Curriculum vitae

PERSONAL INFORMATION

Prof Elke Arendt (MSc, PhD, DSc)
School of Food and Nutritional Sciences and APC Microbiome Centre
University College Cork
Ireland
Researcher unique identifier(s): Research ID, 1103103
URL for web site: https://www.ucc.ie/en/cerealscience/research-team/arendt/

EDUCATION

2007 DSc on published work, National University of Ireland in the area of fermented foods.
1991 PhD at Department of Food Microbiology, at Hohenheim University, Germany on the topic Bacterio phages of *Leuconostoc oenos* (*Summa cum laude*)
1988 MSc (Honours, first class) Engineer of Food Technology at Hohenheim University, Germany

CURRENT POSITION(S)

2007-present Professor, School of Food and Nutritional Sciences, University College Cork (UCC), Ireland

PREVIOUS POSITIONS

2003-2007 Senior Lecturer, Department of Food and Nutritional Sciences, UCC, Ireland
1993-2002 Lecturer, Department of Food and Nutritional Sciences, UCC, Ireland
1992-1993 Post-doctoral research fellow, Department of Microbiology, University College Cork
1991-1992 EU- research fellow, Department of Microbiology, University College Cork

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

1993 – 2020 Postdocs: 24; PhD: 50; Master Students:38; Research Scientists: 35; Erasmus students: 78

TEACHING ACTIVITIES

2005 – to date Cereals and Related Beverage Science
2005 – to date Convenience and Speciality Foods
2005 – to date Unit-operations

ORGANISATION OF SCIENTIFIC MEETINGS

2018 7th International Symposium on Sourdough - Cork, Ireland
2016 4th International Symposium on Gluten-Free Cereal Products and Beverages – Cork, Ireland
2007 1st International Symposium on Gluten-Free Cereal Products and Beverages - Cork, Ireland
2010 – 2020 Four EU project meetings
2010 – 2020 Forty-two Industry workshops and seminars duration between 1 day to 1 week both in company workshops as well as UCC based ones (e.g. AB-InBev, Belgium; Kerry Foods, Ireland; Nestle, Switzerland; Novozymes, Denmark; Lesaffre, France; Aryzta, Ireland; Pepsi Co; Ireland; Danisco, The Netherlands; Puratos, Belgium; etc.)

RANKING

Ranking of Prof Elke Arendt (Software used SciVal – from Elsevier)

1. Top 100 authors, by Scholarly Output **#50**
2. Top 100 authors, by number of citations received **#10**
3. Top 100 authors, by Citations per Publication **#9**
4. Top 100 authors, by Field Weighted Citation Impact **#34**
5. Top 100 authors, by h-index **#13**

Elke Arendt was in the top 5% of Highly Cited Researchers in 2017 and 2019 – Source Clarivate-Web of Sciences https://clarivate.com/webofsciencegroup/
The ranking for Agricultural Sciences (ESI_AgriculturalScience_IndicatorsExport_2020-08-06), Prof. Arendt appears in 108 out of 5732 authors in that discipline for the metric of Cites Received to 166 papers over the last 10 years

PUBLICATIONS SUMMARY TABLE:

Peer-reviewed Publications # 380	Senior Author Publications # 268	h-Index: Scopus = 56 Google scholar= 76	Total no. of citations: Scopus: 1149 Google Scholar: 21149	Total Conference abstracts: 629	
Oral presentation # 305	Reviews: # 63	Book chapters: # 36	Books: # 4	Invited oral presentation: 305	Other: # 43

PATENTS

1. **Arendt EK,** Dal Bello F and Ryan LAM (2009). Increasing the shelf-life of bakery and patisserie products by using the antifungal *Lactobacillus amylovorans* DSM 19280. European Patent Application PCT/EP2009/056229.
2. **Arendt EK** and Ryan LAM (2009). Method for the production of a gum base. European Patent Application EP2009/164443.
3. Gil-Martinez J **and Arendt E** (2018). A process for preparing a beverage or beverage component, beverage or beverage component prepared by such process, and use of brewer's spent grains for preparing such beverage or beverage component. Patent Publication number WO/2018/033521.
4. Gil-Martinez J and **Arendt E** (2018). A process for preparing a beverage or beverage component from brewer's spent grains. International Patent Publication number WO/2018/033522.
5. O'Mahony JA., Alonso-Miravalles L, **Arendt E**., Zannini E. (2020) A Nutritional Composition. European patent no.20191624.4.

