

# CURRICULUM VITAE

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Research Interest			
<ul style="list-style-type: none"><li>• Functional and Comparative Genomics of Cereals;</li><li>• Transfer of Maize Genomic Resource into Rice through Agrobacterium-mediated BIBAC Transformation;</li><li>• Chloroplast Development</li></ul>			
Professional Memberships			
<ul style="list-style-type: none"><li>• ASPP</li></ul>			
Other Roles			
Education & Working Experience			
<b>Education:</b>			
1991-1995: Pavia University, Pavia, Italy Ph.D., Molecular Genetics			
1982-1985: China Agr. University, Beijing, China M.S., Plant Physiology and Biochemistry			
1978-1982: Hunan Agr. University, Hunan, China B.S., Plant Physiology and Biochemistry			
2005- present: Professor, College of Life Sciences and Technology, Huazhong			



Agricultural University, Wuhan, Hubei, China

2002-2006: Leader of BAC Library Construction Center of Arizona Genomics Institute, University of Arizona, Tucson, AZ, USA

University of Arizona, Tucson, AZ, USA

1998-2002: Research Assistant Professor, Clemson University Genomics Institute, Clemson, SC, USA

1995-1998: Postdoctoral Research Associate, Department of Biological Sciences, Clemson University, Clemson, SC

1989-1991: Visiting Scholar supported by EEC fellowship, Department of Genetics and Microbiology, University of Rome, Italy

1985-1989: Research Scientist, Biotechnology Research Center, Chinese Academy of Agricultural Sciences, Beijing, P. R. China

## Publications

(as of 2012)

- 1) Tao Luo, Tingting Fan, Yinan Liu, Maxi Rothbart, Jing Yu, Shuaixiang Zhou, Bernhard Grimm and Meizhong Luo, 2012, Thioredoxin redox-regulates ATPase activity of Mg chelatase CHL1 subunit and modulates redox-mediated signaling in tetrapyrrole biosynthesis and homeostasis of reactive oxygen species in pea plants. *Plant Physiology* 159: 118-130.
- 2) Shuaixiang Zhou, Artur Sawicki, Robert D. Willows and Meizhong Luo, 2012, C-terminal residues of *Oryza sativa* GUN4 are required for the activation of the ChlH subunit of magnesium chelatase in chlorophyll synthesis. *FEBS Letters* 586: 205 - 210.
- 3) Haiyan Lin, Peng Xia, Rod Wing, Qifa Zhang and Meizhong Luo, 2012, Dynamic intra-japonica subspecies variation and resource application. *Mol Plant* 5: 218-230.
- 4) Xue Shi, Haiyang Zeng, Yadong Xue and Meizhong Luo, 2011, A Pair of New BAC and BIBAC Vectors that Facilitate BAC/BIBAC Library Construction and Intact Large Genomic DNA Insert Exchange. *Plant Methods* 7: 33.
- 5) Andrea Zuccolo, John E Bowers, James C Estill, Zhiyong Xiong, Meizhong Luo, Aswathy Sebastian, José Luis Goicoechea, Kristi Collura, Yeisoo Yu, Yuannian Jiao, Jill Duarte, Haibao Tang, Saravananaraj Ayyampalayam, Steve Rounsley, Dave Kudrna, Andrew H Paterson, J Chris Pires, Andre Chanderbali, Douglas E Soltis, Srikanth

