea. Effect of deletion mutations in the yeast *Saccharomyces cerevisiae* on the uptake potential of toxic metals and production of toxic metabolites. Patras, 2016.

**C. Msc in Analytical Chemistry & Nanotechnology**

1. V. Panagopoulos. Recovery of phenolics and dietary fiber from Corinthian currant residues. Assay of antioxidant capacity. Patras, 2018.
2. K. Sparou. Physicochemical characterization of bacterial cellulose produced in Corinthian currant finishing side-stream. Patras, 2018.
3. A. Panitsa. Production and analysis of syrups and marmalades from the Corinthian currant finishing side-stream. Patras, 2019.
4. E. Michalopoulou. Production of semi-sweet wines by novel methods from the Corinthian currant finishing side-stream. Patras, 2019.

**D. Msc in Catalysis - Environmental Protection and Production of Clean Energy**

1. O. Maroutsiou. Optimization of bacterial cellulose production in mixtures of cheese-whey and extracts of the

Corinthian currant finishing side-stream – Textural analysis. Patras, 2019.

#### D. PhD supervision or participation in supervising committees

1. (**supervisor**) M.N. Kumar. Production of micro/nano tubes in biopolymers and their application in cold pasteurization of foods. 2015.
2. (**supervisor**) P. Tsafraikidou. Production of organic acids using lignocellulosic materials with  $\gamma$ -alumina as promoter. 2016.
3. (**supervisor**) K. Boura. Production of organic acids using cheese whey with kissiris and  $\gamma$ -alumina as promoters. 2017.
4. (**supervisor**) A. Dima. Production of organic acids using lignocellulosic materials with kissiris as promoter. 2018.
5. (**supervisor**) I. Pleioni. Bacterial cellulose and other bioproducts of added value from raisin finishing wastes.
6. (supervising committee) V. Ganatsios. Biorefinery for production of single cell protein, edible mushrooms, and food additives by biotechnological exploitation of mixed agro-industrial wastes. 2015.
7. (supervising committee) K. Syngiridis. Contribution to biofuel production from food industry wastes. Patras, 2014.
8. (supervising committee) T. Aggelopoulos. Products of added value based on single cell protein by biotechnological exploitation of mixed agro-industrial wastes. 2014.
9. (supervising committee) A.-I. Gialeli. Cold pasteurization of liquid foods using nanoporous materials. Patras, 2015.
10. (supervising committee) E. Barouni. New technologies in food production. Patras, 2015.
11. (supervising committee) I. Servetas. Method for wine making at home scale using thermally dried yeasts.
12. (supervising committee) K. Lappa. Production of organic acids using soluble solid wastes of bioethanol production units with kissiris and  $\gamma$ -alumina as promoters.
13. (supervising committee) E. Papafotopoulou-Patrinou. Development of filter for cold pasteurization of olives brine and olives maturation using micro/nano porous cellulose.

