

BIBLIOGRAFIA

Aarestrup, F. M., Jorsal, S. E., Ahrens, P., Jensen, N. E., & Meyling, A. (1997). Molecular characterization of Escherichia coli strains isolated from pigs with edema disease. *Journal of Clinical Microbiology*, 35(1), 20-24.

Agarry, I. E., Wang, Z., Cai, T., Kan, J., & Chen, K. (2022). Chlorophyll encapsulation by complex coacervation and vibration nozzle technology: Characterization and stability study. *Innovative Food Science & Emerging Technologies*, 78, 103017.

Alagpulinsa, D. A., Cao, J. J., Driscoll, R. K., Sîrbulescu, R. F., Penson, M. F., Sremac, M., ... & Poznansky, M. C. (2019). Alginate-microencapsulation of human stem cell-derived β cells with CXCL 12 prolongs their survival and function in immunocompetent mice without systemic immunosuppression. *American Journal of Transplantation*, 19(7), 1930-1940.

Alba Sánchez, E., & Gil Huerta, L. (2022). Búsqueda de nuevos métodos de preservación espermática en la especie equina: Encapsulación. Trabajo final de grado. Universidad de Zaragoza.

Amor, G., Sabbah, M., Caputo, L., Idbella, M., De Feo, V., Porta, R., ... & Mauriello, G. (2021). Basil essential oil: Composition, antimicrobial properties, and microencapsulation to produce active chitosan films for food packaging. *Foods*, 10(1), 121.

Arpagaus, C., & Schafroth, N. (2009). Spray drying of biodegradable polymers in laboratory scale. *Respir. Drug Deliv. Eur.*, 2019, 269-274.

Arrua, E. C., Sanchez, S. V., Trincado, V., Hidalgo, A., Quest, A. F., & Morales, J. O. (2022). Experimental design and optimization of a novel dual-release drug delivery system with therapeutic potential against infection with Helicobacter pylori. *Colloids and Surfaces B: Biointerfaces*, 213, 112403.

Bartholomew, M. L., Heffernan, R. T., Wright, J. G., Klos, R. F., Monson, T., Khan, S., ... & Davis, J. P. (2014). Multistate outbreak of *Salmonella Enterica* serotype enteritidis infection associated with pet guinea pigs. *Vector-Borne and Zoonotic Diseases*, 14(6), 414-421.

Cavé, L., Brothier, E., Abrouk, D., Bouda, P. S., Hien, E., & Nazaret, S. (2016). Efficiency and sensitivity of the digital droplet PCR for the quantification of antibiotic resistance genes in soils and organic residues. *Applied Microbiology and Biotechnology*, 100(24), 10597-10608.

Chen, B., Jiang, Y., Cao, X., Liu, C., Zhang, N., & Shi, D. (2021). Droplet digital PCR as an emerging tool in detecting pathogens nucleic acids in infectious diseases. *Clinica Chimica Acta*, 517, 156-161.

Choi, S., Kim, J. H., Ha, J., Jeong, B. I., Jung, Y. C., Lee, G. S., ... & Kang, B. J. (2018). Intra-articular injection of alginate-microencapsulated adipose tissue-derived mesenchymal stem cells for the treatment of osteoarthritis in rabbits. *Stem Cells International*, 2018, 2791632.

Chow, M. Y., Qiu, Y., Lo, F. F., Lin, H. H., Chan, H. K., Kwok, P. C., & Lam, J. K. (2017). Inhaled powder formulation of naked siRNA using spray drying technology with l-leucine as dispersion enhancer. *International Journal of Pharmaceutics*, 530(1-2), 40-52.

Chun, L. Y., Dolle-Molle, L., Bethel, C., Dimitroyannis, R. C., Williams, B. L., Schechet, S. A., ... & Skondra, D. (2019). Rapid pathogen identification and antimicrobial susceptibility testing in *in vitro* endophthalmitis with matrix assisted laser desorption-ionization Time-of-Flight Mass Spectrometry and VITEK 2 without prior culture. *PLoS One*, 14(12), e0227071.