PROJECT FUNDING (past 10 years)

EU Funding						
Role in the project	Funding agency	Title fof the project	Total funding	Total funding for the team	Start	End
PI	EU-H2020	Smart Protein for a Changing World. Future-proof alternative terrestrial protein sources for human nutrition encouraging environment regeneration, processing feasibility and consumer trust and acceptability	€ 9,600,000.00	€1,400,00.00	01/01 /2020	31/12 /2023
PI	EU-H2020	Microbiome Applications for Sustainable food systems through Technologies and EnteRprise	€ 10,950,171.90	€ 621,670.00	01/01 /2019	31/12 /2023
PI	EU-H2020	Development of high-quality food protein from multi-purpose crops through optimized, sustainable production and processing methods (PROTEIN2FOOD)	€ 9,000,000	€ 1,320,750	01/03 /2015	01/03 /2020
Co-PI	EU-JPI	Food Fermentation for Purpose: Health Promotion and Biopreservation" (LONFLIFE)	€ 1,871,946	€324,437	01/03 /2016	31/01 /2019
Co-PI	EU-FP7	Intelligent and easy tool to categorise and characterise flour quality for consumer driven wheat baked good in European SME-Bakery and cereal sector (FLOURPLUS)	€1,375,701	€399,199	01/11 /2013	31/10 /2016

Co-PI	EU-FP7	Traditional Food Network to improve the transfer of knowledge for innovation (TRAFON)	€3,999,911	€163,203	01/11 /2013	31/10 /2016
Co-PI	EU-FP7	Novel Processing approaches for the development of food products Low in fat, Salt and sugar Reduced (PLEASURE)	€2,980,000	€184,668	02/01 /2012	01/01 /2015
Co-PI	EU-FP7	Tasty and healthy gluten-free bakery products and pasta - improved products for real consumers acceptance (GLUTEN-FREE)	€881,083	€313,776	01/10 /2010	30/09 /2012
		Total	€ 40,678,812.00.00	€ 3,327,703.00		

National funding						
Role in the project	Funding agency	Title fof the project	Total funding	Total funding for the team	Start	End
PI	FIRM	Novel technological approaches for the development of low FODMAP food products (TALENTFOOD)	€1,072,198	€540,678.0	01/11 /2016	30/10 /2020
PI	FIRM	Characterisation and exploitation of natural anti-yeast agent and their application as consumer-friendly preservatives in food and beverages (ANTITEAST)	€ 421,200	€ 210,600	01/11 /2016	30/10 /2020
PI	FIRM	Novel Technological Approaches for the Development of Low-Sugar — Highly Consumer accepted Food and Beverage Products (TASTY)	€ 486,955	€ 299,755	01/03 /2015	18/2/ 2019
PI	FIRM	Reducing Mycotoxin levels in plant derived foods and beverages	€ 499,987	€ 238,200	1/12/ 2013	30/11 /2017
PI	FIRM	Natural peptides to enhance food quality and safety	€997,140	€192,400	01/12 /2013	30/11 /2017
PI	SFI	Novel antifungal agents derived from lactic acid bacteria for the biological control of potato blight	€172,000	€172,000	03/10 /2011	31/10 /2014
		TOTALE	€ 3,649,480.00	€ 1,653,633.00		

LEADERSHIP THROUGH PEOPLE

My current team consists of 1 Senior Research Coordinator, 2 Post-Doctoral researchers, 12 PhD students, 4 researchers from 8 countries.

Examples of employment of PhD and postdocs students include:

- Senior Product and Process Developer, Nestlé Research centre, Orbe, Switzerland,
- Senior Application Manager, Chr. Hansen A/S Hørsholm, Denmark,
- Director of R&D Applications, Beverages Kerry Group, Global Research Centre Millennium Naas, Ireland,
- Head of Food Quality and Sensory Science Department, Irish Agriculture and Food Development Authority – Teagasc,
- Global Process Development Specialist, AB InBev, Leuven, Belgium,

