Curriculum Vitae of Prof Kexuan Tang, PhD

Personal details

Title(s), first name, surname:	Prof. Dr. Kexuan Tang, FRSA, FRSB Fellow of European Academy of Sciences (EURASC) Fellow of European Academy of Sciences and Arts (EASA) Distinguished Professor Director of Plant Biotechnology Research Center Director of Fudan-SJTU-Nottingham Plant Biotechnology R&D Center (unveiled by Lord Sainsbury in 2001) Vice Chairman, Division of Ornamental Plants, International Society for Horticultural Science
University of Higher Education:	Shanghai Jiao Tong University
Male/female:	Male
Date and place of birth:	26-12-1963, Sichuan, China
Nationality:	Chinese
Address:	Rm 1-405. Agriculture and Biology Building A, Shanghai Jiao Tong University, 800 Dongchuan Road, Shanghai 200240, China
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Bachelor's (1981-1985)

University of Higher Education:	Sichuan University, China
Date:	1985
Major:	Genetics

Master's (1985-1988)

University of Higher Education:	Beijing Agricultural University/Shanghai Academy of Agricultural Sciences, China
Date:	1988
Major:	Crop Genetics and Breeding

Doctorate (1991-1996)

University of Higher Education:	Nottingham University, Department of Life Sciences, UK. Sponsored by Rockefeller Foundation Pre-doctoral Fellowship
Date:	1996
Major:	Plant Biotechnology
Supervisor ('Promotor'):	Prof. Dr. Edward C. Cocking (Fellow of Royal Society, FRS)
Title of thesis:	Studies on rice protoplast culture and transformation using an insect resistance gene

Honorary Doctorate (2012)

University of Higher Education:	Linnaeus University, Sweden, 2012 (awarded due to the contribution on the studies of *Artemisia annua* and artemisinin, the major component in anti-malaria drugs)

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Over 300 international publications with over 16,000 citations and 126 patents authorized.

Working experience since graduation

- 1988-1991 Research Associate, Shanghai Academy of Agricultural Sciences, Shanghai, China
- 1996-1999 Associate Professor, State Key Laboratory of Genetic Engineering, School of Life Sciences, Fudan University, Shanghai, China
- 1997-1998 6-month visiting scientist at John Innes Centre (with Dr. Paul Christou), UK (sponsored by the Rockefeller Foundation Biotechnology Career Fellowship)
- 1999-2000 3-month visiting scientist at University of California-Davis (with Dr. Pamela Ronald), USA (sponsored by the Rockefeller Foundation Biotechnology Career Fellowship)
- 1999-2003 Professor, Group Leader (PI) of Plant Genetic Engineering, State Key Laboratory of Genetic Engineering; Assistant Dean, School of Life Sciences, Fudan University, Shanghai, China

- From 2001-now: Director of Fudan-SJTU-Nottingham Plant Biotechnology R&D Center
- 2003-2012 Professor and the Dean, School of Agriculture and Biology, Shanghai Jiao Tong University, Shanghai, China
- From 2003-now: Professor, Director of Plant Biotechnology Research Center, School of Agriculture and Biology, Shanghai Jiao Tong University, Shanghai, China

Academic and social activities
- Vice Chairman, Division of Ornamental Plants, International Society for Horticultural Science (2018-)
- Chairman of Board, Artemisinin Industrial Alliance, China (2016-)
- Vice Chairman, Shanghai Society of Biotechnology (2014-)
- Chairman, Advisory Committee of Shanghai Alumni Association of China Agricultural University (2020-)
- Chairman, Shanghai Alumni Association of China Agricultural University (2014-2020)
- Standing board member, Chinese Society for Plant Physiology and Molecular Biology (2012-2020)
- Vice Chairman, Shanghai Society of Plant Physiology and Molecular Biology (2012-2020)
- Academic committee member, China National Plant Gene Research Center (Shanghai)
- Academic committee member, Key Laboratory of Plant Cell Engineering and Germplasm Innovation, Ministry of Education in China
- Academic committee member, Key Laboratory of Bio-resources and Eco-environment, Ministry of Education in China
- Academic committee member, Shanghai Key Laboratory of Agricultural Genetics and Breeding

