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## CURRICULUM VITAE

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NAME Shaojun, Dai	POSITION TITLE Professor of Biology
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EDUCATION/TRAINING (*Begin with bachelor education and include all higher education and postdoctoral training.*)

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Harbin Normal University, Harbin, China	B.D.	1995	Biology
Harbin Normal University, Harbin, China	M.D.	1998	Botany
Northeast Forestry University, Harbin, China	Ph.D.	2002	Plant Biology
Institute of Botany, Chinese Academy of Sciences, Beijing, China	Postdoc	2002-2006	Plant Biology
University of Florida, Florida, USA	Postdoc	2008-2009	Plant Biology

### A. Positions and Honors.

#### Positions and Employment

- 2010- Professor, Alkali Soil Natural Environmental Science Center, Northeast Forestry University, Harbin, China
- 2008-2009 Postdoctoral Associate, University of Florida, Gainesville, FL, USA
- 2006-2007 Research scientist, Northeast Forestry University, Harbin, China
- 2002-2006 Postdoctoral fellow, Institute of Botany, Chinese Academy of Sciences, Beijing, China
- 1998-2002 Lecturer, Harbin Normal University, Harbin, China

#### Other Experience and Professional Memberships

- 2010- Associated Editor, Journal of Integrated OMICS
- 2010- Member, American Chemical Society
- 2010- Member, Youth Working Committee, Chinese Society of Forestry
- 2009- Member, International Association for Plant Biotechnology (IAPB)
- 2007- Member, Plant Organogenesis Committee, Chinese Society for Cell Biology
- 2007- Academic Leader, Key Discipline (Botany Discipline) of Heilongjiang Province, China
- 2006- Council Member, Fern Committee of China Flower Association
- 2006- Life Member, Chinese Society of Plant Physiology

#### Honors and Awards

- 2010 The 3<sup>rd</sup> Liangxi Excellent Paper Award for Young Scientists
- 2009 The Chinese Forestry Youth Scientific and Technological Award
- 2009 The Youth Scientific and Technological Award in Heilongjiang Province, China
- 2009 Outstanding Graduate Teacher in Northeast Forestry University, China
- 2007 The Second-class Award of Science and Technology Progress Award of Heilongjiang Province, China
- 2007 Excellent Paper Award for Young Scientists, Chinese Society of Plant Physiology

- 2006 Program for New Century Excellent Talents in University, China
- 2006 The Second-class Award of Science and Technology Progress Award of Heilongjiang Province, China
- 2005 The Second-class Award of Science and Technology Progress Award for Chinese Medicine of Heilongjiang Province, China