- Amalia Scannell Assistant Professor, University College Dublin, School of Agriculture and Food Science, Ireland
- Head of R&D, Research Centre Weihenstephan for Brewing and Food Quality/Technical University Munich Freising, Germany
- R & D Director, Capri Sun GmbH, Eppelheim/Heidelberg, Germany,
- Senior Research Coordinator, School of Food and Nutritional Siences, UCC, Ireland,
- Biotransformation Expert, StarLake Bioscience, ZhaoQing, P.R. China
- Bakery Business Development Director, Megan Gillis, Beloit, Wisconsin' United States
- Quality Assurance Manager, Irish Distillers
- Head of Technology and Quality, Kulmbacher Brauerei AG, Kulmbach, Germany,
- Scientific Director, Sacco Srl, Cadorago (Co), Italy,

Publications in Peer-Reviewed International Journals

1. **Wolf G, Arendt EK, Pfähler U and Hammes WP** (1990). Heme-dependent and heme-independent nitrite reduction by lactic acid bacteria results in different N-containing products. *International Journal of Food Microbiology, **10** (3-4): 323-330.*

2. **Arendt EK, Neve H and Hammes WP** (1990). Characterization of phage isolates from a phage-carrying culture of *Leuconostoc oenos* 58N. *Applied Microbiology and Biotechnology, **34** (2): 220-224*.

3. **Arendt EK, Lonvaud A and Hammes WP** (1991). Lysogeny in *Leuconostoc-oenos*. *Journal of General Microbiology, **137:** 2135-2139.*

4. **Arendt EK and Hammes WP** (1992). Isolation and characterization of *Leuconostoc oenos* phages from German wines. *Applied Microbiology and Biotechnology, **37** (5): 643-646.*

5. **Arendt EK, Van de Guchte M, Coffey AG, Daly C and Fitzgerald GF** (1993). Molecular genetics of bacteriophages of lactic acid bacteria. *Lait, **73** (2)191-198.*

6. **Leuschner RGK, Arendt EK and Hammes WP** (1993). Characterization of a virulent *Lactobacillus sake* phage PWH2. *Applied Microbiology and Biotechnology, **39** (4-5): 617-621.*

7. **Arendt EK, Coffey AG, Fitzgerald GF and Hammes WP** (1994). Bakteriophagen den Kampf ansagen. *Zeitschrift Fur Lebensmittel-Untersuchung Und-Forschung, **6:** 40-44.*

8. **Van de Guchte M, Daly C, Fitzgerald GF and Arendt EK** (1994). Identification of the putative repressor-encoding gene cI of the temperate lactococcal bacteriophage Tuc2009. *Gene, **144** (1): 93-95*.

9. **Arendt EK, Daly C, Fitzgerald GF and Van de Guchte M** (1994). Molecular characterization of lactococcal bacteriophage-Tuc2009 and identification and analysis of genes encoding lysin, a putative holin and two structural proteins. *Applied and Environmental Microbiology, **60** (6): 1875-1883.*

10. **Van de Guchte M, Daly C, Fitzgerald GF and Arendt EK** (1994). Identification of *int* and *attP* on the genome of lactococcal bacteriophage Tuc2009 and their use for site-specific plasmid integration in the chromosonme of Tuc2009-resistant *Lactococcus lactis* MG1363. *Applied and Environmental Microbiology, **60** (7): 2324-2329.*

11. **Wehrle K, Grau H and Arendt EK** (1997). Effects of lactic acid, acetic acid and table salt on fundamental rheological properties of wheat dough. *Cereal Chemistry, **74** (6): 739-744.*

12. **Fransen NG, O'Connell MB and Arendt EK** (1997). A modified agar-medium for the screening of proteolytic activity of starter cultures for meat fermentations purposes. *International Journal of Food Microbiology, **36** (2-3): 235-239.*

13. **Leuschner RG, Kenneally PM and Arendt EK** (1997). Method for the rapid quantitative detection of lipolytic activity among food fermenting organisms. *International Journal of Food Microbiology, **37** (2-3): 237-240.*

14. **Scannell AGM, Hill C, Buckley DJ and Arendt EK** (1997). Determination of the influence of organic acids and nisin on shelf-life and microbiological safety aspects of fresh pork sausages. *Journal of Applied Microbiology, **83** (4): 407-412*.