- de Moura, S. C., Berling, C. L., Germer, S. P., Alvim, I. D., & Hubinger, M. D. (2018). Encapsulating anthocyanins from Hibiscus sabdariffa L. calyces by ionic gelation: Pigment stability during storage of microparticles. *Food Chemistry*, 241, 317-327.
- De Prisco, A., Maresca, D., Ongeng, D., & Mauriello, G. (2015). Microencapsulation by vibrating technology of the probiotic strain *Lactobacillus reuteri* DSM 17938 to enhance its survival in foods and in gastrointestinal environment. *LWT-Food Science and Technology*, 61(2), 452-462.
- Dégi, J., Cristina, R. T., Dégi, D. M., Muselin, F., Dumitrescu, C., & Iancu, I. (2019). Research of methicillin resistance staphylococci in a pig's farm. *Lucrări Științifice*, 27.
- Demeke, T. & Dobnik, D. (2018). Critical assessment of digital PCR for the detection and quantification of genetically modified organisms. *Analytical and Bioanalytical Chemistry*, 410(17), 4039-4050.
- Dhun, G., & Mujaffar, S. (2013). The Production of a Spray-Dried Pineapple Powder. In III International Conference on Postharvest and Quality Management of Horticultural Products of Interest for Tropical Regions 1047 (pp. 315-322).
- Estevinho, B. N., Carlan, I., Blaga, A., & Rocha, F. (2016). Soluble vitamins (vitamin B12 and vitamin C) microencapsulated with different biopolymers by a spray drying process. *Powder Technology*, 289, 71-78.
- Fiebig, U., Fischer, K., Bähr, A., Runge, C., Schnieke, A., Wolf, E., & Denner, J. (2018). Porcine endogenous retroviruses: Quantification of the copy number in cell lines, pig breeds, and organs. *Xenotransplantation*, 25(4), e12445.
- Floren, C., Wiedemann, I., Brenig, B., Schütz, E., & Beck, J. (2015). Species identification and quantification in meat and meat products using droplet digital PCR (ddPCR). *Food Chemistry*, 173, 1054-1058.
- Founou, L. L., Founou, R. C., Ntshobeni, N., Govinden, U., Bester, L. A., Chenia, H. Y., ... & Essack, S. Y. (2019). Emergence and spread of extended spectrum β -lactamase producing Enterobacteriaceae (ESBL-PE) in pigs and exposed workers: a Multicentre Comparative Study between Cameroon and South Africa. *Pathogens*, 8(1), 10.
- Giordano, I., Abuqwider, J., Altamimi, M., Di Monaco, R., Puleo, S., & Mauriello, G. (2022). Application of ultrasound and microencapsulation on *Limosilactobacillus reuteri* DSM 17938 as a metabolic attenuation strategy for tomato juice probiotication. *Heliyon*, 8(10), e10969.
- Grasmeijer, N., de Waard, H., Hinrichs, W. L., & Frijlink, H. W. (2013). A user-friendly model for spray drying to aid pharmaceutical product development. *PLoS One*, 8(9), e74403.
- Gundran, R. S., Cardenio, P. A., Salvador, R. T., Sison, F. B., Benigno, C. C., Kreausukon, K., ... & Punyapornwithaya, V. (2020). Prevalence, Antibiogram, and Resistance Profile of Extended-Spectrum β -Lactamase-Producing *Escherichia coli* Isolates from Pig Farms in Luzon, Philippines. *Microbial Drug Resistance*, 26(2), 160-168.
- Hayden, R. T. (2022). Primary Quantitative Reference Standards for Viral Nucleic Acids Should Be Developed Using Digital Polymerase Chain Reaction Instead of Consensus Testing. *Journal of Clinical Microbiology*, e01338-22.
- How, Y. H., Lai, K. W., Pui, L. P., & In, L. L. A. (2022). Co-extrusion and extrusion microencapsulation: Effect on microencapsulation efficiency, survivability through gastrointestinal digestion and storage. *Journal of Food Process Engineering*, 45(3), e13985.
- Hudecová, I. (2015). Digital PCR analysis of circulating nucleic acids. *Clinical Biochemistry*, 48(15), 948-956.

