

## Emanuele Zannini PhD, PhD

### Informazioni di base

Dati personali

Cognome:

**Zannini**

Nome:

Emanuele

### Esperienze professionali

- 11/2019– to date Senior Research Coordinator - presso la *School of Food and Nutritional Science – University College Cork* – Irlanda
- 11/2015 -10/2019 Research Officer – Lab Manager - presso la *School of Food and Nutritional Science – University College Cork* – Irlanda
- 11/2009 -10/2015 Senior Researcher - presso la *School of Food and Nutritional Science – University College Cork* – Irlanda
- 01/2008 –10/2009 Assegnista di ricerca presso il Dipartimento di Scienze degli Alimenti della Facoltà di Agraria di Ancona - Università Politecnica delle Marche.
- 06/2002 - 10/2004 Assegnista di ricerca presso il Dipartimento Biotecnologie Agrarie ed Ambientali / Dipartimento di Scienze degli Alimenti della Facoltà di Agraria di Ancona-Università Politecnica delle Marche.
- 2011 Socio fondatore della Start-up innovativa - Società s.r.l. BioERG, specializzata nella produzione e commercializzazione di ingredienti / additivi alimentari, in particolar modo di destrano ottenuti mediante biofermentazione, destinati ai diversi settori dell'industria alimentare.
- 2013 Socio fondatore della Start-up innovativa - Società Agricola s.r.l. YesiFood - attiva nello sviluppo, produzione e commercializzazione di alimenti medicali destinati a soggetti affetti da malattie croniche
- 2014 Socio fondatore della Start-up innovativa – QuinoaMarche s.r.l.s. attiva nella coltivazione, trasformazione e commercializzazione della quinoa attraverso l'impiego di biotecnologie alimentari innovative

### Studi

- 07/1997 Istituto Tecnico Agrario “G.Vivarelli” - Fabriano (An) Maturità Tecnica Diploma di Perito Agrario. Voto di maturità 60/60
- 06/2002 Laurea in Scienze e Tecnologie Agrarie – Facoltà di Agraria- Università Politecnica delle Marche. Profilo professionale – Biotecnologie e Biodiversità. Voto di laurea 110 e Lode/110
- 07/2004 Diploma di Master di II livello in: Il Sistema Gestione Qualità (SGQ- norme ISO 9000/ ISO 14000/ EMAS ) nella filiera alimentare e l'Analisi dei rischi e controllo dei punti critici (HACCP). Facoltà di Agraria- Università Politecnica delle Marche. Voto di Master 110 e Lode/110
- 07/2004 Qualifica di Auditor/Lead Auditor ISO9001:2000 conseguito presso DNV Knowledge Institute ( Corso certificato CEPAS)
- 05/2006-05/2007 Attività di ricerca di 1 anno presso il Department of Agricultural, Food and Nutritional Science - University of Alberta - Canada
- 10/2004 - 12/2007 Dottorato di Ricerca in “Scienze Biomolecolari applicate” presso il Dipartimento di Scienze degli Alimenti della Facoltà di Agraria - Università Politecnica delle Marche. Titolo della tesi: *Sourdough lactic acid bacteria: biopreservation of bakery products by the production of antifungal metabolites.*

10-2013 - 10/2015 Dottorato di Ricerca in "Food Science", presso la School of Food and Nutritional Sciences – University College Cork – Ireland. Titolo della tesi: *Functional application of Lactic Acid Bacteria exopolysaccharide in complex food systems.*

#### **Abilitazioni**

1/2003 - Abilitazione all'esercizio della professione di Dottore Agronomo e Dottore Forestale

2/2005 - Consulente Tecnico di Ufficio presso il Tribunale di Ancona con la qualifica di Dottore Agronomo.