Editorial boards
- Frontiers in Plant Science (Associate editor)
- Plant Cell, Tissue and Organ Culture (Associate editor)
- Biotechnology and Applied Biochemistry (Associate editor)
- European Journal of Horticultural Science (Associate editor)
- Frontiers of Agricultural Science and Engineering
- China Biotechnology
- Journal of Agricultural Biotechnology
- Bulletin of Botany
- Chinese Journal of Applied and Environmental Biology
- Molecular Plant (2008-2012)
- Journal of Shanghai Jiao Tong University (Agricultural Sciences) (Editor-in-Chief, 2004-2014)
- Editor-in-Chief of the book Biotechnology of Traditional Chinese Medicine, Fudan University Press, published in 2005, ISBN 7-309-04352-9 (Editor-in-Chief: K Tang)
- Co-Editors-in-Chief of the book Plant Biotechnology, Science Press, published in 2004, ISBN 7-03-012677-7)(Co-Editors-in-Chief: X. Zhang, K. Tang)
- Co-Editors-in-Chief of the book Advances in Horticulture (Volume VIII), Shanghai Jiao Tong University Press, 2008, ISBN 978-7-313-05235-3)(Co-Editors-in-Chief: K. Tang, D. Huang, S. Wang)
- Associate Editor-in-Chief of the book Cell Engineering, Science Press, published in 2005, ISBN 7-03-015147-X)(Editor-in-Chief: Z. Chen)

Selected Grants as PI:

2021-2023, Design and optimize variants of AA/DHAA converting enzymes. Bill and Melinda Gates Foundation (grant no. INV-027291), 300k USD

2023-2026, The molecular mechanism of regulating artemisinin biosynthesis through JA and ABA interaction mediated by AaWRKY9-AaMYB3-AabHLH3 complex. National Sciece Foundation of China (grant no. 82274047), 520k RMB

2022-2024, The establishment and application of *Salvia miltiorrhiza* gene editing system. Key Project at the Central Government Level: The Ability Establishment of Sustainable Use for Valuable Chinese Medicine Resources (grant no. 2060302), 4.95 million RMB

2019-2024, Efficient directional synthesis of important plant metabolites in plant chassis. National Key R&D Program of China (grant no. 2018YFA0900600), 5.65 million RMB

2019-2022, Taking *Artemisia annua* as an example to carry out translational medicine research of natural drugs -- Study on the action mechanism and new indications of artemisinin compounds. SJTU Trans-med Awards Research Program (grant no. 20190104), 5 million RMB

2020-2021, Understanding trichome formation at the nexus of food, nutrition and human health. SJTU Global Strategic Partnership Fund (2020 SJTU-CORNELL), 100k RMB

2018-2020, Identification and functional characterization of putative enzymes involved in the artemisinin biosynthesis from *Artemisia annua*. Bill and Melinda Gates Foundation (grant no. OPP1199872), 750k USD

2016-2020, Development of transgenic wheat with enhanced resistance to aphids. China Transgenic Plant Research and Commercialization Project (grant no. 2016ZX08002-001), 5.02 million RMB

2011-2017, Development of plant bioreactors to produce metabolites. China National High-Tech (863) Program (grant no. 2011AA100605), 8.61 million RMB

2009-2016, Development of transgenic Artemisia expressing and producing sesquiterpene such as patchoulol (grant no. B8397E), FIRMENICH SA, 800k RMB

2011-2012, Development of transgenic wheat with enhanced resistance to aphids. China Transgenic Plant Research and Commercialization Project (grant no. 2011ZX08002-001), 960k RMB

