

**EFFECT OF ENDOPHYTE EXTRACT ON MICROPROPAGATION OF *CREMASTRA
APPENDICULATA* (D. DON.) MAKINO (ORCHIDACEAE)**

**Ming-Sheng Zhang^{1,2}, Shu-Jing Wu¹, Xiao-Jia Jie¹, Li-Xia Zhang², Xiao-Hong Jiang¹, Jian-Chang Du¹,
Jin-Liang Qi¹, Zhi Liu,¹ and Yong-Hua Yang^{1*}**

¹Institute of Plant Molecular Biology, State Key Laboratory of Pharmaceutical Biotechnology, School of Life Sciences, Nanjing University, Nanjing 210093, P. R. China, *Fax: 86-25-83686305, *E-mail: yangyh@nju.edu.cn

²School of Life Sciences, Guizhou University, Guiyang 550025, P.R. China

REFERENCES

- Arditti J., Ernst R. (1993). Micropropagation of orchids. New York: John Wiley & Sons, 640 pp.
- Avigad G., Dey P. M. (1997). Carbohydrate metabolism: storage carbohydrates. *In*: Dey P. M. and Harborne J. B. (Eds). Plant Biochemistry. Academic Press. London: 143-204.
- Chen Q. H., Chen S. C. (2003). Additions to the orchid flora of Guizhou, China. *Acta Phytotaxonomica Sinica*, 41: 263-266 (in Chinese with English abstract).
- Fan L., Gou S., Xu J. T. (1998). Fungi Endophyte from Orchid Mycorrhizae in China. *Journal of Shanxi University*, 21: 169-177 (in Chinese with English abstract).
- Fisher P. J., Anson A. E., Petrini O. (1984). Antibiotic activity of some endophytic fungi from ericaceous plants. *Botanica Helvetica*, 94: 249-253.
- Goh C. J., Wong P. F. (1990). Micropropagation of the monopodial orchid hybrid Aranda 'Deborah' using inflorescence explants. *Scientia Horticulturae*, 44: 315-321.
- Gurney K. A., Mantle P. G. (1993). Biosynthesis of 1-N-methylalbonoursin by an endophytic *Streptomyces* sp. isolated from perennial ryegrass. *Journal of Natural Products*, 56: 1194-1198.
- Hanne N. R. (2002). Recent developments in the study of orchid mycorrhiza. *Plant and Soil*, 244: 149-163.
- Huber S. C., Huber J. L. (1996). Role and regulation of sucrosephosphate synthase in higher plants. *Annual Review of Plant Physiology and Plant Molecular Biology*, 47: 431-444.
- Kulikov P. V., Filippov E. G. (2001). Specific features of mycorrhizal symbiosis formation in the ontogeny of orchids of the temperate zone. *Russian Journal of Ecology*, 32: 408-412.
- Li H. (1996). A report on four cases of liver carcinoma treated by topical adhesive method. *Journal of Traditional Chinese Medicine*, 16: 243-246. (in Chinese with English abstract)
- Liao Z. H., Chen M., Tan F., Sun X. F., Tang K. X. (2004). Micropropagation of endangered Chinese aloe. *Plant Cell, Tissue and Organ Culture*, 76: 83-86.
- Liu C. H., Zou W. X., Lu H., Tan R. X. (2001). Antifungal activity of *Artemisia annua* endophyte cultures against phytopathogenic fungi. *Journal of Biotechnology*, 88: 277-282.
- McGee P. A., Hinckman M. A., White C. S. (1991). Inhibition of growth of fungi isolated from plants by *Acremonium strictum*. *Australian Journal of Agricultural Research*, 42: 1187-1194.
- Murashige T., Skoog F. (1962). A revised medium for rapid growth and bioassays with tobacco tissue culture. *Physiologia Plantarum*, 15: 473-479.
- Schulz B., Wanke U., Draeger S., Aust H., J. (1993). Endophytes from herbaceous plants and shrubs, effectiveness of surface sterilization methods. *Mycological Research*, 97: 1447-1450.
- Shim J. S., Kim J. H., Lee J. Y., Kim S. N., Kwon H. J. (2004). Anti-angiogenic activity of a homoisoflavanone from *Cremastra appendiculata*. *Planta Medica*, 70: 171-173.
- Valmayor H. L., Pimentel M. L., Martinez M. T. (1986). Callus formation and plantlet morphogenesis in Vanda. *Malay. Orchid Review*, 20: 22-30.