#### PUBLICATIONS IN JOURNALS / BOOKS / CONFERENCES

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##### A. PAPERS

1. **Bekatorou** A., A.A. Koutinas, A. Kaliafas, M. Kanellaki\*. Freeze-dried *Saccharomyces cerevisiae* Cells Immobilized on Gluten Pellets for Glucose Fermentation. *Process Biochem.*, 36, 549-557, 2001.
2. **Bekatorou** A., A.A. Koutinas, K. Psarianos, M. Kanellaki\*. Low-Temperature Brewing by Freeze-Dried Immobilized Cells on Gluten Pellets. *J. Agr. Food Chem.*, 49(1), 373-377, 2001.
3. **Bekatorou** A., M.J. Soupioni, A.A. Koutinas and M.E. Kanellaki\*. Low-Temperature Brewing by Freeze-Dried Immobilized Cells. *Appl. Biochem. Biotech.*, 97, 105-121, 2002.
4. **Bekatorou** A.\*, A. Sarellas, N. G. Ternan, A. Mallouchos, M. Komaitis, A. A. Koutinas and M. Kanellaki. Low-temperature brewing using yeast immobilized on dried figs. *J. Agr. Food Chem.*, 50(25), 7249-7257, 2002.
5. Petsas I., K. Psarianos, A. **Bekatorou**, A. A. Koutinas, I. M. Banat\* and R. Marchant. Improvement of Kefir Yeast by Mutation with N-methyl-N-Nitrosoguanidine. *Biotech. Lett.*, 24, 557-560, 2002.
6. Chronopoulos G., A. **Bekatorou**, E. Bezirtzoglou, A. Kaliafas, A.A. Koutinas, I.M. Banat\*, R. Marchant. Lactic acid fermentation by *L. casei* in free cell form and immobilized on gluten pellets. *Biotech. Lett.* 24, 1233-6, 2002.
7. Paraskevopoulou A.\*, I. Athanasiadis, M. Kanellaki, A. **Bekatorou**, G. Blekas and V. Kiosseoglou. Functional properties of single cell protein produced by kefir microflora. *Food Res. Int.* 36(5), 431-438, 2003
8. Skountzou P., M. Soupioni, A. **Bekatorou**, M. Kanellaki, A.A. Koutinas, R. Marchant, I.M. Banat\*. Lead uptake during baker's yeast production by aerobic fermentation of molasses. *Process Biochem.*, 38(10), 1479-1482, 2003.
9. Balli D., V. Flari, E. Sakellarakis, V. Schoina, M. Iconomopoulou, A. **Bekatorou**, M. Kanellaki\*. Effect of yeast cell immobilization on glycerol contain in alcoholic fermentation with respect to wine making. *Process Biochem.* 39, 499-506, 2003.
10. Kourkoutas Y., A. **Bekatorou**\*, R. Marchant, I.M. Banat and A.A. Koutinas. Immobilization technologies and support materials suitable in alcohol beverages production: a review. *Food Microbiol.* 21, 377–397, 2004.
11. Tsakiris A., A. **Bekatorou**, A. A. Koutinas, R. Marchant and I. M. Banat\*. Immobilization of yeast on dried raisin berries for use in dry white wine making. *Food Chem.*, 87, 11–15, 2004.
12. Tsakiris A., V. Sipsas, A. **Bekatorou**, A. Mallouchos and A. Koutinas\*. Red wine making by immobilized cells and influence on volatile composition. *J. Agr. Food Chem.*, 52, 1357-1363, 2004.
13. Harta O., M. Iconomopoulou, A. **Bekatorou**\*, P. Nigam, M. Kontominas and A. A. Koutinas. Effect of various carbohydrate substrates on the production of kefir grains for use as a novel baking starter. *Food Chem.*, 88,237-242, 2004.
14. Plessas S., A. **Bekatorou**, M. Kanellaki, C. Psarianos\* and A. A. Koutinas. Cells immobilized in a starch–gluten–milk matrix