15. **Leuschner RGK, O'Callaghan MJA and Arendt EK** (1997). Optimisation of baking parameters of part-baked and rebaked Irish brown soda bread by evaluation of some quality characteristics. *International Journal of Food Science, and Technology, **32** (6): 487-493.*

16. **Morzel M, Fransen NG and Arendt EK** (1997). Defined starter cultures for fermentation of salmon fillets. *Journal of Food Science, **62** (6): 1214-1217 / 1230.*

17. **Morzel M, Fitzgerald GF and Arendt EK** (1997). Fermentation of salmon fillets with a variety of lactic acid bacteria. *Food Research International, **30** (10): 777-785.*

18. **Kenneally PM, Schwarz G, Fransen NG and Arendt EK** (1998). Lipolytic starter culture effects on production of free fatty acids in fermented sausages. *Journal of Food Science, **63** (3): 538-543.*

19. **Kenneally PM, Leuschner RG and Arendt EK** (1998). An evaluation of the lipolytic ability of a number of strains of bacteria to determine their suitability for use as lipolytic meat starter cultures. *Journal of Applied Microbiology, **84** (5): 839-846.*

20. **Coffey A, Ryan M, Ross RP, Hill C, Arendt EK and Schwarz G** (1998). Use of a broad-host-range bacteriocin-producing *Lactococcus lactis* transconjugant as an alternative starter for salami manufacture. *International Journal of Food Microbiology, **43** (3): 231-235.*

21. **Walsh MM, Kerry FJ, Buckley DJ, Arendt EK and Morrissey PA** (1998). Effect of dietary supplementation with α-Tocopheryl acetate on the stability of reformed and restructured low nitrite cured turkey products. *Meat Science, **50** (2): 191-201.*

22. **Leuschner R, O'Callaghan MJA and Arendt EK** (1998). Bacilli spoilage in part-baked and rebaked brown Soda Bread. *Journal of Food Science, and Technology, **63** (5): 915-918.*

23. **Wehrle K and Arendt EK** (1998). Rheological changes in wheat sourdough during controlled and spontaneous fermentation. *Cereal Chemistry, **75** (6): 882-886.*

24. **Walsh MM, Kerry JF, Buckley DJ, Morrissey PA, Lynch PB and Arendt EK** (1998). The effect of dietary supplementation with α-tocopheryl acetate on the stability of low nitrite cured pork products. *Food Research International, **31:** 59-63.*

25. **Wehrle K, Gallagher E, Neville DP, Keogh MK and Arendt E** (1999). Microencapsulated high fat powders in biscuit production. *Zeitschrift fuer Lebensmittel-Untersuchung und Forschung – A Food Research and Technology, **208** (5-6): 388-393.*

26. **Grau H, Wehrle K and Arendt EK** (1999). Evaluation of a two-step baking procedure for convenience sponge cakes. *Cereal Chemistry, **76** (2): 303-307.*

27. **Morzel M, Sheehan EM, Delahunty CM and Arendt EK** (1999). Sensory evaluation of lightly preserved salmon using free-choice profiling. *International Journal of Food Science, and Technology, **34** (2): 115-123.*

28. **Kenny S, Wehrle K and Arendt EK** (1999). Correlations between empirical and fundamental rheology measurements and baking performance of frozen bread dough. *Cereal Chemistry, **76:** 421-425.*

29. **Leuschner R, O'Callaghan MJA and Arendt EK** (1999). Moisture distribution and microbial quality of part baked breads as related to storage and re-baking conditions. *Journal of Food Science,* **64** *(3): 543-546.*

30. **Kenneally PM, Fransen NG, Grau H, O'Neill EE and Arendt EK** (1999). Effects of environmental conditions on microbial proteolysis in a pork myofibril model system. *Journal of Applied Microbiology, **87** (6): 794-803.*

31. **Morzel M, Verrez-Bagnis V, Arendt EK and Fleurence J** (2000). Use of two-dimensional electrophoresis to evaluate proteolysis in salmon (Salmo salar): muscle as affected by lactic fermentation. *Journal of Agricultural and Food Chemistry, **48** (2): 239-244.*

32. **Wehrle K, Crowe N, van Boeijen I and Arendt EK** (2000). Screening methods for proteolytic breakdown of gluten by lactic acid bacteria and enzyme preparations. *European Food Research and Technology, **209** (6): 428-433.*