- Chamala, Brad Barbazuk, Pamela S Soltis, Victor A Albert, Hong Ma, Dina Mandoli, Jody Banks, John E Carlson, Jeffrey Tomkins, Claude W dePamphilis, Rod A Wing and Jim Leebens-Mack, 2011, A physical map for the *Amborella trichopoda* genome sheds light on the evolution of angiosperm genome structure. *Genome Biology* 12:R48: 1 – 14.
- 6) Jiangwei Qiao, Chonglie Ma, Matthias Wimmelbacher, Frederik Börnke, Meizhong Luo, 2011, Two Novel Proteins, MRL7 and Its Parologue MRL7-L Have Essential but Functionally Distinct Roles in Chloroplast Development and Are Involved in Plastid Gene Expression Regulation in *Arabidopsis*. *Plant and Cell Physiology* 52: 1017 - 1030.
  - 7) Xiang Song, Jose Luis Goicoechea (Co-first author), Jetty S. S. Ammiraju (Co-first author),
  - 8) Meizhong Luo (Co-first author), Ruifeng He, Jinke Lin, So-Jeong Lee, Nicholas Sisneros, Tom Watts, David A. Kudrna, Wolfgang Golser, Elizabeth Ashley, Kristi Collura, Michele
  - 9) Braidotti, Yeisoo Yu, Luciano M. Matzkin, Bryant F. McAllister, Therese Ann Markow and Rod A. Wing, 2011, The 19 Genomes of *Drosophila*: A BAC Library Resource for Genus-Wide and Genome-Scale Comparative Evolutionary Research. *Genetics* 187: 1023–1030.
  - 10) Jetty S.S. Ammiraju, Xiang Song, Meizhong Luo, Nicholas Sisneros, Angelina Angelova, David Kudrna, HyeRan Kim, Yeisoo Yu, Jose Luis Goicoechea, Mathias Lorieux, Nori Kurata, Darshan Brar, Doreen Ware, Scott Jackson and Rod A. Wing, 2010, The *Oryza* BAC resource: a genus-wide and genome scale tool for exploring rice genome evolution and leveraging useful genetic diversity from wild relatives. *Breeding Science* 60: 536 – 543.
  - 11) Steve Rounsley, Pradeep Reddy Marri, Yeisoo Yu, Ruifeng He, Nick Sisneros, Jose Luis Goicoechea, So Jeong Lee, Angelina Angelova, Dave Kudrna, Meizhong Luo, Jason Affourtit, Brian Desany, James Knight, Faheem Niazi, Michael Egholm and Rod A. Wing, 2009, De Novo Next Generation Sequencing of Plant Genomes. *Rice* 2: 35 – 43.
  - 12) Gyoungju Nah, Christopher L. Pagliarulo, Peter G. Mohr, Meizhong Luo, Nick Sisneros, Yeisoo Yu, Kristi Collura , Jennifer Currie, Jose Luis Goicoechea, Rod A. Wing and Karen S. Schumaker, 2009, Comparative sequence analysis of the SALT OVERLY

