

Dr. Dennis Thomas T.
Assistant Professor



**Address: Post Graduate and
Research Department of Botany,
St. Thomas College, Palai,
Kottayam, PIN-686574, Kerala, INDIA
Phone-0481-2537536 (res), Cell-09447121737
E-mail<den_thuruthiyil@yahoo.com>**



Educational Qualifications

Exams passed	Board/University	Year of passing	Subjects
B.Sc.	M.G. University, Kottayam, Kerala, India	1991	Botany (Main), Zoology & Biochemistry (subsidiaries)
M.Sc.	M.G. University, Kottayam, Kerala, India	1993	Botany (Special paper Biotechnology)
Ph.D.	University of Delhi, India	2000	Plant tissue culture and reproductive biology
Postdoctoral	University of Hamburg, Germany	2007-08 (one year)	In vitro fertilization with isolated gametes
Postdoctoral	Hokkaido University, Sapporo, Japan.	2009 (3 months)	<i>Alstromeria</i> tissue culture and protoplast regeneration

- National tests qualified: **CSIR-UGC test (1994)** and **GATE (1994)**
- Ph.D. Supervisors: **Prof. S. S. Bhojwani** and **Prof. A.K. Bhatnagar**
- Address: Department of Botany, University of Delhi, Delhi, 110007, India
- Title of the Ph.D. thesis: **In Vitro production of haploids and triploids of mulberry (Morus alba L.)**

Research positions occupied

1. Junior Research Fellow from September 1994 to October 1995 in the Central Silk Board (CSB) Project "In vitro production of haploids and triploids of Morus Spp." in University of Delhi.
2. Junior Research Fellow, Council of Scientific and Industrial Research (CSIR) from October 1995 to October 1997 in University of Delhi.
3. Senior Research Fellow, Council of Scientific and Industrial Research (CSIR) from October 1997 to March 2000 in University of Delhi.
4. Actively engaged in research work and teaching in the Postgraduate and Research Department of Botany, St. Thomas College, Palai, Kottayam (Dt) Kerala, India, from July 2000 onwards.

•Teaching experience:

➤ Currently I am working as an Assistant Professor and teaching different topics for the Graduate and Postgraduate students and actively engaged in research work since July 2000.

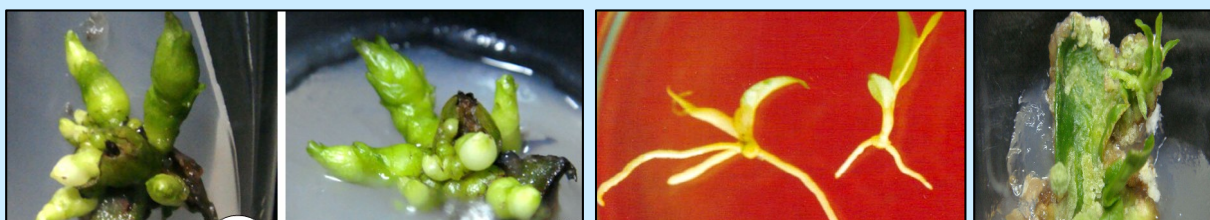
•Editorial experience

➤ I was one of the editors of "**Botanica**", magazine of Delhi University Botanical Society for a period of three years

➤ I am one of editors of the International Journal "**AoB Plants**" (<http://aobplants.oxfordjournals.org>)

