

REFERENCES

- Abranches, R., Marcel, S., Arcalis, E., Alymann, F., Fevereiro, P., & Stoger, E. (2005). Plants as bioreactors: A comparative study suggests that *Medicago truncatula* is a promising production system. *Journal of Biotechnology*, *120*(1), 121-134.
- Afroz, F., Jahan, M., A., Hasan, A., K., M. & Khatun, R. (2010). *In vitro* plant regeneration from axillary buds of *Asparagus racemosus* wild, a medicinal plant. *Bangladesh Journal of Science and Industrial Research*, *45*(3), 255-260.
- Agrawal, D. C., Nalawade, S. M., Hazra, S., & Krishnamurthy, K. V. (1997). Multiple shoot induction and plant regeneration from embryo axes of six cultivars of *Gossypium hirsutum*. *Biologia Plantarum*, *47* (3), 433-436.
- Al-Abta, S., Galpin, I. J., & Collin, H. A. (1979). Flavour compounds in tissue cultures of celery. *Plant Science Letters*, *16*, 129-134
- Anjali, A., Kulkarni, S., Kelkar, S., Watve, M., & Krishnamurthy, K. (2007). Characterization and control of endophytic bacterial contamination *in vitro* cultures of *Piper* spp., *Taxus baccata* subsp. *Wallichiana*, and *Withania somnifera*. *Canadian Journal of Microbiology*, *53*, 63-74.
- Anis, M., Faisal, M., & Singh, S. K. (2003). Micropropagation of Mulberry (*Morus alba* L.) through *In vitro* culture of shoot tip and nodal explants. *Plant tissue culture*, *13* (1), 47-51.
- Anon. *Anoectochilus formosanus* Hayata. In: Chung-Hua-Ben-Tsao. *Shangha Technology Press*. 1999. 8. 672-673.
- Anonymous. (2006). Word Net. Online monograph, Princeton University. Retrived 23 June 2009, from
- Aruoma, O. I. (2003). Methodological considerations for characterizing potential antioxidant actions of bioactive components in plant foods. *Mutation Research*, *523/524*, 9-20.
- Azzi, A., Davies, K. J. A., & Kelly, F. (2004). Free radical biology-terminology and critical thinking. *FEBS Letters*, *558*, 3-6.
- Baayen, R. P., Boogert, P. H. J. F., Bonants, P. J. M., Poll, J. T. K., Blok W.J., & Waalwijk, C. (2000). *Fusarium redolens* f. sp. *asparagi*, causal agent of Asparagus root rot, crown rot and spear rot. *European Journal of Plant Pathology*, *106*, 907-912.
- Bajpai, M., Pande, A., Tewari, S. K., & Prakash, D. (2005). Phenolic contents and antioxidant activity of some food and medicinal plants. *International Journal of Food Sciences and Nutrition*, *56*(4), 287-291.
- Benjamin, B. D., Roja, P. C., Heble, M. R., & Chadha, M. S. (1987). Multiple shoot cultures of *Atropa belladonna*: effect of physicochemical factors on growth and alkaloid formation. *Journal of Plant Nutrition*, *129*, 129-35.

- Benli, M., Gtiney, K., Bingol, U., Geven, F., & Yigit, N. (2007). Antimicrobial activity of some endemic plant species from Turkey. *African Journal of Biotechnology*, 6, 1774-1778.
- Benmoussa, M., Mukhopadhyay, S., & Desjardins, Y. (1996). Optimization of callus culture and shoot multiplication of *Asparagus densiflorus*. *Plant Cell, Tissue and Organ Culture*, 47, 91-94.
- Benniamin, A., Manickam, VS., Johnson, M., & Joseph, LH. (2004). Micropropagation of *Crataeva magna* (Lour.) DC- a medicinal plant. *Indian Journal of Biotechnology*, 3, 136-138.
- Bhagyalakshmi, N., Singh, NS. (1988). Meristem culture and micropropagation of a variety of ginger (*Zingiber officinale* Rosc.) with a high yield of Oleoresin. *Journal of Horticultural Science*, 63(2), 321-327.
- Bhatia, P., Ashwath, N., Senaratna, T., & Midmore, D. (2004). Tissue culture studies of tomato (*Lycopersicon esculentum*). *Plant Cell, Tissue and Organ Culture*, 78(1), 1-21.
- Biswas, A., Bari1, M. A., Roy, M., & Bhadra, S. K. (2007). *In vitro* regeneration of *Aristolochia Tagala* champ. A rare medicinal plant of Chittagong hill tracts. *Journal of Biological Science*, 15, 63-67.
- Bopana, N., Saxena, S. (2008). *In vitro* propagation of a high value medicinal plant: *Asparagus racemosus* willd. *In vitro Cell and Developmental Biology Plant*, 44, 525-532.
- Briksm, DP. (2000). Medicinal plants and phytomedicines, linking plant biochemistry and physiology to human health. *Plant Physiology*, 124, 507-514.
- Bui-Dang-Ha, D., Norreel, B., Masset, A. (1975). Regeneration of *Asparagus officinalis* L. through callus cultures derived from pro- toplasts. *Journal of Experimental Botani*, 26, 263-270.
- Chebet, D., Okeno, J., & Mathenge, P. (2003). Biotechnological approaches to improve horticultural crop production. *Acta Horticulturae*, 625, 473-477.
- Chen, L., Wang, Y., Xu, C., Zhao, M., & Wu, J. (2006). *In vitro* propagation of *Lychnis senno* Siebold et Zucc, a rare plant with potential ornamental value. *Scientia Horticulturae*, 107(2), 183-186.
- Chen, N. I., Chang, C. C., Wang, C. W., Shyu, Y. T., & Chang, T. L. (2008). Antioxidant and antimicrobial activity of Zingiberaceae plants in Taiwan. *Plant Foods for Human Nutrition*, 63, 15-20.
- Chin, C. K. (1982). Promotion of shoot and root formation in *Asparagus in vitro* by ancymidol. *Horticultural Science*, 17, 590-591.