SENSITIVE1 orthologous region in

- 13) *Thellungiella halophila* and *Arabidopsis thaliana*. *Genomics* 94: 196-203.
- 14) William Nelson, Meizhong Luo (Co-first author), Jianxin Ma, Matt Estep, James Estill, Ruifeng He, Jayson Talag, Nicholas Sisneros, David Kudrna, HyeRan Kim, Jetty S.S. Ammiraju, Kristi Collura, Arvind K. Bharti, Joachim Messing, Rod A. Wing, Phillip SanMiguel, Jeffrey L. Bennetzen and Carol Soderlund, 2008, Methylation-sensitive linking libraries enhance gene-enriched sequencing of complex genomes and map DNA methylation domains. *BMC Genomics* 9: 621
- 15) Peter J. Maughan, Nicholas Sisneros, Meizhong Luo, Dave Kudrna, Jetty S. S. Ammiraju, and Rod A. Wing, 2008, Construction of an *Amaranthus hypochondriacus* Bacterial Artificial Chromosome Library and Genomic Sequencing of Herbicide Target Genes. *Plant Genome (A Supplement to Crop Science)* 1: S85-S94.
- 16) *Drosophila* 12 Genomes Consortium, 2007, Evolution of genes and genomes on the *Drosophila* phylogeny. *Nature* 450 (8 November 2007): 203-218.
- 17) Haiying Liang, Eric G. Fang, Jeffrey P. Tomkins, Meizhong Luo, Dave Kudrna, HyeRan Kim, Jayson Talag, K. Arumuganathan, Shaying Zhao , Scott E. Schlarbaum, Jo Ann Banks, Claude W. dePamphilis, Dina F. Mandoli, Rod A. Wing, and John E. Carlson, 2007, Development of a BAC library for yellow-poplar (*Liriodendron tulipifera*) and the identification of genes associated with flower development and lignin biosynthesis. *Tree Genetics and Genomes* 3: 215-225.
- 18) Barbara L Hass-Jacobus, Montona Futrell-Griggs, Brian Abernathy, Rick Westerman, Jose-Luis Goicoechea, Joshua Stein, Patricia Klein, Bonnie Hurwitz, Bin Zhou, Fariborz Rakhshan, Abhijit Sanyal, Navdeep Gill, Jer-Young Lin, Jason G Walling, Mei Zhong Luo,
- 19) Jetty Siva S Ammiraju, Dave Kudrna, Hye Ran Kim, Doreen Ware, Rod A Wing, Phillip San Miguel, and Scott A Jackson, 2006, Integration of hybridization-based markers (overgos) into physical maps for comparative and evolutionary explorations in the genus *Oryza* and in *Sorghum*. *BMC Genomics* 7: 199.
- 20) Coen M Adema, Meizhong Luo, Ben Hanelt, Lynn A Hertel, Jennifer J Marshall, Si-Ming Zhang, Randall J DeJong, HyeRan Kim, David Kudrna, Rod A Wing, Cari

Soderlund, Matty Knight, Fred A Lewis, Roberta Lima Caldeira, Liana K Jannotti-Passos, Omar dos Santos Carvalho, Eric S Loker, 2006, A BAC library for *Biomphalaria glabrata*, intermediate snail host of *Schistosoma mansoni*. Mem Inst Oswaldo Cruz, Rio de Janeiro, Vol. 101(Suppl. I): 167-177.

- 21) Meizhong Luo (Corresponding Author), HyeRan Kim, Dave Kudrna, Nicholas B. Sisneros, So-Jeong Lee, Christopher Mueller, Kristi Collura, Andrea Zuccolo, E. Bryan Buckingham, Suzanne M. Grim, Kazuyo Yanagiya, Hidetoshi Inoko, Takashi Shiina, Martin F. Flajnik, Rod A. Wing and Yuko Ohta, 2006, Construction of a nurse shark (*Ginglymostoma cirratum*) bacterial artificial chromosome (BAC) library and a preliminary genome survey. BMC Genomics 7:106.
- 22) Yann-Rong Lin, Teh-Yuan Chow, Meizhong Luo, Dave Kudrna, Chih-Chi Lin, Rod A. Wing, Yue-Ie C. Hsing, 2006, Two highly representative rice BAC libraries of japonica cv Tainung 67 suitable for rice structural and functional genomic research. Plant Science 170: 889–896.
- 23) Meizhong Luo (Corresponding Author), Yeisoo Yu, HyeRan Kim, Dave Kudrna, Yuichiro Itoh, Robert J. Agate, Esther Melamed, José L. Goicoechea, Jayson Talag, Christopher Mueller, Wenming Wang, Jennifer Currie, Nicholas B. Sisneros, Rod A. Wing and Arthur P. Arnold, 2006, Utilization of a Zebra Finch BAC Library to Determine the Structure of an Avian Androgen Receptor Genomic Region. Genomics 87: 181-190.
- 24) Jetty S.S.Ammiraju, Meizhong Luo (Co-first author) José L. Goicoechea, Wenming Wang, Dave Kudrna, Christopher Mueller, Jayson Talag, HyeRan Kim, Nicholas B. Sisneros, Barbara Blackmon, Eric Fang, Jeffery B. Tomkins, Darshan Brar, David MacKill, Susan McCouch, Nori Kurata, Georgina Lambert, David W. Galbraith, K. Arumuganathan, Kiran Rao, Jason G. Walling, Navdeep Gill , Yeisoo Yu, Phillip SanMiguel, Carol Soderlund, Scott Jackson and Rod A. Wing, 2006, The *Oryza* bacterial artificial chromosome library resource: Construction and analysis of 12 deep-coverage large-insert BAC libraries that represent the 10 genome types of the genus *Oryza*. Genome Research 16(1): 140-147.
- 25) Diego Albani, Lucia Giorgetti, Letizia Pitto, Meizhong Luo, Rita M Cantoni, Marta Erra-Pujada, Giuseppe L Rotino, Rino Cella, 2005, Proliferation-dependent pattern of

