

## REFERENCES

- Abd, T.T., and Jacobson, T.A., "Statin-induced myopathy: a review and update," *Expert opinion on drug safety*, Vol. 10, No. 3, 2011, 373–387.
- Abdel-Aal, E. S.M., Young, J.C., and Rabalski, I., "Anthocyanin composition in black, blue, pink, purple, and red cereal grains," *Journal of Agricultural and Food Chemistry*, Vol. 54, No. 13, 2006, 4696–4704.
- Abduljaleel, S.A., Shuhaimi-Othman, M., and Babji, A., "Variation in trace elements levels among chicken, quail, guinea fowl and pigeon eggshell and egg content," *Research Journal of Environmental Toxicology*, Vol. 5, No. 5, 2011, 301–308.
- Abou-Kassem, D.E., Mahrose, K.M., and Alagawany, M., "The role of vitamin E or clay in growing Japanese quail fed diets polluted by cadmium at various levels," *Animal*, Vol. 10, No. 3, 2016, 508–519.
- Agboola, A.F., Awoyemi, M.O., Inyang, U.O., and Ogunbode, S.M., "Growth response and nutrient digestibility of broiler chickens fed wheat-based diets supplemented with an exogenous enzyme," *International Journal of Agriculture and Biosciences*, Vol. 3, No. 2, 2014, 95–101.
- Ahmad, A., Panda, B.P., Khan, S., Ali, M., and Javed, S., Downstreaming and purification of lovastatin from *Monascus purpureus* culture. *Thai Journal of Pharmaceutical Sciences*, Vol. 33, 2009, 39–46.
- Ahmad, M., and Panda, B.P., "Optimization of red pigment production by *Monascus purpureus* MTCC 369 under solid-state fermentation using response surface methodology," *Songklanakarin Journal of Science and Technology*, Vol. 36, No. 4, 2014, 439–444.

- Alberts, A.W., Chen, J., Kuron, G., Hunt, V., Huff, J., Hoffman, C., and Springer, J., "Mevinolin: a highly potent competitive inhibitor of hydroxymethylglutaryl-coenzyme A reductase and a cholesterol-lowering agent," *Proceedings of the National Academy of Sciences*, Vol. 77, No. 7, 1980, 3957–3961.
- Al-Daraji, H.J., Al-Hassani, A.S., Al-Mashadani, H.A., Al-Hayani, W.K., Mirza, H.A., "Effect of dietary supplementation with sources of omega-3 and omega-6 fatty acids on certain blood characteristics of laying quail," *International Journal of Poultry Science*, Vol. 9, No. 7, 2010, 689–694.
- Alexopoulos, C.J., Mims, C.W., and Blackwell, M., *Introductory mycology*, John Wiley and Sons, 4<sup>th</sup> edition, 1996.
- Al-Shahrani, M.M., Zaman, G.S., and Amanullah, M., "Measurement of antioxidant activity in selected food products and nutraceuticals," *Journal of Nutrition and Food Sciences*, Vol. 3, 2013, 1–6.
- Anderson, J.W., Allgood, L.D., Lawrence, A., Altringer, L.A., Jerdack, G.R., Hengehold, D.A., and Morel, J.G., "Cholesterol-lowering effects of psyllium intake adjunctive to diet therapy in men and women with hypercholesterolemia: meta-analysis of 8 controlled trials," *The American journal of clinical nutrition*, Vol. 71, No. 2, 2000, 472–479.
- Anderson, J.W., Jones, A.E., and Riddell-Mason, S., "Ten different dietary fibers have significantly different effects on serum and liver lipids of cholesterol-fed rats," *The Journal of nutrition*, Vol. 124, No. 1, 1994, 78–83.
- Ansorge, M.B., and Kula, M.R., "Investigating expression systems for the stable large-scale production of recombinant L-leucine-dehydrogenase from *Bacillus cereus* in *Escherichia coli*," *Applied Microbiology and Biotechnology*, Vol. 53, 2000, 668–673.
- Applegate, E., "Introduction: nutritional and functional roles of eggs in the diet," *Journal of the American College of Nutrition*, Vol. 19, No. 5, 2000, 495–498.

- Arunmas P., “Rice exporters pessimistic about market prospects,” Website: <http://www.bangkokpost.com/print/842220/>, 6 July 2016.
- Ascherio, A., “Epidemiologic studies on dietary fats and coronary heart disease,” *The American journal of medicine*, Vol. 113, No. 9, 2002, 9–12.
- Assmann, G., Carmena, R., Cullen, P., Fruchart, J. C., Jossa, F., Lewis, B., and Paoletti, R., “Coronary heart disease: reducing the risk,” *Circulation*, Vol. 100, No. 18, 1999, 1930–1938.
- Astrup, A., Dyerberg, J., Elwood, P., Hermansen, K., Hu, F.B., Jakobsen, M.U., and Nestel, P., “The role of reducing intakes of saturated fat in the prevention of cardiovascular disease: where does the evidence stand in 2010,” *The American journal of clinical nutrition*, Vol. 93, No. 4, 2011, 684–688.
- Austin, M.A., Brunzell, J.D., Fitch, W.L., and Krauss, R.M., “Inheritance of low density lipoprotein subclass patterns in familial combined hyperlipidemia,” *Arteriosclerosis, Thrombosis, and Vascular Biology*, Vol. 10, No. 4, 1990, 520–530.
- Ayasan T., “Effects of dietary *Yucca schidigera* on hatchability of Japanese quails,” *The Indian Journal of Animal Sciences*, Vol. 83, No. 6, 2013b, 641–644.
- Aydin, R., Karaman, M., Cicek, T., and Yardibi, H., “Black cumin (*Nigella sativa* L.) supplementation into the diet of the laying hen positively influences egg yield parameters, shell quality, and decreases egg cholesterol,” *Poultry Sciences*, Vol. 87, No. 12, 2008, 2590–2595.
- Aziz Z., Cyriac S., Beena V., and Philomina P.T., “Comparison of cholesterol content in chicken, duck and quail eggs,” *Journal of Veterinary and Animal Sciences*, Vol. 43, 2012, 64–66.
- Babitha, S., Soccol, C. R., and Pandey, A., “Jackfruit seed-a novel substrate for the production of *Monascus* pigments through solid-state fermentation,” *Food Technology and Biotechnology*, Vol. 44, No. 4, 2006, 465–471.

- Babu P.D., Subhasree R.S., Bhakayaraj R., and Vidhyalakshmi R., "Brown rice-beyond the color reviving a lost health food-a review," *American-Eurasian Journal of Agronomy*, Vol. 2, No. 2, 2009, 67–72.
- Baipong, S., and Pinthong, R., "Production of red pigment and citrinin by *Monascus purpureus*," *Journal of Agricultural Science*, 2003, 4–6.
- Baltz, R.H., *Manual of industrial microbiology and biotechnology*, American Society for Microbiology, Washington, DC, 1986, 184–190, ISBN : 0914826727.
- Baneshi, F., Azizi, M., Saberi, M., and Farsi, M., "Original Research Article Evaluation of pH, carbon source and temperature effect on the pigments production by *Monascus purpureus* in a liquid culture using response surface methodology," *International Journal of Current Microbiology and Applied Sciences*, Vol. 3, No. 10, 2014, 905–911.
- Baumgartner, J., "Japanese quail production, breeding and genetics," *World's Poultry Science Journal*, Vol. 50, No. 3, 1994, 227–235.
- Becker, D.J., Gordon, R.Y., Halbert, S.C., French, B., Morris, P.B., and Rader, D.J., "Red yeast rice for dyslipidemia in statin-intolerant patients: a randomized trial," *Annals of internal medicine*, Vol. 150, No. 12, 2009, 830–839.
- Bellows, L., and Moore, R., *Dietary fat and cholesterol*, Colorado State University Extension. Food and Nutrition Series. Health, 2012, No. 9.
- Betina, V., *Mycotoxins. Chemical, Biological and Environmental aspects*. Elsevier Science, 1 edition, Elsevier, 1989, ISBN: 0444988858.
- Better Health Channel (Australia), "Cholesterol," Website: [http://www.betterhealth.vic.gov.au/Bhcv2/bhcarticles.nsf/pages/Cholesterol\\_explained?open](http://www.betterhealth.vic.gov.au/Bhcv2/bhcarticles.nsf/pages/Cholesterol_explained?open), 25 July 2016.
- Bezerra, M.A., Santelli, R.E., Oliveira, E.P., Villar, L.S., and Escalera, L.A., "Response surface methodology (RSM) as a tool for optimization in analytical chemistry," *Talanta*, Vol. 76, No. 5, 2008, 965–977.

- Blanc, P. J., Hajjaj, H., Loret, M. O., and Goma, G., "Control of production of citrinin by *Monascus*. In The symposium on *Monascus* culture and applications," 1989.
- Blanc, P.J., Loret, M.O., and Goma, G., "Production of citrinin by various species of *Monascus*," *Biotechnology Letters*, Vol. 17, No. 3, 1995, 291–294.
- Bourke, R. M., "Root crops in Papua New Guinea," In *Proceedings of the 5th International Symposium on Tropical Root and Tuber Crops (Philippines, 1979)*, 1982, 121–133.
- Bovell-Benjamin, A.C., "Sweet potato: a review of its past, present, and future role in human nutrition," *Advances in food and nutrition research*, Vol. 52, 2007, 1–59.
- Bragagnolo, N., and Rodriguez-Amaya, D.B., "Comparison of the cholesterol content of Brazilian chicken and quail eggs," *Journal of Food Composition and Analysis*, Vol. 16, No. 2, 2003, 147–153.
- Brand-Williams, W., Cuvelier M.E., and Berset C.L.W.T., "Use of a free radical method to evaluate antioxidant activity," *LWT-Food Science and Technology*, Vol. 28, No. 1, 1995, 25–30.
- Bunnoy, A., Saenphet, K., Lumyong, S., Saenphet, S., and Chomdej, S., "*Monascus purpureus*-fermented Thai glutinous rice reduces blood and hepatic cholesterol and hepatic steatosis concentrations in diet-induced hypercholesterolemic rats," *BMC complementary and alternative medicine*, Vol. 15, No. 88, 2015, 1–11.
- Cakir S., Midilli M., Erol H., Simsek N., Cinar M., Altintas A., and Antalyali A., "Use of combined probiotic-prebiotic, organic acid and avilamycin in diets of Japanese quails," *Revue de Médecine Vétérinaire (Toulouse)*, Vol. 159, No. 11, 2008, 565–569.
- Campoy, S., Rumbero, A., Martín, J.F., and Liras, P., "Characterization of an hyperpigmenting mutant of *Monascus purpureus* IB1: identification of two novel pigment chemical structures. *Applied Microbiology and Biotechnology*, Vol. 70, No. 4, 2006, 488–496.