- Chitra, R., Rajamani, K., & Vadivel, E. (2009). Regeneration of plantlets from leaf and internode explants of *Phyllanthus amarus schum* and thonn. *African journal of biotechnology*, 8(10), 2209-2211.
- Chung, S., Osawa, T., & Kawakishi, S. (1997). Hydroxyl radical scavenging effects of spices and scavengers from Brown Mustard (*Brassica nigra*). *Bioscience Biotechnology and Biochemistry*, 61(1), 118–123.
- Cowan, M. C. (1999). Plant products as antimicrobial agents. *Clinical Microbiology Reviews*, 12, 564-582.
- Cruz AD, Curry J, Curado MP and Glickman BW (1996). Monitoring hprt mutant frequency over time in T-lymphocytes of people accidentally exposed to high doses of ionizing radiation. *Environ. Mol. Mutagen.* 27: 165-17
- Doran, P. M. (2006). Foreign protein degradation and instability in plants and plant tissue cultures. *Trends in Biotechnology*, 24, 426-432.
- Duduku, K., Rosalam, S., & Rajesh, N. (2010). A review of the antioxidant potential of medicinal plant species. *food and bioproducts processing*, 89(3), 217-233.
- Evans, C. E., Banso, A., & Samuel, O. A. (2002). Efficacy of some nupe medicinal plants against *Salmonella typhi*: an in vitro study. *Journal of Ethnopharmacology*, 80, 21-24.
- Faria, R. T., Illg, RD. (1995). Micropropagation of *Zingiber spectabile* Griff. *Scientia Horticulturae*, 62, 135–137.
- Farr, D. F., Bills, G. F., Chamuris, G. P., Rossman, A. Y. (1989) Fungi on plants and plant products in the United States. American Phytopathological Society, St. Paul, USA
- Flory, W. S. (1931). Genetic and cytological investigations on *Asparagus officinalis* L. *Genetics*, 17, 432-467.
- Foti, D., Hajcak, G., & Dien, J. (2009). Differentiating neural responses to emotional pictures: evidence from temporal-spatial PCA. *Psychophysiology*, 46, 521–530.
- Frederick, M. F. (2006). Plant growth regulators. Retrieved 6 July 2007, from University of Florida IFAS Extension.
- George, E. F., & Sherrington, P. D. (1984). In: plant propagation by tissue culture. England. Eversley: Exegetics Ltd, 39–71.
- George, E. F. (1993). Plant propagation by tissue culture. *The technology* (2nd ed.), (1), 3-160.
- Ghosh, B., & Sen, S. (1994). Effect of explant, light intensity and growth regulators on stable regeneration of *Asparagus plumosus*. Baker. *Nucl. Calcutta*, 37, 24-29.