- usable for food production. *Food Chem.*, 89(2), 175-179, 2005.
15. Koutinas A.A.\*, I. Athanasiadis, A. **Bekatorou**, M. Iconomopoulou and G. Blekas. Kefir yeast technology: scale-up in SCP production using milk whey. *Biotech. Bioeng.* 89(7), 788-796, 2005.
  16. Plessas S., L. Pherson; A. **Bekatorou\***; P. Nigam; A.A. Koutinas. Bread making using kefir grains as baker's yeast. *Food Chem.* 93, 585-9, 2005.
  17. Agouridis N., A. **Bekatorou**, P. Nigam and M. Kanellaki\*. Malolactic Fermentation in Wine with *Lactobacillus casei* Cells Immobilized on Delignified Cellulosic Material. *J. Agr. Food Chem.*, 89 (7): 788-796, 2005.
  18. **Bekatorou A.\***, C. Psarianos and A. A. Koutinas. Production of Food Grade Yeasts. *Food Technol. Biot.* 44(3): 407-415, 2006.
  19. Plessas S., A. **Bekatorou**, A. A. Koutinas, M. Soupioni, I. M. Banat\* and R. Marchant. Use of *Saccharomyces cerevisiae* cells immobilized on orange peel as biocatalyst for alcoholic fermentation. *Biores. Technol.*, 98(4):860-865, 2007.
  20. Kopsahelis N, Kanellaki M & **Bekatorou\*** A. Low temperature brewing using cells immobilized on brewer's spent grains. *Food Chem.*, 104, 480-488, 2007.
  21. Kopsahelis N, Agouridis N, **Bekatorou A**, Kanellaki\* M. Comparative study of delignified and non-delignified brewer's spent grains as yeast immobilization supports for alcohol production from molasses. *Biores. Technol.* 98, 1440-1447, 2007.
  22. Plessas S., M. Trantallidi, A. **Bekatorou\***, M. Kanellaki, P. Nigam, A. A. Koutinas. Immobilization of kefir and *Lactobacillus casei* on brewery spent grains for use in sourdough wheat bread making. *Food Chem.* 105, 187-194, 2007.
  23. Koutinas A.A.\*, I. Athanasiadis, A. **Bekatorou**, C. Psarianos, M. Kanellaki, N. Agouridis, G. Blekas. Kefir-yeast technology: Industrial scale-up of alcoholic fermentation of whey, promoted by raisin extracts, using kefir-yeast granular biomass. *Enzyme Microb. Tech.* 41, 576-582, 2007.
  24. **Bekatorou\***, A., Bountas, Y., Banat I. M. & Kanellaki, M. Upgrading brewer's spent grains by treatment with *Aspergillus* species. *Chemical Industry & Chemical Engineering Quarterly*, 13(2), 72-78, 2007 (<http://www.ache.org.rs/CICEQ/>).
  25. Plessas S., A. **Bekatorou**, M. Kanellaki, A. A. Koutinas\*, R. Marchant, I. M. Banat. Use of immobilized cell biocatalysts in baking. *Process Biochem.* 42, 1244-1249, 2007.
  26. Mallouchos A., Loukatos P., **Bekatorou A.**, Koutinas A. A., Komaitis M.\*. Ambient and low temperature winemaking by immobilized cells on brewer's spent grains: Effect on volatile composition. *Food Chem.* 104 (3): 918-927 2007.
  27. Plessas S.,\* A. **Bekatorou**, J. Gallanagh, P. Nigam, A.A. Koutinas, C. Psarianos. Evolution of aroma volatiles during storage of sourdough breads made by mixed cultures of *Kluyveromyces marxianus* and *Lactobacillus delbrueckii* ssp. *bulgaricus* or *Lactobacillus helveticus*. *Food Chem.* 107, 883-889, 2008.