- Hwang, I. Y., Ku, H. O., Lim, S. K., Park, C. K., Jung, G. S., Jung, S. C., & Nam, H. M. (2009). Species distribution and resistance patterns to growth-promoting antimicrobials of enterococci isolated from pigs and chickens in Korea. *Journal of Veterinary Diagnostic Investigation*, 21(6), 858-862.
- Jasińska, U. T., Skąpska, S., Owczarek, L., Dekowska, A., & Lewińska, D. (2018). Immobilization of *Bifidobacterium infantis* cells in selected hydrogels as a method of increasing their survival in fermented milkless beverages. *Journal of Food Quality*, 2018, 9267038.
- Jones, T. F., Buckingham, S. C., Bopp, C. A., Ribot, E., & Schaffner, W. (2003). From pig to pacifier: chitterling-associated yersiniosis outbreak among black infants. *Emerging Infectious Diseases*, 9(8), 1007.
- Jutglar Núñez, A. (2019). Improvement of ginger oil stability by encapsulation in alginate-carrageenan-chitosan blended beads. Trabajo final de grado. Universidad de Barcelona.
- Kandansamy, K., & Somasundaram, P. D. (2012). Microencapsulation of colors by spray drying-a review. *International Journal of Food Engineering*, 8(2).
- Keil, T. W., Feldmann, D. P., Costabile, G., Zhong, Q., da Rocha, S., & Merkel, O. M. (2019). Characterization of spray dried powders with nucleic acid-containing PEI nanoparticles. *European Journal of Pharmaceutics and Biopharmaceutics*, 143, 61-69.
- Khambaty, F. M., Bennett, R. W., & Shah, D. B. (1994). Application of pulsed-field gel electrophoresis to the epidemiological characterization of *Staphylococcus intermedius* implicated in a food-related outbreak. *Epidemiology & Infection*, 113(1), 75-81.
- Köppel, R., Ganeshan, A., Weber, S., Pietsch, K., Graf, C., Hochegger, R., ... & Burkhardt, S. (2019). Duplex digital PCR for the determination of meat proportions of sausages containing meat from chicken, turkey, horse, cow, pig and sheep. *European Food Research and Technology*, 245(4), 853-862.
- Košir, A. B., Demšar, T., Štebih, D., Žel, J., & Milavec, M. (2019). Digital PCR as an effective tool for GMO quantification in complex matrices. *Food Chemistry*, 294, 73-78.
- Lahti, E., Löfdahl, M., Ågren, J., Hansson, I., & Olsson Engvall, E. (2017). Confirmation of a campylobacteriosis outbreak associated with chicken liver pâté using PFGE and WGS. *Zoonoses and Public Health*, 64(1), 14-20.
- Lan, Y., Xu, M., Ohm, J. B., Chen, B., & Rao, J. (2019). Solid dispersion-based spray-drying improves solubility and mitigates beany flavour of pea protein isolate. *Food Chemistry*, 278, 665-673.
- Leijss, M. J., van Buul, G. M., Nieboer, M. F., Haeck, J. C., Kops, N., Bos, P. K., ... & van Osch, G. J. (2016). Endurable injectable mesenchymal stem cell therapy for osteoarthritis by encapsulation in alginate constructs. *Osteoarthritis and Cartilage*, 24, S12-S13.
- Li, X., Anton, N., & Vandamme, T. F. (2015). Spray-drying of nano-and microcapsules of nutraceuticals. *Functional Food Ingredients and Neutraceuticals—Processing Technologies*. CRC Press, Taylor & Francis Group, Boca Raton, 455-480.
- Lim, J. S., Han, D. W., Lee, S. R., Hwang, O. H., Kwag, J. H., & Cho, S. B. (2015). A Bacterial Strain Identified as *Bacillus licheniformis* using Vitek 2 Effectively Reduced NH₃ Emission from Swine Manure. *Journal of Animal Environmental Science*, 21(3), 83-92.
- Liu, Y., Meng, H., Shi, L., & Li, L. (2019). Sensitive detection of porcine circovirus 3 by droplet digital PCR. *Journal of Veterinary Diagnostic Investigation*, 31(4), 604-607.

