

## **CURRICULUM VITAE**

### **N. LOUISE GLASS**

#### **ACADEMIC CREDENTIALS**

B.Sc. 1978 Colorado State University, Biology

Ph.D. 1986 University of California, Davis, Plant Pathology

Major Professor: Dr. Tsune Kosuge

Title of thesis: Cloning of the IAA-lysine synthetase gene and its role in regulating IAA pool size and virulence of *Pseudomonas syringae* subsp. *savastanoi*.

#### **PROFESSIONAL EXPERIENCE**

1986-1989 Post-doctoral associate, Department of Physiological Chemistry, The University of Wisconsin-Madison (with Dr. Robert L. Metzenberg)

1989-1995 Assistant Professor, Department of Botany and The Biotechnology Laboratory, University of British Columbia

1995-1999 Associate Professor, Department of Botany and The Biotechnology Laboratory, University of British Columbia

1999-2004 Associate Professor, Plant and Microbial Biology Department, University of California, Berkeley

2004-present Professor, Plant and Microbial Biology Department, University of California, Berkeley

2012-2014 Associate Chair, Plant and Microbial Biology Department, Chair Graduate Group in Microbiology, University of California, Berkeley

2014-2015 Chair, Plant and Microbial Biology Department, Chair Graduate Group in Microbiology, University of California, Berkeley

#### **FELLOWSHIPS and AWARDS**

2014 Alexander von Humboldt Research Award (<http://www.humboldt-foundation.de/web/home.html>)

2015 August-Wilhelm Scheer Visiting Professorship (<http://www.tum-ias.de/people/members/tum-august-wilhelm-scheer-visiting-professors.html>)

2014 Member of Electorate Nominating Committee, Section G (Biological Sciences), American Association for the Advancement of Science

2012 Miller Institute Professorship (<http://millerinstitute.berkeley.edu/>)

2012-2014 Division X Chair, American Society of Microbiology

2011 Visiting Professor for Senior International Scientists, Chinese Academy of Scientists (CAS)

2011 Elected to Committee on Elections, American Academy of Microbiology

2010 Elected as a Fellow of the American Academy of Microbiology

2005 Elected as a Fellow of the American Society for the Advancement of Science

2005 Karling lecturer, Mycological Society of America

1994 Visiting Professor Fellowship, Universite Paris-Sud

1986-1989 American Cancer Society Postdoctoral Fellowship

#### **PATENTS**

UCB: B11-184 Essential transcription factors for cellulosic enzyme production in  
*Neurospora crassa*  
UCB: B09-108 Systems analysis of plant cell wall degradation by the model filamentous  
fungus, *Neurospora crassa*  
US8431360 Methods and compositions for improving sugar transport, mixed sugar  
fermentation, and production of biofuels  
UCB: B11-102 Mutant cells for lignocellulose degradation and cellulase production