2008-2011, Development of new germplasm and lines of transgenic wheat with enhanced resistance to aphids. China Transgenic Plant Research and Commercialization Project (grant no. 2008ZX08002-001), 4.94 million RMB

2009-2012, Studies on engineering of lipases. Shenzhen Leveking Bio-Engineering Co. Ltd. (grant no. B9341E), 900k RMB

2011-2011, Studies on cell culture lines of Taxus. Sichuan Kelun Pharmaceutical Co. Ltd. (grant no. SA1500008), 1 million RMB

2007-2011, Metabolic engineering of special nutritional qualities of crops. China National Basic Research Program (973 Program, grant no.2007CB108805), 5.65 million RMB.

2008-2011, Studies on the key techniques to develop Artemisia products. Shanghai Science and Technology Committee (grant no. 08391911800), 1 million RMB.

2010-2010, Studies on metabolic engineering of artemisinin and development of new Artemisia lines. China National High-Tech (863) Program (grant no. 2010AA100503), 2.68 million RMB

2005-2007, Plants as bioreactors: production of pharmaceutical products. Shanghai Science and Technology Committee (international collaborative grant, grant no. 055407060), 300k RMB

2002-2005, Development of plant bioreactors producing calcitonin. China National High-Tech (863) Program (grant no. 2002AA206511), 5.20 million RMB

2003-2004, Cloning and functional identification of genes resistant to verticillium wilt and powdery mildew. China Transgenic Plant Research and Commercialization Project (grant no. JY03A19), 1.8 million RMB

1999-2003, Cloning of genes resistant to sap-sucking insects and nematodes. Sino-UK Collaborative Fund (grant no. KE22161), 100k RMB

1999-2002, Cloning and modification of genes resistant to aphids and planthoppers. China Transgenic Plant Research and Commercialization Project (grant no. J99-A-007), 2 million RMB

1997-1999, Transgenic rice resistant to brown planthopper and bacterial blight. The Rockefeller Foundation (grant no. RF97001#594), 40k USD

1996-2000, Studies on transgenic rice resistant to brown planthoppers. China National High-Tech (863) Program (grant no. 101-01-01-01), 1.1 million RMB

Invited speaker/chair of International conferences (showing selection)

2022 CEPAMS Workshop on Traditional Chinese Medicine, 9-10 January 2022, Virtually on Zoom, China-UK; The 5th International Symposium of Functional Food and Plant Metabolism 2021, 30-31 October, 2021, Shanghai, China; The 3rd Global Congress on Plant Biology and Biotechnology, 12-15 March, 2019, Singapore; XXX International Horticultural Congress (IHC 2018), 12-16 August, Istanbul, Turkey; The Fourth International Conference on Plant Metabolism (ICPM 2017) (Co-chair with Dr. Cathie Martin on Session 7: Metabolite transport and Metabolic Engineering), July 2017, Dalian, China; Plant Omics and Biotechnology for Human Health conference, November 2016, Ghent, Belgium; The 2nd International Symposium of Functional Food and Plant Metabolism, December 2016. Shanghai, China; The 16th European Congress on Biotechnology, July 2014, Edinburgh, UK; The 3rd International Conference on Plant Metabolism (Chair on Session 11: Metabolic Engineering and Synthetic Biology), July 2014, Xiamen, China; TERPNET meeting, June 2013, Crete, Greece.