**B. Peer-reviewed publications (in reverse chronological order).**

**(I) Publications in English (stars represent the correspondence author or co-first author):**

1. Yu JJ, Chen SX, Zhao Q, Wang T, Yang CP, Diaz c, Sun GR, **Dai SJ\***, Physiological and proteomic analysis of salinity tolerance in *Puccinellia tenuiflora*, **Journal of Proteome Research**, 2011, DOI.org/10.1021/pr1011102p
2. Wang XN, Chen S, Zhang H, Shi L, Cao FL, Wang T, Yan XF, **Dai SJ\***, Desiccation tolerance mechanism in resurrection fern-allies *Selaginella tamariscina* revealed by physiological and proteomic analysis. **Journal of Proteome Research**, 2010, 9(12):6561-6577.
1. Pang QY, Chen S, **Dai SJ**, Chen YZ, Wang Y, Yan XF. Comparative proteomics of salt tolerance in *Arabidopsis thaliana* and *Thellungiella halophila*. **Journal of Proteome Research**, 2010, 9(5):2584-99.
2. Han B\*, Chen S\*, **Dai SJ\***, Yang N, Wang T. Isobaric tags for relative and absolute quantification-based comparative proteomics reveals the features of plasma membrane-associated proteomes of pollen grains and pollen tubes from *Lilium davidii* Duch. **Journal of Integrative Plant Biology**, 2010, 52(12), 1043–1058.
3. Kang SN, Chen S, **Dai SJ\***. Proteomics characteristics of rice leaves in response to environmental factors. **Frontiers in Biology**, 2010, 5(3):246-254 (**Cover Story**)
4. Zhu MM, **Dai SJ**, McClung S, Yan XF, Chen S. Functional differentiation of *Brassica napus* guard cells and mesophyll cells revealed by comparative proteomics. **Molecular and Cellular Proteomics**, 2009, 8:752-766 (**Cover Story**)
5. **Dai SJ**, Chen TT, Chong K, Xue YB, Liu SQ, Wang T. Proteomic identification of differentially expressed proteins associated with pollen germination and tube growth reveals characteristics of germinated *Oryza sativa* pollen. **Molecular and Cellular Proteomics**, 2007, 6: 207-230
6. **Dai SJ**, Wang T, Yan XF, Chen S. Proteomics of pollen development and germination. **Journal of Proteome Research**, 2007, 6: 4556-4563
7. **Dai SJ**, Li L, Chen TT, Chong K, Xue YB, Wang T. Proteomic analyses of *Oryza sativa* mature pollen reveal novel proteins associated potentially with pollen germination and tube growth. **Proteomics**, 2006, 6: 2504-2529 (**Cover Story**)
8. Cao JG, Bao WM, **Dai SJ**. An Ultrastructural Study of the Blepharoplast and the Multilayered Structure in Spermatogenesis in the Fern *Osmunda cinnamomea* var. *asiatica*. **Acta Botanica Sinica**, 2003, 45:832-842

9. Bao WM, Cao JG, **Dai SJ**. The Ultrastructure of Oogenesis in *Osmunda cinnamomea* var. *asiatica*. **Acta Botanica Sinica**, 2003, 45: 843-851
10. Ma MF, Yu T, **Dai SJ**, Yan XF. Determination of contents of 10-Hydroxycamptothecin in *Camptotheca acuminata* by high-performance liquid chromatogram. **Journal of Forestry Research**, 2002,13(2):144-146

**(II) Publications in Chinese with English Abstract and Headings:**

11. Zhang ZX, **Dai SJ\***. Effect of environmental factors on fern spore germination, **Acta Ecologica Sinica**, 2010, 30(7) :1882-1893
12. Fan LL, Chen G, Chen YF, Zhou WD, **Dai SJ\***, Sun GR\*. Ultracytochemical localization of  $\text{Ca}^{2+}$  and  $\text{Ca}^{2+}$ -ATPase in the root of *Puccinellia tenuiflora* under  $\text{NaHCO}_3$  Stress. **Chinese Bulletin of Botany**, 2010, 45 (3): 337-344
13. Ji SX, **Dai SJ**, Liu W. The advances of plants in response and adaption to low temperature stress. Chinese Bulletin of Life Sciences,2010,22(10):1013-1019
14. Yu JJ, **Dai SJ\***. Research advances in plant proteomics. **Chinese Bulletin of Botany**, 2009, 44 (4): 410-425 (Cover Story)
15. Song YY, Gao J, **Dai SJ\***. Sex differentiation in ferns response to environmental factors. **Acta Ecologica Sinica**, 2009, 29(9) : 5030-5038
16. Du HH, Liu HM, Shi L, **Dai SJ\***. Application of molecular biology techniques in pteridophyte researches, **Plant Physiology Communications**,2009,45(6): 625-632
17. Ren H, Zhong H, **Dai S**, Chen S, Yan X. Water stress on glucosinolate contents in Arabidopsis rosette leaves. **Acta Ecologica Sinica**, 2009, 29, 4372-4379.
18. Tian Y, Dai S, Chen S, Yan X. Effect of mechanical wounding on glucosinolate content and composition in *Arabidopsis thaliana*. **Acta Ecologica Sinica**, 2009, 29, 1647-1654.
19. Li C, Cheng M, Tang YD, Jiang CD, **Dai SJ**, Shi L. Characteristics comparison of leaf anatomy structure and photosynthesis of two *Salix* species at Qinghai-Xizang Plateau. *Acta Botanica Boreal-Occident Sinica*, 2009, 29(2):275-282
20. Fu Y, **Dai SJ**, Chen G, Zhou WD, Sun GR. Research of  $\text{Na}^+/\text{H}^+$  Antiporter in Plants. **Biotechnology Bulletin**, 2009, 8:1-5
21. Shi YL, Jia Y, **Dai SJ\***. Research advances on proteomics of crops under salt stress. **Natural Sciences Journal of Harbin Normal University**, 2009, 25(2):101-104
22. Feng Y, Wei JH, **Dai SJ**, Wang HZ. The Tissue Culture Technique of *Populus Tomentosa* Carr.CV'BJHR01'. **Zhongguo Yuanyi Wenzhai**, 2009,4:38-39
23. **Dai SJ**, Gao J, Mu HF, Song YY. Comparison of germination between fern spores and spermatophyte pollen. **Chinese Bulletin of Botany**, 2008, 25 (2): 139-148
24. Yuan X., **Dai S**, Chen S, Yan, X. Effect of NaCl stress on glucosinolate content in rosette leaves of *Arabidopsis thaliana*. **Journal of Northeast Forestry University**, 2008, 36, 51-52.