33. **O'Brien CM, Grau H, Neville DP, Keogh MK, Reville WJ and Arendt EK** (2000). Effects of microencapsulated high fat powders on the empirical and fundamental rheological properties of wheat flour doughs. *Cereal Chemistry, **77** (2): 111-114.*

34. **Kenny S, Wehrle K, Stanton C and Arendt EK** (2000). Incorporation of dairy ingredients into wheat bread: effects on dough rheology and bread quality. *European Food Research and Technology, **210** (6): 391-396.*

35. **Scannell AGM, Ross RP, Hill C and Arendt EK** (2000). An effective lacticin biopreservative in fresh pork sausage. *Journal of Food Protection **63:** 370-375.*

36. **Dineen NM, Kerry JP, Buckley DJ, Morrissey PA and Arendt EK** (2000). Reduced nitrite levels and Dietary α-Tocopheryl acetate supplementation: effects on colour and oxidative stability of cooked hams. *Meat Science, **55** (4): 475-482.*

37. **Crowley P, Grau H and Arendt EK** (2000). Influence of additives and mixing time on crumb grain characteristics of wheat bread. *Cereal Chemistry, **77** (3): 370-375.*

38. **Morzel M, Heapes M, Reville W and Arendt EK** (2000). Textural and ultrastructural changes during processing and storage of lightly preserved salmon (Salmo salar): products. *Journal of the Science of Food and Agriculture **80** (11): 1691-1697.*

39. **Scannell AGM, Hill C, Ross RP, Marx S, Hartmeier W and Arendt EK** (2000). Development of bioactive food packaging materials using immobilised bacteriocins Lacticin 3147 and Nisaplin (R). *International Journal of Food Microbiology, **60** (2-3): 241-249.*

40. **O'Brien CM, Grau H, Neville DP, Keogh MK and Arendt EK** (2001). Functionality of microencapsulated high fat powders in wheat bread. *European Food Research and Technology, **212** (1): 64-69.*

41. **Crowley P, Grau H, O'Connor P, Fitzgerald RJ and Arendt EK** (2001). Effect of glutamine peptide on baking characteristics of bread using experimental design. *European Food Research and Technology, **212** (2): 192-197.*

42. **Scannell AGM, Schwarz G, Hill C, Ross RP and Arendt EK** (2001). Pre-inoculation enrichment procedure to enhance the performance of *Lactococcus lactis* meat starter culture. *International Journal of Food Microbiology, **64** (1-2): 151-159.*

43. **Dineen NM, Kerry JP, Buckley DJ, Morrissey PA, Arendt EK and Lynch PB** (2001). Effect of dietary α-Tocopheryl acetate supplementation on the shelf-life stability of reduced nitrite cooked ham products. *International Journal of Food Science, and Technology, **36** (6): 631-639.*

44. **Scannell AGM, Hill C, Ross RP, Marx S, Hartmeier W and Arendt EK** (2001). Continuous production of lacticin 3147 and nisin using cells immobilized in calcium alginate. *Journal of Applied Microbiology, **89** (4): 573-579.*

45. **Scannell AGM, Hill C, Ross RP, Schwarz G and Arendt EK** (2001). Effect of nitrite on a bacteriocinogenic *Lactococcus lactis* transconjugant in fermented sausage. *European Food Research and Technology, **213** (1): 48-52.*

46. **Kenny S, Wehrle K, Auty M and Arendt EK** (2001). Influence of sodium caseinate and whey protein on baking properties and rheology of frozen dough. *Cereal Chemistry, **74:** 458-463.*

47. **Kenny S, Grau H and Arendt EK** (2001). Use of response surface methodology to investigate the effects of processing conditions on frozen dough quality and stability. *European Food Research and Technology, **213** (4-5): 323-328*

48. **Crowley P, O'Brien CM, Slattery H, Chapman D, Arendt EK and Stanton C** (2002). Functional properties of casein hydrolysates in bakery applications. *European Food Research and Technology, **215:** 131-137.*

49. **Crowley P, Schober T, Clarke C and Arendt EK** (2002). The effect of storage time on textural and crumb grain characteristics of sourdough wheat bread. *European Food Research and Technology, **214:** 489-496.*

50. **Hughes MC, Kerry JP, Arendt EK, Keneally PM and McSweeney PLH** (2002). Characterisation of proteolysis during ripening of semi-dry fermented sausages. *Meat Science, **62:** 205-216.*