Selected Awards/Honors

- Fellow of European Academy of Sciences (2023)
- Fellow of European Academy of Sciences and Arts (EASA) (2023)
- Fellow of Royal Society for Arts, Manufactures and Commerce (FRSA) (2022)
- Fellow of Royal Society of Biology (FRSB) (2022)

- Natural Science Award, the Ministry of Education of China (2022)
- Shanghai Technology Invention Award (2014)
- Honorary Doctorate, Linnaeus University, Sweden (2012)
- Shanghai Teaching Award (2009)
- Shanghai Leading Talent (2007)
- President Award, Shanghai Jiao Tong University (2005)
- China State Council Special Allowance Award (2004)
- Chang Jiang Scholar, the Ministry of Education of China (2004)
- Shanghai Excellent Subject Leading Scholar (2004)

Teaching

Prof. Tang supervised/is supervising >10 postdocs, >70 Ph.D students and >40 MSc students. Every year, he teaches undergraduate course (The past, the current and the future of plant biotechnology, 2 credits), graduate course (Plant biotechnology, 2 credits) and various lectures in the areas of biotechnoogy, transgenic plant, plant bioreactors, plant metabolic engineering and etc.

Brief summary

Prof. Dr. Kexuan Tang is a Distinguished Professor, Director of Plant Biotechnology Research Center, Director of Fudan-SJTU-Nottingham Plant Biotechnology R&D Center at Shanghai Jiao Tong University, one of the most prestigious universities in China. He serves as Chairman for the Artemisinin Industrial Alliance. He received his Ph.D from Nottingham University, UK in 1996, and honorary doctorate from Linnaeus University, Sweden in 2012. He is also the visiting Chair Professor of Southwest University, China.

Professor Tang has long been working on biotechnology for human health and agriculture. He has made great contribution on the regulation and production of important plant natural products including anti-malaria artemisinin, and his work is important for securing constant and low-cost supply of artemisinin, thus helping WHO reach the goal of eradicating malaria by 2030, as currently still 80 million people have no access to artemisinin-based combination therapy. He has developed portable tablet as dietary supplement which has the potential to prevent malaria. He has invented the strategy of using artemisinin derivative, artesunate, to treat fatty liver disease, completed the preclinical trial and applied for the phase II clinical trial permission, which may be the first first-in-class drug in the world to treat fatty liver disease.

His main research focuses are: 1) Metabolic regulation and engineering of plant natural products. To decipher regulatory networks and engineer secondary metabolic pathways to improve the yield and quality of medicinal plants such as terpenoids including anti-malaria drug artemisinin and anti-cancer drug vinblastine (high value products). 2) Trichome development. To study the molecular michanism regulating trichome especially glandular secretory trichome initiation and development. 3) Developing strategies for the control of agriculturally important sap-sucking insects. 4) Synthetic biology and bioreactor. Using plants such as Artemisia and Marchantia (liverworts) as the plantforms to produce important metabolites or proteins. 5) The multifunctional studies of artemisinin and its derivatives in human diseases.

Professor Tang has established a wide and strong international collaboration in research worldwide. He has established Fudan-SJTU-Nottingham Plant Biotechnology R&D Center in collaboration with scientists from Nottingham University (UK) in 2001, the first China-UK Joint Center in plant biotechnology area, aiming at using biotechnological techniques to solve problems in agriculture and traditional Chinese medicine. He presides over 20 research projects including Bill and Melinda Gates Foundation Project, the Rockefeller Foundation Project, China National "863" High-Tech Project, China Transgenic Plant Research and Commercialization Project, China National "973" Basic Research Program Project, Sino-UK Collaborative Project to work on metabolic regulation and engineering, trichome development, developing strategies for insect resistance and plant synthetic biology. He collaborated with scientists from Linnaeus University (Sweden), Cornell University (USA), Ghent University (Belgium) and John Innes Centre (UK) to have deciphered the first *Artemisia annua* genome (one of the biggest plant genomes), the regulatory networks of artemisinin biosynthesis and glandular secretory trichome (GST) initiation. He has developed engineered *Artemisia annua* lines with enhanced anti-malaria artemisinin contents which are grown in Madagascar by BIONEXX, the biggest *A. annua* grower and artemisinin producer company in Africa, engineered *Catharanthus roseus* with increased anti-cancer vinblastine contents in collaboration with scientists from Leiden University (The Netherlands), the first metabolically engineered medicinal plant in the world, which can help reduce significantly the production costs of these important compounds, saving millions of lives of malaria and cancer patients. His invented strategy by over-expressing transcription factor in plant to significantly