- Carden, T.J., Hang, J., Dussault, P.H., and Carr, T.P., "Dietary Plant Sterol Esters Must Be Hydrolyzed to Reduce Intestinal Cholesterol Absorption in Hamsters," *The Journal of Nutrition*, Vol. 145, No. 6, 2015, 1402–1407.
- Carr, M.C., "The emergence of the metabolic syndrome with menopause. *The Journal of Clinical Endocrinology and Metabolism*," Vol. 88, No. 6, 2003, 2404–2411.
- Carvalho, J.C., Oishi, B.O., Woiciechowski, A.L., Pandey, A., Babitha, S., and Soccol, C.R., "Effect of substrates on the production of *Monascus* biopigments by solid-state fermentation and pigment extraction using different solvents," *Indian Journal of Biotechnology*, Vol. 6, No. 2, 2007, 194–199.
- Cecil, H.C., Bitman, J., Svoboda, J.A., and Thompson, M.J., "Effects of branched and straight chain amines and azasteroids on blood and egg cholesterol of white leghorn chickens," *Poultry science*, Vol. 60, No. 4, 1981, 795–804.
- Chairote E., Chairote G., Wongpornchai S., and Lumyong S., "Preparation of red yeast rice using various Thai glutinous rice and *Monascus purpureus* CMU001 isolated from commercial Chinese red yeast rice sample," *KMITL Science Journal*, Vol. 7, 2007, 28–37.
- Chairote, E. O., Chairote, G., and Lumyong, S., "Red yeast rice prepared from thai glutinous rice the antioxidant activities," *Science: Journal Articles*, 2009.
- Chairote, E. O., Chairote, G., Niamsup, H., and Lumyong, S., "The presence and the content of monacolins in Red Yeast rice prepared from Thai glutinous rice," *World Journal of Microbiology and Biotechnology*, Vol. 24, No. 12, 2008, 3039–3047.
- Chang, Y. N., Huang, J. C., Lee, C. C., Shih, L., and Tzeng, Y. M., "Use of response surface methodology to optimize culture medium for production of lovastatin by *Monascus ruber*," *Enzyme and Microbial Technology*, Vol. 30, No. 7, 2002, 889–894.

- Chayawat, J., Jareonkitmongkol, S., Songsasen, A., Isariyodom, S., and Yongsmith, B., "Rice solid fermentation of monacolins and pigments by *Monascus kaoliang* KB9 and its color mutants," *Journal of Biotechnology*, Vol. 136, 2008, 750.
- Chen, F., and Hu, X., "Study on red fermented rice with high concentration of monacolin K and low concentration of citrinin," *International journal of food microbiology*, Vol. 103, No. 3, 2005, 331–337.
- Chen, M., Liu, H., Zhen, D., Fang, S., "Research on the esterification property of esterase produced by *Monascus* sp.," *African Journal of Biotechnology*, Vol. 10, No. 26, 2013, 5166–5172.
- Chen, P.N., Chu, S.C., Chiou, H.L., Chiang, C.L., Yang, S.F., and Hsieh, Y.S., "Cyanidin 3-glucoside and peonidin 3-glucoside inhibit tumor cell growth and induce apoptosis in vitro and suppress tumor growth in vivo," *Nutrition and Cancer*, Vol. 53, No. 2, 2005, 232–243.
- Chen, W.P., Ho, B.Y., Lee, C.L., Lee, C.H., and Pan, T.M. "Red mold rice prevents the development of obesity, dyslipidemia and hyperinsulinemia induced by high-fat diet," *International Journal of Obesity*, Vol. 32, No. 11, 2008, 1694–1704.
- Chen, M.J., Chen, J.J., Wu, M.D., Yang, P.S., and Yuan, G.F., "Isolation and structure determination of one new metabolite isolated from the red fermented rice of *Monascus purpureus*," *Natural product research*, Vol. 24, No. 10, 2010, 979–988.
- Chi, M.S., and Speers, G.M., "Effects of dietary protein and lysine levels on plasma amino acids, nitrogen retention and egg production in laying hens," *The Journal of nutrition*, Vol. 106, No. 8, 1976, 1192–1201.
- Childress, L., Gay, A., Zargar, A., and Ito, M.K., "Review of red yeast rice content and current Food and Drug Administration oversight," *Journal of Clinical Lipidology*, Vol. 7, No. 2, 2013, 117–122.

- Chiu C.H., Ni K.H. Guu Y.K., and Pan T.M., "Production of red mold rice using a modified Nagata type koji maker," *Applied Microbiology and Biotechnology*, Vol. 73, No. 2, 2006, 297–304.
- Chong, Y.H., and Ng, T.K., "Effects of palm oil on cardiovascular risk," *Medical Journal of Malaysia*, Vol. 46, No. 1, 2010, 41–50.
- Christaki, E.V., Bonos, E.M., and Florou-Paneri, P.C., "Use of anise seed and/or  $\alpha$ -tocopheryl acetate in laying Japanese quail diets," *Journal of Animal Science*, Vol. 41, No. 2, 2011, 126–133.
- Chuan, X.X., An, X., Li, J.W., Jian, M.Y., Jian, B.Y., and Zeng L.Y., "Comparison of base substitutions in response to nitrogen ion implantation and  $^{60}\text{Co}$ -gamma ray irradiation in *Escherichia coli*," *Genetics and molecular biology*, Vol. 27, No. 2, 2004, 284–290.
- Chung, C.C., Huang, T.C., and Chen, H.H., "The optimization of *Monascus* fermentation process for pigments increment and citrinin reduction," *Bioinformatics and Bioengineering*, 2009 IEEE International Conference, 22–24 June 2009, Taichung, Taiwan, 77–83.
- Cooper, D.N., and Krawczak, M. *Human gene mutation*. Bios Scientific Publishers, 1993, ISBN:1872748414.
- De Oliveira Otto, M.C., Mozaffarian, D., Kromhout, D., Bertoni, A.G., Sibley, C.T., Jacobs, D.R., and Nettleton, J.A., "Dietary intake of saturated fat by food source and incident cardiovascular disease: the Multi-Ethnic Study of Atherosclerosis," *The American journal of clinical nutrition*, Vol. 96, No. 2, 2012, 397–404.
- Del Gallo, M.M., Gratani, L., and Morpurgo, G., *Azospirillum III: Genetics·Physiology·Ecology Proceedings of the Third Bayreuth Azospirillum Workshop*, Springer Science and Business Media, 2012, ISBN: 3642707912.
- Demain, A.L., "Pharmaceutically active secondary metabolites of microorganisms," *Applied microbiology and biotechnology*, Vol. 52, No. 4, 1999, 455–463.

- Denli, M., Cankaya, S., Silici, S., Okan, F., and Uluocak, A.N., "Effect of dietary addition of Turkish propolis on the growth performance, carcass characteristics and serum variables of quail (*Coturnix coturnix japonica*)," Asian-Australasian Journal of Animal Sciences, Vol. 18, No. 6, 2005, 848–854.
- Deshpande, S.S., Handbook of Food Toxicology, CRC Press, 2002, ISBN:0824743903.
- Dhale, M., and Govindaswamy, V., "Optimization of monacolin K production by *Monascus purpureus* MTTC 410 in submerged fermentation," International Journal of Food Engineering, Vol. 8, 2012, No. 3.
- Dietschy, J.M., "Overview of cholesterol and lipoprotein metabolism in the brain, liver and extrahepatic organs," Nutrition, Metabolism and Cardiovascular Diseases, Vol. 7, No. 3, 1997, 162–168.
- Dung, N.T.P., Rombouts, F.M., and Nout, M.J.R., "Development of defined mixed-culture fungal fermentation starter granulate for controlled production of rice wine," Innovative Food Science and Emerging Technologies, Vol. 6, No. 4, 2005, 429–441.
- Dung, N.T.P., Rombouts, F.M., and Nout, M.J.R., "Functionality of selected strains of moulds and yeasts from Vietnamese rice wine starters," Food microbiology, Vol. 23, No. 4, 2006, 331–340.
- Eisenbrand, G., "Toxicological evaluation of red mould rice," Molecular nutrition and food research, Vol. 50, No. 34, 2006, 322–327.
- Elangovan, A.V., Tyagi, P.K., Mandal, A.B., Tyagi, P.K., and Deo, C., "Effect of dietary supplementation of certain herbal agents and cholesterol lowering drug on egg production performance and egg quality of Japanese quail layers," Indian Journal of Poultry Science, Vol. 46, No. 3, 2011, 316–319.
- Elkin, R.G., "Reducing shell egg cholesterol content. II. Review of approaches utilizing non-nutritive dietary factors or pharmacological agents and an examination of emerging strategies," World's Poultry Science Journal, Vol. 63, No. 1, 2007, 5–32.

- Elkin, R.G., Yan, Z., Zhong, Y., Donkin, S.S., Buhman, K.K., Story, J.A., and Newton, R.S., "Select 3-hydroxy-3-methylglutaryl-coenzyme A reductase inhibitors vary in their ability to reduce egg yolk cholesterol levels in laying hens through alteration of hepatic cholesterol biosynthesis and plasma VLDL composition," *The Journal of nutrition*, Vol. 129, No. 5, 1999, 1010–1019.
- Endo, A., "Monacolin K, a new hypocholesterolemic agent produced by a *Monascus* species," *The Journal of antibiotics*, Vol. 32, No. 8, 1979, 852–854.
- Endo, A., "The discovery and development of HMG-CoA reductase inhibitors," *Journal of lipid research*, Vol. 33, No. 11, 1992, 1569–1582.
- Erdogrul, O., and Azirak, S., "Review of the studies on the red yeast rice (*Monascus purpureus*)," *Turkish Electronic journal of Biotechnology*. Vol. 2, No. 5, 2004, 37–49.
- Fabre, C. E., Santerre, A.L., Loret, M.O., Baberian, R., Pareilleux, A., Goma, G., and Blanc, P.J., "Production and food applications of the red pigments of *Monascus ruber*," *Journal of Food Science*, Vol. 58, No. 5, 1993, 1099–1102.
- Faltaos, D.W., Urien, S., Carreau, V., Chauvenet, M., Hulot, J.S., Giral, P., and Lechat, P., "Use of an indirect effect model to describe the LDL cholesterol-lowering effect by statins in hypercholesterolaemic patients," *Fundamental and clinical pharmacology*, Vol. 20, No. 3, 2006, 321–330.
- Fang, C., Zhou, J., Deng, J., Jiang, D., Ma, Q., and Sun, Z., "Research on mutation breeding technology of *Monascus purpureus* for *Monascus* pigment production at high level," *China Brewing*, Vol. 23, 2008, 008.
- Fatemi, F., Allameh, A., Dadkhah, A., Forouzandeh, M., Kazemnejad, S., and Sharifi, R., "Changes in hepatic cytosolic glutathione S-transferase activity and expression of its class-P during prenatal and postnatal period in rats treated with aflatoxin B1," *Archives of Toxicology*, Vol. 80, No. 3, 2006, 572–579.

