

REFERENCES

- Adler-Nissen, J. (1979). Determination of the degree of hydrolysis of food protein hydrolysates by trinitrobenzenesulfonic acid. *Journal of Agriculture and Food Chemistry*, 27, 1256-1262.
- Agboola, S. O., Mofolasayo, O. A., Watts, B. M., & Aluko, R. E. (2010). Functional Properties of Yellow Field Pea (*Pisum sativum* L.) Seed Flours and the in vitro Bioactive Properties of Their Polyphenols. *Food Research International*, 43, 582-588.
- Ahmad, A., Hayat, I., Arif, S., Masud, T., Khalid, N., & Ahmed, A. (2014). Mechanisms involved in the therapeutic effects of soybean (*Glycine max*). *International Journal of Food Properties*, 17, 1332-1354.
- Ageyi, D., & Danquah, M. K. (2011). Industrial-scale manufacturing of pharmaceutical-grade bioactive peptides. *Biotechnology Advances*, 29, 272-277.
- Anderson, J. W., Johnstone, B. M., & Cook-Newell, M. E. (1995). Meta-Analysis of the Effects of Soy Protein Intake on Serum Lipids. *The New England Journal of Medicine*, 333 (5), 276-282.
- Antolovich, M., Prenzler, P. D., Patsalides, E., McDonald, S., & Robards, K. (2002). Methods for Testing Antioxidant Activity. *The Royal Society of Chemistry*, 127, 183-198.
- AOCS (1989). Official methods and recommended practices of the American Oil Chemists' Society (4th ed.). Champaign, IL: AOCS.
- Ariza-Ortega, T. d., Zenón-Briones, E. Y., Castrejón-Flores, J. L., Yañez-Fernández, J., Gómez-Gómez, Y. d., & Oliver-Salvador, M. d. (2014). Angiotensin-I Converting Enzyme Inhibitory, Antimicrobial and Antioxidant Effect of Bioactive Peptides Obatined from Different Varieties of Common Beans (*Phaseolus vulgaris* L.) with in vivo antihypertensive activity in spontaneously hypertensive rats. *European Food Research and Technolgy*, 239, 785-794.
- Ashlock, L., Klerk, R., Huitink, G., Keisling, T., & Vories, E. (2014). Soybean Planting Practice. In *Arkansas Soybean Production Handbook* (pp. 1-7). Division of Agriculture, Research & Extension. University of Arkansas.
- Bahar, A. A., & Ren, D. (2013). Antimicrobial Peptides. *Pharmaceuticals*, 6, 1543-1575.
- Bauer, A., Kirby, W., Sherris, J., & Turck, M. (1966). Antibiotic susceptibility testing by a standardized single disk method. *The American Journal of Clinical Pathology*, 45(4), 493-496.
- Beer, A. d., & Vivier, M. A. (2011). Four Plant Defensins from an Indigenous South African Brassicaceae Species Display Divergent Activities Against Two Test Pathogens Despite High Sequence Similarity in the Encoding Genes. *BMC Research Notes*, 459 (4), 1-19.
- Brandon, & Friedman, M. (2001). Nutritional and helath benefits of soy proteins. *Journal of Agricultural and Food Chemistry*, 49 (3), 1069-1086.
- Caleya, R. F., Gonzalez-Pascual, B., García-Olmedo, F., & Carbonero, P. (1972). Susceptibility of Phytopathogenic Bacteria to Wheat Purothionins In Vitro. *Applied Microbiology*, 23 (5), 998-1000.

- Chalamaiah, M., Kumar, B. D., Hemalatha, R., & Jyothirmayi, T. (2012). Fish protein hydrolysates: Proximate composition, amino acid composition, antioxidant activities and applications: A review. *Food Chemistry*, *135*, 3020-3038.
- Chandrashekhara, N., Deepak, S., Manujunath, G., & Shetty, S. (2010). Thionins (PR protein 13) Mediate Pearl Millet Down Mildew Disease Resistance. *Archives of Phytopathology Plant Protect*, *43*, 1356-1366.
- Chiang, W. D., Tsou, M. J., Weng, C. H., & Tsai, T. C. (2008). Production of angiotensin I-converting enzyme inhibitor derived from egg white protein using a membrane reactor system. *Journal of Food and Drug Analysis*, *16*, 54–60.
- Chiang, W.-D., Shih, C.-J., & Chu, Y.-H. (1999). Functional Properties of Soy Protein Hydrolysate Produced from A Continuous Membrane Reactor System. *Food Chemistry*, *65* (2), 189-194.