### **INVITED PRESENTATIONS (2009-2015)**

2015 Symposium on cellular signaling mechanisms in fungi, Bochum, Germany  
2015 Molecular Biology of Fungi Conference, Berlin, Germany  
2015 European Conference on Prokaryotic and Fungal Genomics, Gottingen, Germany  
2015 Symposium on Biofuels and Specialty Chemicals, Munich Germany  
2015 GRC Cellulosomes, Cellulases and Carbohydrate Modifying Enzymes  
2015 Bioeconomy Conference, Beijing China  
2015 Chinese Academy of Sciences seminar, Plant Physiology section, Shanghai China  
2015 28<sup>th</sup> Fungal Genetics Conference, Plenary Speaker  
2015 Texas A&M University, Department of Biology  
2014 Joint BioEnergy Institute  
2014 International Mycological Congress, Bangkok Thailand  
2014 Cellular and Molecular Fungal Biology Gordon Research Conference  
2014 University of Illinois, Urbana-Champaign, Genomic Sciences Institute  
2014 Dartmouth College, Department of Biological Sciences  
2014 European Conference on Fungal Genetics, Seville, Spain  
2014 University of Georgia, Microbiology Department  
2013 Mycological Society of America, Concurrent Session Speaker  
2013 Microbial Physiology Section of the European Federation of Biotechnology  
2013 10<sup>th</sup> Symposium Kluyver Centre for Genomics of Industrial Fermentation  
2012 European Fungal Genetics Meeting, Concurrent Session Speaker  
2012 European Neurospora Conference, Keynote Speaker  
2012 Joint Genome Institute, Plenary Session Speaker  
2012 University of California-Riverside, Institute for Microbiology/Computational Biology  
2011 University of British Columbia, Biotechnology Laboratory  
2011 Genencor, Inc.  
2011 GRC Cellulosomes, Cellulases and Carbohydrate Modifying Enzymes  
2011 The 26<sup>th</sup> Fungal Genetics Conference, Concurrent Session Speaker  
2011 Tianjin Institute of Industrial Biotechnology, Chinese Academy of Sciences, China  
2011 University of Kansas Medical Center. Plenary speaker for Midwestern Fungal Genetics  
Conference  
2011 University of California-San Francisco, Department of Microbiology  
2011 Bay Area Mycological Society (BAMS)  
2010 University of California-Davis, Plant Pathology Department  
2010 GRC Cellular and Molecular Fungal Biology  
2010 International Mycological Conference  
2010 International Mycological Conference, Symposium organizer  
2010 Vienna University of Technology, Vienna, Austria

2010 Genencor, Inc.  
2009 University of California-Riverside, Department of Microbiology and Plant Pathology  
2009 Kobe University, Japan. Plenary speaker for “Programmed Cell Death” symposium  
2009 International Fungal Biology Conference, Ensenada, Mexico

### **POLICY COMMITTEES**

2014-present Scientific Advisory Committee for the Joint Genome Institute (JGI)  
2014-present International Scientific Advisory Committee, Biomass Energy Center for Arid and Semi-Arid Land, China  
2013-present Energy Biosciences Executive Committee  
2013-present Fungal Scientific Advisory Committee, Joint Genome Institute  
2013-present *Neurospora* policy committee  
2012 NIH National Advisory General Medicine Science Council  
2012-current Awards Committee, Mycological Society of America  
2010-2012 Supervisory Editorial Committee, Mycologia  
2008 Member of External Committee to evaluate Plant-Microbe/Plant Pathology Department, Cornell University  
2006-present Organizing Committee, International Fungal Biology Conference  
2006-2009 Chair, Cell Biology, Mycological Society of America  
2004 IUMS Scientific Committee  
2002-present International Fungal Biology Steering Committee  
2006-2009 Chair, Cell Biology, Mycological Society of America

### **MAJOR MEETING ORGANIZATION**

2015 Session Chair, European Fungal Genetics Conference  
2012 Session Chair, Energy Metabolism and Biomass Production, Molecular and Cellular Fungal Biology Gordon Conference  
2007 Session chair, Cell Fusion Gordon Conference  
2004 Co-chair, Molecular and Cellular Fungal Biology Gordon Conference  
2004 24<sup>th</sup> Fungal Genetics Meeting, Chair of concurrent symposium  
2002 Co-chair “Mating type and development” symposium, International Fungal Biology Conference  
2001 Co-chair “Mating-type, heterokaryosis and downstream effectors” symposium, XX Fungal Genetics Conference  
2000 Chair of the “Epigenetics” session of Molecular and Cellular Mycology Gordon Conference  
1997 Co-organizer, 19<sup>th</sup> Fungal Genetics Conference  
1993 Organizer, “Mating-type” symposium, 17<sup>th</sup> Fungal Genetics Conference  
1990 Chair of the “Mating-type” session of the Fungal Metabolism Gordon Conference

### **GRANT PANELS**

2000-2015 National Science Foundation  
2008, 2010-11 National Institutes of Health  
2011, 2013 Joint Genome Institute  
2014 EMSL