  28. Koutinas A.A.\*, H. Papapostolou, D. Dimitrellou, N. Kopsahelis, E. Katechaki, A. **Bekatorou**, L.A. Bosnea. Whey valorisation: A complete and novel technology development for dairy industry starter culture production. *Biores. Technol.* 100, 3734-9, 2009.
  29. Koutinas A.A. \*, A. **Bekatorou**, H. Papapostolou, N. Kopsahelis, E. Katechaki, D. Dimitrellou, P. Panas, K. Sideris, M. Kallis, L. A. Bosnea, D. Koliopoulos, P. Sotiropoulos, A. Panteli, Y. Kourkoutas, M. Kanellaki, M. Soupioni. Scale-up of Thermally Dried Kefir production as Starter Culture for Hard-Type Cheese making: An Economic Evaluation. *Appl. Biochem. Biotech.*, 160, 1734-1743, 2010.
  30. Tsaousi K., Koutinas A. A., **Bekatorou\*** A., Loukatos P. Fermentation Efficiency of Cells Immobilized on Delignified Brewers' Spent Grains after Low and High-Temperature Thin Layer Thermal Drying. *Appl. Biochem. Biotech.*, 162, 594-606, 2010.
  31. Tsakiris A., Koutinas A. A., Psarianos C., Kourkoutas Y., **Bekatorou\*** A. A New Process for Wine Production by Penetration of Yeast in Uncrushed Frozen Grapes. *Appl. Biochem. Biotech.*, 162(4), 1109-1121, 2010.
  32. Katechaki E., T. Solomonidis, A. **Bekatorou\***, A. A. Koutinas. Thermal drying of *Lactobacillus delbrueckii* subsp. *bulgaricus* and its efficient use for whey fermentation and unsalted cheese making. *Appl. Biochem. Biotech.* 162(5), 1270-1285, 2010.
  33. Tsakiris A., P. Kandyliis, A. **Bekatorou\***, Y. Kourkoutas, A. A. Koutinas. Dry red wine-making using yeast immobilized on cork pieces. *Appl. Biochem. Biotech.*, 162(5), 1316-1326, 2010.
  34. Kandyliis P.\*, C. Drouza, A. **Bekatorou**, A. A. Koutinas. Scale-up of extremely low temperature fermentations of grape must by wheat supported yeast cells. *Biores. Technol.* 101(19), 7484-7491, 2010.
  35. Kandyliis P., Manousi M. E., **Bekatorou A.**, Koutinas\* A. A. Freeze dried wheat supported biocatalyst for low temperature wine making. *LWT - Food Sci. Tech.* 43(10), 1485-1493, 2010.
  36. Anagnostopoulos, V.A., **Bekatorou**, A., Symeopoulos, B.D.\* Contribution to interpretation of metal uptake dependence upon the growth phase of microorganism. The case of uranium (VI) uptake by common yeasts cultivated at different temperatures, with or without aeration. *J. Radioanal. Nucl. Chem.* 287, 665-671, 2011.
  37. Plessas S., A. Alexopoulos, A. **Bekatorou**, I. Mantzourani, A. A. Koutinas and E. Bezirtzoglou\*. Examination of freshness degradation of sourdough bread made with kefir through monitoring the aroma volatile composition during storage. *Food Chem.* 124(2), 627-633, 2011.
  38. Tsaousi, K; Velli, A; Akarepis, F; Bosnea, L; Drouza, C; Koutinas, AA; **Bekatorou**, A\*. Low-Temperature Winemaking by Thermally Dried Immobilized Yeast on Delignified Brewer's Spent Grains. *Food Technol. Biotech.*, 49, 3, 379-384, 2011
  39. N. Kopsahelis, L. Bosnea, A. **Bekatorou**, C. Tzia, M. Kanellaki\*. Alcohol production from sterilized and non-sterilized