Lopes, L. A. A., Carvalho, R. D. S. F., Magalhães, N. S. S., Madruga, M. S., Athayde, A. J. A. A., Portela, I. A., ... & Stamford, T. C. M. (2020). Microencapsulation of *Lactobacillus acidophilus* La-05 and incorporation in vegan milks: Physicochemical characteristics and survival during storage, exposure to stress conditions, and simulated gastrointestinal digestion. *Food Research International*, 135, 109295.

Lu, H. Z., Weng, X. H., Li, H., Yin, Y. K., Pang, M. Y., & Tang, Y. W. (2002). Enterococcus faecium-related outbreak with molecular evidence of transmission from pigs to humans. *Journal of Clinical Microbiology*, 40(3), 913-917.

Luangthongkam, P., Blinco, J. A., Dart, P., Callaghan, M., & Speight, R. (2021). Comparison of spray-drying and freeze-drying for inoculum production of the probiotic *Bacillus amyloliquefaciens* strain H57. *Food and Bioproducts Processing*, 130, 121-131.

Majeed, H., Bian, Y. Y., Ali, B., Jamil, A., Majeed, U., Khan, Q. F., ... & Fang, Z. (2015). Essential oil encapsulations: Uses, procedures, and trends. *Rsc Advances*, 5(72), 58449-58463.

Masiuk, D. M., Kokariev, A. V., & Supenko, M. H. (2021). Quantitative PCR analysis of intestinal microbiota in suckling piglets of different age groups with diarrhea. *Scientific Messenger of LNU of Veterinary Medicine and Biotechnologies. Series: Veterinary Sciences*, 23(102), 37-42.

Matajira, C. E. C., Poor, A. P., Moreno, L. Z., Monteiro, M. S., Dalmutt, A. C., Gomes, V. T. M., ... & Moreno, A. M. (2020). *Vagococcus* sp. a porcine pathogen: molecular and phenotypic characterization of strains isolated from diseased pigs in Brazil. *The Journal of Infection in Developing Countries*, 14(11), 1314-1319.

Mittal, D., Grakh, K., Prakash, A., Moudgil, P., Devi, B., & Jadhav, V. (2018). Isolation, Identification and Characterization of Enteric Bacteria from Post Weaning Diarrheic Pigs and their Resistance to Multiple Antibiotics. *International Journal of Current and Applied Microbiology*, 7, 2377-2384.

Mohamed, A., Pekoz, A. Y., Ross, K., Hutcheon, G. A., & Saleem, I. Y. (2019). Pulmonary delivery of Nanocomposite Microparticles (NCMPs) incorporating miR-146a for treatment of COPD. *International Journal of Pharmaceutics*, 569, 118524.

Morka, K., Bystroń, J., Bania, J., Korzeniowska-Kowal, A., Korzekwa, K., Guz-Regner, K., & Bugla-Płoskońska, G. (2018). Identification of *Yersinia enterocolitica* isolates from humans, pigs and wild boars by MALDI TOF MS. *BMC Microbiology*, 18(1), 1-10.

Murugesan, R., & Orsat, V. (2011). Spray drying of elderberry (*Sambucus nigra* L.) juice to maintain its phenolic content. *Drying Technology*, 29(14), 1729-1740.

Noma, S., Kikuchi, Y., Satou, M., Tanaka, T., Takiya, T., Okusu, H., ... & Mano, J. (2022). Simple, Precise, and Less Biased GMO Quantification by Multiplexed Genetic Element-Specific Digital PCR. *Journal of AOAC International*, 105(1), 159-166.

Obón, J. M., Castellar, M. R., Alacid, M., & Fernández-López, J. A. (2009). Production of a red-purple food colorant from *Opuntia stricta* fruits by spray drying and its application in food model systems. *Journal of Food Engineering*, 90(4), 471-479.