- Chiang, W.-D., Tsou, M.-J., Tsai, Z.-Y., & Tsai, T.-C. (2006). Angiotensin-I Converting Enzyme Inhibitor Derived from Soy Protein Hydrolysate and Produced by Using Membrane Reactor. *Food Chemistry*, *98* (4), 725-732.
- Clemente, A. (2000). Enzymatic hydrolysates in human nutrition. *Trends in Food Science & Technology*, *11*, 254-262.
- De Beer, A. and Vivier, M. (2011). Four plants defensins from an indigenous South African Brassicaceae species display divergent activities against two test pathogens despite high sequences similarity in the encoding genes. *Biomedical Research Notes*, *4*.
- Dhayakaran, R. P., Neethirajan, S., Xue, J., & Shi, J. (2015). Characterization of antimicrobial efficacy of soy isoflavones against pathogenic biofilms. *LWT - Food Science and Technology*, *1-7*.
- Dhayakaran, R., Neethirajan, S., & Weng, X. (2016). Investigation of the antimicrobial activity of soy peptides by developing a high throughput drug screening assay. *Biochemistry and Biophysics Reports*, *6*, 149-157.
- Eom, J. S., Lee, S. Y., & Choi, H. S. (2014). *Bacillus subtilis* HJ18-4 from traditional fermented soybean food inhibits *Bacillus cereus* growth and toxin-related genes. *Institute for Food Technologists*, *79*, pp. 2279-2287.
- Fernandez, De Caleyra, Gonzalez Pascual, B., Garcia Olmedo, F. and Carbonero, P. (1972). Susceptibility of phytopathogenic bacteria to wheat purothionin *in vitro*. *Applied Microbiology*, *23*(5).
- Food and Agriculture Organization of the United Nations. (n.d.). *FAO Statistics*. Retrieved April 20, 2018, from FAO: <http://www.fao.org/faostat/en/#data/QC>
- Friedman, M. and Brandon, D. (2001). Nutritional and health benefits of soy proteins. *Journal of Agricultural and Food Chemistry*, *49*(3), pp.1069 – 1086.
- Fujimura, M., Ideguchi, M., Minami, Y., Watanabe, K., & Tadera, K. (2005). Amino acid sequence and antimicrobial activity of chitin-binding peptides, Pp-AMP 1 and Pp-AMP 2, from Japanese

- bamboo shoots (*Phyllostachys pubescens*). *Bioscience, Biotechnology, Biochemistry* , 69 (3), 642-645.
- Gobbetti, M., Ferranti, P., Smacchi, E., Goffredi, F., & Addeo, F. (2000). Production of angiotensin-I-converting-enzyme-inhibitory peptides in fermented milks started by *Lactobacillus delbrueckii* subsp. *bulgaricus* SS1 and *Lactococcus lactis* subsp. *cremoris* FT4. *Applied and Environmental Microbiology*, 66, 3898–3904.
- Golla, K., Vutukuru, S., Rani, J. U., Meghanath, P., & Pasha, C. (2016). Screening of small peptides from various germinating seeds having antimicrobial activity. *IOSR Journal of Pharmacy and Biological Sciences (IOSR-JPBS)* , 11 (1), 52-60.
- Jia, J., Ma, H., Zhao, W., Wang, Z., Tian, W., Luo, L., et al. (2010). The use of ultrasound for enzymatic preparation of ACE-inhibitory peptides from wheat germ protein. *Food Chemistry*, 119, 336–342.
- Johnston, N., Dettmar, P. W., Bishwokarma, B., Lively, M. O., & Koufman, J. A. (2007). Activity/Stability of Human Pepsin: Implications for Reflux Attributed Laryngeal Disease. *The Laryngoscope* , 1036-1039.
- Khanum, Rehman, S., & Azra. (2011). Isolation and Characterization of Peptide(s) from *Pisum sativum* having Antimicrobial Activity Against Various Bacteria. *Pakistan Journal of Botany* , 43 (6), 2971-2978.
- Kitts, D. D., & Weiler, K. (2003). Bioactive Proteins and Peptides from Food Sources. Applications of Bioprocesses used in Isolation and Recovery. *Current Pharmaceutical Design* , 9, 1309-1323.
- Korhonen, H., & Pihlanto, A. (2006). Bioactive peptides: Production and functionality. *International Dairy Journal*, 16, 945-960.