- molasses by *Saccharomyces cerevisiae* immobilized on brewer's spent grains in two types of continuous bioreactor systems. *Biomass Bioenerg.* 45, 2012, 87-94.
40. Plessas, S\*, Alexopoulos, A., **Bekatorou**, A., Bezirtzoglou, E. Kefir Immobilized on Corn Grains as Biocatalyst for Lactic Acid Fermentation and Sourdough Bread Making. *J. Food Sci.*, 77, 12, 2012, C1256-C1262.
  41. Galanakis C.M., C. Kordulis, M.Kanellaki, A.A. Koutinas\*, A. **Bekatorou**, A. Lycourghiotis. Effect of pressure and temperature on alcoholic fermentation by *Saccharomyces cerevisiae* immobilized on  $\gamma$ -alumina pellets. *Biores. Technol.* 114, 2012, 492-8.
  42. Koutinas, A. A.\*, Syphas, V., Kandyliis, P., Michelis, A., **Bekatorou**, A., Kourkoutas, Y., Kordulis, C., Lycourghiotis, A., Banat, I. M., Nigam, P., Marchant, R., Giannouli, M., Yianoulis, P. Nano-tubular cellulose for bioprocess technology development. *PLOS ONE* 7, 4, e34350, 2012. (among the top 25% MOST CITED PLOS ONE articles in 2017).
  43. Syngiridis K., A. **Bekatorou**, M. Kallis, P. Kandyliis, M. Kanellaki, A. A. Koutinas\*.  $\gamma$ -Alumina as a process advancing tool for a new generation biofuel. *Biores. Technol.*, 132, 2013, 45-48.
  44. Aggelopoulos, T; **Bekatorou**, A; Pandey, A; Kanellaki, M; Koutinas, AA.\* Discarded Oranges and Brewer's Spent Grains as Promoting Ingredients for Microbial Growth by Submerged and Solid State Fermentation of Agro-industrial Waste Mixtures. *Appl. Biochem. Biotech.* 170, 8, 1885-1895,2013.
  45. Servetas, I; Berbegal, C; Camacho, N; **Bekatorou**, A; Ferrer, S; Nigam, P; Drouza, C; Koutinas, AA.\* *Saccharomyces cerevisiae* and *Oenococcus oeni* immobilized in different layers of a cellulose/starch gel composite for simultaneous alcoholic and malolactic wine fermentations. *Process Biochem.* 48, 9, 1279-1284, 2013.
  46. Aggelopoulos, T; Katsieris, K; **Bekatorou**, A; Pandey, A, Banat, IM., Koutinas, AA\*. Solid state fermentation of food waste mixtures for single cell protein, aroma volatiles and fat production. *Food Chem.*, 145, 710-716, 2014.
  47. Syngiridis K, **Bekatorou** A, Kandyliis P, Larroche C, Kanellaki M, Koutinas AA\*. Favouring butyrate production for a new generation biofuel by acidogenic glucose fermentation using cells immobilised on  $\gamma$ -alumina. *Biores. Technol.*, 161, 2014, 118-123.
  48. Kumar MN, Gialleli AI, Masson JB, Kandyliis P, **Bekatorou** A, Koutinas AA\*, Maria Kanellaki. Lactic acid fermentation by cells immobilised on various porous cellulosic materials and their alginate/poly-lactic acid composites. *Biores. Technol.*, 165, 2014, 332-335.
  49. Karapanagioti, H\*; **Bekatorou**, A. Alcohol and Dilution Water Characteristics in Distilled Anis (Ouzo). *J. Agr. Food Chem.* 62, 2014, 4932-7.
  50. Ganatsios V, Koutinas\* AA, **Bekatorou** A, Kanellaki M, Nigam P. Promotion of maltose fermentation at extremely low temperatures using a cryotolerant *Saccharomyces cerevisiae* strain immobilized on porous cellulosic material. *Enzyme Microb. Tech.* 66, 2014, 56–59.
  51. Nouska C, Mantzourani I, Alexopoulos A, Bezirtzoglou E, **Bekatorou** A, Akrida-Demertzi K, Demertzis P, Plessas\* S. *Saccharomyces cerevisiae* and Kefir Production using Waste Pomegranate Juice, Molasses, and Whey. *Czech J. Food Sci.*, 33, 2015 (3): 277–282.
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30. A.A. Koutinas, M. Kanellaki, A. **Bekatorou**, M. Kallis, E. Papafotopoulou-Patrinou, & A.I. Gialleli. Cold Pasteurization. TechConnect World Innovation Conference & Expo: National & Global Innovation Awards, Washington DC, June 14-17 2015.
31. A. A. Koutinas, V. Ganatsios, A. Gialleli, E. Barouni, A. **Bekatorou** & M. Kanellaki. Wine making in domestic refrigerator. TechConnect World Innovation Conference & Expo: National & Global Innovation Awards, Washington DC, June 14-17 2015.
32. (ORAL) Terpou A., Bosnea L., Schoina V., Kanellaki M., **Bekatorou A.**, Koutinas A.A. Pistacia terebinthus resin as immobilisation support and its application in dairy products. International Conference on New Horizons In Biotechnology (NHBT-2015), 22-25 November, Trivandrum, India.
33. (ORAL) Koutinas A. A., Gialleli, A.-I., Papafotopoulou-Patrinou E., Servetas I., Barouni E., Dima A., Petsi T., Kallis M., Pissaridi K., A. **Bekatorou**, M. Kanellaki. Cellulose nano-biotechnology for sustainable development: scale-up of bioprocesses. International Conference on New Horizons In Biotechnology (NHBT-2015), 22-25 November, Trivandrum, India.
34. (ORAL) Terpou A., Kanellaki M., Bosnea L., **Bekatorou A.**, Koutinas A.A. Quality control assurance of probiotic sausages