Özyurt, G., & Yeşilsu, A. F. Microencapsulation of Anchovy Fish Oil (*Engraulis encrasiculus*) with Fish Protein (*Equulites klunzingeri*) Isolate: Nutritional Assessment. *Aquatic Food Studies* 1(1), AFS16

Pellicer, J. A., Fortea, M. I., Trabal, J., Rodríguez-López, M. I., Gabaldón, J. A., & Núñez-Delicado, E. (2019). Stability of microencapsulated strawberry flavour by spray drying, freeze drying and fluid bed. *Powder Technology*, 347, 179-185.

- Pupa, P., Apiwatsiri, P., Sirichokchatchawan, W., Pirarat, N., Maison, T., Koontanatechanon, A., & Prapasarakul, N. (2021 June). Use of Lactobacillus plantarum (strains 22F and 25F) and Pediococcus acidilactici (strain 72N) as replacements for antibiotic-growth promotants in pigs. *Scientific Reports*, 11(1), 1-12.
- Pupa, P., Apiwatsiri, P., Sirichokchatchawan, W., Pirarat, N., Muangsin, N., Shah, A. A., & Prapasarakul, N. (2021 July). The efficacy of three double-microencapsulation methods for preservation of probiotic bacteria. *Scientific Reports*, 11(1), 1-9.
- Radünz, M., dos Santos Hackbart, H. C., Camargo, T. M., Nunes, C. F. P., de Barros, F. A. P., Dal Magro, J., ... & da Rosa Zavareze, E. (2020). Antimicrobial potential of spray drying encapsulated thyme (*Thymus vulgaris*) essential oil on the conservation of hamburger-like meat products. *International Journal of Food Microbiology*, 330, 108696.
- Robertson, S., Burakoff, A., Stevenson, L., Tompkins, B., Patel, K., Tolar, B., ... & Basler, C. (2018). Notes from the Field: Recurrence of a Multistate Outbreak of *Salmonella Enteritidis* Infections Linked to Contact with Guinea Pigs—Eight States, 2015–2017. *Morbidity and Mortality Weekly Report*, 67(42), 1195.
- Ros, M., de Souza Oliveira Filho, J., Murcia, M. D. P., Bustamante, M. A., Moral, R., Coll, M. D., ... & Pascual, J. A. (2017). Mesophilic anaerobic digestion of pig slurry and fruit and vegetable waste: dissection of the microbial community structure. *Journal of Cleaner Production*, 156, 757-765.
- Shi, K., Chen, Y., Yin, Y., Long, F., Feng, S., Liu, H., ... & Si, H. (2022). A Multiplex Crystal Digital PCR for Detection of African Swine Fever Virus, Classical Swine Fever Virus, and Porcine Reproductive and Respiratory Syndrome Virus. *Frontiers in Veterinary Science*, 9.
- Simpson, P. J., Stanton, C., Fitzgerald, G. F., & Ross, R. P. (2003). Genomic diversity and relatedness of bifidobacteria isolated from a porcine cecum. *Journal of Bacteriology*, 185(8), 2571-2581.
- Sollohub, K., Janczyk, M., Kutyla, A., Wosicka, H., Ciosek, P., & Cal, K. (2011). Taste masking of roxithromycin by spray drying technique. *Acta Poloniae Pharmaceutica*, 68(4), 601.
- Sultana, A., Miyamoto, A., Hy, Q. L., Tanaka, Y., Fushimi, Y., & Yoshii, H. (2017). Microencapsulation of flavors by spray drying using *Saccharomyces cerevisiae*. *Journal of Food Engineering*, 199, 36-41.
- Sunwoo, S. Y., Pérez-Núñez, D., Morozov, I., Sánchez, E. G., Gaudreault, N. N., Trujillo, J. D., ... & Richt, J. A. (2019). DNA-protein vaccination strategy does not protect from challenge with African swine fever virus Armenia 2007 strain. *Vaccines*, 7(1), 12.
- Szczerbal, I., Nowacka-Woszuk, J., Dzimira, S., Matuszczyk, A., Iskrzak, P., & Switonki, M. (2019). Elevated incidence of freemartinism in pigs detected by droplet digital PCR and cytogenetic techniques. *Livestock Science*, 219, 52-56.
- Szczerbal, I., Nowacka-Woszuk, J., Kopp-Kuhlman, C., Mackowski, M., & Switonki, M. (2020). Application of droplet digital PCR in diagnosing of X monosomy in mares. *Equine Veterinary Journal*, 52(4), 627-631.
- Taipa, R., Lopes, V., & Magalhães, M. (2008). *Streptococcus suis* meningitis: first case report from Portugal. *Journal of Infection*, 56(6), 482-483.
- Uysal, A., & Durak, Y. (2012). Pulsed-field gel electrophoresis typing, antibiotic resistance, and plasmid profiles of *Escherichia coli* strains isolated from foods. *Canadian Journal of Microbiology*, 58(11), 1278-1287.
- Vega-Sagardía, M., Rocha, J., Sáez, K., Smith, C. T., Gutierrez-Zamorano, C., & García-Cancino, A. (2018). Encapsulation, with and