- expression of a dihydrofolate reductase-thymidylate synthase gene from *Daucus carota*. *Eur J Histochem* 49 (2):107-115.
- 26) Jetty S.S.Ammiraju, Yeisoo Yu, Meizhong Luo, Dave Kudrna, HyeRan Kim, Jose L. Goicoechea, Yuichi Katayose, Takashi Matsumoto, Jianzhong Wu, Takuji Sasaki and Rod A. Wing, 2005, Random sheared fosmid library as a new genomic tool to accelerate complete finishing of rice (*Oryza sativa* spp. Nipponbare) genome sequence: sequencing of gap specific fosmid clones uncovers new euchromatic portions of the genome. *Theor Appl Genet* 111(8):1596-1607.
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- 30) Elliott H. Margulies, NISC Comparative Sequencing Program, Valerie V.B. Maduro, Pamela J. Thomas, Jeffery P. Tomkins, Chris T. Amemiya, Meizhong Luo and Eric D. Green, 2005, Comparative Sequencing Provides Insights about the Structure and Conservation of Marsupial and Monotreme Genomes. *Proc Natl Acad Sci U S A* 102(9):3354-3359.
- 31) Rod A. Wing, Jetty S.S. Ammiraju, Meizhong Luo, HyeRan Kim, Yeisoo Yu, Dave Kudrna, José L. Goicoechea, Wenming Wang, William M Nelson, Kiran Rao, Carol Soderlund, Darshan Brar, David J. Mackill, Bin Han, Lincoln Stein, Phillip SanMiguel and Scott Jackson, 2005, The *Oryza* Map Alignment Project: The Golden Path to Unlocking the Genetic Potential of Wild Rice Species. *Plant Molecular Biology* 59: 53-62.
- 32) Anthony S. Danko, Meizhong Luo, Christopher E. Bagwell, Robin L. Brigmon, and

- David L. Freedman, 2004, Involvement of Linear Plasmids in Aerobic Biodegradation of Vinyl Chloride. *Appl Environ Microbiol.* 70 (10): 6092-6097.
- 33) Meizhong Luo and Rod A. Wing, 2003, An improved method for plant BAC library construction. In Grotewold E. (ed): *Plant Functional Genomics: Methods and Protocols*, pp 3-19. *Methods in Molecular Biology*, Vol. 236. Humana Press Inc. Totowa, NJ.
- 34) Jeffray P. Tomkins, Meizhong Luo, Gang C. Fang, Dorrie Main, Jose Luis Goicoechea, Michael Atkins, David A. Frisch, Robert E. Page, E. Guzmán-Novoa, Yeisoo Yu, Greg Hunt and Rod A. Wing, 2002, New genomic resources for the honey bee (*Apis mellifera* L.): development of a deep-coverage BAC library and a preliminary STC database. *Genet Mol Res* 1(4): 306-316.
- 35) Chen M, Presting G, Barbazuk WB, Goicoechea JL, Blackmon B, Fang G, Kim H, Frisch D, Yu Y, Sun S, Higingbottom S, Phimphilai J, Phimphilai D, Thurmond S, Gaudette B, Li P, Liu J, Hatfield J, Main D, Farrar K, Henderson C, Barnett L, Costa R, Williams B, Walser S, Atkins M, Hall C, Budiman MA, Tomkins JP, Luo M, Bancroft I, Salse J, Regad F, Mohapatra T, Singh NK,
- 36) Tyagi AK, Soderlund C, Dean RA, Wing RA, 2002, An Integrated Physical and Genetic Map of the Rice Genome. *Plant Cell* 14(3):537-545.
- 37) Meizhong Luo, Yi-Hong Wang, David Frisch, Tarek Joobeur, Rod A Wing and Ralph A. Dean, 2001, Melon bacterial artificial chromosome (BAC) library construction using improved methods and identification of clones linked to the locus conferring resistance to melon Fusarium Wilt (Fom-2). *Genome* 44: 154-162.
- 38) Wenming Wang, Wenxue Zhai, Meizhong Luo, Guanhuai Jiang, Xuwei Chen, Xiaobing Li, Rod A. Wing, Lihuang Zhu, 2001, Chromosome Landing at the Bacterial Blight Resistance Gene Xa4 Locus Using a Deep Coverage Rice BAC Library. *Mol Gen Genet* 265: 118-125.
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- 40) Meizhong Luo (Corresponding Author), Jon Weinstein and Caroline Walker, 1999, Magnesium chelatase subunit D from pea: Characterization of the cDNA, heterologous