## EDITORSHIPS

- 2011-present Editor, *Eukaryotic Cell*  
2009-2014 Editor, *Microbiology*  
2001-present F1000, Co-editor of *Growth and Development Section*  
2005-2010 Editorial Board, *Annual Review of Microbiology*  
2005-2009 Editorial Board, *Microbiology*  
2005-2010 Editorial Board, *Eukaryotic Cell*  
2000-2004 Editor-in-Chief, *Fungal Genetics and Biology*

## REFEREED RESEARCH ARTICLES (1988 to present)

1. Glass, N.L., Vollmer, S.J., Staben, C., Grotelueschen, J., Metzberg R.L. and Yanofsky, C. 1988. DNAs of the two mating-type alleles of *Neurospora crassa* are highly dissimilar. **Science** 241:570-573.
2. Glass, N.L., Metzberg, R.L. and Raju, N.B. 1990. Homothallic Sordariaceae from nature: The absence of strains containing only the *a* mating-type sequence. **Exptl Mycol** 14:274-289.
3. Glass, N.L., Grotelueschen, J. and Metzberg, R.L. 1990. The *Neurospora crassa* A mating-type region. **Proc Natl Acad Sci USA** 87:4912-4916.
4. Glass, N.L. and Lee, L. 1992. Isolation of A mating-type mutants in *Neurospora crassa* by repeat-induced point mutation (RIP). **Genetics** 132:125-133.
5. Arnaise, S., Zickler, D. and N. L. Glass, 1993. Heterologous expression of mating-type genes in filamentous fungi. **Proc Natl Acad Sci USA** 90:6616-6620.
6. Vellani, T.S., Griffiths, A.J.F. and N. L. Glass, 1994. New mutations that suppress mating-type vegetative incompatibility in *Neurospora crassa*. **Genome** 37:249-255.
7. Beatty, N.P., Smith, M.L. and N. L. Glass, 1994. Molecular characterization of mating-type loci in selected homothallic species of *Neurospora*, *Gelasinospora* and *Anixiella*. **Mycol Res** 98:1309-1316.
8. Glass, N.L. and Smith, M.L. 1994. Structure and function of a mating-type gene from the homothallic species, *Neurospora Africana*. **Mol Gen Genet** 244:401-409.
9. Grotelueschen, J., Peleg, Y., Glass, N.L. and Metzberg, R.L. 1994. Cloning and molecular characterization of the *pho-2* gene encoding for a repressible alkaline phosphatase from *Neurospora crassa*. **Gene** 144:147-148.
10. Glass, N.L. and Donaldson, G.C. 1995. The development of primer sets designed for use with the polymerase chain reaction to amplify conserved genes from filamentous ascomycetes. **Appl Environ Microbiol** 61:1323-1330.
11. Donaldson, G.C., Bull, L.A., Axelrod, P.E. and N. L. Glass, 1995. Primer sets developed to amplify conserved genes from filamentous ascomycetes are useful in differentiating species of *Fusarium* associated with conifers. **Appl Environ Microbiol** 61:1331-1340.
12. Smith, M.L. and N. L. Glass, 1996. Mapping translocation break points by Orthogonal Field Agarose Gel Electrophoresis. **Curr Genet** 29:301-305.
13. Saupe, S., Steinberg, L., Shiu, K.T., Griffiths, A.J.F. and N. L. Glass, 1996. The molecular nature of mutations in the *mt A-1* gene of *Neurospora crassa* A idiomorph and their relation to mating-type function. **Mol Gen Genet** 250:115-122.