- Ghosh, B., & Sen, S. (1996). Plant regeneration in *Asparagus verticillatus* (L.). *Journal of Herbs Spices and Medicinal Plant*, 4, 9-17.
- Ghosh, B., & Sen, S. (1996). Suspension culture, somatic embryogenesis and stable regeneration in *Asparagus cooperi* Baker. *Cytobios*, 87, 189–200.
- Goncalves, S., Escapa, A., Greyenstuck, T. & Romano, A. (2008). An efficient *in vitro* propagation protocol for *Pinguicula lusitanica*, a rare insectivorous plant. *Plant Cell, Tissue and Organ Culture*, 95(2), 239-243.
- Grzegorzcyk, I., Matkowski, A., & Wysokinska, H. (2007). Antioxidant activity of extracts from *in vitro* cultures of *Salvia officinalis* L. *Food Chemistry*, 104(2), 536-541.
- Guillemot, D. (1999). Antibiotic use in humans and bacterial resistance, *Current Opinion in Microbiology*, 2, 494-498.
- Habsah, M., Amran, M., Mackeen, M. M., Lajis, N. H., Kikuzaki, H., Nakatani, N., et al. (2007). Screening of Zingiberaceae extracts for antimicrobial and antioxidant activities. *Journal of Ethnopharmacology*, 72, 403- 410.
- Halliwell, B., & Gutteridge, J. M. C. (2007). Free radicals in biology and medicine (4th ed.). Oxford: Oxford University Press.
- Handique, P. J., & Bora, P. (1999). *In vitro* regeneration of a medicinal plant – *Houttuynia cordata* Thunb. from nodal explants. *Current Science*, 76, 1245–1247.
- Harada, T. & Yakuwa, T. (1983). Studies on the morphogenesis of Asparagus VII. Callus and organ formation in the *in vitro* culture of cladophylls. *Journal of the Faculty of Agriculture Hokkaido University*, 61(3), 344_350.
- Hartmann, H., Kester, D., & Davies, F. (1990). Plant propagation, principles and practices (5th ed.). London: Prentice-Hall.
- Heinrich, M., & Gibbons, S. (2004). *Fundamentals of Pharmacognosy and Phytotherapy*. London, Edinbrugh: Churchill Livingstone, 245-252.
- Hellwig, S., Drossard, J., Twyman, R., & Fischer, R. (2004). Plant cell cultures for the production of recombinant proteins. *Nature Biotechnology*, 22(11), 1415-1422.
- Hiatt, R. Cafferkey, & Bowdish, K. (1989). Production of antibodies in transgenic plants. *Nature*, 342, 76–78.
- Hoe, C. T. K. (1992). Pengenalalan teknologi kultur tisu tumbuhan. Penerbit universiti sains Malaysia, 28-53.
- Holland, B., Unwin, I. D., & Buss, D. H. (1991). Vegetables, herbs and spices. The fifth supplement to McCance & Widdowson's *The Composition of Foods* (4th ed.). United Kingdom, Cambridge: Royal Society of Chemistry, 1-163.

- Huang, L., & Murashige, T. (1977). Plant tissue culture media: major constituents; their preparation and some applications. *Tissue Culture Association Manual*, 3, 539-548.
- Huang, Q. H., Zheng, Y. P., Lu, M. H., Chi, Z. R. (2005). Development of a portable 3D ultrasound imaging system for musculoskeletal tissues. *Ultrasonics*, 43, 153-163.
- Hu, C. Y., & Wang, P. J. (1983). Meristem, shoot tip, and bud culture. In D. A. Evans., W. R. Wang., P. V. Ammirato & Y. Yamada (Eds.), *Handbook of Plant Cell Culture*. New York: MacMillan, 177-277.
- Inagaki, N., Harada, T., Yakuwa, T. (1980). Studies on anther culture in horticultural crops. I. Callus formation in asparagus anthers. *Journal of the Japanese Society for Horticultural Science*, 49(1), 71-78.
- Inden, H., & Asahira, T. (1988). Micropropagation of ginger. *Acta Horticulture*, 230, 177-184.
- Jose, G., Teodoro, Albert, E., Parker, Xiaochun, Z., & Michael, R. (2006). Green. p53-mediated inhibition of angiogenesis through Up-Regulation of a collagen prolyl hydroxylase. *Science*, 313, 968-971.
- Kalemba, D. & Kunicka, A. (2003). Antibacterial and antifungal properties of essential oils. *Current Medicinal Chemistry*, 10, 813-829.
- Kar, D. K., & Sen, S. (1985). Propagation of *Asparagus racemosus* through tissue culture. *Plant Cell Tissue & Organ Culture*, 5, 89 – 95.
- karami, O., Piri, K., & Bahmani, R. (2009). Plant regeneration through callus cultures derived from immature-cotyledon explants of oleaster (*Elaeagnus angustifolia* L.). *Trees*, 23, 335-338.
- Keng, L. C., & Stanley, C. (2007). Micropropagation of *Curcuma roscoe* and *zingiber zerumbet smith*. *Biotechnology*, 6, 555-560.
- Kil, H.Y., Seong, E. S., Ghimire, B. K., Chung, I. M., Kwon, S. S., Goh, E. J., et al. (2009). Antioxidant and antimicrobial activities of crude sorghum extract. *Food Chemistry*, 115(4), 1234-1239.
- Kovalchuk, I. (2009). Medium, container and genotype all influence *in vitro* cold storage of apple germplasm. *Plant Cell, Tissue and Organ Culture*, 96(2), 127-136.
- Krishna Kumar Pant & Sanu Devi Joshi. (2009). *In vitro* multiplication of wild Nepalese *Asparagus racemosus* through shoots and shoot induced callus cultures. *Botany Research International*, 2(2), 88-93.
- Kulkarni, K., Kelkar, S., Watve, M., & Krishnamurthy, K. (2007). Characterization and control of endophytic bacterial contaminants in *in vitro* cultures of *Piper* spp.,