15/01/2015 Abilitazione Scientifica Nazionale - Settore 07/F1 - seconda fascia dal 15/01/2015 al 15/01/2021

26/07/2018 Abilitazione Scientifica Nazionale - Settore 07/F1 - prima fascia dal 26/07/2018 al 26/07/2024

#### **Riconoscimenti**

12/2013 Vincitore del Business Idea Award THE HIVE con la business idea dal titolo "Coltivazione e trasformazione della Quinoa per la produzione di alimenti funzionali naturali a elevato poter nutrizionale" Premio: 50.000 € di finanziamento infruttifero, di voucher di servizi offerti dall'incubatore, e per la frequenza a dei master Sida

3/2012 Vincitore del premio Ecapital per la business idea dal titolo "Sviluppo e produzione di alimenti dietoterapeutici biologici" Premio: 20.000,00 € conto capitale.

3/2011 Vincitore del premio Ecapital per la business idea dal titolo "Produzione di una bio-molecola funzionale da batterio lattico: il destrano" Premio: 20.000,00 € conto capitale

#### **Trasferimento tecnologico**

2011 – Selezione di un ceppo di batterio lattico QPS/GRAS iperproduttore di destrano presso i laboratori della School of Food and Nutritional Science – University College Cork – La sua produzione e' stata potenziata in bioreattore e la sua commercializzazione, per applicazioni alimentari e non solo, e' stata avviata mediante la nascita della start-up innovativa BIOerg, vinitrice del concorso Ecapital edizione 2010.

2013 - Sviluppo, presso i laboratori della School of Food and Nutritional Science – University College Cork, di una tecnologia innovativa per la produzione di prodotti fermentati da forno medicali. L'industrializzazione del processo e' stata garantita mediante la nascita della strat-up innovativa YesiFood srl, vinitrice del concorso Ecapital edizione 2012. Il processo tecnologico e' stato ceduto in licenza alla multinazionale Kerry Ingredients dietro il pagamento di royalties.

2014 – Sviluppo, presso i laboratori della School of Food and Nutritional Science – University College Cork, di alimenti funzionali fermentati a base di quinoa. L'industrializzazione del processo e' stata garantita mediante la nascita della strat-up innovativa Quinoa Marche srls, Vincitrice del Business Idea Award THE HIVE - edizione 2013.

### Output dell'attività di Research Management

Lista dei progetti Europei e Nazionali (Irlanda) che sono stati assicurati alla *School of Food and Nutritional Science* negli ultimi 7 anni a seguito dell'attività di Research Management svolta dal Dr Emanuele Zannini

#### FONDI DI RICERCA EUROPEI

Ruolo nel progetto	Agenzia di finanziamento	Titolo del progetto di ricerca	Totale finanziamento	Finanziamento destinati al gruppo di ricerca	Inizio	Fine
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
Co-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
<b>TOTALE</b>			<b>€ 40,678,812.00.00</b>	<b>€ 3,327,703.00</b>		

#### FONDI DI RICERCA IRLANDESI

Ruolo nel progetto	Agenzia di finanziamento	Titolo del progetto di ricerca	Totale finanziamento	Finanziamento per gruppo di ricerca	Inizio	Fine
Co-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
Co-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
Co-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

Co-PI	FIRM	Reducing Mycotoxin levels in plant derived foods and beverages	€ 499,987	€ 238,200	1/12/2013	30/11/2017
Co-PI	FIRM	Natural peptides to enhance food quality and safety	€997,140	€192,400	01/12/2013	30/11/2017
Co-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
PI	EI	Travel grant	1,500.00	1,500.00	01/06/2017	01/01/2018
PI	EI	Travel grant	1,500.00	1,500.00	01/06/2015	01/01/2016
		TOTALE	€ 3,652,480.00	€ 1,656,633.00		

Il Dr. Zannini e' stato inoltre componente di 20 commissioni giudicatrici di selezioni per l'assegnazione di (i) Research Assistant position, (ii) PhD position e (iii) Post-Doc position relative agli aspetti della Microbiologia alimentare e Tecnologia degli Alimenti.