•Membership in professional bodies

➤ Life member of the Society for Plant Biochemistry and Biotechnology



List of publications

I. International

1. **Thomas TD**, Bhatnagar AK, Razdan MK, Bhojwani SS. 1999. A reproducible protocol for the production of gynogenic haploids of mulberry, *Morus alba* L. **Euphytica** 110: 169-173. (Springer).
2. **Thomas TD**, Bhatnagar AK, Bhojwani SS. 2000. Production of triploid plants of mulberry (*Morus alba* L.) by endosperm culture. **Plant Cell Reports** 19: 395-399. (Springer).
3. Bhojwani SS, **Thomas TD**. 2001. In vitro gynogenesis. In: S. S. Bhojwani and W.Y. Soh (Editors) **Current Trends in the Embryology of Angiosperms** (Kluwer Academic Publishers, Netherlands) pp. 489-507.
4. **Thomas TD**. 2002. Advances in mulberry tissue culture. **Journal of Plant Biology** 45: 7-21. (Published by the Botanical Society of Korea, Seoul).
5. **Thomas TD**. 2003. Thidiazuron induced multiple shoot induction and plant regeneration from cotyledonary explants of mulberry. **Biologia Plantarum** 46: 529-533. (Springer)
6. **Thomas TD**, Sreejesh PR. 2004. Callus induction and plant regeneration from cotyledonary explants of ash gourd (*Benincasa hispida* L.). **Scientia Horticulturae** 100: 359-367 (Elsevier Science).
7. **Thomas TD**. 2004. In vitro modification of sex expression in mulberry (*Morus alba* L.) by ethrel and silver nitrate **Plant Cell Tissue and Organ Culture** 77: 277-281. (Springer).
8. Jose TP, **Thomas TD**. 2004. High frequency in vitro regeneration of *Kigelia pinnata* L. via organogenesis. **Journal of Plant Biology** 47: 48-51 (Published by the Botanical Society of Korea, Seoul).
9. **Thomas TD**, Jose TP. 2004. Thidiazuron induced high frequency shoot organogenesis in callus from *Kigelia pinnata* L. **Botanical Bulletin of Academia Sinica** 45: 307-313 (Published from Taiwan).
10. **Thomas TD**, Jacob A. 2004. Direct Somatic embryogenesis of *Curculigo orchioides* Gaertn., an endangered medicinal herb. **Journal of Plant Biotechnology** 6: 193-197 (Published from Korea).
11. **Thomas TD**. 2004. Embryological observations on unpollinated ovary culture in mulberry (*Morus alba* L.). **Acta Biologica Cracoviensia series Botanica** 46: 87-94 (Published by Polish Academy of Sciences, Cracow).

List of publications

I. International

12. Thomas TD, Philip B. 2005. Thidiazuron induced high frequency plant regeneration via organogenesis from leaf-derived calli of a medicinal climber, *Tylophora indica* (Burm. f.) Merrill. [In Vitro Cellular and Developmental Biology – Plant](#) 41: 124-128 (Springer).
13. Thomas TD, Maseena EA. 2006. High frequency shoot regeneration from the nodal cuttings and leaf derived callus of medicinally important *Cardiospermum halicacabum* Linn. [Scientia Horticulturae](#) 108: 332-336 (Elsevier Science).
14. Thomas TD. 2006. Effect of gibberellic acid, sugars and abscisic acid on somatic embryogenesis in *Tylophora indica* (Burm. f.) Merrill. [Chinese journal of biotechnology](#) 22: 465-471. (Elsevier Science)
15. Thomas TD. 2007. Pretreatment in thidiazuron improves the in vitro shoot induction from leaves in *Curculigo orchoides* Gaertn., an endangered medicinal plant. [Acta Physiologiae Plantarum](#) 29: 455-461. (Springer).
16. Thomas TD. 2007. High frequency direct bulblet induction from rhizome explants of *Curculigo orchoides* Gaertn., an endangered medicinal herb. [In Vitro Cellular and Developmental Biology – Plant](#) 43: 442-448 (Springer).
17. Thomas TD, Michael A. 2007. High frequency plantlet regeneration and multiple shoot formation from cultured immature seeds of *Rhynchostylis retusa* Blume., an exquisite orchid [Plant Biotechnology Reports](#) 1: 243-249. (Springer).
18. Thomas TD, Chaturvedi R. 2008. Endosperm culture-A novel method for triploid plant production. Review article- [Plant Cell Tissue and Organ Culture](#) 93: 1-14 (Springer).
19. Thomas TD. 2008. The effect of in vivo and in vitro applications of ethrel and GA3 on sex expression in bitter melon [Euphytica](#) 164: 317-323 (Springer).
20. Thomas TD. 2008. The role of activated charcoal in plant tissue culture. Review article [Biotechnology advances](#) 26: 618-631 (Elsevier).
21. Thomas TD. 2009. Isolation, callus formation and plantlet regeneration from mesophyll protoplasts of *Tylophora indica* (Burm. f.) Merrill. a medicinal plant. [In Vitro Cellular and Developmental Biology – Plant](#) 45: 591-598 (Springer).
22. Thomas TD, Sankar S. 2009. Multiple shoot induction and callus regeneration in *Sarcostemma brevistigma* Wight & Arn, an endangered medicinal plant. [Plant Biotechnology Reports](#) 3: 67-74 (Springer).