- Feng, Y., Shao, Y., Zhou, Y., and Chen, F., “Monacolin K production by citrinin-free *Monascus pilosus* MS-1 and fermentation process monitoring,” *Engineering in Life Sciences*, Vol. 14, No. 5, 2014, 538–545.
- Fernando B., “Rice as a source of fiber,” *Journal of Rice Research*, Vol.1, 2013, 1–4.
- Fouler, S.G., Trivedi, A.B., and Kitabatake, N. “Detoxification of citrinin and ochratoxin A by hydrogen peroxide,” *Journal of AOAC International*, Vol. 77, No. 3, 1993, 631–637.
- Fraeye, I., Bruneel, C., Lemahieu, C., Buyse, J., Muylaert, K., and Foubert, I., 2012. Dietary enrichment of eggs with omega-3 fatty acids: A review. *Food Research International*, Vol. 48, No. 2, 2012, 961–969.
- Fuller, N.R., Caterson, I.D., Sainsbury, A., Denyer, G., Fong, M., Gerofi, J., and Markovic, T.P., “The effect of a high-egg diet on cardiovascular risk factors in people with type 2 diabetes: the Diabetes and Egg (DIABEGG) study—a 3-mo randomized controlled trial,” *The American journal of clinical nutrition*, Vol. 101, No. 4, 2015, 705–713.
- Furberg, C.D., Herrington, D.M., and Psaty, B.M., “Are drugs within a class interchangeable,” *The Lancet*, Vol. 354, No. 9185, 1999, 1202–1204.
- Gallaher, D.D., Gallaher, C.M., Mahrt, G.J., Carr, T.P., Hollingshead, C.H., Hesslink Jr, R., and Wise, J., “A glucomannan and chitosan fiber supplement decreases plasma cholesterol and increases cholesterol excretion in overweight normocholesterolemic humans,” *Journal of the American College of Nutrition*, Vol. 21, No. 5, 2002, 428–433.
- Galobart, J., Sala, R., Rincón-Carruyo, X., Manzanilla, E.G., Vila, B., and Gasa, J., “Egg yolk color as affected by saponification of different natural pigmenting sources,” *The Journal of Applied Poultry Research*, Vol. 13, No. 2, 2002, 328–334.
- Genchev, A., 2012. “Quality and composition of Japanese quail eggs (*Coturnix japonica*),” *Trakia Journal of Sciences*, Vol. 10, No. 2, 2002, 91–101.

- Goldstein, L.J., and Brown, S.M., "The low-density lipoprotein pathway and its relation to atherosclerosis," Annual review of biochemistry, Vol. 46, No. 1, 1977, 897–930.
- Greenberg, J.S., Empowering Health Decisions, Jones and Bartlett Publishers, 2014, ISBN: 9781449690403.
- Grundy, S.M., Brewer, H.B., Cleeman, J.I., Smith, S.C., and Lenfant, C., "Definition of metabolic syndrome report of the National Heart, Lung, and Blood Institute/American Heart Association Conference on scientific issues related to definition," Circulation, Vol. 109, No. 3, 2004, 433–438.
- Guis, S., Mattei, J.P., Cozzone, P.J., and Bendahan, D. "Pathophysiology and clinical presentations of rhabdomyolysis," Joint Bone Spine, Vol. 72, No. 5, 2005, 382–391.
- Gylling, H., Plat, J., Turley, S., Ginsberg, H.N., Ellegård, L., Jessup, W., and Chapman, M.J., "Plant sterols and plant stanols in the management of dyslipidaemia and prevention of cardiovascular disease," Atherosclerosis, Vol. 232, No. 2, 2014, 346–360.
- Hajjai, H., Blanc, P., Groussac, E., Uribebarrea, J.L., Gomas, G. and Loubiere, P., "Kinetic analysis of red pigment and citrinin production by *Monascus ruber* as a function of organic acid accumulation," Enzyme and Microbial Technology, Vol. 27, No. 8, 2000b, 619–625.
- Hajjaj H., Klæbe A., Goma G., Blanc P.J., Barbier E., and Francois J., "Medium-chain fatty acids affect citrinin production in the filamentous fungus *Monascus ruber*," Applied and Environmental Microbiology, Vol. 66, No. 3, 2000a, 1120–1125.
- Hajjaj, H, Blanc, P.J., Groussac, E., Goma, G., Uribebarrea, J.L., and Loubiere, P., "Improvement of red pigment/citrinin production ratio as a function of environment condition by *Monascus ruber*." Biotechnology and bioengineering, Vol. 64, No. 4, 1999, 497–501.

- Hajjaj, H., Goma, G., and François, J.M., “Effect of the cultivation mode on red pigments production from *Monascus ruber*,” International Journal of Food Science and Technology, Vol. 50, No. 8, 2015, 1731–1736.
- Hajjaj, H., Niederberger, P. and Duboc, P., “Lovastatin biosynthesis by *Aspergillus terreus* in a chemically defined medium,” Applied and Environmental Microbiology, Vol. 67, No. 6, 2001, 2596–2602.
- Hamidipour, F., Pourkhabbaz, H. R., Banaee, M., and Javanmardi, S., “Bioaccumulation of Lead in the Tissues of Japanese quails and its effects on blood biochemical factors,” Iranian Journal of Toxicology, Vol. 10, No. 2, 2016, 13–21.
- Havel R., “Dietary supplement or drug? The case of Cholestin,” The American Journal of Clinical Nutrition, Vol. 69, No. 2, 1999, 175–176.
- Heber D., Yip I., Ashley J.M., Elashoff D.A., Elashoff R.M., and Go V.L.W., “Cholesterol-lowering effects of a proprietary Chinese red-yeast-rice dietary supplement,” The American journal of clinical nutrition, Vol. 69, No. 2, 1999, 231–236.
- Heber, D., Lembertas, A., Lu, Q.Y., Bowerman, S., and Go, V.L.W., “An analysis of nine proprietary Chinese red yeast rice dietary supplements: implications of variability in chemical profile and contents,” The Journal of Alternative and Complementary Medicine, Vol. 7, No. 2, 2001, 133–139.
- Hesseltine, C.W., “A millennium of fungi, food, and fermentation,” Mycologia, Vol. 57, No. 2, 1965, 149–197.
- Hetherington, A.C., and Raistrick, H., “Studies in biochemistry of microorganism XI. On the production and chemical constitution of a new yellow colouring matter, citrinin, produced from glucose by *Penicillium citrinum* Thom,” Philosophical Transactions of the Royal Society of London Series B–Biological Sciences, Vol. 220, 1931, 269–297.

- Hino, A., "Safety assessment and public concerns for genetically modified food products: the Japanese experience," *Toxicologic pathology*, Vol. 30, No. 1, 2002, 126–128.
- Ho, B.Y., and Pan, T.M., "The *Monascus* metabolite monacolin K reduces tumor progression and metastasis of Lewis lung carcinoma cells," *Journal of Agricultural and Food Chemistry*, Vol. 57, No. 18, 2009, 8258–8265.
- Hong, M.Y., Seeram, N.P., Zhang, Y., and Heber, D.C., "Chinese red yeast rice versus lovastatin effects on prostate cancer cells with and without androgen receptor overexpression," *Journal of medicinal food*, Vol. 11, No. 4, 2008, 657–666.
- Hsu, L.C., Liang, Y.H., Hsu, Y.W., Kuo, Y.H., and Pan, T.M., "Anti-inflammatory properties of yellow and orange pigments from *Monascus purpureus* NTU 568," *Journal of agricultural and food chemistry*, Vol. 61, No. 11, 2013, 2796–2802.
- Hsu, W.H., and Pan, T.M., "*Monascus purpureus*-fermented products and oral cancer: a review," *Applied microbiology and biotechnology*, Vol. 93, No. 5, 2012, 1831–1842.
- Hsu, Y.W., Hsu, L.C., Chang, C.L., Liang, Y.H., Kuo, Y.H., and Pan, T.M., "New anti-inflammatory and anti-proliferative constituents from fermented red mold rice *Monascus purpureus* NTU 568," *Molecules*, Vol. 15, No. 11, 2010a, 7815–7824.
- Hsu, Y.W., Hsu, L.C., Liang, Y.H., Kuo, Y.H., and Pan, T.M., "Monaphilones A–C, three new antiproliferative azaphilone derivatives from *Monascus purpureus* NTU 568," *Journal of agricultural and food chemistry*, Vol. 58, No. 14, 2010b, 8211–8216.
- Hu, M., Cheung, B.M., and Tomlinson, B., "Safety of statins: an update," *Therapeutic advances in drug safety*, Vol. 3, No. 3, 2012, 133–144.
- Huang, H.N., Hua, Y.Y., Bao, G.R., and Xie, L.H., "The quantification of monacolin K in some red yeast rice from Fujian province and the comparison of the other product," *Chemical and pharmaceutical bulletin*, Vol. 54, No. 5, 2006, 687–689.

- Huang, Q., Ma, C.J., Yu, J., Wang, J.J., and Gao, Y.F., "Screening of Monacolin K-producing *Monascus* and Fermentation Condition Optimization by Response Surface Methodology," *Food Science*, Vol. 32, No. 21, 2011, 177–182.
- Ichikawa, H., Ichiyanagi, T., Xu, B., Yoshii, Y., Nakajima, M., and Konishi, T., "Antioxidant activity of anthocyanin extract from purple black rice," *Journal of Medicinal Food*, Vol. 4, No. 4, 2001, 211–218.
- Iizuka, H., and Lin, C.F., "On the genus *Monascus* of Asia and its specific characteristics," *Advanced in Biotechnology*, Vol. 2, 1981, 555–561.
- Imik, H., Ozkanlar, S., Kaynar, O., and Koc, M., "Effects of vitamin E, C, and  $\alpha$ -lipoic acid supplementation on the serum glucose, lipid profile, and proteins in quails under heat stress," *Bulletin of the Veterinary Institute in Pulawy*, Vol. 53, 2009, 521–526.
- Jaivel, N., and Marimuthu, P., "Optimization of lovastatin production in solid state fermentation by *Aspergillus terreus*," *International Journal of Engineering Science and Technology*, Vol. 2, No. 7, 2010, 2730–2733.
- Jeon, S. M., Bok, S. H., Jang, M. K., Lee, M. K., Nam, K. T., Park, Y. B., and Choi, M. S., "Antioxidative activity of naringin and lovastatin in high cholesterol-fed rabbits," *Life Sciences*, Vol. 69, No. 24, 2001, 2855–2866.
- Jirasatid, S., Nopharatana, M., Kitsubun, P., and Tongta, A., "Degradation kinetics of monacolin K in red yeast rice powder using multiresponse modeling approach" *Journal of Food Engineering*," Vol. 116, No. 2, 2013, 436–443.
- Johnson, M., and Pace, R.D., "Sweet potato leaves: properties and synergistic interactions that promote health and prevent disease," *Nutrition reviews*, Vol. 68, No. 10, 2010, 604–615.
- Joshi, V.K., and Attri, D., "Solid state fermentation of apple pomace for the production of value added products," *Pollution in Urban Industrial Environment*, 2005, 180–184.