- Lin, Y., Meijer, G. W., Vermeer, M. A., & Trautwein, E. A. (2004). Soy Protein Enhances the Cholesterol-Lowering Effect of Plant Sterol Esters in Cholesterol-Fed Hamsters. *Nutrient Interactions and Toxicity* , 143-148.
- Li, Y., Xiang, Q., Zhang, Q., Huang, Y., & Su, Z. (2012). Overview on the recent study of antimicrobial peptides: Origins, functions, relative mechanisms and application. *Peptides* , 37 (2), 207-215.
- Lis, M., Fuss, J. R., & Bobek, L. A. (2009). Exploring the Mode of Action of Antimicrobial Peptide MUC7 12-Mer by Fitness Profiling of *Saccharomyces cerevisiae* Genomewide Mutant Collection. *Antimicrobial Agents and Chemotherapy* , 3762-3769.
- Lu, J., Zeng, Y., Hou, W., Zhang, S., Li, L., Luo, X., et al. (2012). The soybean peptide aglycin regulates glucose homeostasis in type 2 diabetic mice via IR/IRS1 pathway. *Journal of Nutritional Biochemistry* , 23, 1449-1457.
- Maiti, & K., R. (2012). *Crop Plant Anatomy*. CABI.

- Mangoni, M. L., & Shai, Y. (2011). Short native antimicrobial peptides and engineered ultrashort lipopeptides: similarities and differences in cell specificities and modes of action. *Cellular and Molecular Life Sciences*, 68.
- Maroti, G., Kereszt, A., Kondorosi, E., & Mergaert, P. (2011). Natural roles of antimicrobial peptides in microbes, plants and animals. *Research Microbiology*, 162 (4), 363-374.
- Martines, K. D., Baeza, R. I., Millan, F., & Pílosof, A. M. R. (2005). Effect of limited hydrolysis of sunflower protein on the interactions with polysaccharides in foams. *Food Hydrocolloids*, 19, 361-369.
- McClellan, S., Beggs, L. B., & Welch, R. W. (2014). Antimicrobial activity of antihypertensive food-derived peptides and selected alanine analogues. *Food Chemistry*, 146, 443-447.
- Meisel, H., & FitzGerald, R. J. (2003). Biofunctional peptides from milk proteins: mineral binding and cytomodulatory effects. *Current Pharmaceutical Design*, 9, 1289-1295.
- Mellander, O. (1950). The physiological importance of the casein phosphopeptide calcium salts. II. Per oral calcium dosage of infants. 55, 247-255.
- Moriyama, T., Kishimoto, K., Nagai, K., Urade, R., Ogawa, T., Utsumi, S., et al. (2004). Soybean Beta-Conglycinin Diet Suppresses Serum Triglyceride Levels in Normal and Genetically Obese Mice by Induction of Beta-Oxidation, Downregulation of Fatty Acid Synthase, and Inhibition of Triglyceride Absorption. *Bioscience, Biotechnology, and Biochemistry*, 68 (2), 352-359.
- Mur, L. A., Kenton, P., Lyod, A. J., Ougham, H., & Prats, E. (2008). The hypersensitive response: the centenary is upon us but how much do we know? *Journal of Experimental Botany*, 59 (3), 501-520.
- Nasri, M. (2016). Protein Hydrolysates and Biopeptides: Production, Biological Activities, and Applications in Foods and Health Benefits. A review. *Advances In Food And Nutrition Research*, 1-40. Doi: <http://dx.doi.org/10.1016/bs.afnr.2016.10.003>
- Nawrot, R., Barylski, J., Nowicki, G., Broniarczyk, J., Buchwald, W., & Goździcka-Józefiak, A. (2014). Plant Antimicrobial Peptides. *Folia Microbiol*, 59, 181-196.
- Nielsen, P., Petersen, D., & Dambmann, C. (2001). Improved method for determining food protein degree of hydrolysis. *Food Chemistry and Toxicology*, 66 (5), 642-646.
- Nikolopoulou, D., Grigorakis, K., Stasini, M., Alexis, M. N., & Iliadis, K. (2007). Differences in chemical composition of field pea (*Pisum sativum*) cultivars: Effects of cultivation area and year. *Food Chemistry*, 847-852.
- Osman, A., Goda, H. A., Abdel-Hamid, M., Badran, S. M., & Otte, J. (2016). Antibacterial Peptides Generated by Alcalase Hydrolysis of Goat Whey. *LWT - Food Science and Technology*, 65, 480-486.

