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**CURRENT POSITION:**

Senior Scientist/Monsanto

**GRADUATE AND POSTGRADUATE TRAINING:**

- April'96 - Oct'97 Postdoctoral Scholar, Biotechnology Institute, Penn State University, USA  
**Supervisor:** Dr. Nina Fedoroff/Willaman Professor of Science/Director, Biotechnology Institute, Penn State University
- July'95 - March'96 Postdoctoral associate, Ceregen, Monsanto, USA  
**Supervisor:** Dr. Janice Edwards, Monsanto
- Jan'91 - June'95 Ph.D. degree in Plant Physiology Intercollege Graduate Program, Penn State University, USA  
**Supervisor:** Dr. Teh-hui Kao/Dept. of Biochemistry & Molecular Biology
- Jan'88 - Dec'90 M.Sc. degree in Agronomy, Penn State University, USA  
**Supervisor:** Dr. Nathan L. Hartwig/Dept. of Agronomy
- Jan'80- Dec'84 B.Sc. degree in Agriculture, University of Peradeniya, Sri Lanka

**PROFESSIONAL EXPERIENCE:**

- Nov'97 – to date Senior Research Scientist, Monsanto, USA
- April'96 - Oct'97 Postdoctoral Scholar, Biotechnology Institute, Penn State University, USA
- July '95 - March'96 Postdoctoral Associate, Ceregen, Monsanto, USA
- Jan.'88 - June '95 Research Assistant/Graduate Student, Penn State University, USA
- Dec.'85 - Jan.'88 Assistant Lecturer, Dept. of Crop science, Eastern University, Sri Lanka
- Jan.'85 - Dec.'85 Assistant Lecturer, Dept. of Agronomy, University of Peradeniya, Sri Lanka

**Scholarships and Awards:**

- 1995:** Sigma Xi Scientific Research Award, USA
- September 1992-September 1995:** The Pioneer Hi-Bred International Inc. Scholarship, USA
- January 1988-December 1990:** Rotary Foundation of Rotary International Scholarship, USA
- 1984:** S. F. H. Perera Memorial Prize, University of Peradeniya, Sri Lanka
- 1984:** R. R. Appadurai Memorial Scholarship, University of Peradeniya, Sri Lanka
- 1984:** Ananda Amarasinghe Memorial Scholarship, University of Peradeniya, Sri Lanka
- 1982:** Kundanmal Scholarship, University of Peradeniya, Sri Lanka

**DISSERTIONS:**

- Karunanandaa, B.** (1995). Cell-cell recognition with special reference to pollen-pistil interactions in *Petunia inflata*. Ph.D. Thesis, Pennsylvania State University, University Park, USA.
- Karunanandaa, B.** (1990). The effect of planting date of shattercane [*Sorghum bicolor* (L.) Moench] in corn [*Zea mays* L.] on interspecific interference. MSc Thesis, Pennsylvania State University, University Park, USA.

**PATENTS (ISSUED/PUBLISHED):**

- 1. Karunanandaa, B., Yu, J., Kishore, G.M.** (2004). Nucleic acid molecule and encoded protein associated with sterol synthesis and metabolism. Patent No. US 6,723,837 B1, April 20, 2004.

2. Norris, S., Lincoln, K., Abad, M., Eilers, R., Hartsuyker, K.K., Hirschberg, J., **Karunanandaa, B.**, Moshiri, F., Stein, J., Valentin, H., Venkatesh, T.V. (2004) Tocopherol biosynthesis related genes and uses thereof. WO04013312A2.
3. Valentin, H. E., Venkatesh, T.V., **Karunanandaa, B.** (2003). Homogentisate prenyl transferase (“HPT”) nucleic acids and polypeptides, and uses thereof. WO03080647A2.
4. Van Eenennaam, A., Valentin, H.E., **Karunanandaa, B.**, Hao, M., Aasen, E., Levering, C. (2003). Methyltransferase genes and uses thereof. WO03016482A2.
5. **Karunanandaa, B.**, Post-Beittenmiller, M., Venkatramesh, M., Kishore, G.M., Thorne, G.M., and Ledeaux, J. (2002). Transgenic plants containing altered levels of steroid compounds. WO02061072A2.
6. Venkatramesh, M., Corbin, D.R., Bhat, G.B., Boddupalli, S.S., Grebenok, R.J., Kishore, G.M., Lardizabal, K.D., Lassner, M.W., Rangwala, S.H., **Karunanandaa, B.** (2000) Transgenic plants containing altered levels of sterol compounds and tocopherols. WO0061771A2.