Taxus baccata subsp. *Wallichiana*, and *Wtiyhania somnifera*. *Canadian Journal of Microbiology*, 53(1), 63-74.

- Kyte, L., & Kleyn, J. (2001). *Plants from Test Tubes: An introduction to micropropagation* (3th ed.). Portland Oregon: Timber Press.
- Lal, N., Ahuja, P.S., Kukreja, A.K., & Pandey, B. (1988). Clonal propagation of *Picrorhiza kurroa* Royle ex Benth. By shoot tip culture. *Plant Cell Reports*, 7, 202-205.
- Lia, W., Zhangm, M., & Yuc, H. Q. (2006). Study on hypobaric storage of green asparagus. *Journal of Food Engineering*, 73 (3), 225-230.
- Li, W., & Zhang, M. (2006). Effect of three-stage hypobaric storage on cell wall components, texture and cell structure of green asparagus. *Journal of Food Engineering*, 77 (1), 112-118.
- Limanton-Grevet, A. & Jullien, M. (2000). Somatic embryogenesis in *Asparagus officinalis* can be an *in vitro* selection process leading to habituated and 2,4-D dependent embryogenic lines. *Plant Physiology and Biochemistry*, 38, 567-576.
- Loc, N. H., Duc, D. T., Kwon, T. H. & Yang, M. S. (2005). Micropropagation of zedoary (*Curcuma zedoaria* Roscoe) - a valuable medicinal plant. *Plant Cell Tissue Organ Culture*, 81, 119-122.
- Mahesh, B., & Satish, S. (2008). Antimicrobial activity of some important medicinal plant against plant and human pathogens. *World Journal of Agricultural Science*, 4, 839-843.
- Makris, D., P. & Rossiter, J., T. (2001). Domestic processing of onion bulbs (*Allium cepa*) and asparagus spears (*Asparagus officinalis*): effect on flavonol content and antioxidant status. *Journal of Agricultural and Food Chemistry*, 49(7), 3216-3222.
- Mamiyaa, K., & Sakamoto, Y. (2000). Effects of sugar concentration and strength of basal medium on conversion of somatic embryos in *Asparagus officinalis* L. *Scientia Horticulturae*, 84, 15-26.
- Mehta, S., R. & Subramanian, R., B. (2005). Direct *In vitro* Propagation of *Asparagus adscendens* Roxb. *Plant Tissue Culture*, 15(1), 25-32.
- Miachir, J. I., Romani, V. L. M., Amaral, A. F. D. C., Mello, M.O., Crocomo, O. J., & Melo, M. (2004). Micropropagation and callogenesis of *Curcuma zedoaria* Roscoe. *Science Agriculture*, 61, 422-432.
- Mohanty, S., Panda, M. K., Subudhi, E., & Nayak, S. (2008). Plant regeneration from callus culture of curcuma aromatica and *in vitro* detection of somaclonal variation through cytophotometric analysis. *Biologia plantarum*, 52 (4), 783-786.