14. Ferreira, A.V.B., Saupe, S. and N. L. Glass, 1996. Transcriptional analyses of the *mt A* idiomorph of *Neurospora crassa* identifies two genes in addition to *mt A-1*. **Mol Gen Genet** 250:767-774.
15. Ferreira, A.V.B. and N. L. Glass, 1996. PCR from fungal spores after microwave treatment. **Fungal Gen Newsl** 43:25-26.
16. Saupe, S.J., Kuldau, G.A., Smith, M.L. and N. L. Glass, 1996. The product of the *het-c* heterokaryon incompatibility gene of *Neurospora crassa* has characteristics of glycine-rich cell wall protein. **Genetics** 143:1589-1600.
17. Smith, M.L., Yang, C.J., Metzenberg, R.L. and N. L. Glass, 1996. Escape from *het-6* incompatibility in *Neurospora crassa* partial diploids involves preferential deletion within the ectopic segment. **Genetics** 144:523-531.
18. Saupe, S.J. and N. L. Glass, 1997. Allelic specificity at the *het-c* heterokaryon incompatibility locus of *Neurospora crassa* is determined by a highly variable domain. **Genetics** 146:1299-1309.
19. Ferreira, A.V.B., An, Z., Metzenberg, R.L. and N. L. Glass, 1998 Characterization of *mat A-2*, *mat A-3* and  $\Delta$ *matA* mating-type mutants of *Neurospora crassa*. **Genetics** 148:1069-1079.
20. Kuldau, G.A., Raju, N.B. and N. L. Glass, 1998 Repeat-induced point mutations in *Pad-1*, a putative RNA splicing factor from *Neurospora crassa*, confer dominant lethal effects on ascus development. **Fungal Genet Biol** 23:169-180.
21. Wu, J., Saupe, S.J. and N. L. Glass, 1998 Evidence for balancing selection operating at the *het-c* heterokaryon incompatibility locus in a group of filamentous fungi. **Proc Natl Acad Sci USA** 95:12398-12403.
22. Shiu, P.K.T. and N. L. Glass, 1999 Molecular characterization of *tol*, a mediator of mating-type associated vegetative incompatibility in *Neurospora crassa*. **Genetics** 151:545-555.
23. Smith, M.L., Hubbard, S.P., Jacobson, D.J., O.C. Micali and N. L. Glass, 2000. An osmotic-remedial, temperature-sensitive mutation in the allosteric activity site of ribonucleotide reductase in *Neurospora crassa*. **Mol Gen Genet** 262:1022-1035.
24. Smith, O. C. Micali, S. P. Hubbard, N. Mir-Rashed, D. J. Jacobson and N. L. Glass, 2000. Vegetative incompatibility in the *het-6* region of *Neurospora crassa* is mediated by two linked genes. **Genetics** 155:1095-1104.
25. Wu, J, and N. L. Glass, 2001. Identification of specificity determinants and the generation of alleles with novel specificity at the *het-c* heterokaryon incompatibility locus of *Neurospora crassa*. **Mol Cell Biol** 21:1045-1057.
26. Xiang, Q., Rasmussen, C. and N. L. Glass, 2002. The *ham-2* locus, encoding a putative transmembrane protein, is involved in hyphal fusion in *Neurospora crassa* **Genetics** 160:169-180.
27. Muirhead, C. A., N. L. Glass and M. Slatkin, 2002. Multi-locus self-recognition systems in fungi as a cause of trans-species polymorphism. **Genetics** 161:633-641.
28. Hickey, P.C., D. J. Jacobson, N. D. Read and N. L. Glass, 2002. Live-cell imaging of vegetative hyphal fusion in *Neurospora crassa*. **Fungal Genet Biol** 37:109-119
29. Xiang, Q. and N. L. Glass, 2002. Identification of *vib-1*, a locus involved in vegetative incompatibility mediated by *het-c* in *Neurospora crassa*. **Genetics** 162:89-101.
30. Sarkar, S., G. Iyer, J. Wu and N. L. Glass, 2002. Nonsel self recognition is mediated by HET-C heterocomplex formation during vegetative incompatibility. **EMBO J** 18: 4841-4850.