Il Dr. Zannini e' (stato) inoltre componente del comitato scientifico internazionale del:

- "4th International Symposium on Gluten-Free food and beverages – Giugno 2016
- 7th International Symposium on Sourdough – Giugno 2018

- Il Dr. Zannini e' componente del comitato di revisione di progetti scientifici internazionali

- Research Foundation Flanders (<http://www.fwo.be/en/>) Belgium in 2015-2016-2017, 2020.
- National Centre of Sciences and Technology evaluation for the government of Kazakhstan (2017, 2018, 2019, 2020)
- National Fund for Scientific and Technological Development (FONDECYT) for the National Scientific Commission of Chile (2017).
- Research Council of Norway (RCN) 2018

### Attività di referee

Negli ultimi 10 anni il Dott. Zannini ha svolto attività di referee per le seguenti riviste scientifiche internazionali:

- Annals of Microbiology (Springer),
- Frontiers in Microbiology,
- International Journal of Food Microbiology (Elsevier),
- Food Microbiology, LWT-Food Science and Technology (Elsevier).
- Food Research International (Elsevier).
- Food Control (Elsevier).
- Plant Foods for Human Nutrition (Springer)
- Journal of agricultural and food chemistry (ACS Publications)
- Journal of Functional Foods (Elsevier).
- Journal of Cereal Sciences (Elsevier).
- Foods (MDPI).
- European Food Research and Technology (Springer)
- Applied Microbiology and Biotechnology (Springer)

- Review Editor per la rivista scientifica internazionale Frontiers in Microbiology – Sezione Food Microbiology

Il Dott. Zannini e' /e' stato inoltre Guest Editor per i seguenti Special Issues

- "Science in Gluten-free" – Special Issue della rivista Food Research International. Pubblicato nel mese di Maggio 2018
- "Grain-based Foods: Processing, Properties, and Health Attributes" – Special Issue della rivista Foods – Pubblicato nel mese di Maggio 2018
- "Seventh International Symposium on Sourdough: Health & Wealth through sourdough innovation" Special Issue della rivista International Journal of Food Microbiology. Pubblicato nel mese di Novembre 2018

### Attestati

2001	-Attestato di partecipazione al "Seminario di formazione sulla valutazione dei rischi e buona prassi di laboratorio in accordo con il D.Lgv.n. 626/94" della pbi International.
2003	-Corso di UF7MF Tangential cross-flow filtration tenuto dalla Schleicher & Schuell
2004	-Corso intensivo di lingua inglese all' Emerald Institute del Wagner College di Manhattan New York -USA
2005	-Conseguimento della European Computer Driving Licence -Attestato di frequenza su "HACCP/ Sicurezza alimentare: come incideranno i nuovi regolamenti comunitari?" -Attestato di partecipazione al Seminario di Aggiornamento su "La buona prassi di laboratorio: Le misure di prevenzione del rischio chimico e biologico"

- Attestato di partecipazione al 2<sup>nd</sup> Corse on Sourdough Fermentation – Alghero.
- Attestato di partecipazione al seminario Gilson su “Sistemi di pipettaggio manuali Gilson, una qualità che dura nel tempo”
- Attestato di partecipazione al “ 10<sup>th</sup> workshop on the developments in the italian PhD research in food science and technology” tenutosi presso l’Università di Foggia 7-9 settembre 2005;
- 2006 -Attestato di partecipazione al 3<sup>rd</sup> International Symposium on Sourdough “From tradition to innovation”- Bari.25-28 Ottobre 2006
- 2007 -Attestato di partecipazione al Forum BCI 2007 16 maggio 2007.  
Attestato di partecipazione al “ 12<sup>th</sup> workshop on the developments in the italian PhD research in food science and technology” tenutosi presso l’Università degli Studi “Mediterranea”di Reggio Calabria 12-14 settembre 2007