51. **Clarke C, Schober TJ and Arendt EK** (2002). Effect of single strain and traditional mixed strain starter cultures in rheological properties of wheat dough and bread quality. *Cereal Chemistry,* ***79:*** *640-647.*

52. **Goode D, Halbert C and Arendt EK** (2002). Mashing studies with unmalted sorghum and malted barley. *Journal of Institute of Brewing,* ***108:*** *465-473.*

53. **Scannell AGM, Kenneally P, McCarthy D, Schwarz G and Arendt EK** (2002). Optimisation of fermentation conditions for the production of a novel cooked fermented ham. *European Food Research and Technology,* ***215:*** *183-188.*

54. **Gallagher E, Gormley TR and Arendt EK** (2003). Crust and crumb characteristics of gluten free breads. *Journal of Food Engineering,* ***56:*** *153-161.*

55. **Gallagher E, O'Brien CM, Scannell AGM and Arendt EK** (2003). Use of response surface methodology to produce functional short dough biscuits. *Journal of Food Engineering* ***56:*** *269-271.*

56. **Gallagher E, O'Brien CM, Scannell AGM and Arendt EK** (2003). Evaluation of sugar replacers in short dough biscuit production. *Journal of Food Engineering,* ***56:*** *261-263.*

57. **O'Brien CM, Muller A, Scannell AGM and Arendt EK** (2003). Evaluation of fat replacers on the quality of wheat bread. *Journal of Food Engineering,* ***56:*** *265-267.*

58. **O'Brien CM, Chapman D, Neville DP, Keogh MK and Arendt EK** (2003). Effect of varying the microencapsulation process on the functionality of hydrogenated vegetable fat in short dough biscuits. *Master Brewers Association of the Americas, Technical Quarterly (MBAA TQ),* ***36:*** *215-221.*

59. **Goode D, Halbert C and Arendt EK** (2003). Mashing studies with unmalted sorghum and malted barley. *Journal of the Institute of Brewing,* ***108:*** *465-473*

60. **Schober T, O'Brien C, McCarthy D, Darnedde A and Arendt EK** (2003). Influence of gluten-free flour mixes and fat powders on the quality of gluten-free biscuits. *European Journal of Food Research, and Technology,* ***216:*** *369-376.*

61. **Gallagher E, Kunkel A, Gormley TR and Arendt EK** (2003). The effect of dairy and rice powder addition on loaf and crumb characteristics and on shelf life (intermediate and long term): of gluten-free breads stored in a modified atmosphere. *European Journal of Food Research,* ***218:*** *44-48.*

62. **Clarke CI, Schober TJ, Angst E and Arendt EK** (2003). Use of response surface methodology to investigate formulation and processing effects on the quality of sourdough wheat bread. *European Journal of Food Research, and Technology,* ***217:*** *23-33*

63. **Goode D, Halbert C and Arendt EK** (2003). Optimisation of mashing conditions when mashing with unmalted sorghum and commercial enzymes. *Journal of American Association of Brewing Chemists,* ***61:*** *69 – 78.*

64. **Schober T, Dockery P. and Arendt EK** (2003). Model studies for wheat sourdough systems using gluten lactate buffer and sodium chloride. *European Journal of Food Research, and Technology,* ***217:*** *235-243.*

65. **Goode D and Arendt EK** (2003). Pilot scale brewing with unmalted sorghum. *Journal of the Institute of Brewing,* ***10:*** *208-217.*

66. **Gallagher E, Kunkel A, Gormley TR and Arendt EK** (2003). The effect of dairy and rice powder addition on loaf and crumb characteristics and on shelf life (intermediate and long term*):* of gluten-free breads stored in a modified atmosphere. *European Journal of Food Research,* ***218:*** *44-48.*

67. **Scannell AGM, Kenneally P and Arendt EK** (2004). Contribution of starter cultures to the proteolytic process of a fermented non dried whole muscle ham product. *Journal of Food Microbiology,* ***93:*** *219-230.*

68. **Arendt EK, Schober T, Gormley R and Gallagher E** (2004). New Approaches to the production of gluten free cereal products. *Elemezesi IparLVIII****:*** *5 – 13.*