31. Galagan, J. et al., 2003. The genome sequence of the filamentous fungus *Neurospora crassa* **Nature** 422: 859-868.
32. Kroken, S., N. L. Glass, J. W. Taylor, O.C. Yoder and B. G. Turgeon, 2003. Phylogenomics of type I polyketide synthases in plant pathogenic and saprobic ascomycete fungi **Proc Natl Acad Sci USA** 100:15670-15675.
32. Marek, S. M., J. Wu, N. L. Glass, D. G. Gilchrist and R. M. Bostock, 2003. Nuclear DNA degradation during heterokaryon incompatibility in *Neurospora crassa*. **Fungal Genet Biol** 40:126-137.
34. Xiang, Q. and N. L. Glass, 2004. Chromosome rearrangements in isolates that escape from *het-c* heterokaryon incompatibility in *Neurospora crassa*. **Curr Genet** 44:329-38.
35. Jacobson, D. J., A. J. Powell, J. R. Dettman, G. S. Saenz, M. M. Barton, M. D. Hiltz, W. H. Dvorachek, Jr., N. L. Glass, J. W. Taylor and D. O. Natvig, 2004. *Neurospora* in temperate forests of western North America. **Mycologia** 96:66-74.
36. Pandey, A. M. G. Roca, N. D. Read and N. L. Glass, 2004. Role of a mitogen-activated kinase in hyphal fusion and conidial germination in *Neurospora crassa*. **Eukaryot Cell** 3:348-58.
37. Xiang, Q. and N. L. Glass, 2004. The control of mating type heterokaryon incompatibility by *vib-1*, a locus involved in *het-c* incompatibility in *Neurospora crassa*. **Fungal Genet Biol** 41:1063-1076.
1. Pandey, A. M. G. Roca, N. D. Read and N. L. Glass, 2004. Role of a mitogen-activated kinase in hyphal fusion and conidial germination in *Neurospora crassa*. **Eukaryot Cell** 3:348-58.
39. Xiang, Q. and N. L. Glass, 2004. The control of mating type heterokaryon incompatibility by *vib-1*, a locus involved in *het-c* incompatibility in *Neurospora crassa*. **Fungal Genet Biol** 41:1063-1076.
40. Fleißner, A., S. Sarkar, D. J. Jacobson, M. G. Roca, N. D. Read and N. L. Glass, 2005. Identification and characterization of *so*, a hyphal fusion mutant of *Neurospora crassa*. **Eukaryot Cell** 4:920-30.
41. Rasmussen C. G and N. L. Glass, 2005. A Rho-Type GTPase, *rho-4*, is required for septation in *Neurospora crassa*. **Eukaryot Cell** 4:1913-25.
42. Kasuga T., J. P. Townsend, C. Tian, L. B. Gilbert, G. Mannhaupt, J. W. Taylor, N. L. Glass, 2005. Long-oligomer microarray profiling in *Neurospora crassa* reveals the transcriptional program underlying biochemical and physiological events of conidial germination. **Nucleic Acids Res** 33:6469-85.
43. Kaneko, I., K. Dementhon, Q. Xiang and N. L. Glass, 2006. Non-allelic interactions between *het-c* and a polymorphic locus, *pin-c*, are essential for nonself recognition and programmed cell death in *Neurospora crassa*. **Genetics** 172:1545-55.
44. Shiu, P. K. T. and N. L. Glass, 2006. Sequences important for heterokaryon incompatibility function in MAT A-1 of *Neurospora crassa*. **Fungal Genet Newsl** 53:15-19.
45. Dementhon, K., G. Iyer and N. L. Glass, 2006. VIB-1 is required for expression of genes necessary for PCD in *Neurospora*. **Eukaryot Cell** 5:2161-2173.
46. Fleissner, A. and N. L. Glass, 2007. SO, a protein involved in hyphal fusion in *Neurospora crassa*, localizes to septal plugs. **Eukaryot Cell** 6:84-94.
47. Tian, C., T. Kasuga, M. S. Sachs and N. L. Glass, 2007. Transcriptional profiling of cross pathway control in *Neurospora crassa*: Comparative analysis of the Gcn4 and CPC1 regulons. **Eukaryot Cell** 6:1018-29.