**PEER REVIEWED PUBLICATIONS:**

1. **Karunanandaa, B.**, Qi, Q., Hao, M., Baszis, S.R., Jensen, P.K., Wong H. y., Jiang, J., Venkatramesh, M., Gruys, K.J., Moshiri, F., Post-Beittenmiller, D., Weiss, J.J., Valentin, H.J. (2005) Metabolically engineered oilseed crops with enhanced seed tocopherol. *Metabolic Engineering*, In Press.
2. Venkatramesh, M., **Karunanandaa, B.**, Sun, B., Gunter, C.A., Boddupalli, S., and Kishore, G.M. (2003). Expression of a *Streptomyces* 3-hydroxysteroid oxidase gene in oilseeds for converting phytosterols to phytosteranols. *Phytochemistry*, 62:39-46.  
\* Equal contribution as the first author
3. Raina, R, Schlappi, M., **Karunanandaa, B.**, Elhofy, A., and Fedoroff, N. (1998). Concerted formation of macromolecular *Spm* transposition complexes. *Proc. Natl. Acad. Sci.*, 95:8526-8531.
4. Lee, H-S., Chung, Y-Y., Das, C., **Karunanandaa, B.**, van Went, J.L., Mariani, C., and Kao, T-h. (1997). Embryo sac development is affected in *Petunia inflata* plants transformed with an antisense gene encoding the extracellular domain of receptor kinase PRK1. *Sexual Plant Reproduction*, 10(6): 341-350.
5. Lee, H.-S., **Karunanandaa, B.**, McCubbin, A., Gilroy, S., and Kao, T.-h. (1996). PRK1, a receptor like kinase of *Petunia inflata*, is essential for post-meiotic development of pollen. *Plant Journal* 9(5): 613-624.
6. Chung, Y.Y., Skirpan, A., Lee, H-S., **Karunanandaa, B.**, Kao, T-H. (1997) Signal transduction pathway mediated by PRK1, a pollen receptor-like kinase of *Petunia inflata*. *Plant Physiology*, 114 (3): 1395-1395.
7. Kao, T-H., Lee, H-S., Huang, S., **Karunanandaa, B.** (1995). A tale of 2 enzymes in cell-cell recognition-S-ribonuclease and receptor kinase. *Journal of cellular biochemistry*. 19A, 126-126.
8. **Karunanandaa, B.**, Huang, S., and Kao, T-h. (1994). Carbohydrate moiety of *Petunia inflata* S3 protein is not required for self-incompatibility interaction between pollen and pistil. *Plant Cell*, 6: 1933-1940.
9. **Karunanandaa, B.**, Singh, A., and Kao, T-h. (1994). Characterization of a pistil predominant gene encoding  $\gamma$ -thionin like protein of *Petunia inflata*. *Plant Molecular Biology*, 26: 459-464.
10. Huang, S., Lee, H.S., **Karunanandaa, B.**, and Kao, T-h. (1994). Ribonuclease activity of *Petunia inflata* S-protein is essential for rejection of incompatible pollen. *Plant Cell*, 6: 1021-1028.

11. Lee, H.S., **Karunanandaa, B.**, Mu, J-H., and Kao, T-h. (1994). Characterization and functional study of a pollen-specific receptor kinase of *Petunia inflata*. In: Pollen-pistil interactions, Stephenson, A G., Kao, T-h. (eds), An American Society of Plant Physiologists, Maryland, USA, pp 310-311.
12. Kao, T-h., Huang, S., Lee, H.S., and **Karunanandaa, B.** (1994). The role of *Petunia inflata* S-proteins in self-incompatibility. In: *Pollen-pistil interactions*, Stephenson, AG., Kao, T-h. (eds), An American Society of Plant Physiologists, Maryland, USA, pp 212-219.
13. **Karunanandaa, B.**, Wijayathungam, K., and Senanayaka, Y.D.A. (1987). Regeneration and growth of decapitated seedlings of winged bean *IPsophocarpus tetragonolobus (L.) DC.*. Sri Lankan Journal of Agricultural Science, 24: 49-60.