#### **Attività Didattica**

##### **University College Cork – Ireland - 01/09/2012 – to date**

- Codocenza nei moduli
  - FS4606 Cereals and Related Beverages (5 crediti – corrispondenti a 24 h di lezione frontale e 24h di esercitazioni/laboratorio
  - FS4013 Convenience and Specialty Foods A (5 crediti – corrispondenti a 24 h di lezione frontale e 24h di esercitazioni/laboratorio
  - FS3010 Science and Technology of Food Systems B (5 crediti – corrispondenti a 24 h di lezione frontale e 24h di esercitazioni/laboratorio
- Attività tutoriale a PhD students durante la loro carriera di dottorato conclusasi con la difesa delle seguenti tesi di dottorato:
  - ✓ Fundamental studies of sourdoughs fermented with *Weissella cibaria* and *Lactobacillus plantarum*: influence on baking characteristics, sensory profiles and in vitro starch digestibility of gluten-free breads. Wolter, Anika (University College Cork, 2013)
  - ✓ Green preservatives” – combating fungi in the food industry by applying antifungal lactic acid bacteria. Pawlowska, Agata (University College Cork, 2013)
  - ✓ Studies on quinoa (*Chenopodium quinoa*) for novel food and beverage applications. Mäkinen, Outi (University College Cork, 2014)
  - ✓ Investigation of lactic acid bacteria mediated bioprotection with applications in cereal industry. Case-study: malting process. Oliveira, Pedro Miguel Rodrigues (University College Cork, 2014)
  - ✓ Isolation and characterisation of antifungal compounds from lactic acid bacteria and their application in wheat and gluten-free bread. Axel, Claudia (University College Cork, 2015)
  - ✓ Reduction of salt in yeasted wheat bread: impact on bread quality and solutions using sourdough fermented by functional lactic acid bacteria strains. Belz, Markus C. E. (University College Cork, 2016)
  - ✓ Lactic acid bacteria fermentation of wort as a tool to add functionality in malting, brewing and novel beverages. Peyer, Lorenzo Cyril (University College Cork, 2017)

##### **Università degli Studi di Camerino - 17/04/2019 – to date**

- UNICAM - Docente esterno del collegio docenti del Dottorato in "*Life and Health Sciences – Nutrition, Food and Health*" presso Università di Camerino

##### **Università Politecnica delle Marche - 04/2003 – 06/2019**

- Visiting Scientist presso il Dipartimento di Scienze della Vita e dell'Ambiente (DiSVa), Università Politecnica delle Marche con l'espletamento di attività didattica e di ricerca. 01/05/2019 – 01/06/2019
  - Commissario degli esami di profitto degli insegnamenti inerenti la microbiologia degli alimenti della Facoltà di Agrarie e di Scienze dell’Università Politecnica delle Marche per gli anni accademici 2003/04 e 2007/08.

- Professore a contratto del corso di Chimica Analitica Strumentale presso la Facoltà di Agraria-Università Politecnica delle Marche per l'anno accademico 2008 /2009.

## Output dell'attività di ricerca

### - Riassunto dei traguardi scientifici

Tipo di contributo	Numero	Data Base	Inizio	Fine
Papers [international]	124	Scopus	2005	2020
Papers [national]	3	Google scholar	2005	2020
Books [scientific]	1	Scopus	2015	2016
Books [teaching]	1			