- Journoud M., and Jones, P.J., “Red yeast rice: a new hypolipidemic drug,” *Life Sciences*, Vol. 74, No. 22, 2004, 2675–2683.
- Juliano, B.O., “The chemical basis of rice grain quality. In Proceedings of the workshop on chemical aspects of rice grain quality”, International Rice Research Institute Los Baños, Laguna, Philippines, 1979, 69–90.
- Juzlova, P., Martinkova, L., and Kren, V., “Secondary metabolites of the fungus *Monascus*: a review,” *Journal of Industrial Microbiology and Biotechnology*, Vol.16, No. 3, 1996, 163–170.
- Kalaivani, M., and Rajasekaran, A., “Improvement of monacolin K/citrinin production ratio in *Monascus purpureus* using UV mutagenesis,” *Nutrafoods*, Vol.13, No. 2, 2014, 79–84.
- Kang, B., Zhang, X., Wu, Z., Wang, Z., and Park, S., “Production of citrinin-free *Monascus* pigments by submerged culture at low pH,” *Enzyme and Microbial Technology*, Vol. 55, 2014, 50–57.
- Kang, M.Y., Rico, C.W., and Lee, S.C., “Physicochemical properties of eight popular glutinous rice varieties in Korea,” *Plant Production Science*, Vol. 13, No. 2, 2010, 177–84.
- Kanlayakrit, W., and Mawiang, M., “Production of seasoning “Mirin” from Thai rice by fermentation,” *Kasetsart Journal*, Vol. 40, 2006, 39–46.
- Kaptoge, S., White, I.R., Thompson, S.G., Wood, A.M., Lewington, S., Lowe, G.D., and Danesh, J., “Associations of plasma fibrinogen levels with established cardiovascular disease risk factors, inflammatory markers, and other characteristics: individual participant meta-analysis of 154,211 adults in 31 prospective studies: the fibrinogen studies collaboration,” *American journal of epidemiology*, Vol. 166, No. 8, 2007, 867–879.
- Kavitha, V., Janani, B., and Angayarkanni, J., “Optimization of process parameters for lovastatin production from red gram bran by solid state fermentation,” *International Journal of Science and Research*, Vol. 3, No. 9, 2012, 1413–1418.

- Kayang, B.B., Vignal, A., Inoue-Murayama, M., Miwa, M., Monvoisin, J.L., Ito, S., and Minvielle, F., "A first generation micro satellite linkage map of the Japanese quail," *Animal genetics*, Vol. 35, No. 3, 2004, 195–200.
- Kim, J.H., Hong, S.T., Lee, H.S., and Kim, H.J. "Oral administration of pravastatin reduces egg cholesterol but not plasma cholesterol in laying hens," *Poultry science*, Vol. 83, No. 9, 2004a, 1539–1543.
- Kim, J.H., Lee, D.H., Lee, S.H., Choi, S.Y., and Lee, J.S., "Effect of *Ganoderma lucidum* on the quality and functionality of Korean traditional rice wine, yakju," *Journal of bioscience and bioengineering*, Vol. 97, No. 1, 2004b, 24–28.
- Kim, K.S. and Y.J. Park., "Characteristics of growth, monacolin K and pigment production by *Monascus* strains on plate culture," *Food Engineering Progress*, Vol. 16, No. 4, 2012, 347–354.
- Kim, S.I., Ham, Y.H., Lee, K.H., "Effects of dietary *Monascus* culture on cholesterol content of egg yolk, meat and serum of laying hens," *Korean Journal of Poultry Science*, Vol. 30, No. 4, 2003, 281–287.
- Kim, Y., Schumaker, K.S., and Zhu, J.K., "EMS mutagenesis of *Arabidopsis*," *Arabidopsis Protocols*, 2006, 101–103.
- Kono, I., and Himeno, K., "Changes in  $\gamma$ -aminobutyric acid content during beni-koji making," *Bioscience, biotechnology, and biochemistry*, Vol. 64, No. 3, 2000, 617–619.
- Korean Ministry of Food and Drug Safety, "Health Functional Food Code," Website: [http://www.mfds.go.kr/files/upload/eng/7\\_Health Functionanl Food Code.pdf](http://www.mfds.go.kr/files/upload/eng/7_Health%20Functionanl%20Food%20Code.pdf), 20 September 2016.
- Kornbrust, D.J., MacDonald, J.S., Peter, C.P., Duchai, D.M., Stubbs, R.J., Germershausen, J.I., Alberts, A.W., "Toxicity of the HMG-coenzyme A reductase inhibitor, lovastatin, to rabbits," *Journal of Pharmacology and Experimental Therapeutics*, Vol. 248, No. 2, 1989, 281–287.498–505.

- Krauss, R.M., Eckel, R.H., Howard, B., Appel, L.J., Daniels, S.R., Deckelbaum, R.J., and Bazzarre, T.L., "AHA dietary guidelines revision 2000: a statement for healthcare professionals from the Nutrition Committee of the American Heart Association," *Circulation*, Vol. 102, 2000, 2284–2299.
- Krieger, M., "Charting the fate of the "good cholesterol": identification and characterization of the high-density lipoprotein receptor SR-BI," *Annual review of biochemistry*, Vol. 68, No. 1, 1999, 523–558.
- Kristensen, M., Jensen, M.G., Aarestrup, J., Petersen, K.E., Søndergaard, L., Mikkelsen, M.S., and Astrup, A., "Flaxseed dietary fibers lower cholesterol and increase fecal fat excretion, but magnitude of effect depend on food type," *Nutrition and metabolism*, Vol. 9, No. 8, 2012, 1–8.
- Kritchevsky, S.B., "A review of scientific research and recommendations regarding eggs," *Journal of the American College of Nutrition*, Vol. 23, No. 6, 2004, 596–600.
- Kumari, H.M., Naidu, K.A., Vishwanatha, S., Narasimhamurthy, K., and Vijayalakshmi, G., "Safety evaluation of *Monascus purpureus* red mould rice in albino rats," *Food and Chemical Toxicology*, Vol. 47, No. 8, 2009, 1739–1746.
- Kurata, H., *Mycotoxins and mycotoxicoses: overview*. In *Microbial toxins in foods and feeds*. Springer US, 1990, 249–259, ISBN: 978-1-4613-0663-4.
- Lapi, F., Gallo, E., Bernasconi, S., Vietri, M., Menniti-Ippolito, F., Raschetti, R., and Vannacci, A., "Myopathies associated with red yeast rice and liquorice: spontaneous reports from the Italian Surveillance System of Natural Health Products," *British journal of clinical pharmacology*, Vol. 66, No. 4, 2008, 572–574.
- Latha, D.P., Latha, K.H., and Reddy, D.S.R., "Production of lovastatin by solid state fermentation by *Penicillium funiculosum* NCIM 1174," *Drug Invention Today*, Vol. 3, No. 6, 2011, 75–77.

- Lawn, R.M., Wade, D.P., Garvin, M.R., Wang, X., Schwartz, K., Porter, J.G., and Oram, J.F., "The Tangier disease gene product ABC1 controls the cellular apolipoprotein-mediated lipid removal pathway," *The Journal of clinical investigation*, Vol. 104, No. 8, 1999, 25–31.
- Le Bloc'h, J., Pauquai, T., and Bourges, C., "Authorised EU health claim for red yeast rice, Foods, Nutrients and Food Ingredients with Authorised EU Health Claims" Vol. 2, 2015, 139–142.
- Lee, C.H., Lee, C.L., and Pan, T.M., "A 90-D Toxicity Study of *Monascus*-Fermented Products Including High Citrinin Level," *Journal of food science*, Vol. 75, No. 5, 2010, 91–97.
- Lee, C.I., Lee, C.L., Hwang, J.F., Lee, Y.H., and Wang, J.J., "*Monascus*-fermented red mold rice exhibits cytotoxic effect and induces apoptosis on human breast cancer cells," *Applied microbiology and biotechnology*, Vol. 97, No. 3, 2013, 1269–1278.
- Lee, C.L., and Pan, T.M., "Red mold fermented products and Alzheimer's disease: a review," *Applied Microbiology and Biotechnology*, Vol. 91, No. 3, 2011, 461–469.
- Lee, C.L., Chen, W.P., Wang, J.J., and Pan, T.M., "A simple and rapid approach for removing citrinin while retaining monacolin K in red mold rice," *Journal of agricultural and food chemistry*, Vol. 55, No. 26, 2007b, 11101–11108.
- Lee, C.L., Hung, H.K., Wang, J.J., and Pan, T.M., "Improving the ratio of monacolin K to citrinin production of *Monascus purpureus* NTU 568 under dioscorea medium through the mediation of pH value and ethanol addition," *Journal of agricultural and food chemistry*, Vol. 55, No. 16, 2007a, 6493–6502.
- Lee, C.L., Hung, Y.P., Hsu, Y.W., Pan, T.M., "Monascin and ankaflavin have more anti-atherosclerosis effect and less side effect involving increasing creatinine phosphokinase activity than monacolin K under the same dosages," *Journal of Agricultural and Food Chemistry*, Vol. 61, 2012, 143–150.

- Lee, C.L., Tsai, T.Y., Wang, J.J., and Pan, T.M., "In vivo hypolipidemic effects and safety of low dosage *Monascus* powder in a hamster model of hyperlipidemia," *Applied Microbiology and Biotechnology*, Vol. 70, No. 5, 2006, 533–540.
- Lee, C.L., Wang, J.J., and Pan, T.M., "Red mold rice extract represses amyloid beta peptide-induced neurotoxicity via potent synergism of anti-inflammatory and antioxidative effect," *Applied microbiology and biotechnology*, Vol. 79, No.5, 2008, 829–841.
- Leung, A., Schaefer, E.W., Tempelhof, M.W., and Stone, N.J., "Emphasizing statin safety in the hospitalized patient: a review," *The American journal of medicine*, Vol. 125, No. 9, 2012, 845–853.
- Li, C., Zhu, Y., Wang, Y., Zhu, J.S., Chang, J., and Kritchevsky, D., "*Monascus purpureus*-fermented rice (red yeast rice): a natural food product that lowers blood cholesterol in animal models of hypercholesterolemia. *Nutrition Research*, Vol. 18, No.1, 1998, 71–81.
- Li, F., Xu, G., Li, Y., and Chen, Y., "Study on the production of citrinin by *Monascus* strains used in food industry," *Wei Sheng Yan Jiu*, Vol. 32, No. 6, 2003, 602–605.
- Li, J.J., Shang, X.Y., Li, L.L., Liu, M.T., Zheng, J.Q., and Jin, Z.L., "New cytotoxic azaphilones from *Monascus purpureus*-fermented rice (red yeast rice)," *Molecules*, Vol. 15, No. 3, 2010, 1958–1966.
- Li, S.W., Li, M., Song, H.P., Feng, J.L., and Tai, X.S., "Induction of a high-yield lovastatin mutant of *Aspergillus terreus* by 12C6+ heavy-ion beam irradiation and the influence of culture conditions on lovastatin production under submerged fermentation," *Applied Biochemistry and Biotechnology*, Vol. 165, No.3–4, 2011, 913–925.