25. Li Q, **Dai S**, Chen S, Yan X. Analysis of glucosinolate composition and content in radish. **Acta Horticulturae Sinica**, 2008, 35, 1205-1208.
26. Li Q, Dai S, **Chen S**, Yan X. Effect of nitrogen supply on content of glucosinolates in radish sprouts. **Journal of Natural Science of Heilongjiang University**, 2008, 25, 385-388.
27. **Dai SJ**. Research advances on pollen proteomics. **Chinese Bulletin of Botany**, 2007, 24(3):319-329
28. Fu C, **Dai SJ**, Qin Z, Huang YF. Advances of large-scale yeast two - hybrid approaches and their applications in plants. **Biotechnology**, 2007, 17(6):75-78
29. Ma W, **Dai SJ**, Zhao X, Yan XF. Effect of soil quality on growth and Camptothecin concentration of *Camptotheca acuminata* seedlings. **Journal of Northeast Forestry University**, 2007, 35(8):19-22
30. Zheng R, Fu C, **Dai SJ**, Qin Z, Huang YF. Comparison and analysis of osmotic regulation between *Saccharomyces cerevisiae* and *Zygosaccharomyces rouxii* under salt stress. **Natural Sciences Journal of Harbin Normal University**, 2007, 23 (2):91-95
31. Zhong HX, **Dai SJ**, Yan XF. Primary analyses on composition and content of glucosinolates in *Arabidopsis thaliana* under hydroponic cultivation. **Journal of Natural Science of Heilongjiang University**, 2007, 24(3):321-323
32. **Dai SJ**, Wang QX, Bao WM, Zhang XC, Zhang DW. Spore morphology of pteridophytes from China IV. Thelypteridaceae 2. **Acta Phytotaxonomica Sinica**, 2005, 43(3): 233-245 (in
33. **Dai SJ**, Wang Y, Yan XF, Ma MF. Effects of color films on growth and camptothecin content in the leaves of *Camptotheca acuminata* seedlings. **Acta Ecologica Sinica**, 2004, 24(5):918-925
34. Wang Y, **Dai SJ**, Yan XF. Effects of light intensity on secondary metabolite camptothecin production in leaves of *Camptotheca acuminata* seedlings. **Acta Ecologica Sinica**, 2004, 24(6):1118-1122
35. Wang C, Xing XF, Ma LX, Guan Y, **Dai SJ**, Liu MY. Determination of gentiopicoside in different morphological types of cultivated *Gentiana manshurica* population. **China Journal of Chinese Materia Medica**, 2004, 29(9):841-844
36. Cao JG, Bao WM, **Dai SJ**. Study on the morphology and development of the archegonium and antheridium of the fern *Osmunda cinnamomea*. **Bulletin of Botanical Research**, 2003, 23(1):42-45
37. **Dai SJ**, Wang QX, Bao WM, Xing GX. Spore morphology of pteridophytes from China III. Thelypteridaceae 1 *Cyclosorus* Link., **Acta Phytotaxonomica Sinica**, 2002, 40 (4) :334-344
38. **Dai SJ**, Qin Z, Zhang SC, Cao JG. Study on the phytoplankton and water pollution of Erlongshan reservoir in Harbin. **Bulletin of Botanical Research**, 2001, 21(4): 624-629
39. Cao JG, Wang XY, **Dai SJ**. Ferns on Maoershan mountain district in Heilongjiang province. **Natural Sciences Journal of Harbin Normal University**, 2000, 16(5):88-96
40. Wu SX, Shang XH, **Dai SJ**, Yan XF. The relationship between the age and salidroside content in the root of *Rhodiola sachalinensis*. **Bulletin of Botanical Research**, 2001, 21(2):252-257