Totale citazioni	4849
Citazioni media per prodotto	20,23
Indice H (Hirsch)	41

### Peer review publications

1. **Zannini**, E., Santarelli, S., Osimani, A., Dell aquila, L., Clementi, F., (2005). Effect of process parameters on the production of lactic acid bacteria in bOOkBatch fermentation. *Annals of microbiology* 55, 273.
2. Aquilanti, L., Dell'Aquila, L., **Zannini**, E., Zocchetti, A., Clementi, F., (2006a). Erratum: Resident lactic acid bacteria in raw milk Canestrato Pugliese cheese. *Lett Appl Microbiol* 43, 161-167.
3. Aquilanti, L., Dell'Aquila, L., **Zannini**, E., Zocchetti, A., Clementi, F., (2006b). Resident lactic acid bacteria in raw milk Canestrato Pugliese cheese. *Letters in applied microbiology* 43, 161-167.
4. Aquilanti, L., Silvestri, G., Santarelli, S., **Zannini**, E., Osimani, A., Musciano, G., Bruglieri, D., Francesca Clementi, F., (2006). Phenotypic and genotypic characterisation of lactic acid bacteria isolated from Pecorino Marchigiano cheese. *Scienza e Tecnica Lattiero Casearia* 57, 319.
5. **Zannini**, E., Paoloni, M., Papa, R., Clementi, F., (2006). Bread-Making: Use of selected sourdoughs for bread-making with barley flour. *Tecnica Molitoria* 57, 650.
6. Aquilanti, L., Silvestri, G., **Zannini**, E., Osimani, A., Santarelli, S., Clementi, F., (2007). Phenotypic, genotypic and technological characterization of predominant lactic acid bacteria in Pecorino cheese from central Italy. *Journal of applied microbiology* 103, 948-960.
7. Aquilanti, L., **Zannini**, E., Zocchetti, A., Osimani, A., Clementi, F., (2007a). Polyphasic characterization of indigenous lactobacilli and lactococci from PDO Canestrato Pugliese cheese. *LWT - Food Science and Technology* 40, 1146-1155.
8. Aquilanti, L., **Zannini**, E., Zocchetti, A., Osimani, A., Clementi, F., (2007b). Polyphasic characterization of indigenous lactobacilli and lactococci from PDO Canestrato Pugliese cheese. *LWT-Food Science and Technology* 40, 1146-1155.
9. Aquilanti L; Silvestri G; Santarelli S; **Zannini** E; Osimani A; Musciano G; Bruglieri D; F. Clementi (2006). Caratterizzazione fenotipica e genotipica di batteri lattici isolati da formaggio Pecorino marchigiano. *Scienza e tecnica lattiero-casearia*. 57 (5), 319-329.
10. Silvestri, G., Garofalo, C., Aquilanti, L., **Zannini**, E., Bottega, G., Fongaro, L., Clementi, F., (2008). Sofficità del panettone: i risultati di una ricerca applicata. *Industrie alimentari* 47, 349-354.
11. Osimani, A., **Zannini**, E., Aquilanti, L., Mannazzu, I.M., Comitini, F., Clementi, F., (2009). Lactic acid bacteria and yeasts from wheat sourdoughs of the Marche region. *Italian Journal of Food Science* 21, 269-286.
12. **Zannini**, E., Garofalo, C., Aquilanti, L., Santarelli, S., Silvestri, G., Clementi, F., (2009). Microbiological and technological characterization of sourdoughs destined for bread-making with barley flour. *Food microbiology* 26, 744-753.
13. Nic Phiarais, B.P., Mauch, A., Schehl, B.D., Zarnkow, M., Gastl, M., Herrmann, M., **Zannini**, E., Arendt, E.K., (2010). Processing of a top fermented beer brewed from 100% buckwheat malt with sensory and analytical characterisation. *Journal of the Institute of Brewing* 116, 265-274.
14. Arendt, E.K., Moroni, A., **Zannini**, E., (2011). Medical nutrition therapy: use of sourdough lactic acid bacteria as a cell factory for delivering functional biomolecules and food ingredients in gluten free bread. *Microbial cell factories* 10, S15.
15. Hüttner, E.K., Bello, F.D., **Zannini**, E., Titze, J., Beuch, S., Arendt, E.K., (2011). Physicochemical properties of oat varieties and their potential for breadmaking. *Cereal Chemistry* 88, 602-608.