- Li, Y.G., Liu, H., and Wang, Z.T., “A validated stability-indicating HPLC with photodiode array detector (PDA) method for the stress tests of *Monascus purpureus*-fermented rice, red yeast rice,” *Journal of pharmaceutical and biomedical analysis*, Vol. 39, No.1, 2005, 82–90.
- Li, Y.G., Zhang, F., Wang, Z.T., and Hu, Z.B. “Identification and chemical profiling of monacolins in red yeast rice using high-performance liquid chromatography with photodiode array detector and mass spectrometry,” *Journal of pharmaceutical and biomedical analysis*, Vol. 35, No. 5, 2004, 1101–1112.
- Liao, C.D., Chen, Y.C., Lin, H.Y., Chiueh, L.C., and Shih, D.Y.C., “Incidence of citrinin in red yeast rice and various commercial *Monascus* products in Taiwan from 2009 to 2012,” *Food Control*, Vol. 38, 2014, 178–183.
- Lin, C.F., “Isolation and cultural conditions of *Monascus* sp. for the production of pigment in a submerged culture,” *Journal of Fermentation Technology*. 1973, Vol. 51, No. 6, 407–414.
- Lin, Y.L., Wang, T.H., Lee, M.H., and Su, N.W., “Biologically active components and nutraceuticals in the *Monascus*-fermented rice: a review,” *Applied Microbiology and Biotechnology*, Vol. 77, No. 5, 2008, 965–973.
- Lingappa, K., and Babu, C.V., “Production of lovastatin by solid state fermentation of carob (*Ceratonia siliqua*) pods using *Aspergillus terreus* KLVB 28,” *Indian Journal of Microbiology*, Vol. 45, No. 4, 2005, 283–286.
- Lodish, H., Berk, A., Zipursky, S.L., Matsudaira, P., Baltimore, D., and Darnell, J. “Mutations: types and causes,” *Molecular Cell Biology*, 4<sup>th</sup> edition, 2000
- Lopez, J.C., Perez, J.S., Sevilla, J.F., Fernandez, F.A., Grima, E.M., and Chisti, Y., “Production of lovastatin by *Aspergillus terreus*: effects of the C: N ratio and the principal nutrients on growth and metabolite production,” *Enzyme and Microbial Technology*, Vol. 33, No. 2, 2003, 270-277.

- Lu, M.Y., Maddox, I.S., and Brooks, J.D., Application of a multi-layer packed-bed reactor to citric acid production in solid-state fermentation using *Aspergillus niger*. *Process biochemistry*, Vol. 33, No. 2, 1998, 117–123.
- Lv, X.C., Huang, Z.Q., Zhang, W., Rao, P.F., and Ni, L., “Identification and characterization of filamentous fungi isolated from fermentation starters for Hong Qu glutinous rice wine brewing,” *The Journal of general and applied microbiology*, Vol. 58, No.1, 2012, 33–42.
- Ma J., Li Y., Ye Q., Li J., Hua Y., Ju D., Chang M., “Constituents of red yeast rice, a traditional Chinese food and medicine,” *Journal of Agricultural and Food Chemistry*, Vol. 48, 2000, 5220–5225.
- Magan, N., and Olsen, M., *Mycotoxins in Food: Detection and control*. Wood head Publishing Ltd., Cambridge, UK, 2004, ISBN: 978-1855737334.
- Mahan, L.K., and Escott-Stump, S., “Krause's Food,” *Nutrition and Diet Therapy*, Vol. 11, 2004, 366–367.
- Mahley R.W., “Apolipoprotein E: cholesterol transport protein with expanding role in cell biology,” *Science*, Vol. 240, No. 4852, 1988 622–630.
- Mahmoud, J., Fossett, N.G., Arbour-Reily, P., McDaniel, M., Tucker, A., Chang, S.H., and Aaron, C.S., “DNA sequence analysis of X-ray induced Adh null mutations in *Drosophila melanogaster*,” *Environmental and molecular mutagenesis*, Vol. 18, No. 3, 1991, 157–160.
- Maji, D., Shaikh, S., Solanki, D., and Gaurav, K., “Safety of statins,” *Indian journal of endocrinology and metabolism*, Vol. 17, No. 4, 2013, 636–646.
- Manjunath, C.N., Rawal, J.R., Irani, P.M., and Madhu, K., “Atherogenic dyslipidemia. *Indian Journal of Endocrinology and Metabolism*,” Vol. 17, No.6, 2013, 969-976.

- Mann, D.L., Zipes, D.P., Libby, P., and Bonow, R.O. Braunwald's heart disease: a textbook of cardiovascular medicine, Elsevier Health Sciences, 2014, ISBN: 0323290647.
- Manzoni, M., and Rollini, M., "Biosynthesis and biotechnological production of statins by filamentous fungi and application of these cholesterol-lowering drugs," *Applied Microbiology and Biotechnology*, Vol. 58, No. 5, 2002, 555–564.
- Manzoni, M., Bergomi, S., Rollini, M., and Cavazzoni, V., "Production of statins by filamentous fungi," *Biotechnology letters*, Vol. 21, No.3, 1999, 253–257.
- McCluskey, J.J., Grimsrud, K.M., Ouchi, H., and Wahl, T.I., "Consumer response to genetically modified food products in Japan," *Agricultural and Resource Economics Review*, Vol. 32, No. 2, 2003, 222–231.
- Mienda, B.S., Idi A., Umar, A., "Microbiological features of solid state fermentation and its applications-An overview," *Research in Biotechnology*, Vol. 2, No. 6, 2011, 21–26.
- Minvielle, F., "Genetic and breeding of Japanese quail for production around the world," *Proceedings 6<sup>th</sup> Asian Pacific poultry congress Nagoya, Japan, 1998.*
- Miranda, J.M., Anton, X., Redondo-Valbuena, C., Roca-Saavedra, P., Rodriguez, J.A., Lamas, A., and Cepeda, A., "Egg and egg-derived foods: effects on human health and use as functional foods," *Nutrients*, Vol. 7, No. 1, 2015, 706-729.
- Miyake, T., Uchitomi, K., Zhang, M.Y., Kono, I., Nozaki, N., Sammoto, H., and Inagaki, K., "Effects of the principal nutrients on lovastatin production by *Monascus pilosus*," *Bioscience, Biotechnology, and Biochemistry*, Vol. 70, No. 5, 2006, 1154–1159.
- Mizutani, M., "The Japanese quail," *Age*, Vol. 80, 2003, 90.
- Molyneux, P., "The use of the stable free radical diphenylpicrylhydrazyl (DPPH) for estimating antioxidant activity," *Songklanakarinn Journal of Science and Technology*, Vol. 26, No. 2, 2004, 211–219.

- Mori, A.V., Mendonça, C.X., and Santos, C.O., “Effect of dietary lipid-lowering drugs upon plasma lipids and egg yolk cholesterol levels of laying hens,” *Journal of Agricultural and food Chemistry*, Vol. 47, No. 11, 1999, 4731–4735.
- Mozaffarian, D., Benjamin, E.J., Go, A.S., Arnett, D.K., Blaha, M.J., Cushman, M., and Stroke, S.S., “Heart disease and stroke statistics-2015 update: a report from the American heart association,” *Circulation*, Vol. 131, No. 4, 2015, 29.
- Mu, H., Huang, L., Ding, X., and Zhao, S., “Influence of Different Substrates on the Production of Pigments and Citrinin by *Monascus* FJ46,” *Advances in Applied Biotechnology*, 2015, 257–264.
- Naber, E.C., “The cholesterol problem, the egg and lipid metabolism in the laying hen,” *Poultry Science*, Vol. 55, No. 1, 1976, 14–30.
- Nabias, F., Brown, S.M., McVean, G.A., and Day, K.P., “Medlars Bibliography,” *Papua New Guinea Medical Journal*, Vol. 50, No.1/2, 2007, 91-108.
- Naci, H., Brugts, J., and Ades, T., “Comparative tolerability and harms of individual statins. *Circulation: Cardiovascular Quality and Outcomes*,” Vol. 6, No. 4, 2013, 390–399.
- Nelson, S.J., Clegg, R.E., and Sanford, P.E., “The effect of triparanol on calcium and cholesterol levels in the blood sera of laying hens,” *Poultry Science*, Vol. 41, No. 2, 1962, 664–668.
- Nichols, E.L., and Balloun, S.L., Effects of the hypocholesteremic agent SC-11952 on the laying hen. *Poultry Science*, Vol. 41, No. 6, 1962, 1982–1984.
- Niinikoski, H., Pahkala, K., Viikari, J., Rönnekaa, T., Jula, A., Lagström, H., and Raitakari, O.T., “The STRIP Study: Long-Term Impact of a Low Saturated Fat/Low Cholesterol Diet,” *Current Cardiovascular Risk Reports*, Vol. 8, No. 11, 2014, 1–7.

- Nimnoi, P., and Lumyong, S., "Improving solid-state fermentation of *Monascus purpureus* on agricultural products for pigment production," *Food and Bioprocess Technology*, 4, No. 8, 2011, 1384–1390.
- Nuraini, S., and Latif, S.A., "Fermented product by *Monascus purpureus* in Poultry diet: Effects on laying performance and egg quality," *Pakistan Journal of Nutrition*, Vol. 11, No. 7, 2012, 605–608.
- Nwe, N., and Stevens, W.F., "Production of fungal chitosan by solid substrate fermentation followed by enzymatic extraction," *Biotechnology Letters*, Vol. 24, No. 2, 2002, 131–134.
- Nwe, N., Chandkrachang, S., Stevens, W.F., Maw, T., Tan, T.K., Khor, E., and Wong, S.M., "Production of fungal chitosan by solid state and submerged fermentation," *Carbohydrate Polymers*, Vol. 49, No. 2, 2002, 235–237.
- Obodai, M., Cleland-Okine, J., and Johnson, P.N., "Use of agricultural wastes as substrate for the mushroom *Volvariella volvacea*," *Tropical Science*, Vol. 43, No. 3, 2003, 121–124.
- Oguz, I. and Minvielle, F., "Effects of genetics and breeding on carcass and meat quality of Japanese quail: A review," *Proceedings of XV European symposium on the quality of poultry meat*, WPSA Turkish branch, 9-12 September Kusadasi-Turkey, 2001
- Oh, C.H., and Oh, S.H., "Effects of germinated brown rice extracts with enhanced levels of GABA on cancer cell proliferation and apoptosis," *Journal of Medicinal Food*, Vol. 7, No. 1, 2004, 19–23.
- Olano, C., Lombó, F., Méndez, C., and Salas, J.A., "Improving production of bioactive secondary metabolites in actinomycetes by metabolic engineering," *Metabolic Engineering*, Vol. 10, No. 5, 2008, 281–292.
- Olsen, K.M., and Purugganan, M.D., "Molecular evidence on the origin and evolution of glutinous rice," *Genetics*, Vol. 162, No. 2, 2002, 941–950.

- Omole, A.J., Ayodeji, I.O., and Raji, M.A., "The potential of peels of mango, plantain, cocoyam and pawpaw as diets for growing snails (*Archachatina marginata*)," Livestock Research for Rural Development, Vol. 16, No. 12, 2004, 212–243.
- Onwueme, I., "Taro cultivation in Asia and the Pacific," Rap Publication, Vol. 16, 1999, 1–9.
- Ou, H.P., Wang, C.C., and Lai, L.S., "Thermal degradation kinetics analysis of monacolin K in *Monascus*-fermented products," LWT-Food Science and Technology, Vol. 42, No. 1, 2009, 292–296.
- Ozcelik, M. and Ozbey, O., "The effect of the high environmental temperature on some blood parameters and the laying performance of Japanese quails with different body weights," Archiv Tierzucht, Vol. 47, No. 1, 2004, 93–98.
- Panda, B.P., Javed, S., and Ali, M. "Engineering rice based medium for production of lovastatin with *Monascus* species," Czech Journal of Food Sciences, Vol. 27, No. 5, 2009, 352–360.
- Panda, B.P., Javed, S., and Ali, M., "Optimization of fermentation parameters for higher lovastatin production in red mold rice through co-culture of *Monascus purpureus* and *Monascus ruber*." Food and Bioprocess Technology, Vol. 3, No. 3, 2010, 373–378.
- Panda, S.H., Parmanick, M., and Ray, R.C., "Lactic acid fermentation of sweet potato (*Ipomoea batatas* L.) into pickles," Journal of Food Processing and Preservation, Vol. 31, No. 1, 2007, 83–101.
- Pandey, A., "Solid-state fermentation," Biochemical Engineering Journal, Vol. 13, No. 2, 2003, 81–84.
- Panesar, R., Kaur, S., and Panesar, P.S., "Production of microbial pigments utilizing agro-industrial waste: a review," Current Opinion in Food Science, Vol. 1, 70–76.