41. Fan YW, **Dai SJ**. Observations on four spores morphology of the Pteridophyta by SEM. **Natural Sciences Journal of Harbin Normal University**,1999,13(5):73-76
42. **Dai SJ**, Chen LQ, Liu HH. Study on the development of gametophytes of *Platyserium*. **Natural Sciences Journal of Harbin Normal University**, 1998, 14(1):71-75
43. Chen LQ, **Dai SJ**, Wang QX. A study on the phytoplankton bog in the western suburbs of Harbin. **Natural Sciences Journal of Harbin Normal University**,1997,13(5):72-78
44. Wang QX, Zhang GY, Chen LQ, Liu HH, **Dai SJ**. Aquatic vegetation of lake Wudalianchi in Heilongjiang province, **Natural Sciences Journal of Harbin Normal University**,1996,12(4):76-82

## C. Research Support

### Ongoing Research Support

- 31071194 Shaojun Dai (PI) 1/01/2011-12/31/2013  
 National Natural Science Foundation of China  
 Proteomics and phosphoproteomics analysis of *Osmunda cinnamomea* L. spore germination.  
 Role: PI
- JC201011 Shaojun Dai (PI) 1/01/2011-12/31/2012  
 Funds for Distinguished Young Scientists of Heilongjiang Province, China  
 Regulation mechanisms of spore germination and tissue culture of key ferns for food and medicine  
 Role: PI
- NEFU415157 Shaojun Dai (PI) 1/01/2011-12/31/2012  
 China Post-doctoral Science Foundation  
 Analysis of metabolic mechanisms in leaves from halophytes *Puccinellia tenuiflora* in response to NaCl stress using proteomics approaches  
 Role: PI
- 40-NEFU-01 Shaojun Dai (PI) 1/01/2011-12/31/2013  
 Research Foundation for the Returned Overseas Chinese Scholars, Ministry of Education of China  
 Analysis of differentially expressed proteins in *Osmunda cinnamomea* L. spore germination  
 Role: PI
- 015-602028 Shaojun Dai (PI) 9/01/2006- 12/31/2011  
 Innovation Foundation for Overseas High-Level Personnel of Northeast Forestry University, China  
 Proteomics analysis of fern gametophyte development  
 Role: PI
- DL09DA03 Shaojun Dai (PI) 1/01/2010-12/31/2011  
 Fundamental Research Funds for the Central Universities, China  
 Comparative analysis of spore germination of ferns in different evolutionary position  
 Role: PI

NEFU602055 Shaojun Dai (PI)

1/01/2010-12/31/2011

Distinguished Young Scientists Supporting Project, Famous Teachers and Excellent Talents  
Program of Northeast Forestry University, China

Proteomics analysis of spore germination of *Osmunda cinnamomea* L. and *Equisetum arvense*

Role: PI