16. Moroni, A.V., Dal Bello, F., **Zannini, E.**, Arendt, E.K., (2011). Impact of sourdough on buckwheat flour, batter and bread: biochemical, rheological and textural insights. *Journal of Cereal Science* 54, 195-202.
17. Ryan, L.A., **Zannini, E.**, Dal Bello, F., Pawlowska, A., Koehler, P., Arendt, E.K., (2011). *Lactobacillus amylovorus* DSM 19280 as a novel food-grade antifungal agent for bakery products. *International journal of food microbiology* 146, 276-283.
18. Aquilanti, L., Kahraman, O., **Zannini, E.**, Osimani, A., Silvestri, G., Ciarrocchi, F., Garofalo, C., Tekin, E., Clementi, F., (2012). Response of lactic acid bacteria to milk fortification with dietary zinc salts. *International Dairy Journal* 25, 52-59.
19. Axel, C., **Zannini, E.**, Coffey, A., Guo, J., Waters, D.M., Arendt, E.K., (2012). Ecofriendly control of potato late blight causative agent and the potential role of lactic acid bacteria: a review. *Applied Microbiology and Biotechnology* 96, 37-48.
20. Belz, M.C., Mairinger, R., **Zannini, E.**, Ryan, L.A., Cashman, K.D., Arendt, E.K., (2012). The effect of sourdough and calcium propionate on the microbial shelf-life of salt reduced bread. *Applied Microbiology and Biotechnology* 96, 493-501.
21. Garofalo, C., **Zannini, E.**, Aquilanti, L., Silvestri, G., Fierro, O., Picariello, G., Clementi, F., (2012). Selection of sourdough lactobacilli with antifungal activity for use as biopreservatives in bakery products. *Journal of agricultural and food chemistry* 60, 7719-7728.
22. Hager, A.-S., Lauck, F., **Zannini, E.**, Arendt, E.K., (2012). Development of gluten-free fresh egg pasta based on oat and teff flour. *European Food Research and Technology* 235, 861-871.
23. Hager, A.-S., Wolter, A., Czerny, M., Bez, J., **Zannini, E.**, Arendt, E.K., Czerny, M., (2012). Investigation of product quality, sensory profile and ultrastructure of breads made from a range of commercial gluten-free flours compared to their wheat counterparts. *European Food Research and Technology* 235, 333-344.
24. Hager, A.-S., Wolter, A., Jacob, F., **Zannini, E.**, Arendt, E.K., (2012). Nutritional properties and ultra-structure of commercial gluten free flours from different botanical sources compared to wheat flours. *Journal of Cereal Science* 56, 239-247.
25. Hager, A.-S., **Zannini, E.**, Arendt, E., (2012a). Gluten-free Pasta—Advances in Research and Commercialization. *Cereal Foods World* 57, 225-229.
26. Hager, A., **Zannini, E.**, Arendt, E.K., (2012b). Formulating breads for specific dietary requirements, *Breadmaking*. Woodhead Cambridge, pp. 711-728.
27. Moroni, A.V., **Zannini, E.**, Sensidoni, G., Arendt, E.K., (2012). Exploitation of buckwheat sourdough for the production of wheat bread. *European Food Research and Technology* 235, 659-668.
28. Pawlowska, A.M., **Zannini, E.**, Coffey, A., Arendt, E.K., (2012). 5" Green Preservatives": Combating Fungi in the Food and Feed Industry by Applying Antifungal Lactic Acid Bacteria. *Advances in food and nutrition research* 66, 217.
29. Waters, D.M., Jacob, F., Titze, J., Arendt, E.K., **Zannini, E.**, (2012). Fibre, protein and mineral fortification of wheat bread through milled and fermented brewer's spent grain enrichment. *European Food Research and Technology* 235, 767-778.
30. **Zannini, E.**, Jones, J.M., Renzetti, S., Arendt, E.K., (2012). Functional replacements for gluten. *Annual review of food science and technology* 3, 227-245.
31. **Zannini, E.**, Pontonio, E., Waters, D.M., Arendt, E.K., (2012). Applications of microbial fermentations for production of gluten-free products and perspectives. *Applied Microbiology and Biotechnology* 93, 473-485.
32. Black, B.A., **Zannini, E.**, Curtis, J.M., Gänzle, M.G., (2013). Antifungal hydroxy fatty acids produced during sourdough fermentation: microbial and enzymatic pathways, and antifungal activity in bread. *Applied and environmental microbiology* 79, 1866-1873.
33. Hager, A.-S., Czerny, M., Bez, J., **Zannini, E.**, Arendt, E.K., (2013). Starch properties, in vitro digestibility and sensory evaluation of fresh egg pasta produced from oat, teff and wheat flour. *Journal of Cereal Science* 58, 156-163.
34. Mäkinen, O.E., **Zannini, E.**, Arendt, E.K., (2013). Germination of oat and quinoa and evaluation of the malts as gluten free baking ingredients. *Plant Foods for Human Nutrition* 68, 90-95.
35. Waters, D.M., Kingston, W., Jacob, F., Titze, J., Arendt, E.K., **Zannini, E.**, (2013). Wheat bread biofortification with rootlets, a malting by-product. *Journal of the Science of Food and Agriculture* 93, 2372-2383.
36. Wolter, A., Hager, A.-S., **Zannini, E.**, Arendt, E.K., (2013). In vitro starch digestibility and predicted glycaemic indexes of buckwheat, oat, quinoa, sorghum, teff and commercial gluten-free bread. *Journal of Cereal Science* 58, 431-436.