increase plant GST density has wide application value for increasing plant's yields of chemicals and essential oils with important economic value synthesized in GST, such as essential oils in mint, CBD in hemp and etc. His established *Agrobacterium*-mediated transformation procedure makes genetic modification of *Catharanthus roseus*, the famous medicinal and flower plant species, possible for better traits, and provides insights into developing effective engineering strategies for trait improvement of other recalcitrant species. In collaboration with Firmenich company, he developed engineered *A. annua* with high-level of patchoulol production, providing an alternative way for the production of this important fragrant ingredient. His important achievements on *A. annua* and artemisinin have been widely recognized by international communities including Cell Press, Science News, Science Daily, Science Magazine, BBC News, Bill and Melinda Gates Foundation and etc. In the meantime, he also works closely in collaboration with University of California-Berkeley, Lawrence Berkeley National Laboratory, Manus Bio company (USA) and etc to achieve total biosynthesis of artemisinin in engineered yeast and bacteria, sponsored consecutively by Bill and Melinda Gates Foundation, which is of importance to significantly reduce the production cost of anti-malaria artemisinin, together with his developed high-artemisinin yielding *A. annua* varieties, enabling constant and low cost supply to the world of this important compound to conquer malaria. He is the most productive scientist and inventor in *A. annua* and artemisinin area with over 100 publications and over 50 patents. Due to his contribution on *A. annua* studies, he was awarded the honorary doctorate from Linnaeus University, Sweden in 2012. He has also developed patented RNAi strategies to effectively control sap-sucking insects such as aphids, providing a solution to control this kind of agriculturally important pests by genetic engineering. He has over 300 publications in international scientific journals with total citations of over 14,000 such as SCIENCE ADVANCES, TRENDS IN PLANT SCIENCE, PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA, CRITICAL REVIEWS IN BIOTECHNOLOGY, BIOTECHNOLOGY ADVANCES, CELL RESEARCH, NEW PHYTOLOGIST, MOLECULAR PLANT and etc. He has chief-edited 3 books: Plant Biotechnology, Biotechnology of Traditional Chinese Medicine, and Advances in Horticulture (Volume VIII). He has over 100 patents authorized. He is the founder of 2 biotech companies (Suzhou Tangen Biotechnology Co., Ltd and Chengdu Shangjiao Zhiyuan Biotechnology Co., Ltd.), promoting the industrialization of his inventions. He has been ranked in the "World's Top 2% Scientists" by Stanford University, USA.

In additional to scientific research, Professor Tang served as the Dean of School of Agriculture and Biology (SAB) at SJTU from 2003 to 2012, actively promoting international collaboration in education in biological and biotechnological areas. He has promoted, with the colleagues from Cornell University, the signing of comprehensive agreement including "2+2" undergraduate program between SAB at SJTU and College of Agriculture and Life Sciences (CALS) at Cornell University in 2005, fostering student and faculty exchange, and forming 10+10 professor partnership between these two universities, setting an example for educational collaboration between China and foreign universities. He also actively promoted student and faculty exchanges and collaborations between SJTU and European Institutions such as Nottingham University and John Innes Centre (UK), Ghent University (Belgium), INRA (France), Leiden University and Wageningen University (the Netherlands), Max Planck Institute of Molecular Plant Physiology (Germany), Linnaeus University (Sweden) and etc. As the vice chair of Division of Ornamental Plants in International Society for Horticultural Science, he has promoted international collaboration in the area of ornamental plant and biotech research and development. As associate editors and editorial board members of several international biotechnology-related scientific journals, he actively involves in reviewing hundreds of papers every year and fulfills his duties by helping spreading new technologies and novel discovery to international communities.