produced with a novel *Lactobacillus paracasei* strain. International Conference on Advances in Bioprocess Technology, (BIOSPECTRUM 2015), 26-28 November, Tiruvalla, India.

35. (ORAL) Kanellaki M., Dimitrellou D., Ganatsios V., Barouni E., Gialleli, A.-I., Terpou A., **Bekatorou** A., Koutinas A.A. Promotion of acidogenesis in whey anaerobic treatment by  $\gamma$ -alumina and kissiris: scale-up. International Conference on Advances in Bioprocess Technology, (BIOSPECTRUM 2015), 26-28 November, Tiruvalla, India.
36. (ORAL) Terpou A., Bosnea L., Kanellaki M., **Bekatorou** A., Koutinas A.A., Alexopoulos A., Plessas S., Bezirtzoglou E. Production of probiotic white brine cheeses and fermented sausages with a novel *L. paracasei* strain immobilised on delignified wheat bran. International Conference on Advances in Bioprocess Technology, (BIOSPECTRUM 2015), 26-28 November, Tiruvalla, India.
37. M.N. Kumar, A. **Bekatorou**, A.-I. Gialleli, K. Pissaridi, A.A. Koutinas, M. Kanellaki, C. Kordulis, J. Tirkey. Porous cellulose from leaves/bark of *Shorea robusta* G. & *Mangnifera indica* L., and husk of *Oryza sativa* L., of Indian origin, for bioprocess applications: textural characterization. 6th International Conference on Sustainable Solid Waste Management (Naxos 2018), Naxos Island, Greece, 13–16 June 2018.
38. I. Pleioni, A.A. Koutinas, A. **Bekatorou\***, M. Kanellaki, V. Karathanos, A. Chiou, A. Mallouchos. Innovative biorefinery development for valorisation of raisin finishing side-streams: Dry wine making process. 6th International Conference on Sustainable Solid Waste Management (Naxos 2018), Naxos Island, Greece, 13–16 June 2018.

## INTERNATIONAL COOPERATION / MOBILITY / AWARDS

### A. International cooperation

The Food Biotechnology Group has developed national and international cooperation in the frame of common (a) scientific research, (b) research proposal submission and coordination, (c) guidance of postgraduate theses, (d) coordination of international forums and conferences, (e) educational events, (f) laboratory training, etc.:

University of Ulster (UK), School of Biomedical Sciences; National Institute for Interdisciplinary Science & Technology (India), Biotechnology Division; Imperial College London (UK), Dept. of Chemical Engineering and Chemical Technology, Centre for Process Systems Engineering; University of Hannover (Germany), Dept. of Natural Sciences, Institute of Food Chemistry; University of Modena and Reggio Emilia (Italy), Dept. of Agricultural Sciences; University Blaise-Pascal (France), Dept. of Chemical and Biochemical Engineering, LGCB; University of Mersin (Turkey), Dept. of Environmental Engineering; University of Ioannina (Greece), Dept. of Chemistry; Agricultural University of Athens (Greece), Dept. of Food Science and Technology; Democritus University of Thrace (Greece), Dept. of Molecular Biology & Genetics and Dept. of Agricultural Development; National Technical University of Athens (Greece), School of Chemical Engineering; University of Thessaloniki (Greece), Dept. of Chemistry, and others.

### B. Mobility for Research/training abroad (University of Ulster, UK):

- **5/2001-10-2001.** Post-doc research on “Study of bioremediation of environmentally important organosulfonates” and “Bionitrification of potable water with biological methods”.
- **8-22/9/2006, 6-25/2/2007 & 20/12/2007-21/1/2008.** Post-doc research on “Solid state fermentations using starch and lignin degrading fungi”. Training on techniques such as FISH, flow cytometry, etc.
- **6/2015.** Erasmus+ 2014-2015 Staff Mobility for Training program: “Training on theoretical background, microbiological and analytical techniques, and potential applications of microbial biosurfactants”.

### C. Awards

- "A.A. Koutinas, P. Kandyliis, M. Kanellaki, A. **Bekatorou**, L. Bosnea, N. Kopsahelis. Utilization of cheese industry wastes. ” Participation in the 1<sup>st</sup> Innovation competition “Greece Innovates” (Federation of Greek Industries - Eurobank EFG) - selection among the best 21 proposals from 295 for the final phase of the competition.
- Participation in the International competition/expo: “TechConnect World Innovation: National & Global Innovation Awards, Washington DC, June 14-17 2015”, with 2 innovations: (1) “Cold Pasteurization. A.A. Koutinas, M. Kanellaki, A. **Bekatorou**, M. Kallis, E. Papafotopoulou-Patrinou, & A.-I. Gialleli”, and (2) “Wine making in domestic refrigerator. A.A. Koutinas, V. Ganatsios, A.-I. Gialleli, E. Barouni, A. **Bekatorou** & M. Kanellaki”.
- Various best poster awards (see page 9).