69. **Di Cagno R, De Angelis M, Auricchio S, Greco L, Clarke C, DeVincenzi M, Giovannini C, D'Archivio M, Landolfo F, Parrilli G, Minervini F, Arendt EK and Gobetti M** (2004). Sourdough bread made from wheat and non-toxic flours and started with selected lactobacilli is tolerated in Celiac Sprue patients. *Applied and Environmental Microbiology,* ***70:*** *1088-96.*

70. **Gallagher E, Gormley TR and Arendt EK** (2004). Recent advances in the formulation of gluten-free cereal based products. *Trends in Food Science and Technology, **15:** 143-152.*

71. **Clarke CI, Schober. TJ, Dockery P, O'Sullivan K and Arendt EK** (2004). Wheat sourdough fermentation: effects of time and acidification on fundamental rheological properties. *Cereal Chemistry, **81:** 409-417.*

72. **Soriano A., Ulmer H, Scannell AGM, Ross P, Hill C and Arendt EK** (2004). Control of food spoilage bacteria in cooked meat products with nisin, lacticin 3147 and a lacticin 3147-producing starter cultures. *European Journal of Food Research, **219:** 6-13.*

73. **Lowe D, Ulmer HM, Van Sinderen D and Arendt EK** (2004). Application of biological acidification to improve the quality and processability of wort produced from 50 % raw barley. *Journal of the Institute and Guild of Brewing, **110:** 133–140.*

74. **Moore M., Schober T, Dockery P and Arendt EK** (2004). Textural comparisons of gluten free and wheat based doughs batters and breads. *Cereal Chemistry, **81:** 567-575.*

75. **Lowe D and Arendt EK** (2004). The Use and effect of lactic acid bacteria in malting and brewing with their relationships to antifungal activity, mycotoxins and gushing: a review. *Journal of the Institute and Guild of Brewing, **110:** 163–180.*

76. **Seegers J, O'Connell-Mothrway M, Arendt EK, van de Guchte M, Creavan M, Fitzgerald GF and van Sindren D** (2004). Molecular and transcriptional analysis of the temperate lactococcal bacteriophage Tuc2009. *Virology, **329:** 40-52.*

77. **Katina K, Arendt EK, Liukonen KL, Autio K, Flander L and Poutanen K** (2005). Potential of sourdough for healthier cereal products. *Trends in Food Science and Technology, **16:** 104-112.*

78. **Clarke CI and Arendt EK** (2005). A review of the application of sourdough technology to wheat bread. *Advances in Food and Nutrition Research, **49:** 138-161.*

79. **Wijngaard H, Ulmer H and Arendt EK** (2005). Impact of raw material and germination temperature on buckwheat malt quality. *Journal of American Association of Brewing Chemists, **63:** 31–36.*

80. **Goode D, Rapp L, Schober T, Ulmer H and Arendt EK** (2005). Development of a new rheological laboratory method for mash systems – its application in the characterisation of grain modification levels. *Journal of American Society of Brewing Chemists, **63:** 76-86.*

81. **Schober T, Messerschmidt M, Bean S, Seok-Ho Park and Arendt EK** (2005). Gluten-free bread form sorghum: quality differences among hybrids. *Cereal Chemistry, **82:** 394-404.*

82. **Mc Carthy D, Gallagher E, Gormley TR, Schober TJ and Arendt EK** (2005). Application of response surface methodology to optimise the development of gluten-free bread. *Cereal Chemistry, **82** (5): 609-615*

83. **Gallagher E, Kenny S and Arendt EK** (2005). Impact of dairy powders on biscuit quality. *European Journal of Food Research, **221:** 237-243.*

84. **Good D and Arendt EK** (2005). Mashing with unmalted barley – impact of malted barley and commercial enzyme (*Bacillus sp):* additions. *Master Brewers Association of the Americas, Technical Quarterly (MBAA TQ), **3:** 184-198.*

85. **Lowe D, Ulmer H, Sorinao A and Arendt EK** (2005). The influence of lactic acid bacteria on the quality of malt .*Journal of the Institute of Brewing, **111:** 42-50.*

86. **Lowe D, Ulmer H, Barta RC, Goode DL and Arendt EK** (2005). Biological acidification of a mash containing 20 % barley using *Lactobacillus amylovorus FST 1.1*: its effects on wort and beer quality. *Journal of American Association of Brewing Chemists, **63:** 96-106.*

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