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PRESENT ADDRESS
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EDUCATION

2007-2014	Ph.D., Department of Plant Science, College of Agriculture and Life Sciences, Seoul National University, South Korea
2003-2007	B.Sc., Department of Plant Science, College of Agriculture and Life Sciences, Seoul National University, South Korea

POSTDOCTORAL TRAINING

20014-2016	Plant Genomics and Breeding Institute, Seoul National University, South Korea
2016-Present	Biochemistry and Molecular biology, Michigan State University, USA

PEER REVIEWED PUBLICATIONS (Google Scholar *h*-index 8; total citations 343)

1. Jian, N., Lee, Y.S., Mukundi, E., Gomez-Cano, F., Rivero, L., and Grotewold, E. (2020) Diversity of genetic lesions characterizes new *Arabidopsis* flavonoid pigment mutant alleles from T-DNA collections. *Plant Sci*, **In Press**.

2. Kang, K.B*., Jayakodi, M*., Lee, Y.S.*, Nguyen, V.B., Park, H.S., Koo, H.J., Choi, I.K., Kim, D.H., Chung, Y.J., Ryu, B., Lee, D.Y., Sung S.H., Yang T.J. (2018). Identification of candidate UDP-glycos yltransferases involved in protopanaxadiol-type ginsenoside biosynthesis in *Panax ginseng*. *Sci. Rep*. 8:11744 (Impact factor: 4.122) *Equal first authorship

3. Kim, N.H., Jayakodi, M, Lee, S.C., Choi, B.S, Jang, W, Lee, J, Kim, H.H., Waminal, N.E., Lakshmanan, M, van Nguyen, B, Lee, Y.S., Park, H.S., Koo, H.J., Park, J.Y., Perumal, S., Joh, H.J., Lee, H, Kim, J, Kim, I.S., Kim, K, Koduru, L, Kang, K.B., Sung, S.H., Yu, Y, Park, D.S., Choi, D, Seo, E, Kim, S, Kim, Y.C., Hyun, D.Y., Park, Y.I., Kim, C, Lee, T.H., Kim, H.U., Soh, M.S., Lee, Y., In, J.G., Kim, H.S., Kim, Y.M., Yang, D.C., Wing, RA, Lee, D.Y., Paterson, AH, Yang, T.J. 2018. Genome and evolution of the shade-requiring medicinal herb *Panax ginseng*. *Plant Biotechnol. J*, 16: 1904-1917

4. Kim, I., Park, J.Y., Lee, Y.S, Lee, H.O., Park, H.S., Jayakodi, M., Nomar, E., Kang, J.H., Lee, T.J., Sung, S.H., Kim, K.Y., Yang, T.J. 2017. Discrimination and Authentication of *Eclipta prostrata* and *E. alba* Based on the Complete Chloroplast Genomes. *Plant Breed Biotechnol.* 5: 334-343, (Korean Journal)

5. Lee, Y.S., Park, H.S., Lee, DK., Jayakodi, M., Kim, N.H., Koo, H.J., Lee, S.C., Kim, Y.J., Kwon, S.W., Yang, T.J. 2017. Integrated transcriptomic and metabolomic analysis of five *Panax ginseng* cultivars reveals the dynamics of ginsenoside biosynthesis. *Front. Plant. Sci.* 8:1048

6. Park, J.Y., Lee, Y.S., Kim,J.K., Lee, H.O., Park, H.S., Lee, S.C., Kang J.H., Lee T.J., Sung S.H., Yang, T.J. The complete chloroplast genome of *Eclipta prostrata* L. (Asteraceae). *Mitochontrial DNA B.* 1: 414-415

7. Kim,J.K., Park, J.Y., Lee, Y.S., Lee, H.O., Park, H.S., Lee, S.-C., Kang J.H., Lee T.J., Sung S.H., Yang, T.J. 2016. The complete chloroplast genomes of two *Taraxacum* species, *T. platycarpum* Dahlst. and *T. mongolicum* Hand.-Mazz. (Asteraceae). *Mitochontrial DNA B.* 1: 412-412

8. Kim,J.K., Park, J.Y., Lee, Y.S., Lee, H.O., Park, H.S., Lee, S.C., Kang J.H., Lee T.J., Sung S.H., Yang, T.-J. 2016. The complete chloroplast genome sequence of the *Taraxacum officinale* F.H.Wigg (Asteraceae). *Mitochontrial DNA B.* 1: 228-229.