Selected patents authorized (a total of 126 including 3 US patents and 2 Australia patents)

1. Nucleotide Sequence and Application Thereof in Enhancing Plant Pest Resistance. Inventors: Kexuan Tang, Jingya Zhao, Xueqing Fu, Hang Liu, Qifang Pan, Tiantian Chen, Hongmei Qian, Xaofen Sun. US Patent No.: US11,208,668 B2. Date of Patent: December 28, 2021.
2. Nucleotide Sequence and Application Thereof in Enhancing Plant Pest Resistance. Inventors: Tang Kexuan, Zhao Jingya, Fu Xueqing, Liu Hang, Pan Qifang, Chen Tiantian, Qian Hongmei, Sun Xiaofen. Australia Patent No.: 2020100833. Date of Patent: August 5, 2020
3. Nucleotide sequence and use thereof in increasing the density of secretory glandular trichomes in plants. Inventors: Tang Kexuan, Xie Lihui, Fu Xueqing, Qin Wei, Li Ling, Liu Hang, Chen Tiantian, Qian Hongmei, Sun Xiaofen. Australia Patent No.: 2020102065. Date of Patent: September 23, 2020
4. Method for increasing artemisinin content by co-transferring FPS and DBR2 genes and prepared *Artemisia annua*. Inventors: Tang Kexuan, Shi Pu, Fu Xueqing, Shen Qian, Jiang Weimin, Ma Yanan, Hao Xiaolong, Sun Xiaofen. China invention patent No.: ZL201611012726.2. Authorization

date: March 24, 2020

5. A coding sequence of *Artemisia annua* HD-Zip IV class transcription factor and its application. Inventors: Tang Kexuan, Chen Minghui, Yan Tingxiang, Shen Qian, Pan Qifang, Fu Xueqing. China invention patent No.: ZL201610729489.5. Authorization date: February 7, 2020
6. A coding sequence of *Artemisia annua* MYC2 transcription factor protein and its application. Inventors: Tang Kexuan, Shen Qian, Lu Xu, Fu Xueqing, Yan Tingxiang, Sun Xiaofen, Wang Guofeng. China invention patent No.: ZL201310413155.3. Authorization date: September 30, 2015
7. The method of co-transferring orca3/g10h gene to improve the content of *Catharanthus roseus* alkaloids in *Catharanthus roseus*. Inventors: Tang Kexuan, Zhao Jingya, Wang Mingxue, Pan Qifang, Xu Fei. China invention patent No.: ZL201210166532.3. Authorization date: April 1, 2015
8. Method for cultivating transgenic plants of *Catharanthus roseus* mediated by *Agrobacterium tumefaciens*. Inventors: Tang Kexuan, Wang Quan, Pan Qifang, Yuan Fang, Wang Guofeng, Xing Shihai, Zhao Jingya. China invention patent No.: ZL200910195775.8. Authorization date: October 17, 2012