List of publications

23. Abraham J, Cheruvathur MK, Mani B, Thomas TD. 2010. Micropropagation of *Cyclea peltata* (Lam) Hook & Thoms. by enhanced axillary branching. Industrial Crops and products 31: 92-98 (Elsevier).
24. Cheruvathur MK, Abraham J, Mani B, Thomas TD. 2010. Adventitious shoot formation from cultured internodal explants of *Malaxis acuminata* D. Don, a valuable terrestrial medicinal orchid. Plant Cell Tissue and Organ Culture 101: 163-170 (Springer).
25. Thomas TD, Hoshino Y. 2010. In vitro propagation for the conservation of a rare medicinal plant *Justicia gendarussa* Burm. f. by nodal explants and shoot regeneration from callus. Acta Physiologiae Plantarum 32: 943-950 (Springer)
26. Cheruvathur M.K, Britto J, Thomas TD. 2010. Callus induction and shoot regeneration from epicotyl explants of ethnomedicinally important *Caesalpinia bonduc* (L.) Roxb. Iranian Journal of Biotechnology (In press)
27. Cheruvathur M.K, Britto J, Thomas TD. Pulvinus- an ideal explant for plant regeneration in *Caesalpinia bonduc* (L.) Roxb., an ethnomedicinal woody climber. (Communicated to Plant Plant Biotechnology Reports -Springer).
28. Thomas TD, Hoshino Y. Efficient in vitro plant regeneration from embryo derived callus of *Brachypodium distachyon*; a model grass for functional genomics. (Communicated to Journal of Crop Science and Biotechnology - Springer).

II. National

29. Kumar A, Thomas TD. 1996. Conventional breeding in crop improvement. Botanica 46: 73-76.
30. Bhojwani SS, Thomas TD. 1999. In Vitro conservation of plant genetic resources. Botanica 49: 47-52.
31. Paul N, Mathew MM, Thomas TD. 2001. A rapid in vitro propagation procedure for mulberry (*Morus alba* L). STARS 2: 31-38.
32. Bhojwani SS, Thomas TD. 2005. In vitro production of haploids and triploids of mulberry. In: S. N. Chaturvedi and K. P. Singh (Editors) Plant Reproductive and Molecular Biology (Avishkar Publishers, Jaipur) pp. 38-46.

III. Papers in Conferences/Symposia

33. Bhojwani SS, Thomas TD. 1999. Production of haploids and triploids of mulberry. 3rd International Tissue Culture Conference, Dhaka, Bangladesh.