- Pansuriya, R.C., and Singhal, R.S., 2010. Response surface methodology for optimization of production of lovastatin by solid state fermentation. *Brazilian Journal of Microbiology*, Vol. 41, No.1, 164–172.
- Park, J.H., and Kim, I.H., “Effects of dietary gamma-aminobutyric acid on egg production, egg quality, and blood profiles in layer hens,” *Veterinarni medicina*, Vol. 60, No. 11, 2015, 629–634.
- Park, J.Y., Han, S.I., Seo, W.D., Ra, J.E., Sim, E.Y., Nam, M.H., “Study on *Monascus* strains and characteristic for manufacturing red yeast rice with high production of monacolin K,” *Korean Journal of Crop Science*, Vol. 59, No. 2, 2014, 167–173.
- Patakova, P., “*Monascus* secondary metabolites: production and biological activity,” *Journal of Industrial Microbiology and Biotechnology*, Vol. 40, No. 2, 2013, 169–181.
- Patil, S.B., Khan, M.K., “Germinated brown rice as a value added rice product: A review,” *Journal of Food Science and Technology*, Vol. 48, No. 6, 2011, 661–667.
- Patrick, L., and Uzick, M., “Cardiovascular disease: C-reactive protein and the inflammatory disease paradigm: HMG-CoA reductase inhibitors, alpha-tocopherol, red yeast rice, and olive oil polyphenols,” A review of the literature. *Alternative Medicine Review*, Vol. 6, No. 3, 2001, 248–248.
- Pengnoi, P., Mahawan, R., Khanongnuch, C., and Lumyong, S., “Antioxidant properties and production of monacolin K, citrinin, and red pigments during solid state fermentation of purple rice (*Oryzae sativa*) varieties by *Monascus purpureus*,” *Czech Journal of Food Science*, Vol. 35, No.1, 2017, 32–39.
- Plackett, R.L., and Burman, J.P., “The design of optimum multifactorial experiments,” *Biometrika*, Vol. 33, No. 4, 1946, 305–325.

- Prajapati, V.S., Soni, N., Trivedi, U.B., and Patel, K.C., "An enhancement of red pigment production by submerged culture of *Monascus purpureus* MTCC 410 employing statistical methodology," *Biocatalysis and Agricultural Biotechnology*, Vol. 3, No. 2, 2014, 140–145.
- Pratruangkrai, P., "Rice traders urged to innovate, export processed products," Website: <http://www.nationmultimedia.com/news/business/macroeconomics/30178307>, 7 January 2012 .
- Purseglove, J.W., "Tropical crops. Dicotyledons 1 and 2. Tropical crops," *Dicotyledons 1 and 2*, 1968
- Rajasekaran, A., Kalaivani, M., "Biofortification of Indian rice (IR-532-E-576) with monacolin K by RSM optimisation using *Monascus purpureus* MTCC 1090," *Nutrafoods*, Vol. 11, No. 2, 2012, 49–54.
- Rajeswari, T.R., Ponnusami, V., and Sugumaran, K.R., "Production of Monascus Pigment in low cost fermentation," *International Journal of ChemTech Research*, Vol. 6, 2014, 2929–2932.
- Randall, M., and Bolla, G., "Raising Japanese quail," *Primefacts*, 602, 2008, 1–5.
- Rastogi, S., Pandey, M.M., and Rawat, A.K.S., "Traditional herbs: a remedy for cardiovascular disorders," *Phytomedicine*, Vol. 23, No. 11, 2016, 1082-1089.
- Rhyu, M R., Kim, D.K., Kim, H.Y., and Kim, B.K., "Nitric oxide-mediated endothelium-dependent relaxation of rat thoracic aorta induced by aqueous extract of red rice fermented with *Monascus ruber*," *Journal of Ethnopharmacology*, Vol. 70, No. 1, 2000, 29–34.
- Roberson, K.D., Kalbfleisch, J.L., Pan, W., Charbeneau, and R.A., "Effect of corn distiller's dried grains with solubles at various levels on performance of laying hens and egg yolk color," *International Journal of Poultry Science*, Vol. 4, No. 2, 2005, 44–51.

- Rong, Y., Chen, L., Zhu, T., Song, Y., Yu, M., Shan, Z., and Liu, L., "Egg consumption and risk of coronary heart disease and stroke: dose-response meta-analysis of prospective cohort studies," *Bmj*, Vol. 346, 2013, e8539.
- Rosenbaum, D., Dallongeville, J., Sabouret, P., and Bruckert, E., "Discontinuation of statin therapy due to muscular side effects: a survey in real life," *Nutrition, Metabolism and Cardiovascular Diseases*, Vol. 23, No. 9, 2013, 871–875.
- Rugge, B., Balslem, H., Sehgal, R., Relevo, R., Gorman, P., and Helfand, M., "Screening and treatment of subclinical hypothyroidism or hyperthyroidism," *Comparative Effectiveness Review No. 24, AHRQ Publication No. 11(12)-EHC033-EF*. Rockville, MD: Agency for Healthcare Research and Quality. October, 2011.
- Saenjum, C., Chaiyasut, C., Chansakaow, S., Suttajit, M., and Sirithunyalug, B., "Antioxidant and anti-inflammatory activities of gamma-oryzanol rich extracts from Thai purple rice bran," *Journal of Medicinal Plants Research*, Vol. 6, No. 6, 2012, 1070–1077.
- Sai, E., "Biochemical characteristics of taro (*Colocasia esculenta*) flour as determinant factors of the extend of browning during Achu preparation," *American Journal of Food Technology*, Vol. 2, No. 2, 2007, 60–70.
- Samsudin, N.I.P., and Abdullah, N., "A preliminary survey on the occurrence of mycotoxigenic fungi and mycotoxins. contaminating red rice at consumer level in Selangor, Malaysia," *Mycotoxin Research*, Vol. 29, No. 2, 2013, 89–96.
- Sani, J., Kitsubun, P., and Tongta, A., "Statistical optimization for monacolin K and yellow pigment production and citrinin reduction by *Monascus purpureus* in solid-state fermentation," *Journal of Microbiology and Biotechnology*, Vol. 23, No. 3, 2013, 364–374.

- Sayyad, S.A., Panda, B.P., Javed, S., and Ali, M., "Optimization of nutrient parameters for lovastatin production by *Monascus purpureus* MTCC 369 under submerged fermentation using response surface methodology," *Applied Microbiology and Biotechnology*, Vol. 73, No. 5, 2007, 1054–1058.
- Sazzad, M.H., "Comparative study on egg production and feed efficiency of different breeds of poultry under intensive and rural conditions in Bangladesh," *Livestock Research for Rural Development*, Vol. 4, No. 3, 1992, 65–69.
- Scholtz N., Halle I., Flachowsky G., and Sauerwein H., "Serum chemistry reference values in adult Japanese quail (*Coturnix coturnix japonica*) including sex-related differences," *Poultry Science*, Vol. 88, No. 6, 2009, 1186–1190.
- Schrier, R.W., "Blood urea nitrogen and serum creatinine," *Circulation: Heart Failure*, Vol. 1, No. 1, 2008, 2–5.
- SELF Nutrition Data., "Nutrition Data," Website: <http://nutritiondata.self.com/>, 15 August 2014,
- Seo, J.W., Kim, C.S., Seo, E.J., Jeon, C.O., Choi, H.K., and Park, Y.J., "Characteristics of growth, pigment and monacolin K production by *Monascus* strains in liquid culture," *Korean Society for Biotechnology and Bioengineering Journal*, Vol. 27, No. 5, 2012, 301–307.
- Seraman, S., Rajendran, A., and Thangavelu, V., "Statistical optimization of anticholesterolemic drug lovastatin production by the red mold *Monascus purpureus*," *Food and Bioproducts Processing*, Vol. 88, No. 2, 2010, 266–276.
- Shao, Y., Xu, L., and Chen, F., "Genetic diversity analysis of *Monascus* strains using SRAP and ISSR markers," *Mycoscience*, Vol. 52, 2011, 224–233.
- Shekelle, R.B., Stamler, J., Paul, O., Shryock, A.M., Liu, S., and Lepper, M., "Dietary lipids and serum cholesterol level change in diet confounds the cross-sectional association," *American Journal of Epidemiology*, Vol. 115, No. 4, 1982, 506–514.

- Shi, Y.C., and Pan, T.M., “Anti-diabetic effects of *Monascus purpureus* NTU 568 fermented products on streptozotocin-induced diabetic rats,” *Journal of Agricultural and Food Chemistry*, Vol. 58, 2010, 7634–7640.
- Shi, Y.C., and Pan, T.M., “Beneficial effects of *Monascus purpureus* NTU 568-fermented products: a review,” *Applied microbiology and biotechnology*, Vol. 90, No. 4, 2011, 1207.
- Silveira, S.T., Daroit, D.J., and Brandelli, A., “Pigment production by *Monascus purpureus* in grape waste using factorial design,” *LWT-Food Science and Technology*, Vol. 41, No.1, 2008, 170–174.
- Singh, R., Cheng, K.M., and Silversides, F.G., “Production performance and egg quality of four strains of laying hens kept in conventional cages and floor pens,” *Poultry Science*, Vol. 88, No.2, 2009, 256–264.
- Smith, D.J., and Olive, K E., “Chinese red rice-induced myopathy,” *Southern medical journal*, Vol. 96, No.1, 2003, 1265–1268.
- Song, W.O., and Kerver, J.M., “Nutritional contribution of eggs to American diets,” *Journal of the American College of Nutrition*, Vol. 19, No. sup5, 200, 556–562.
- Songsermsakul, P., “Mycotoxins contamination of food in Thailand (2000-2010): Food safety concerns for the world food exporter,” *International Food Research Journal*, Vol. 22, 2015 426–434.
- Spence, J.D., Jenkins, D.J., and Davignon, J., “Dietary cholesterol and egg yolks: not for patients at risk of vascular disease,” *Canadian Journal of Cardiology*, Vol. 26, No. 9, 2010, 336–339.
- Srianta, I., Hendrawan, B., Kusumawati, N., and Blanc, P.J. “Study on durian seed as a new substrate for angkak production,” *International Food Research Journal*, Vol. 19, No.3, 2012, 941–945.