37. **Zannini, E.,** Kingston, W., Arendt, E.K., Waters, D.M., (2013). Technological challenges and strategies for developing low-protein/protein-free cereal foods for specific dietary management. *Food Research International* 54, 935-950.
38. **Zannini, E.,** Mauch, A., Galle, S., Gänzle, M., Coffey, A., Arendt, E.K., Taylor, J.P., Waters, D.M., (2013). Barley malt wort fermentation by exopolysaccharide-forming *Weissella cibaria* MG1 for the production of a novel beverage. *Journal of applied microbiology* 115, 1379-1387.
39. Axel, C., **Zannini, E.,** Arendt, E.K., Waters, D.M., Czerny, M., (2014). Quantification of cyclic dipeptides from cultures of *Lactobacillus brevis* R2Δ by HRGC/MS using stable isotope dilution assay. *Analytical and bioanalytical chemistry* 406, 2433-2444.
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  38. Peyer LC, Oliveira P, **Zannini** E, Jacob F, Coffey A and Arendt EK. Isolation and characterisation of lactic acid bacteria with anti-fungal properties and their application in malting and brewing. Proceeding of 11th International Symposium on Lactic Acid Bacteria, Egmond Aan Zee, The Netherlands, Agosto 2014
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  40. L. Peyer, F. Jacob, E. **Zannini**, E. Arendt. Growth study, metabolite development and organoleptic profile of a malt-based beverage fermented by lactic acid bacteria. Proceeding of 35th International Congress of the European Brewery Convention 24 – 28 May 2015 Porto, Portogallo.
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  42. **Zannini**, E., Arendt KE. Overview of salt reduction in Ireland and Europe: the sourdough prospective. Proceeding of VI Sourdough Symposium – Understanding natural complexity. Nantes 30 Settembre – 2 Ottobre 2015. 05-7
  43. Axel C, Brosnan B, **Zannini** E, Furey A, Coffey A and Arendt EK. Antifungal compounds from lactic acid bacteria – biopreservation in bread. Proceeding of VI Sourdough Symposium – Understanding natural complexity. Nantes 30 Settembre – 2 Ottobre 2015. 05-8
  44. **Zannini**. E. Sourdough technology: Useful tool to improve bread quality. Training Workshop - Creating value in wheat and gluten-free based bakery production chain. 14-15 May 2015 Cork
  45. **Zannini**, E. Low-FODMAP food strategies to reduce irritable bowel syndrome. Proceeding of 4th International Symposium on Gluten-Free Cereal Products and Beverages. 18-19 October 2016 – Cork – Ireland.