48. Rasmussen, C. G. and N. L. Glass, 2007. Localization of RHO-4 indicates differential regulation of conidial versus vegetative septation in the filamentous fungus *Neurospora crassa* **Eukaryot Cell** 6:1097-107.
49. Wichmann G., J. Sun, K. Dementhon, N.L. Glass and S. E. Lindow, 2008. A novel gene, *phcA* from *Pseudomonas syringae* induces programmed cell death in the filamentous fungus *Neurospora crassa*. **Mol Microbiol** 68:672-689
50. Rasmussen, C. G., R. M. Morgenstein, S. Peck and N. L. Glass, 2008. Lack of the GTPase RHO-4 in *Neurospora crassa* causes a reduction in numbers and aberrant stabilization of microtubules at hyphal tips. **Fungal Genet Biol** 45:1027-1039.
51. Castro, A., C. Lemos, A. Falcão, N. L. Glass and A. Videira, 2008. Increased resistance to complex I mutants to phytosphingosine-induced programmed cell death. **J Biol Chem** 283:19314-19321.
52. Kasuga, T. and N. L. Glass, 2008. Dissecting colony development of *Neurospora crassa* using mRNA profiling and comparative genomics approaches. **Eukaryot Cell** 7: 1549-1564.
53. Fleissner, A., Diamond, S. and N.L. Glass, 2009. The *Saccharomyces cerevisiae* PRM1 homolog in *Neurospora crassa* is involved in vegetative and sexual cell fusion events, but also has post-fertilization functions. **Genetics** 181:497-510.
54. Kasuga, T., G. Mannhaupt and N.L. Glass, 2009. Relationship between phylogenetic distribution and genomic features in *Neurospora crassa*. **PLoS One** 4:e5286.
55. Videira, A., T. Kasuga, C. Tian, C. Lemos, A. Castro and N.L. Glass. 2009. Transcriptional analysis of the *Neurospora crassa* response to phytosphingosine reveals links to mitochondrial function. **Microbiol** 55:3134-41.
56. Hutchison E., S. Brown, C. Tian and N.L. Glass, 2009. Transcriptional profiling and functional analysis of heterokaryon incompatibility in *Neurospora crassa* reveals that ROS, but not metacaspases, are associated with programmed cell death. **Microbiol** 155:3957-70.
57. Fleißner, A., A.C. Leeder, M.G. Roca, N.D. Read and N.L. Glass, 2009. Oscillatory recruitment of signaling proteins to cell tips promotes coordinated behavior during cell fusion **Proc Natl Acad Sci USA** 106:19387-92.
58. Tian, C. W.T. Beeson, A.T. Iavarone, J. Sun, M.A. Marletta, J.H. Cate, N.L. Glass, 2009. Systems analysis of plant cell wall degradation by the model filamentous fungus, *Neurospora crassa* **Proc Natl Acad Sci USA** 106:22157-62.
59. Castro, A., C. Lemos, A. Falcão, A. S. Fernandes, N.L. Glass and A. Videira, 2010. Rotenone enhances the antifungal properties of staurosporine. **Eukaryot Cell** 9:906-14.
60. Hutchison, E. A and N. L. Glass, 2010. Meiotic regulators Ndt80 and Ime2 have different roles in *Saccharomyces* and *Neurospora*. **Genetics** 185:1271-1282.
61. Simonin, A., C. G. Rasmussen, M. Yang and N. L. Glass, 2010. Genes encoding a striatin-like protein (*ham-3*) and a forkhead associated protein (*ham-4*) are required for hyphal fusion in *Neurospora crassa*. **Fungal Genet Biol** 47:855-868.
62. Galazka, J.M. C. Tian, W. T. Beeson, B. Martinez, N. L. Glass and J. H. D. Cate, 2010. Cellodextrin transport in yeast for improved biofuel production. **Science** 330:84-86.
63. Li, S., J. Du, J. Sun, J. M. Galezka, N. L. Glass, J. D. H. Cate H. Yang and H. Zhao, 2010. Overcoming glucose repression in mixed sugar fermentation by co-expressing a cellobiose transporter and a  $\beta$ -glucosidase in *Saccharomyces cerevisiae*. **Molec BioSystems** 6:2129-2132.

