

Curricular Summary

National Scientific Committee (CNPq) Fellowship 1B

Prof. Dr. Anderson de Souza Sant'Ana.

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Anderson S. Sant'Ana holds a bachelor degree in Industrial Chemistry from Severino Sombra University (Rio de Janeiro, Brazil), master degree in Food Science at the University of Campinas (Campinas, Brazil), and PhD in Food Sciences at the University of Sao Paulo (Sao Paulo, Brazil). He had a post-doc stay in the Department of Food and Experimental Nutrition, Faculty of Pharmaceutical Sciences, University of Sao Paulo. Currently, he is an associate professor of food microbiology at Faculty of Food Engineering, University of Campinas, Brazil. General research interests include foodborne spoilage and pathogenic microorganisms, probiotic microorganisms, use of predictive modeling approaches on the quality and safety of foods and microbial risk assessment. During his career, Dr Sant'Ana concluded the supervision of 17 master, 20 PhD and 15 postdocs. Dr. Sant'Ana has experience as principal researcher of grants awarded by FAPESP (The State of Sao Paulo Research Agency), CAPES (Coordination of Superior Level Staff Improvement) and CNPq (The National Council for Scientific and Technological Development).

Dr. Sant'Ana is the editor of the Methods and Protocols in Food Science (MeFS) book collection, published by Springer. Dr. Sant'Ana is an editorial board of the Food Bioscience, Journal of Food Protection, Applied and Environmental Microbiology, Food Research International, Current Opinion in Food Science and International Journal of Food Microbiology. Dr. Sant'Ana is a member of the International Committee of Predictive Modeling in Food (ICPMF) since 2013 and a member of the roster of experts of the Joint FAO / WHO Expert Meeting on Microbiological Risk Assessment (JEMRA) [Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO)], since 2018. Currently, Dr. Sant'Ana is the chair of Outreach and Research at the Faculty of Food Engineering, University of Campinas. Dr. Sant'Ana the chair of the Graduate Program in Food Science of the Faculty of Food Engineering, University of Campinas (concept 7, CAPES), for two terms (2015-2017 and 2017-2019). Dr Sant'Ana featured in the list of the most cited researchers (Highly Cited Researchers - Clarivate Web of Science, 2020) and was presented the Academic Recognition Award "Zeferino Vaz" (the higher recognition awarded by the University) as a recognition of his teaching, research and extension activities.

Career breaks

I had no career breaks of at least three months due to parental leave, full-time sickness leave or other.

1) Education/Training:

Year	Title or Activity	Institution
2003	Bachelor Degree in Industrial Chemistry	Universidade Severino Sombra (USS), Brazil
2007	M.Sc. in Food Science	University of Campinas (UNICAMP), Brazil
2010	Internship – Predictive Microbiology and Quantitative Microbial Risk Assessment (1 year)	Rutgers, The State University of New Jersey (RUTGERS), USA
2011	Ph.D. in Food Science	University of Sao Paulo (USP), Brazil
2013	Post-Doc Fellow – Predictive Microbiology	University of Sao Paulo (USP), Brazil

Title of the M.Sc. in Food Science dissertation: “Quantitative risk assessment of patulin in apple juice”

Title of the Ph.D. in Food Science thesis: “Quantitative risk assessment of *Salmonella* and *Listeria monocytogenes* in minimally processed vegetables”

2) Professional History:

Year	Title or Activity	Institution
1998-1999	Food Quality Control Technician	Arisco Industrial Ltda, GO, Brazil
1999-2005	Food Microbiology Technician	SENAI, RJ, Brazil
2013-2019	Assistant Professor of Food Microbiology	Faculty of Food Engineering, UNICAMP, SP, Brazil
2019-current	Associate Professor of Food Microbiology	Faculty of Food Engineering, UNICAMP, SP, Brazil

3) Ten Most Relevant Research Results*:

- Sant'Ana, Anderson S.**; Franco, Bernadette D.G.M.; Schaffner, D. W.. Risk of infection with *Salmonella* and *Listeria monocytogenes* due to consumption of ready-to-eat leafy vegetables in Brazil. *Food Control*, 42, 1-8, 2014.
- Prado-Silva, L.; Gonzales-Barron, U.; Cadavez, V.; **Sant'Ana, A.S.**. Modeling the effects of temperature and pH on the resistance of *Alicyclobacillus acidoterrestris* in conventional heat-treated fruit beverages through a meta-analysis approach. *Food Microbiology*, 46, 541-552, 2015.
- Prado-Silva, L.; Gonzales-Barron, U.; Cadavez, V.; Rezende, A.C.B.; **Sant'Ana, A.S.**. Meta-analysis of the Effects of Sanitizing Treatments on *Salmonella*, *Escherichia coli* O157:H7, and *Listeria monocytogenes* Inactivation in Fresh Produce. *Applied and Environmental Microbiology*, 81, p. 8008-8021, 2015.
- Pena, W. E. L.; Andrade, N.J.; Soares, N. F.F.; Alvarenga, V.O.; Rodrigues Junior, S.; Granato, D.; Zuniga, A.D.G.; **Sant'Ana, Anderson S.**. Modelling *Bacillus cereus* adhesion on stainless steel surface as affected by temperature, pH and time. *International Dairy Journal*, 34, p. 153-158, 2014.
- Sant'Ana, A.S.**, Franco, B. D. G. M., Schaffner, D. W.. Modeling the growth rate and lag time of different strains of *Salmonella* spp. and *Listeria monocytogenes* in ready-to-eat lettuce. *Food Microbiology*, 30, 267-273, 2012.
- Sant'Ana, A.S.**, Igarashi, M.C., Landgraf, M., Destro, M.T., Franco, B.D.G.M.. Prevalence, populations and pheno- and genotypic characteristics of *Listeria monocytogenes* isolated from ready-to-eat vegetables marketed in São Paulo, Brazil. *International Journal of Food Microbiology*, 155, 1-9, 2012.
- Sant'Ana, A.S.**, Barbosa, M.S., Destro, M.T., Landgraf, M., Franco, B.D.G.M.. Growth potential of *Salmonella* spp. and *Listeria monocytogenes* in nine types of ready-to-eat vegetables stored at variable temperature conditions during shelf-life. *International Journal of Food Microbiology*, 157, 52-58, 2012.
- Sant'Ana, A.S.**, Simas, R., Almeida, C.A., Cabral, E., Hauber, R.H., Mallmann, C.A., Eberlin, M.N., Rosenthal, A., Massaguer, P.R.. Influence of package, type of apple juice and temperature on the production of patulin by *Byssoschlamys nivea* and *Byssoschlamys fulva*. *International Journal of Food Microbiology*, 142, 156-163, 2010.

9. Tribst, A. A. L., **Sant'Ana, A.S.**, Massaguer, P.R.. Review - Microbiological Quality and Safety of Fruit Juices: the Past, the Present and Future Perspectives. *Critical Reviews in Microbiology*, 35, 310-339, 2009.
10. Spinelli, A.C., **Sant'Ana, A.S.**, Rodrigues Junior, S., Massaguer, P.R.. Influence of Different Filling, Cooling and Storage Temperatures on *Alicyclobacillus acidoterrestris* CRA7152 growth in Orange Juice. *Applied and Environmental Microbiology*, 75, 7409-7416, 2009.

***For a complete list of publications: <http://www.researcherid.com/rid/D-2470-2013>**

4) International books:

- ❖ Sant'Ana, Anderson S. *Quantitative Microbiology in Food Processing: Modeling the Microbial Ecology of Foods*. 1. ed. Oxford: Wiley, 2017. v. 1. 696p.
- ❖ BARBA, F. J.; Sant'Ana, Anderson S.; ORLIEN, V.; KOUBAA, M.. *Innovative Technologies for Food Preservation - Inactivation of Spoilage and Pathogenic Microorganisms*. 1. ed. London: Academic Press - Elsevier, 2017. v. 1. 326p.

5) Participation in National and International Scientific Bodies:

- a) Member since 2014 of the "International Commission on Predictive Modeling in Foods – ICPMF"
- b) Invited panel member for Scientific Advices to the National Surveillance Agency of Brazil (ANVISA) (since 2014).

6) Current Research Grants with Funding:

- ❖ Process 17/26667-2 - Meat quality in Bos indicus cattle: biological markers for meat product attributes at different final pH ranges. FAPESP. Situation: in progress. (Thematic Project – Main Researcher)

7) Past Research Grants with Funding:

- ❖ Process 2017/22455-0 - "PredicAquaMics" - study of quality, microbiological safety, predictive modeling and microbial diversity in mineral waters. FAPESP. Status: completed.
- ❖ Process 483945/2013-7 - Incidence, Characterization, Predictive and Risk Modeling of Salmonella spp. in Fresh Tomatoes Consumed in Brazil. Funding agency: National Scientific Council, Brazil. CNPq. Status: completed.
- ❖ Process 400806/2013-4 - Innovative approaches for control of spore-forming bacteria in foods. Funding agency: National Scientific Council, Brazil. CNPq. Status: completed.
- ❖ Process 403865/2013-1 – Use of metagenomics and predictive modeling to improve the quality and safety of Brazilian artisanal/colonial cheeses. Funding agency: National Scientific Council, Brazil. CNPq. Status: completed.

8) Academic Quantitative Indicators:

- ❖ Publications in peer-reviewed scientific journals: 253
- ❖ Published book: 4
- ❖ Published book chapters: 23
- ❖ Ongoing supervision of Master dissertations: 1
- ❖ Concluded supervision of Master students: 15
- ❖ Ongoing supervision of PhD thesis: 8
- ❖ Concluded supervision of PhD students: 19
- ❖ Concluded supervision of postdocs: 11
- ❖ Web of Science (H factor: 42), Google Academics (H factor: 49), Scopus (H factor: 43).
- ❖ Patent requests: 4.

9) Link to My Research ID:

- ❖ <http://www.researcherid.com/rid/D-2470-2013>

10) Other Relevant Information:

- ❖ Editor of the Book: *“Modeling the Microbial Ecology of Foods: Quantitative Microbiology in Food Processing”*, Wiley, (2017).
- ❖ Chair of **The 9th International Conference on Predictive Modeling in Foods**, that took place in Rio de Janeiro, Brazil, between 08-12 of September, 2015 (www.icpmf9.com).



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