- Molyneux, P. (2004). The use of the stable free radical diphenylpicrylhydrazyl (DPPH) for estimating antioxidant activity. *Songklanakarinn Journal of Science and Technology*, 26, 211–219.
- Mor, Y., Zieslin, N. (1987). Plant growth regulators in rose plants. *Horticultural Reviews*, 9, 53–66.
- Mothana, RAA., & Lindequist, U. (2005). Antimicrobial activity of some medicinal plants of the island Soqatra. *Journal of Ethnopharmacology*, 96, 177-181.
- Moure, A., Franco, D., Sineiro, J., Dominguez, H., Nunez, M., J. & Lema, J., M. (2000). Evaluation of extracts from *Gevuina avellana* hulls as antioxidants. *Journal of Agricultural and Food Chemistry*, 48(9), 3890–3897.
- Mukhambetzhannov, S. K. (1997). Culture of nonfertilized female gametophytes *in vitro*. *Journal of plant cell, tissue and organ culture*, 48, 111-119.
- Murashige, T., & Skoog, F. (1962). A revised medium for rapid growth and bioassays with tobacco tissue cultures. *Journal of Plant Physiology*, 15, 473–97.
- Murashige, T., Shabde, M. N., Hasegawa, P. M., Takatori, F. H., & Jones, J. B. (1972). Propagation of *Asparagus* through shoot apex culture. *Horticultural Science*, 97, 158-161.
- Murashige, T. (1977). Manipulation of organ culture in plant tissue cultures. *Botanical Bulletin of Academia Sinica*, 18, 1–24.
- Nayak, S., & Sen, S. (1998). Regeneration of *Asparagus robustus*. *Horticultural Journal of Herbs Spices and Medicinal Plant*, 5, 43-50.
- Niamsa, N., & Sittiwet, C. (2009). Antimicrobial activity of *Curcuma longa* aqueous extract. *Journal of Pharmacology and Toxicology*, 4, 173-177.
- Nikolic, R., Mitic, N., Miletic, R., & Neskovic, M. (2006). Effects of cytokinins on *in vitro* seed germination and early seedling morphogenesis in *Lotus corniculatus* L. *Journal of Plant Growth Regulation*, 25(3), 187-194.
- Nimri, L. F., Meqdam, M. M., & Alkofahi, A. (1999). Antibacterial activity of Jordanian Medicinal Plants. *Pharmacological Biology*, 37, 196-201.
- Nishritha, B., Sanjay, S., (2008). *In vitro* propagation of a high value medicinal plant: *Asparagus racemosus* Willd. *In vitro cellular and developmental biology*, 44, 525-553.

- Ornstrup, H. (1997). Biotechnological methods in Asparagus breeding. Department of Plant Science, Massey University: Asparagus Research Newsletter, 14(1-2), 1-25.
- Palai, SK., Rout, GR., & Das, P. (1997). Micropropagation of ginger (*Zingiber officinale* Rosc.): interaction of growth regulators and culture conditions. *Proc Biotechnology of Spices, Medicinal and Aromatic Plants*, 20-24.
- Park, Y., Lelu-Walter, M., Harvengt, L., Trontin, J., MacEacheron, I., Klimaszewska, K. & Bonga, J. (2006). Initiation of somatic embryogenesis in *Pinus banksiana*, *P. strobes*, *P. pinstar*, and *P. sylvestris* at three laboratories in Canada and France. *Plant Cell, Tissue and Organ Culture*, 86(1), 87-101.
- Pati, P., Rath, S., Sharma, M., Sood, A. & Ahuja, P. (2006). *In vitro* propagation of rose-a review. *Biotechnology Advances*, 24(1), 94-114.
- Patra, A., Rai, B., Rout, GR., & Das, P. (1998). Successful plant regeneration from callus cultures of *Centella asiatica* (Linn.) Urban. *Plant Growth Regulation*, 24, 13–16.
- Peng, M., & Wolyn, D. J. (1999). Improved callus formation and plant regeneration for shed microspore culture in asparagus (*Asparagus officinalis* L.). *Plant Cell Reports*, 18, 954–958.
- Periago, P. M., Conesa, R., Delgado, B., Fernandez, P. S., & Palop, A. (2006). *Bacillus megaterium* Spore Germination and Growth Inhibition by a Treatment Combining Heat with Natural Antimicrobials. *Food Technology and Biotechnology*, 44, 17-23.
- Pontaroli, A. C. & camadro, E. L. (2005). Somaclonal variation in *Asparagus officinalis* plants regenerated by organogenesis from long-term callus cultures. *Genetics and Molecular Biology*, 28(3), 423-430
- Poyrazoglu, C., E., Biyik, H. & Uzun, C. (2009). Investigation of antimicrobial activity of some natural plants which are not-cultivated and are sold at bazaars in Aydın Vicinity. *International Journal of Natural and Engineering Sciences*, 3(2), 54-57.
- Prieto, P., Pineda, M., & Aguilar, M. (1999). Spectrophotometric quantitation of antioxidant capacity through the formation of a phosphomolybdenum complex: specific application to the determination of vitamin E. *Analytical Biochemistry*, 269, 337–341.
- Prior, R., L., Wu, X., L. & Schaich, K. (2005). Standardized methods for the determination of antioxidant capacity and phenolics in foods and dietary supplements. *Journal of Agricultural and Food Chemistry*, 53(10), 4290–4302.
- Prohens, J., Nuez, F., & Carena, M. J. (2008). Handbook of Plant Breeding. *Springer Publishing*. 364.
- Rafat, A., Philip, K. & Muniandy, S. (2010). Antioxidant potential and content of phenolic compounds in ethanolic extracts of selected parts of *Andrographis paniculata*. *Journal of Medicinal Plants Research*, 4(3), 197-202.