without oil, of biofilm forming *Lactobacillus fermentum* UCO-979C strain in alginate-xanthan gum and its anti-*Helicobacter pylori* effect. *Journal of Functional Foods*, 46, 504-513.

Vernile, A., Giannanco, G., & Massa, S. (2009). PFGE: importance in food quality. *Recent Patents on Food, Nutrition and Agriculture*, 1(3), 248-51.

Wu, X., Lin, H., Chen, S., Xiao, L., Yang, M., An, W., ... & Yang, Z. (2017). Development and application of a reverse transcriptase droplet digital PCR (RT-ddPCR) for sensitive and rapid detection of Japanese encephalitis virus. *Journal of Virological Methods*, 248, 166-171.

Wu, J., Wu, L., Wan, F., Rantanen, J., Cun, D., & Yang, M. (2019). Effect of thermal and shear stresses in the spray drying process on the stability of siRNA dry powders. *International Journal of Pharmaceutics*, 566, 32-39.

Xu, C., Zhang, J., Zhao, Z., Guo, L., Zhang, B., Feng, S., ... & Liao, M. (2011). Antimicrobial susceptibility and PFGE genotyping of *Haemophilus parasuis* isolates from pigs in South China (2008-2010). *Journal of Veterinary Medical Science*, 73(8), 1061-1065.

Yang, Q., Xi, J., Chen, X., Hu, S., Chen, N., Qiao, S., ... & Bao, D. (2017). The development of a sensitive droplet digital PCR for quantitative detection of porcine reproductive and respiratory syndrome virus. *International Journal of Biological Macromolecules*, 104, 1223-1228.

Ye, C., Zhu, X., Jing, H., Du, H., Segura, M., Zheng, H., ... & Xu, J. (2006). *Streptococcus suis* sequence type 7 outbreak, Sichuan, China. *Emerging Infectious Diseases*, 12(8), 1203.

Zakaria, Z., Hassan, L., Sharif, Z., Ahmad, N., Ali, R. M., Husin, S. A., ... & Garba, B. (2020). Analysis of *Salmonella enterica* serovar Enteritidis isolates from chickens and chicken meat products in Malaysia using PFGE, and MLST. *BMC Veterinary Research*, 16(1), 1-8.

Zhao, Y., Han, H. Y., Fan, L., Tian, R. B., Cui, J. T., Li, J. Y., ... & Zheng, L. L. (2019). Development of a TB green II-based duplex real-time fluorescence quantitative PCR assay for the simultaneous detection of porcine circovirus 2 and 3. *Molecular and Cellular Probes*, 45, 31-36.

Zhang, K., Lin, G., & Li, J. (2016). Quantitative nucleic acid amplification by digital PCR for clinical viral diagnostics. *Clinical Chemistry and Laboratory Medicine (CCLM)*, 54(9), 1427-1433.

Zhang, Z., Zhang, Y., Lin, X., Chen, Z., & Wu, S. (2019). Development of a novel reverse transcription droplet digital PCR assay for the sensitive detection of Senecavirus A. *Transboundary and Emerging Diseases*, 66(1), 517-525.