List of publications

III. Papers in Conferences/Symposia

34. **Thomas TD.** 1999. Storage, viability and effect of some growth regulators on seed viability in mulberry (*Morus alba* L.). XVI International Botanical Congress. St. Louis, USA.
35. **Thomas TD, Sreejesh KR.** 2002. A protocol for callus induction and organogenesis in Ash Gourd (*Benincasa hispida* L.). National Conference on Recent Trends in Plant Science Research, Department of Botany, St. Thomas College, Pala, Kottayam, Kerala, India.
36. **Thomas TD, Philip B.** 2004. Conservation of *Tylophora indica* (Brum. f.) Merrill. a threatened medicinal climber through tissue culture. International Symposium on "Recent Trends in Plant Ecology and Biodiversity Research" North-Eastern Hill University, Shillong, India.
37. **Thomas TD, Graff A, Kranz E.** 2007. Isolation of reproductive cells of *Brachypodium distachyon*; a model grass for functional genomics. Botanical Congress 07, International conference held in September 3 to 7, 2007, at University of Hamburg, Germany.
38. **Abraham J, Cheruvathur MK, Thomas TD.** 2009. A quick in vitro propagation of *Cyclea peltata* (Lam.) Hook.F.&Thoms. National Conference on Modern Trends in Plant in vitro Biology held on 5th -6th January 2009, at Department of Plant Science, School of Life Sciences, Bharathidasan University, Tiruchirappalli, Tamil Nadu.
39. **Cheruvathur MK, Abraham J, Thomas TD.** 2009. In vitro regeneration of *Ipomoea sepiaria* Roxb.- An important ethnomedicinal plant by direct organogenesis. National Conference on Modern Trends in Plant in vitro Biology held on 5th -6th January 2009, at Department of Plant Science, School of Life Sciences, Bharathidasan University, Tiruchirappalli, Tamil Nadu.

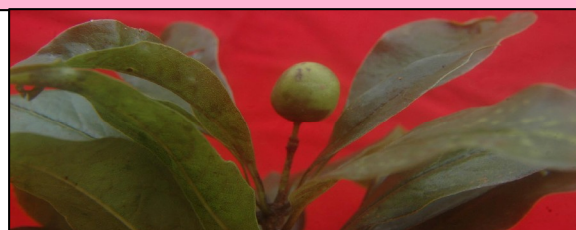
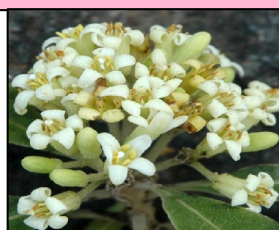


Academic Awards

- ▶ 2010 - INSA (Indian National Science Academy) awarded a visiting scientist award for a period of three months to visit Field Science Center for Northern Biosphere **University of Hokkaido, Japan.**
- ▶ 2007- DST (Department of Science and Technology) Government of India awarded a one year BOYSCAST fellowship to carryout advanced postdoctoral research in **Department of applied plant molecular biology, University of Hamburg, Germany.**
- ▶ 2007-INSA (Indian National Science Academy) awarded a visiting scientist award for a period of three months to visit **Biological Research Institute, Hungary.**
- ▶ 2003-Awarded a fast track **young scientist project** of Rs. 10.4 lakhs by DST, Government of India.

Reviewer to the following journals

- ❖ Plant Cell Tissue Organ Culture (Springer)
- ❖ Scientia Horticulturae (Elsevier)
- ❖ In vitro Cellular and Developmental Biology - Plant (Springer)
- ❖ Acta Physiologia Plantarum (Springer)
- ❖ Natural product Radiance (A journal published by CSIR - India)



Project works undertaken

Sl. No.	Title of the project and duration	Name of PI	Cost (Rs. in lakhs)	Agency & Ref. No.
1.	"In vitro propagation and rehabilitation of three threatened medicinal plants of Western Ghats <i>Curculigo orchioides</i> , <i>Osbekia aspera</i> and <i>Tylophora asmatica</i> " (2003-06)	Dr. Dennis Thomas T.	10.28	DST ProjectNo SR/FTP/LS 06/2002 (Fast track)
2.	In vitro conservation and reproductive biology of <i>Pittosporum tetraspermum</i> an endangered medicinal plant".(2010-2012)	Dr. Dennis Thomas T.	3.88	UGC Project No. 38 233/2009 (SR)