- Rafat, A., Philip, K. & Muniandy, S. (2010b). Antioxidant potential and phenolic content of ethanolic extract of selected Malaysian plants. *Research Journal of Biotechnology*, 5(1), 16-19.
- Ramirez-Malagon, R., Perez-Moreno, L., Borodanenko, A., Salinas-Gonzalez, G., & Ochoa-Alejo, N. (2006). Differential organ infection studies, potyvirus elimination, and field performance of virus-free garlic plants produced by tissue culture. *Plant Cell, Tissue and Organ Culture*, 86(1), 103-110.
- Ramirez-Malagon, R., Borodanenko, A., Perez-Moreno, L., Salas-Araiza, M., Nunez-Paleniuss, H., & Ochoa-Alejo, N. (2008). *In vitro* propagation of three *Agave* species used for liquor distillation and three for landscape. *Plant Cell, Tissue and Organ Culture*, 24(2), 201-207.
- Razdan, A., Razdan, M., Rajam, M. & Raina, S. (2008). Efficient protocol for *in vitro* production of androgenic haploids of *Phlox drummondii*. *Plant Cell, Tissue and Organ Culture*, 95(2), 245-250.
- Re, R., Pellegrini, N., Proteggente, A., Pannala, A., Yang, M., & Rice-Evans, C. (1999). Antioxidant activity applying an improved ABTS radical cation decolorization assay. *Free Radical Biology and Medicine*, 26, 1231–1237.
- Reuther, G. (1977). Adventitious organ formation and somatic embryogenesis in callus of *Asparagus* and *Iris* and its possible application. *Acta Horticultural*, 78, 217-224.
- Reuther, G. (1984). *Asparagus*. In: Evans, D.A., W.A. Sharp, P.V. Ammirato and Y. Yamada, (Eds.), *Handbook of plant cell culture*. New York, McMillan. 2. 211-242.
- Rios, J. L., & Recio, M. C. (2005). Medicinal plants and antimicrobial activity. *Journal of ethnopharmacology*, 100 (1-2), 80-84.
- Rodriguez, R., Jaramillo, S., Rodriguez, G., Espejo, J. A., Guillen, R., Fernandez-Bolanos, J., et al. (2005). Antioxidant activity of ethanolic extracts from several *asparagus* cultivars. *Journal of Agricultural and Food Chemistry*, 53(13), 5212–5217.
- Rojas, R., Bustamante, B., Bauer, J., Fernández, I., Albán, J., & Locka, O. (2003). Antimicrobial activity of selected Peruvian medicinal plants. *Journal of Ethnopharmacology*, 88, 199-204.
- Rout, GR., Saxena, C., Samantaray, S., & Das, P. (1999). Rapid clonal propagation of *Plumbago zeylanica* Linn. *Plant Growth Regulation*, 28, 1-4.
- Rout, GR., Debata, BK., & Das, P. (1989). *In vitro* mass-scale propagation of *Rosa hybrida* cv. landora. *Current Science*, 58(15), 876-878.
- Rout, G., Mohapatra, A., & Jain, M. (2006). Tissue culture of ornamental pot plant: a critical review on present scenario and future prospects. *Biotechnology Advances*, 24(6), 531-560.