46. Jeske, S. **Zannini** E and. Arendt EK. Evaluation of physicochemical and glycaemic properties of commercial plant-based milk substitutes. Proceeding of 4th International Symposium on Gluten-Free Cereal Products and Beverages. 18-19 October 2016 – Cork – Ireland
47. Axel, C., Brosnan, B., **Zannini**, E., Furey, A., Coffey, A. and Arendt EK. Antifungal compounds from lactic acid bacteria and their contribution to biopreservation in gluten-free bread. Proceeding of 4th International Symposium on Gluten-Free Cereal Products and Beverages. 18-19 October 2016 – Cork – Ireland
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49. **Zannini** E., Peyer L., Arendt EK. Lactic acid bacteria fermentation of wort as a tool to add functionality in malting and novel beverages. Proceeding of 12th Symposium on Lactic Acid Bacteria. 27 to 31, August 2017. Egmond aan Zee, the Netherlands.
50. K M. Lynch, E J. Steffen, T Rice, A Lucid, E **Zannini**, A Coffey, E K. Arendt. Application of exopolysaccharide-producing lactic acid bacteria in novel wort-based beverages. Proceeding of 12th Symposium on Lactic Acid Bacteria. 27 to 31, August 2017. Egmond aan Zee, the Netherlands.
51. Arendt K. Elke, Emanuele **Zannini**. Nutritional improvement of cereal products using customised Sourdough. 7<sup>th</sup> International Symposium on Sourdough, 6-8 June 2018.
52. Aylin W. Sahin, Claudia Axel, Tom Rice, Emanuele **Zannini**, Aidan Coffey, Elke K. Arendt. *Leuconostoc citreum* TR116: In-situ production of mannitol in sourdough and its application to reduce sugar in burger buns. 7<sup>th</sup> International Symposium on Sourdough, 6-8 June 2018.
53. Lilit Ispiryani, Claudia Axel, Mareile Heitmann, Rozalia Kenderesi, Emanuele **Zannini** and Elke K. Arendt. Sourdough technology and specific characteristics of lactobacilli in the context of FODMAPs. 7<sup>th</sup> International Symposium on Sourdough, 6-8 June 2018.
54. Stefan.W. Horstmann, J. Atzler, M. Heitmann, E. **Zannini** E.K. Arendt. Impact of different *S. cerevisiae* yeast strains on gluten-free dough and bread quality parameters. 7<sup>th</sup> International Symposium on Sourdough, 6-8 June 2018.
55. Stephanie Jeske, Emanuele **Zannini**, Kieran Lynch, Aidan Coffey. Elke K. Arendt. Polyol producing lactic acid bacteria isolated from sourdough and their application to reduce sugar in quinoa-based milk substitutes. 7<sup>th</sup> International Symposium on Sourdough, 6-8 June 2018.

#### *Invited speaker*

1. Congreso Científico Internacional de Quinoa Y Granos Andonos – 14-15 Novembre 2013 La Molina, Lima, Peru'. Talk title: Quinoa in food application: Opportunities, challenges and future application.
2. Bakery Innovation Europe Conference, Monaco 18-19 Febbraio 2014. Talk title: Commercial Exploitation of Lactic Acid Bacteria By-products in Bakery Technology.
3. Food Micro 2018, Berlino – 3-6 Settembre 2018. Lactic acid bacteria producing anti-fungal compounds: From plant protection to cereal product
4. AACC International Meeting, London, 21-23 Ottobre 2018. Fermentation from beer to bread
5. 7<sup>th</sup> International Symposium on Sourdough, 6-8 June 2018. Sourdough LAB as "farm to fork" bio protection system – Keynote lecture
6. Invited speaker at Cereals 18: 2018 AACC International Annual Meeting October 21, 2018 - October 23, 2018 21/10/2018
7. 687781 Invited Keynote lecture at "18th European Young Cereal Scientists and Technologists Workshop" University of Camerino; 15-17 April 2019 15/04/2019

#### *Book chapters*

1. Babini, V., **Zannini**. E. - Appendice A.1 Breve descrizione dei principali gruppi microbici - A.1.1.2 Batteri alterativi, patogeni e indicatori di igiene. Laboratorio didattico di Microbiologia. Casa Editrice Ambrosiana, Milano. 2008. Pag. 239-243
2. E. **Zannini**; C. Garofalo; F. Clementi. I prodotti dolciari lievitati italiani. Biotecnologia dei prodotti lievitati da forno. Casa Editrice Ambrosiana, Milano. 2010. Pag. 243-262
3. Hager, A.S., **Zannini**, E., Arendt, E.K., 2012. 28 - Formulating breads for specific dietary requirements A2 - Cauvain, Stanley P, Breadmaking (Second edition). Woodhead Publishing, pp. 711-735.



4. **Zannini, E., Moroni, A., Belz, M., Faltermaier, A., Arendt, E., 2014. Breadmaking (Chapter 11) in: Charles W. Bamforth, R.E.W. (Ed.), The Oxford Handbook of Food Fermentations. Pag. 448-487**

*Libri*

1. Co-autore e co-editore del libro "Cereal grains for the food and beverage industries" Pubblicato dalla casa editrice Elsevier. Pagine 512.

Il sottoscritto, esprime il proprio consenso affinché i dati personali forniti possano essere trattati, nel rispetto del Decreto Legislativo 30.6.2003, n. 196, per gli adempimenti connessi alla presente procedura selettiva.