9. Lee, Y.S., Kim,I., Kim, J.K., Park, J. Y., Joh, H.J., Park, H.S., Lee, H.O., Lee, S.C.,Hur, Y.J., Yang, T.J. 2016. The complete chloroplast genome sequence of *Rhus chinensis* Mill (Anacardiaceae). *Mitochontrial DNA B.* 1: 696-697

10. Lee, Y.S., Park, J. Y., Kim, J.K., Lee, H.O., Park, H.S., Lee, S.C., Kang, J.H., Lee, T.J., Sung, S.H., Yang, T.J. 2016. The complete chloroplast genome sequences of *Artemisia gmelinii* and *Artemisia capillaris (*Asteraceae). *Mitochontrial DNA B.* 1: 410-411

11. Lee, Y.S., Park, J. Y., Kim, J.K., Lee, H.O., Park, H.S., Lee, S.C., Kang, J.H., Lee, T.J., Sung, S.H., Yang, T.J. 2016. The complete chloroplast genome sequence of *Artemisia fukudo* Makino (Asteraceae). *Mitochontrial DNA B.* 1: 376-377

12. Lee, Y.S., Park, H.S., Lee, D-K., Jayakodi, M., Kim, N.H., Lee, S.C., Kundu, A., Kwon, S.W., Yang, T.J. 2016. Comparative analysis of the transcriptomes and primary metabolite profiles of *in vitro* cultured adventitious roots of five *P. ginseng* cultivars. *J. Ginseng. Res*. 41: 60-68

13. Lee, Y.S., Park, H.M., Kim, N.H., Waminal, N.E., Kim, Y.J., Lim, K.B., Baek, J.H., Kim, H.H. and Yang, T.J. 2016. Phylogenetic relationship of 40 species of genus *Aloe* L. and the origin of an allodiploid species revealed by nucleotide sequence variation in chloroplast intergenic space and cytogenetic *in situ* hybridization. *Genet. Resour. Crop. Ev.* 63: 235-242.

14. Jayakodi, M., Lee, S.C., Lee,Y.S., Park, H.S., Kim, N.H., Jang, W., Lee, H.O., Joh, H.J, Yang, T.J. 2015. Comprehensive analysis of *Panax ginseng* root transcriptomes. *BMC Plant Biol*. 15:138

15. Senthil, K., Jayakodi, M., Thirugnanasambantham, P., Lee, S.C., Duraisamy, P., Purushotham, P.M., Rajasekaran, K., Charles, S.N., Roy, I.M., Nagappan, A.K., Kim, G.S., Lee, Y.S., Natesan, S, Min, T.S, Yang, T.J. 2015. Transcriptome analysis reveals *in vitro* cultured *Withania somnifera* leaf and root tissues as a promising source for targeted withanolide biosynthesis. *BMC Genom.* 16:14.

16. Jayakodi, M., Lee, S.C., Park, H.S., Jang, W., Lee, Y.S., Choi, B.S., Nah, G.J., Kim, D.S., Natesan, S., Sun, C., Yang, T.J. 2014. Transcriptome profiling and comparative analysis of *Panax ginseng* adventitious roots. *J. Ginseng. Res.* 38:278-288.

17. Um, J.A., Choi, Y.G., Lee, D.K., Lee, Y.S., Lim, C.J., Youn, Y.A., Lee, H.D., Cho, H.J., Park, J.H. and Seo, Y.B. 2013. Discrimination between genetically identical peony roots from different regions of origin based on 1H-nuclear magnetic resonance spectroscopy-based metabolomics: determination of

the geographical origins and estimation of the mixing proportions of blended samples. *Anal. Bioanal. Chem*. 405: 7523–7534.

18. Lee, Y.S., Park, H.M., Park, S.U., Baek, J.H. and Yang, T.J. 2013b. Exogenous polyamine promotes in vitro propaation of *Aloe vera*. *J.Crop. Sci. Biotech.* 16: 285–290. (Korean Journal)

19. Lee, Y.S., Ju, H.K., Kim, Y.J., Lim, T.G., Uddin, M.R., Kim, Y.B., Baek, J.H., Kwon, S.W., Lee, K.W., Seo, H.S., Park, S.U., and Yang, T.J. 2013a. Enhancement of anti-inflammatory activity of *Aloe vera* adventitious root extracts through the alteration of primary and secondary metabolites via salicylic acid elicitation. *PLoS One* 8: e82479.

20. Lee, Y.S., Yang, T.J., Park, S.U., Baek, J.H., Wu, S. and Lim, K.B. 2011. Induction and proliferation of adventitious roots from *Aloe vera* leaf tissues for *in vitro* production of aloe-emodin. *Plant Omics* 4 : 190.

PATENTS AND INVENTIONS

1. Method for producing aloe adventitious root with increased anthraquinone compound content and aloe adventitious root produced by the same method. Yang, T.J., Lee, Y.S., Baek, J.H. and Cha, J.M. 2013. Korea patent Application No. : 10–2013–0127679.
2. Method for producing aloe adventitious root with increased medical active material. Yang, T.J., Lee, Y.S., Park, S.U., Cha, J.M., Baek, J.H. and Kim, S.W. 2015. Korea patent Application No. : 10–1576787.

SCIENTIFIC ACTIVITIES

Teaching experience

2015 Lecturer of "Tissue culture techniques" at Sahmyook University in Korea,
2014 Lecturer of "Life sciences experiments" at Sahmyook University in Korea,