- Rout, G. R., Samantaray, S. & Das, P. (2000). *In vitro* manipulation and propagation of medicinal plants. *Biotechnology Advances*, 18 (2), 91-120.
- Rubatzky, V. E., & Yamaguchi, M. (1997). World vegetables: principles, production and nutritive values (2th ed.). New York: International Thomson Publishing, 843-844.
- Sagare, A. P., Lee, Y. L. , Lin, T. C., Chen, C. C., & Tsay, H. S. (2000). Cytokinininduced somatic embryogenesis and plant regeneration in *Corydalis yanhusuo* (Fumariaceae). *Plant Science*, 160, 139–14.
- Sahoo, Y., Pattnaik, SK., & Chand, PK. (1997). In vitro clonal propagation of an aromatic medicinal herb *Ocimum basilicum* L. (Sweet basil) by axillary shoot proliferation. *In Vitro Cellular Developmental Biology Plant*, 33(4), 293–296.
- Sai, N., Visarada, K., Lakshmi, Y., Pashupatinath, E., Rao, S. & Seetharama, N. (2006). *In vitro* methods in sorghum with shoot tip as explant material. *Plant Cell Reports*, 25(3), 165-248.
- Saito, M., Raj, D., Rai & Masuda, R. (2003). Isolation of *Penicillium hirsutum* from spoiled, packaged asparagus spears in Japan. *Journal of General Plant Pathology*, 64 (5), 304-306.
- Sakaguchi, Y., Ozaki, Y., Miyajima, I., Yamaguchi, M., Fukui, Y., Iwasa, K., Motoki, S., Suzuki, T., & Okubo, H. (2008). Major anthocyanins from purple *Asparagus officinalis*. *Phytochemistry*, 69(8), 1763-1766.
- Salehzadeh, sh., Daneshvar, M. H. & Moallemi, N. (2008). Indirect organogenesis from scale, leaf primordia and immature floret explants of Hyacinth (*Hyacinthus orientalis* L.). *American-Eurasian Journal of Agricultural & Environmental Science*, 4 (5), 640-645.
- Samantaray, S. & Mait, S. (2011). Factors influencing rapid clonal propagation of *Chlorophytum arundinaceum* (Liliales: Liliaceae), an endangered medicinal plan. *International Journal of Tropical Biology*, 59 (1), 435-445.
- Sanchez-Moreno, C. (2002). Review: methods used to evaluate the free radical scavenging activity in foods and biological systems. *Food Science and Technology International*, 8, 121–37.
- Sarabi, B. & Almasi, K. (2010). Indirect organogenesis is useful for propagation of Iranian edible wild *Asparagus officinalis* L.). *Asian Journal of Agricultural Sciences*, 2(2), 47-50.
- Saurabh, R., & Mehta, R. B. (2005). Subramanian. Direct *In vitro* propagation of *Asparagus adscendens* Roxb. *Plant Tissue Cult*, 15(1), 25-32.

- Saxena, C., Palai, SK., Samantaray, S., Rout, GR., & Das, P. (1997). Plant regeneration from callus cultures of *Psoralea corylifolia* Linn. *Plant Growth Regulation*, 22, 13–7.
- Shao, Y., China, C. K., Hob, C. T., Mac, W., Stephen, A., & Huang, G. M. T. (1996). Anti-tumor activity of the crude saponins obtained from asparagus. *cancer Letters*, 104, 31-36.
- Sharma, TR., & Singh, BM. (1997). High frequency *in vitro* multiplication of disease-free *Zingiber officinale* Rosc. *Plant Cell Reports*, 17(1), 68–72.
- Shigeta, J., Sato, K., Tanaka, S., Nakayama, M., & Mii, M. (1996). Efficient plant regeneration of asparagus by inducing normal roots from *in vitro* multiplied shoot explants using gellan gum and glucose. *Plant Science*, 113(1), 99-104.
- Shimomura, K., Yoshimatsu, K., Jaziri, M., & Ishimaru, K. (1997). Traditional medicinal plant genetic resources and biotechnology applications. *Plant Biotechnology and Plant Genetic resources for Sustainability and Productivity* (Series: Biotechnology Intelligence Unit), 209–225.
- Singh, S., Ray, B. K., Mathew, S., Buragohain, P., Gogoi, J., Gogoi, S., Sharma, B. K., & Deka, P. C. (1999). Micropropagation of a few important medicinal plants. *Annals of Biology*, 15, 1-7.
- Singh, J., & Tiwari, K. N. (2010). High-frequency *in vitro* multiplication System for commercial propagation of pharmaceutically important *Clitoria ternatea* L. A valuable medicinal plant. *Industrial Crops and Products*, 32 (3), 534-538.
- Skirvin, R. M., Chu, M. C., & Young, HJ. (1990). Rose. In P. V. Ammirato., D. R. Evans., W. R. Sharp & Y. P. S. Bajaj (Eds). *Handbook of Plant Cell Cultures*. New York: MacMillan, 43-716.
- Skof, S., Bohanec, B., Kastelec, D., & Luthar, Z. (2007). Spontaneous induction of tetraploidy in hop using adventitious shoot regeneration method. *Plant Breeding*, 126(4), 416-421.
- Soobrattee, M. A., Neergheen, V. S., Luximon-Ramma, A., Aruoma, OI., & Bahorun, T. (2005). Phenolics as potential antioxidant therapeutic agents: mechanisms and actions. *Mutation Research*, 579, 200–213.
- Stajner, N. B., Bohanec J., & arijana, M. (2002). *In vitro* propagation of *Asparagus maritimus* - a rare Mediterranean salt-resistant species. *Plant Cell Tissue*, 70, 269-274.
- Stephenson, K., & Fahey, J. (2004). Development of tissue culture methods for the rescue and propagation of Endangered *Moringa* Spp. Germplasm. *Economic Botany*, 58, 116-124.