expression of an enzymatically active protein and immunoassay of the native protein. *Plant Molecular Biology* 41 (6): 721-731.

- 41) Ribo Guo, Meizhong Luo and Jon Weinstein, 1998, Magnesium-chelatase from developing pea leaves: Characterization of a soluble extract from chloroplasts and resolution into three required protein fractions. *Plant Physiology* 116: 605-615.
- 42) Meizhong Luo, Roberta Orsi, Emanuela Patrucco, Simonetta Pancaldi and Rino Cella, 1997, Multiple transcription start sites of the carrot dihydrofolate reductase-thymidylate synthase gene, and sub-cellular localisation of the bifunctional protein. *Plant Molecular Biology* 33:709-722.
- 43) Meizhong Luo, Silvia Costa, Giovanni Bernacchia and Rino Cella, 1997, Cloning and characterisation of a carrot cDNA coding for a WD repeat protein homologous to *Drosophila* fizzy, human p55CDC and yeast CDC20 proteins. *Plant Molecular Biology* 34:325-330.
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- 45) Meizhong Luo and Rino Cella, 1997, Amplification of Gene-Regulating Regions with Single-Sided Specificity. In White, B. A. (ed): *PCR Cloning Protocols: From Molecular Cloning to Genetic Engineering*, pp 239-245. *Methods in Molecular Biology*, Vol.67, Humana Press Inc. Totowa, NJ.
- 46) Alma Balestrazzi, Ilaria Toscano, Giovanni Bernacchia, Meizhong Luo, Sandra Otte and
- 47) Daniela Carbonera, 1996, Cloning of a cDNA encoding DNA topoisomerase I in *Daucus carota* and expression analysis in relation to cell proliferation. *Gene* 183:183-190.
- 48) Meizhong Luo and Rino Cella, 1995, Analysis of the structure of the 5' end of the gene coding for carrot dihydrofolate reductase-thymidylate synthase. In Terzi, M., Cella, R. and Falavigna, A. (eds): *Current Issues in Plant Molecular and Cellular Biology*, pp 583-588. Kluwer Academic Publisher.
- 49) Meizhong Luo, M. E. Mattachini, E. Patrucco, G. Petrali-Noy and R. Cella, 1994, Some aspects of DNA methylation in higher plants. *Gior Bot. Ital* 128 (2):546-547.

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51) Meizhong Luo, Pietro Piffanelli, Luca Rastelli and Rino Cella, 1993, Molecular cloning and analysis of a cDNA coding for the bifunctional dihydrofolate reductase-thymidylate synthase of *Daucus carota*. *Plant Molecular Biology* 22:427-435.

### **Additional Information**