- Staffa, J.A., Chang, J., and Green, L., “Cerivastatin and reports of fatal rhabdomyolysis,” *New England Journal of Medicine*, Vol. 346, No. 7, 2002, 539-540.
- Stevenson, J.C., Crook, D., and Godsland, I.F., “Influence of age and menopause on serum lipids and lipoproteins in healthy women,” *Atherosclerosis*, Vol. 98, No. 1, 1993, 83–90.
- Stuart, M.D., *Chinese materia medica—vegetable kingdom*. Taipei, Republic of China: Southern Materials Center, Inc, 1979
- Su, Y.C., Wang, J.J., Lin, T.T., and Pan, T.M., “Production of the secondary metabolites  $\gamma$ -aminobutyric acid and monacolin K by *Monascus*. *Journal of Industrial Microbiology Biotechnology*, Vol. 30, 2003, 41–46.
- Subsaendee, T., Kitpreechavanich, V., Yongsmith, B., “Growth, glucoamylase, pigments and monacolin K production on rice solid culture in flask and koji chamber using *Monascus* sp KB9. *Chiang Mai Journal of Science*, Vol. 41, 2014 1044–1057.
- Sudji, I.R., Subburaj, Y., Frenkel, N., García-Sáez, A.J., and Wink, M., “Membrane disintegration caused by the steroid saponin digitonin is related to the presence of cholesterol.”. *Molecules*, Vol. 20, No. 11, 2015, 20146–20160.
- Suh, S.H., Rheem, S., Mah, J.H., Lee, W., Byun, M.W., and Hwang, H.J. (2007). Optimization of production of monacolin K from  $\gamma$ -irradiated *Monascus* mutant by use of response surface methodology. *Journal of Medicinal Food*, Vol. 10, No.3, 408–415.
- Sun, H., Wu, Y., Wang, X., Liu, Y., Yao, X., and Tang, J., “Effects of dietary Supplementation with red yeast rice on laying performance, egg quality and serum traits of laying hens,” *Italian Journal of Animal Science*, Vol. 14, No. 3, 2015, 532–537.

- Sun, J.L., Zou, X., Liu, A.Y., and Xiao, T. F., “Elevated yield of Monacolin K in *Monascus purpureus* by fungal elicitor and mutagenesis of UV and LiCl,” *Biological Research*, Vol. 44, No. 4, 2011, 377–382.
- Suppadit, T., Jaturasitha, S., Sunthorn, N., and Pounsuk, P., “Dietary *Wolffia arrhiza* meal as a substitute for soybean meal: its effects on the productive performance and egg quality of laying Japanese quails,” *Tropical animal health and production*, Vol. 44, No. 7, 2012, 1479–1486.
- Szczerbinska, D., Pyka, B., Szabelska, E., Ligocki, M., Majewska, D., Romaniszyn, K., and Sulik, M., “The effect of diet with amaranth (*amaranthus cruentus*) seeds on Japanese quail (*Coturnix coturnix japonica*) performance, somatic development, hatching results and selected blood biochemical parameters,” *Veterinarija ir Zootechnika*, Vol. 70, No. 92, 67–72, 2015
- Tenenbaum, A., Fisman, E.Z., Motro, M., and Adler, Y., “Atherogenic dyslipidemia in metabolic syndrome and type 2 diabetes: therapeutic options beyond statins,” *Cardiovascular diabetology*, Vol. 5, No. 1, 2006, 1–8.
- The European Commission., “COMMISSION REGULATION (EU) No 212/2014 of 6 March 2014 amending Regulation (EC) No 1881/2006 as regards maximum levels of the contaminant citrinin in food supplements based on rice fermented with red yeast *Monascus purpureus*,” Website: <http://eurlex.europa.eu/legal-content/EN/TXT/?uri=OJ:L:2014:067:TOC>, 3 October 2014.
- Thear, K., *Keeping quail (a guide to domestic and commercial management)*. 4<sup>th</sup> edition, Broad Leys publishing, London, 2005, ISBN: 0906137381.
- Thompson, A.K., *Postharvest technology of fruits and vegetables. Fruits and vegetables: Harvesting handling and storage*. 2<sup>nd</sup> Edition, Blackwell, Oxford, 2003, ISBN: 978-1-4051-0619-1.

- Tillich, U.M., Lehmann, S., Schulze, K., Dühning, U., and Frohme, M., “The optimal mutagen dosage to induce point-mutations in *Synechocystis* sp. PCC6803 and its application to promote temperature tolerance,” PLoS One, Vol. 7, No. 11, 2012, e49467.
- Titapiwatanakun, B., “The Rice Situation in Thailand,” Technical Assistance Consultant’s Report, TA-REG, 74595, 2012.
- Tolbert, K., “In Japan, It’s Back to Nature; Consumers Add Non-Modified Products to Shopping Cart,” The Washington Post, 2000, A8.
- Tolik, D., Poawska, E., Charuta, A., Nowaczewski, S., and Cooper, R., “Characteristics of egg parts, chemical composition and nutritive value of Japanese quail eggs—a review. Folia biologica, Vol. 62, No. 4, 2014, 287–292.
- Treesak, C., Pitaksanurat, S., Puttanapong, N., Laohasiriwong, W., and Boonyaleephan, S., “Impact of socioeconomics disparities on cardiovascular diseases in Thai population: The national socioeconomics study,” In Proceedings International Seminar and Workshop on Public Health Action" Building Healthy Community, 2015.
- Tsai, R. L., Ho, B. Y., and Pan, T.M., “Red mold rice mitigates oral carcinogenesis in 7,12 dimethyl-1,2-benz[a]anthracene-induced oral carcinogenesis in hamster,” Evidence-based Complementary and Alternative Medicine, 2009.
- Tsukahara, M., Shinzato, N., Tamaki, Y., Namihira, T., Matsui, T., “Red yeast rice fermentation by selected *Monascus* sp. with deep-red color, lovastatin production but no citrinin, and effect of temperature-shift cultivation on lovastatin production,” Applied Biochemistry and Biotechnology, Vol. 158, 2009, 476–482.
- Tumova, E., Härtlová, H., Ledvinka, Z., and Fucikova, A., “The effect of digitonin on egg quality, cholesterol content in eggs, biochemical and haematological parameters in laying hens,” Czech Journal of Animal Science, Vol. 49, 2004, 33–37.

- Tunsaringkarn, T., Tungjaroenchai, W., and Siriwong, W., “Nutrient Benefits of Quail (*Coturnix Coturnix Japonica*) Eggs,” *Annals Food Science and Technology*, Vol. 13, No. 2, 2012, 122–131.
- Ukashatu S., Bello A., Umaru M.A., Onu J.E., Shehu S.A., Mahmuda A., and Saidu B. “A study of some serum biochemical values of Japanese quails (*Coturnix coturnix japonica*) fed graded levels of energy diets in Northwestern Nigeria,” *Scientific Journal of Microbiology*, Vol. 3, 2014, 9–13.
- Ukpabi, U.J., Farmstead bread making potential of lesser yam (*Dioscorea esculenta*) flour in Nigeria. *Australian journal of crop science*, Vol. 4, No. 2, 2010, 68.
- Ulloa, N., and Nervi, F., Mechanism and kinetic characteristics of the uncoupling by plant sterols of biliary cholesterol from bile salt output. *Biochimica et Biophysica Acta (BBA)-Lipids and Lipid Metabolism*, Vol. 837, No. 2, 1985, 181–189.
- Ungureanu, C., Ferdeş, M., Chirvase, A.A., Radu, N., and Icechim, S.I., “Study of relationship concerning the pigment production and growth rate for five mutant strains of *Monascus purpureus*,” *Growth (Lakeland)*, 2004, 2–7.
- US Department of Health and Human Services, Your guide to lowering your cholesterol with TLC, 2005, Website: [https://www.nhlbi.nih.gov/files/docs/public/heart/chol\\_tlc.pdf](https://www.nhlbi.nih.gov/files/docs/public/heart/chol_tlc.pdf)
- Valera, H.R., Gomes, J., Lakshmi, S., Gururaja, R., Suryanarayan, S., and Kumar, D. “Lovastatin production by solid state fermentation using *Aspergillus flavipes*,” *Enzyme and Microbial Technology*, Vol. 37, No. 5, 2005, 521–526.
- Varkoohi, S., Babak, M.M.S., Pakdel, A., Javaremi, A.N., Zaghari, M., and Kauser, A., “Response to selection for feed conversion ratio in Japanese quail,” *Poultry Science*, Vol. 89, No. 8, 2010, 1590–1598.

- Velmurugan, P., Hur, H., Balachandar, V., Kamala-Kannan, S., Lee, K.J., Lee, S.M., and Oh, B.T., “*Monascus* pigment production by solid-state fermentation with corn cob substrate,” *Journal of Bioscience and Bioengineering*, Vol. 112, 2011, 590–594.
- Vidyalakshmi R., Paranthaman R., Muruges S., Singaravadiel, K., “Stimulation of *Monascus* pigments by intervention of different nitrogen sources. *Journal of Biotechnology and Biochemistry*, 4, Vol. 2009, 25–28.
- Wang J.J., and Pan T.M., “Effect of red mold rice supplements on serum and egg yolk cholesterol levels of laying hens,” *Journal of Agricultural and Food Chemistry*, Vol. 51, 2003, 4824–4829.
- Wang, C., Fu, Z.L., Chen, M.H., Ban, Z., Wang, Y.R., and Zhang, X.W., “Blue light effects on pigment and citrinin production in *Monascus*,” In 2009 3<sup>rd</sup> International Conference on Bioinformatics and Biomedical Engineering, IEEE, 2009, 1–4.
- Wang, J., Lu, Z., Chi, J., Wang, W., Su, M., Kou, W., and Chang, J., “Multicenter clinical trial of the serum lipid-lowering effects of a *Monascus purpureus* (red yeast) rice preparation from traditional Chinese medicine. *Current Therapeutic Research*, Vol. 58, No. 12, 1997, 964-978.
- Wang, J.J., Lee, C.L., and Pan, T.M., “Modified mutation method for screening low citrinin-producing strains of *Monascus purpureus* on rice culture,” *Journal of agricultural and food chemistry*, Vol. 52, No. 23, 2004, 6977–6982.
- Wang, J.J., Pan, T.M., Shieh, M.J., and Hsu, C.C., “Effect of red mold rice supplements on serum and meat cholesterol levels of broilers chicken,” *Applied microbiology and biotechnology*, Vol. 71, No. 6, 2006a, 812–818.
- Wang, J.J., Shieh, M.J., Kuo, S.L., Lee, C.L., and Pan, T.M., “Effect of red mold rice on antifatigue and exercise-related changes in lipid peroxidation in endurance exercise,” *Applied microbiology and biotechnology*, Vol. 70, No. 2, 2006b, 247–253.