- Stewart, Jr. (2007). *Plant Biotechnology and Genetics: Principles, Techniques, and Applications*. New Jersey: A John Wiley & Sons, Inc., Publication.
- Sun, T., & Ho, C., T. (2005). Antioxidant activities of buckwheat extracts. *Food Chemistry*, *90*(4), 743–749.
- Sun, T., Tang, J., & Powers, J. R. (2007). Antioxidant activity and quality of asparagus affected by microwave-circulated water combination and conventional sterilization. *Food Chemistry*, *100* (2), 813-819.
- Thomas, T. D., & Maseena, E. A. (2006). Callus induction and plant regeneration in *Cardiospermum halicacabum* Linn. an important medicinal plant. *Scientia Horticulturae*, *108*(3), 332-336.
- Tsushida, T., Suzuki, M. & Kurogi, M. (1994). Evaluation of antioxidant activity of vegetable extracts and determination of some active compounds. *Journal of the Japanese Society for Food Science and Technology*, *41*(9), 611–618.
- Uddin, L. Q. (2005). Self-face recognition activates a frontoparietal ‘mirror’ network in the right hemisphere: an event-related fMRI study. *Neuroimage*, *25*, 926–935.
- Upadhyay, R., Arumugam, N., & Bhojwani, SS. (1989). *In vitro* propagation of *Picrorhiza kurroa* Royle Ex. Benth.: an endangered species of medicinal importance. *Phytomorphology*, *39*(2,3), 235–242.
- Verpoorte, R., Contin, A., & Memelink, J. (2002). Biotechnology for the production of plant secondary metabolites. *Phytoch Review*, *1*(1), 13-25.
- Wang, H., & Ng, TB. (2001). Isolation of a novel deoxyribonuclease with antifungal activity from *Asparagus officinalis* seeds. *Biochemical and Biophysical Research Communication*, *289*(1), 120-124.
- Winston, J. C. (1999). Health-promoting properties of common herbs. *The American Journal of Clinical Nutrition*, *70*, 491–499.
- Wojdylo, A., Oszmianski, J., & Czemerys, R. (2007). Antioxidant activity and phenolic compounds in 32 selected herbs. *Food Chemistry*, *105*, 940-949.
- Xing, G., Zhang, Z., Liu, J., Zhang, P., & Sugiura, N. (2010). Antioxidant activity of moutan cortex extracts by multiple-stage extraction. *International Journal of Biotechnology*, *2*(2), 17-24.
- Yakuwa, T., Harada, T., Saga, K., & Shiga, Y. (1971). Studies on the morphogenesis of *Asparagus*, 1. Callus formation or initiating in the pith tissue of *Asparagus* spears in tissue culture. *Journal of Japanese Society for Horticultural Science*, *40*, 230-236.

- Yang, H. J., & Clore, W. J. (1974). Development of complete plantlets from moderately vigorous shoot of stock plants of asparagus *in vitro*. *Horticultural Science*, 9, 138-139.
- Zhang, J., Zhang, M., & Deng, X. (2007). Obtaining autotetraploids *in vitro* at a high frequency in *Citrus sinensis*. *Plant Cell, Tissue and Organ Culture*, 89(2/3), 211-216.

Research Publication and Conference Proceeding

- 1. Arash Khorasani**, Wirakarnain B. Sani, Rosna Mat Taha and Arash Rafat. (2009) Identification of Isolated Bacteria from Contaminated *Asparagus officinalis* cv. Mary Washington Tissue Culture Media. International Congress of Malaysian Society for Microbiology, 1-4th December, Penang, Malaysia.
- 2. Arash Khorasani**, Wirakarnain Sani, Koshy Philip, Rosna Mat Taha, Arash Rafat. (2010) Antioxidant and Antibacterial Activities of Ethanolic Extracts of *Asparagus officinalis* cv. Mary Washington: Comparison of *In Vivo* and *In Vitro* Grown Plant Bioactivities. African journal of Biotechnology. Vol 9 (49), 8460-8466.
- 3. B.Banisalam**, W.Sani, K.Philip, H.Imdadul & **A.Khorasani**. (2011) Comparison Between In Vitro and In Vivo Antibacterial Activity of *Curcuma zedoaria* from Malaysia. African Journal of Biotechnology, Vol 10 (55), 11676-11681.