- Park, I. Y., Cho, J. H., Kim, K. S., Kim, Y.-B., Kim, M. S., & Kim, S. C. (2004). Helix Stability Confers Salt Resistance upon Helical Antimicrobial Peptides. *The Journal of Biological Chemistry* , 279 (14), 13896-13901.
- Pelegrini, P. B., Sarto, R. P., Silva, O. N., Franco, O. L., & Grossi-de-Sa, M. F. (2011). Antibacterial Peptides from Plants: What They Are and How They Probably Work. *Biochemistry Research International* , 1-9.
- Pina-Pérez, M. C., & Pérez, M. A. (2018). Antimicrobial Potential of Legume Extracts Against Foodborne Pathogens: A Review. *Trends in Food Science & Technology* , 72, 114-124.
- Ponnusha, B. S., Pasupathi, P., subramaniyam, B., Subramaniyam, S., & Virumandy, R. (2011). A complete evaluation of the antioxidant and antimicrobial potential of Glycine max. *International Journal of Current Scientific Research* , 1 (2), 6-12.
- Powers, J., Rozek, A., & Hancock, R. (2004). Structure-activity relationships for the beta-hairpin cationic antimicrobial peptide polyphemusin I. *Molecular and Cell Biology* , 2, 239-250.
- Purcell, L. C., Salmeron, M., & Ashlock, L. (2014). Soybean growth and development. In *Arkansas Soybean Production Handbook* (pp. 1-8). Division of Agriculture, Research & Extension. University of Arkansas.
- R., F. d., B., G.-P., F., G.-O., & P., C. (1972). Susceptibility of phytopathogenic bacteria to wheat purothionins in vitro. *Applied Microbiology* , 23 (5), 998-1000.
- Rogers, S. (2007). *Man and the Biological World*. Read Books.
- Ruiz-Ruiz, J., Dàvila-Ortiz, G., Chel-Guerrero, L., & Betancur-Ancona, D. (2011). Angiotensin-I Converting Enzyme Inhibitory and Antioxidant Peptide Fractions from Hard-to-Cook Bean Enzymatic Hydrolysates. *Journal of Food Biochemistry* .
- Rutherford, S. (2010). Methodology for determining degree of hydrolysis of proteins in hydrolysates: a review. *Journal of the Association of Official Analytical Chemists* , 93 (5), 1515-1522.
- Schwartz, L. (2003). *Diafiltration: A fast, efficient method for desalting, or buffer exchange of biological samples*. Pall Life Sciences. Pall Life Sciences.
- Saadi, S., Saari, N., Anwar, F., Hamid, A. A., & Mohd Ghazali, H. (2015). Recent advances in food biopeptides: Production, biological functionalities and therapeutic applications. *Biotechnology advances*, 33, 80-116.
- Salas, C. E., Badillo-Corona, J. A., Ramirez-Sotelo, G., & Oliver-Salvador, C. (2015). Biologically active and antimicrobial peptides from plants. *BioMed Research International* , 1-15.
- Selitrennikoff, C. P. (2001). Antifungal Proteins. *Applied and Environmental Microbiology* , 67 (7), 2883-2894.
- Semreen, M. H., El-Gamal, M. I., Abdin, S., Alkhazraji, H., Kamal, L., Hammad, S., et al. (2018). Recent updates of marine antimicrobial peptides. *Saudi Pharmaceutical Journal* .

- Simpson, B. K., Nayeri, G., Yaylayan, V., & Ashie, I. N. A. (1998). Enzymatic hydrolysis of shrimp meat. *Food Chemistry*, 61, 131–138.
- Singh, B. P., Vij, S., & Hati, S. (2014). Functional significance of bioactive peptides derived from soybean. *Peptides*, 54, 171-179.
- Sharma, A., Ng, T. B., Wong, J. H., & Lin, P. (2009). Purification and Characterization of a Lectin from *Phaseolus vulgaris* cv. (Anasazi Beans). *Journal of Biomedicine and Biotechnology*, 1-9.
- Smith, A. D., Datta, S. P., Smith, G. H., Campbell, P. N., Bentley, R., & McKenzie, H. A. (1997). *Oxford Dictionary of Biochemistry and Molecular Biology*. Oxford University Press.
- Smith, M. E., & Morton, D. G. (2010). *Systems of the Body: The Digestive System*. Elsevier.