- Wang, T.H., and Lin, T.F., “*Monascus* rice products,” *Advances in food and nutrition research*, Vol. 53, 2007, 123–159.
- Wang, X., Ouyang, Y., Liu, J., Zhu, M., Zhao, G., Bao, W., and Hu, F.B., “Fruit and vegetable consumption and mortality from all causes, cardiovascular disease, and cancer: systematic review and dose-response meta-analysis of prospective cohort studies,” *Bmj*, Vol.349, 2014, g4490.
- Weggemans, R.M., Zock, P.L., and Katan, M.B., “Dietary cholesterol from eggs increases the ratio of total cholesterol to high-density lipoprotein cholesterol in humans: a meta-analysis,” *The American journal of clinical nutrition*, Vol. 73, No. 5, 2001, 885–891.
- Wei, P.L., Xu, Z.N., and Cen, P.L., “Lovastatin production by *Aspergillus terreus* in solid-state fermentation,” *Journal of Zhejiang University-Science A*, Vol. 8, No. 9, 2007, 1521-1526
- Wei, W., Li, C., Wang, Y., Su, H., Zhu, J., and Kritchevsky, D., “Hypolipidemic and anti-atherogenic effects of long-term Cholestin (*Monascus purpureus*-fermented rice, red yeast rice) in cholesterol fed rabbits,” *The Journal of nutritional biochemistry*, Vol. 14, No. 6, 2003, 314–318.
- Weingartner, O., Baber, R., and Teupser, D., “Plant sterols in food: no consensus in guidelines.” *Biochemical and biophysical research communications*, Vol. 446, No. 3, 2014, 811-813.
- Williams, J.R., Holden, J.M., Zeisel, S.H., and Mar, M.H., “USDA database for the choline content of common foods,” US Department of Agriculture, Agricultural Research Service, Beltsville Human Nutrition Research Center, Nutrient Data Laboratory, 2004
- Wittenberg, M., *New Good Food: Essential Ingredients for Cooking and Eating Well*. Ten Speed Press, Canada. 2007, ISBN: 1580087507.

- Wong, H.C., and Bau, Y.S., "Pigmentation and antibacterial activity of fast neutron-and X-ray-induced strains of *Monascus purpureus* Went," *Plant Physiology*, Vol. 60, No. 4, 1977, 578–581.
- Wong, H.C., and Koehler, P.E., "Production and isolation of an antibiotic from *Monascus purpureus* and its relationship to pigment production," *Journal of Food Science*, Vol. 46, No. 2, 1981, 589–592.
- Wong, H.K., Engku Azhan, E.A., and Tan, S.L., "The effect of red yeast rice supplements on egg production. Feed intake and egg cholesterol levels of laying hens," In XI<sup>th</sup> European Symposium on the Quality of Eggs and Egg Products. 2005, 134–139.
- Woodard, A.E., Ablavaip, H., Wilson, W.O., and Vohra, P., *Japanese quail husbandry in the laboratory*. Department of Avian Sciences University of California, Davis, CA, 95616, 1973.
- World Health Organization., "2008-2013 action plan for the global strategy for the prevention and control of noncommunicable diseases: prevent and control cardiovascular diseases, cancers, chronic respiratory diseases and diabetes," 2009.
- Wu C.L., Lee C.L., and Pan T.M., "Red mold dioscorea has a greater antihypertensive effect than traditional red mold rice in spontaneously hypertensive rats," *Journal of Agricultural and Food Chemistry*, Vol. 57, 2009, 5035–5041.
- Wu, H., Ma, Q., Deng, J., Fang, C., and Jiang, D., "Effects of mutation methods on pigments production by *Monascus purpureus*," *China Brewing*, Vol. 1, 2010, 022.
- Xiong, X., Zhang, X., Wu, Z., and Wang, Z., "Optimal selection of agricultural products to inhibit citrinin production during submerged culture of *Monascus anka*," *Biotechnology and Bioprocess Engineering*, Vol. 19, No. 6, 2014, 1005–1013.

- Xu, B.J., Jia, X.Q., Gu, L.J., and Sung, C.K., "Review on the qualitative and quantitative analysis of the mycotoxin citrinin" *Food Control*, Vol.17, No. 4, 2006, 271–285.
- Xu, B.J., Wang, Q.J., Jia, X.Q., and Sung, C.K., "Enhanced lovastatin production by solid state fermentation of *Monascus ruber*," *Biotechnology and Bioprocess Engineering*, Vol. 10, No. 1, 2005, 78–84.
- Xu, M.J., Yang, Z.L., Liang, Z.Z., and Zhou, S.N., "Construction of a *Monascus purpureus* mutant showing lower citrinin and higher pigment production by replacement of *ctnA* with *pks1* without using vector and resistance gene," *Journal of agricultural and food chemistry*, Vol. 57, No. 20, 2009, 9764–9768.
- Yalcin S., Oguz F., Guclu B., Yalcin S., "Effects of dietary dried baker's yeast on the performance, egg traits and blood parameters in laying quails," *Tropical Animal Health and Production*, Vol. 41, 2009, 5–10.
- Yalcin, S., Oguz, I., and Otlis, S. "Carcase characteristics of quail (*Coturnix coturnix japonica*) slaughtered at different ages," *British Poultry Science*, Vol. 36, No. 3, 1995, 393–399.
- Yalcin, S., Ozsoy, B., and Erol, H., "Yeast culture supplementation to laying hen diets containing soybean meal or sunflower seed meal and its effect on performance, egg quality traits, and blood chemistry," *The Journal of Applied Poultry Research*, Vol. 17, No. 2, 2008, 229–236.
- Yalcin S., Ergun A., Erol H., Yalcin S., and Ozsoy B., "Use of L-carnitine and humate in laying quail diets," *Acta Veterinaria Hungarica*, 53, 2005, 361–370.
- Yang, H.H., and Hu, Z.Z., "Combined Mutation of *Monascus* and Optimization of Fermentation Conditions for Monacolin K Production," *Food Science*, Vol. 11, 2012, 051.
- Yang, J., Chen, Q., Wang, W., Hu, J., and Hu, C., "Effect of oxygen supply on *Monascus* pigments and citrinin production in submerged fermentation," *Journal of bioscience and bioengineering*, Vol. 119, No. 5, 2015, 564–569.

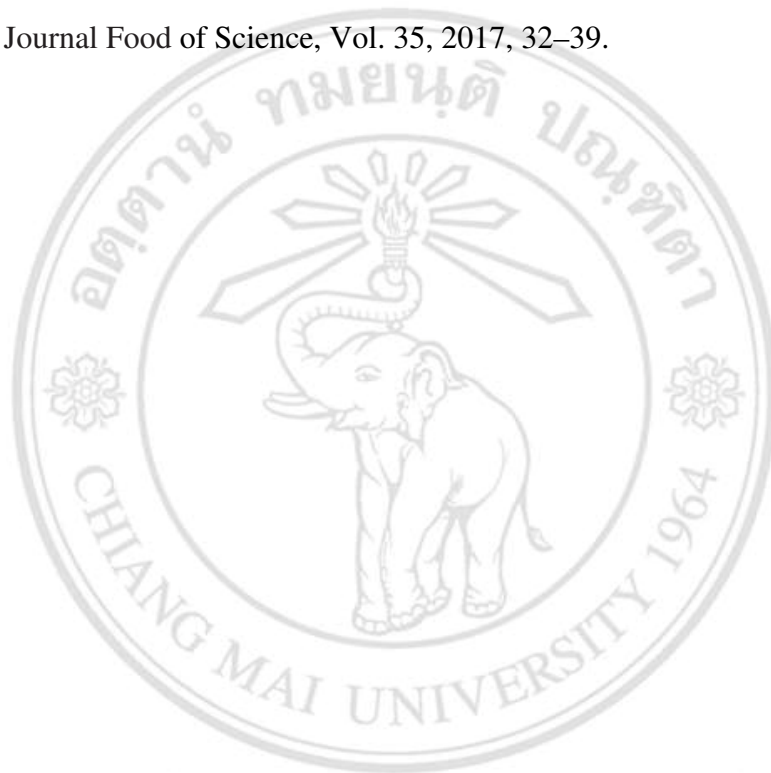
- Yang, T., Liu, J., Luo, F., Lin, Q., Rosol, T.J., and Deng, X., “Anticancer properties of *Monascus* metabolites,” *Anti-cancer drugs*, Vol. 25, No. 7, 2014, 735–744.
- Yassein, D.M., Abdallah, E.A., Ismail, I.I., Faddle, A.A., “Effect of dietary supplementation of pomegranate peel powder and butylated hydroxy toluene on some productive, physiological and immunological parameters of Japanese quail,” *Egyptian journal of animal production*, Vol. 52, 2015, 105–113.
- Yu, L.J., Zhang, H.X., Xie, Y. H., Ma, S. M., Liu, H., and Luo, Y. B., “Optimization of fermentation conditions for higher monacolin K production by *Monascus purpureus*,” In *Advanced Materials Research*, Vol. 781, 2013, 1397–1402.
- Yuguo, Z., Zhao, W., and Xiaolong, C., “Citric acid production from the mash of dried sweet potato with its dregs by *Aspergillus niger* in an external-loop airlift bioreactor,” *Process Biochemistry*, Vol. 35, No. 3, 1999, 237–242.
- Zaied, C., Zouaoui, N., Bacha, H., and Abid, S., “Natural occurrence of citrinin in Tunisian wheat grains,” *Food Control*, Vol. 28, No. 1, 2012, 106–109.
- Zambare, V., “Strain improvement of alkaline protease from *Trichoderma reesei* MTCC-3929 by physical and chemical mutagen,” *The IIOAB Journal*, Vol. 1, No. 1, 2010, 25–28.
- Zhang, B.B., Lu, L.P., Xia, Y.J., Wang, Y.L., and Xu, G.R., “Use of agar as carrier in solid-state fermentation for Monacolin K production by *Monascus*: A novel method for direct determination of biomass and accurate comparison with submerged fermentation,” *Biochemical Engineering Journal*, Vol. 80, 2013, 10–13.
- Zhang, J., Wang, Y.L., Lu, L.P., Zhang, B.B., and Xu, G.R., “Enhanced production of Monacolin K by addition of precursors and surfactants in submerged fermentation of *Monascus purpureus* 9901,” *Biotechnology and applied biochemistry*, Vol. 61, No. 2, 2014a, 202–207.

- Zhang, T.G., and Huang, Y.B., “Selection of High-yield *Monascus* Pigments by Complex Mutation of *Monascus*,” Chinese Journal of Tropical Agriculture, Vol. 3, 2007, 009.
- Zhang, J., Zeng, D., Xu, C., and Gao, M., “Effect of low frequency magnetic field on formation of pigments of *Monascus purpureus*,” European Food Research and Technology, Vol. 240, No. 3, 2015, 577–582.
- Zhang, J., Zhou, K., Wang, L., and Gao, M., “Extremely low-frequency magnetic fields affect pigment production of *Monascus purpureus* in liquid-state fermentation,” European Food Research and Technology, Vol. 238, No. 1, 2014b, 157–162.
- Zhu, H., Xu, J., Li, S., Sun, X., Yao, S., and Wang, S., “Effects of high-energy-pulse-electron beam radiation on biomacromolecules,” Science in China Series B: Chemistry, Vol. 51, No. 1, 2008, 86–91.
- Zhu, Y.Z., Cheng, J.L., Ren, M., Yin, L., and Piao, X.S., “Effect of  $\gamma$ -aminobutyric acid-producing lactobacillus strain on laying performance, egg quality and serum enzyme activity in Hy-line Brown hens under heat stress,” Asian-Australasian Journal of Animal Sciences, Vol. 28, No. 7, 2015, 1006–1013.

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## LIST OF PUBLICATIONS

Pengnoi, P., Mahawan, R., Khanongnuch, C., and Lumyong, S., “Antioxidant properties and production of monacolin K, citrinin, and red pigments during solid state fermentation of purple rice (*Oryzae sativa*) varieties by *Monascus purpureus*,” Czech Journal Food of Science, Vol. 35, 2017, 32–39.



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