List of the 10 most important publications

1) Danial, H., Fu, X., Shen, Q., Khalid, M., Rose, J.K.C. and **Tang, K.** (2020). Parallel Transcriptional Regulation of Artemisinin and Flavonoid Biosynthesis. **Trends in Plant Science** 25(5): 466-476. (Number of citations by Google Scholar: 47)
2) Shen, Q., Zhang, L., Liao, Z., Wang, S., Yan, T., Shi, P., Liu, M., Fu, X., Pan, Q., Wang, Y., Lv, Z., Lu, X., Zhang, F., Jiang, W., Ma, Y., Chen, M., Hao, X., Li, L., Tang, Y., Lv, G., Zhou, Y., Sun, X., Brodelius, P.E., Rose, J.K.C and **Tang, K.** (2018). The genome of *Artemisia annua* provides insight into the evolution of Asteraceae family and artemisinin biosynthesis. **Molecular Plant** 11: 776-788. (Number of citations by Google Scholar: 191, *hot paper* and *highly cited paper*)
3) Ma, Y., Xu, D., Li, L., Zhang, F., Fu, X., Shen, Q., Lyu, X., Wu, Z., Pan, Q., Shi, P., Hao, X., Yan, T., Chen, M., Liu, P., He, Q., Xie, L., Zhang, Y., Tang, Y., Zhao, J., Zhang, L., Sun, X. and **Tang, K.** (2018). Jasmonate promotes artemisinin biosynthesis by activating the TCP14-ORA complex in *Artemisia annua*. **Science Advances** 4, eaas9357. (Number of citations by Google Scholar: 86)
4) Shi, P., Fu, X., Shen, Q., Liu, M., Pan, Q., Tang, Y., Jiang, W., Lv, Z., Yan, T., Ma, Y., Chen, M., Hao, X., Liu, P., Li, L., Sun, X. and **Tang, K.** (2018). The role of *AaMIXTA1* in regulating the initiation of glandular trichomes and cuticle biosynthesis in *Artemisia annua*. **New Phytologist** 217:261-276. (Number of citations by Google Scholar: 110)
5) Chen, M., Yan, T., Shen, Q., Lu, X., Pan, Q., Huang, Y., Tang, Y., Fu, X., Liu, M., Jiang, W., Lv, Z., Shi, P., Ma, Y., Hao, X., Zhang, L., Li, L. and **Tang, K.** (2017). GLANDULAR TRICHOME-SPECIFIC WRKY 1 promotes artemisinin biosynthesis in *Artemisia annua*. **New Phytologist** 214(1): 304-316. (Number of citations by Google Scholar: 139, *highly cited paper*)
6) Yan, T., Chen, M., Shen, Q., Li, L., Fu, X., Pan, Q., Tang, Y., Shi, P., Lv, Z., Jiang, W., Ma, Y., Hao, X., Sun, X. and **Tang, K.** (2017). HOMEODOMAIN PROTEIN 1 is required for jasmonate-mediated glandular trichome initiation in *Artemisia annua*. **New Phytologist** 213(3): 1145-1155. (Number of citations by Google Scholar: 152, *highly cited paper*)
7) Shen, Q., Lu, X., Yan, T., Fu, X., Lv, Z., Zhang, F., Pan, Q., Wang, G., Sun, X. and **Tang, K.** (2016). The jasmonate-responsive AaMYC2 transcription factor positively regulates artemisinin biosynthesis in *Artemisia annua*. **New Phytologist** 210: 1269-1281. (Number of citations by Google Scholar: 191, *highly cited paper*)
8) Lu, X., Zhang, L., Zhang, F., Jiang, W., Shen, Q., Zhang, L., Lv, Z., Wang, G. and **Tang, K.** (2013). *AaORA*, a trichome-specific AP2/ERF transcription factor of *Artemisia annua*, is a positive regulator in the artemisinin biosynthetic pathway and in disease resistance to *Botrytis cinerea*. **New Phytologist** 198: 1191-1202. (Number of citations by Google Scholar: 238, *highly cited paper*)
9) Pan, Q., Wang, Q., Yuan, F., Xing, S., Zhao, J., Choi, Y., Verpoorte, R., Tian, Y., Wang, G. and **Tang, K.** (2012). Overexpression of ORCA3 and G10H in *Catharanthus roseus* plants regulated alkaloid biosynthesis and metabolism revealed by NMR-metabolomics. **PLoS ONE** 7(8): e43038. (Number of citations by Google Scholar: 133)
10) Zhang, L., Ding, R., Chai, Y., Bonfill, M., Moyano, E., Oksman-Caldentey, K-M., Xu, T., Pi, Y., Wang, Z., Zhang, H., Kai, G., Liao, Z., Sun, X., and **Tang K.** (2004). Engineering tropane biosynthetic pathway in *Hyoscyamus niger* hairy root cultures. **Proceedings of the National Academy of Sciences USA** 101(17): 6786-6791. (Number of citations by Google Scholar: 339)