- Tam, J. P., Lu, Y.-A., Yang, J.-L., & Chiu, K.-W. (1999). An unusual structural motif of antimicrobial peptides containing end-to-end macrocycle and cystine-knot disulfides. *Biochemistry*, 96, 8913-8918.
- Tsou, M. J., Kao, F. J., Hhuang, J. B., & Chiang, W. D. (2009). Limited enzymatic hydrolysis of soy protein enhances cholesterol absorption inhibition in Caco-2 Cells. *Taiwanese Journal of Agricultural Chemistry and Food Science*, 47, 1–8.
- Tsou, M. J., Kao, F. J., Tseng, C. K., & Chiang, W. D. (2010). Enhancing the anti- adipogenic activity of soy protein by limited hydrolysis with flavourzyme and ultrafiltration. *Food Chemistry*, 122, 243–248.
- Tsou, M.-J., Kao, F.-J., Lu, H.-C., Kao, H.-C., & Chiang, W.-D. (2013). Purification and Identification of Lipolysis-Stimulating Peptides Derived from Enzymatic Hydrolysis of Soy Protein. *Food Chemistry*, 138 (2-3), 1454-1460.
- Tsou, M.-J., Lin, W.-T., Lu, H.-C., Tsui, Y.-L., & Chiang, W.-D. (2010). The Effect of Limited Hydrolysis with Neutrase and Ultrafiltration on the Anti-Adipogenic Activity of Soy Protein. *Process Biochemistry*, 45 (2), 217-222.
- Tsou, M.-J., Lin, S.-B., Chao, C.-H., & Chiang, W.-D. (2012). Enhancing the Lipolysis-Stimulating Activity of Soy Protein using Limited Hydrolysis with Flavourzyme and Ultrafiltration. *Food Chemistry*, 134 (3), 1564-1570.
- Tullu, Muehlbauer, F. J., & Abebe. (1997). *Pea (Pisum sativum)*. (Purdue University) Retrieved March 22, 2018, from New Crop Fact Sheet: <https://hort.purdue.edu/newcrop/CropFactSheets/pea.html>
- Van der Ven, C., Gruppen, H., de Bont, D. B. A., & Voragen, A. G. J. (2002). Optimization of the angiotensin converting enzyme inhibition by whey protein hydrolysates using response surface methodology. *International Dairy Journal*, 12, 813–820.

- Vasconcellos, F. C., Woiciechowski, A. L., Soccol, V. T., Mantovani, D., & Soccol, C. R. (2014). Antimicrobial and antioxidant properties of β -conglycinin and glycinin from soy protein isolate. *International Journal of Current Microbiology and Applied Sciences* , 3 (8), 144-157.
- Wagh, F. H., Barai, R. S., Gurung, P., & Idicula-Thomas, S. (2016). *CAMPR3: a database on sequences, structures and signatures of antimicrobial peptides*. Retrieved April 3, 2018, from CAMPR3 - Collection of Antimicrobial Peptides: <http://www.camp3.bicnirrh.res.in/>
- Wang, G., Li, X., & Wang, Z. (2016). *The Antimicrobial Peptide Database*. Retrieved April 3, 2018, from Antibacterial Peptides: <http://aps.unmc.edu/AP/main.php>
- Wang, Z., & Wang, G. (2004). APD: the Antimicrobial Peptide Databas. *Nucleic Acid Research* , 32, 590-592.
- Witkowska, D., Bartys, A., & Gamian, A. (2008). Defensins and cathelicidins as natural peptide antibiotics. *Postepy Hig Med Dosw (Online)* , 62, 694-707.
- Wong, J. H., & Ng, T. B. (2005). Lunatusin, a trypsin-stable antimicrobial peptide from lima beans (*Phaseolus lunatus* L.). *Peptides* , 26 (11), 2086-2092.
- Xiang, N., Lyu, Y., Zhu, X., Bhunia, A. K., & Narsimhan, G. (2016). Methodology for identification of pore forming antimicrobial peptides from soy protein subunits β -conglycinin and glycinin. *Peptides* , 85, 27-40.
- Xiao, C. W. (2008). Health Effects of Soy Protein and Isoflavones in Humans. *The Journal of Nutrition* , 1244-1249.
- Zanetti, M. (2004). Cathelicidins, multifunctional peptides of the innate immunity. *Journal of Leukocyte Biology* , 75, 39-48.
- Zhang, L.-J., & Gallo, R. L. (2016). Antimicrobial Peptides. *Current Biology Magazine* , 26, pp. R14-R19.
-