64. Hall, C., J. Welch, D. J. Kowbel and N. L. Glass, 2010. Evolution and diversity of a fungal self/nonsel self recognition locus. **PLoS One** 5(11):e14055.
65. Greenwald, C. J., T. Kasuga, N. L. Glass, B. D. Shaw, D. J. Ebbole and H. H. Wilkinson, 2010. Temporal and spatial regulation of gene expression during asexual development of *Neurospora crassa*. **Genetics** 186:1217-1230.
66. Sun, J., C. M. Phillips, C. T. Anderson, W. T. Beeson, M. A. Marletta and N. L. Glass, 2011. Expression and characterization of *Neurospora crassa* endoglucanase GH5-1. **Protein Expr Purif** 75:147-154.
67. Ha, S.K. J.M. Galazka, S. R. Kim, J. H. Choi, X. Yang, J. H. Seo, N. L. Glass, J. H. D. Cate and Y. S. Jin, 2011. Engineered *Saccharomyces cerevisiae* capable of simultaneous cellobiose and xylose fermentation. **Proc Natl Acad Sci USA** 108:504-509.
68. Tian, C., J. Li and N.L. Glass, 2011. Exploring the bZIP transcription factor regulatory network in *Neurospora crassa*. **Microbiol** 157:747-759.
69. Ellison, C.E., C. Hall, D. Kowbel, J. Welch, R. B. Brem, N. L. Glass and J. W. Taylor, 2011. Population genomics and local adaptation in wild isolates of a model microbial eukaryote. **Proc Natl Acad Sci USA** 108:2831-2836.
70. Gilbert, L. B., T. Kasuga, N. L. Glass and J. W. Taylor, 2011. Array CGH Phylogeny: How accurate are comparative genomic hybridization-based trees? **BMC Genomics** 12:487.
71. Sun, J. and N. L. Glass, 2011. Identification of the CRE-1 cellulolytic regulon in *Neurospora crassa*. **PLoS One** 6:e25654.
72. Fernandes, A.S., A. P. Gonçalves, A. Castro, T. A. Lopes, R. Gardner, N. L. Glass and A. Videira, 2011. Modulation of fungal sensitivity to staurosporine by targeting proteins identified by transcriptional profiling. **Fungal Genet Biol** 48:1130-1138.
73. Richards, F., N. L. Glass and A. Pringle, 2012. Cooperation among germinating spores facilitates the growth of the fungus *Neurospora crassa*. **Biol Letts** 8:419-422.
74. Znameroski, E.A., S. T. Coradetti, C. M. Roche, J. C. Tsai, A. T. Iavarone, J. H.D. Cate and N. L. Glass, 2012. Induction of lignocellulose degrading enzymes in *Neurospora crassa* by cellodextrins. **Proc Natl Acad Sci USA** 109:6012-6017.
75. Sun, J., C. Tian, S. Diamond and N. L. Glass, 2012. Deciphering regulatory mechanisms associated with hemicellulose degradation in *Neurospora crassa*. **Eukaryot Cell** 11:482-493.
76. Schmoll, M., C. Tian, J. Sun, D. Tisch and N. L. Glass, 2012. Unraveling the molecular basis of light-modulated cellulase gene expression-the role of photoreceptors in *Neurospora crassa*. **BMC Genomics** 13:127.
77. Coradetti, S. T., J. P. Craig, Y. Xiong, T. Shock, C. Tian and N. L. Glass, 2012. Conserved and essential transcription factors for cellulase gene expression in ascomycete fungi. **Proc Natl Acad Sci USA** 109:7397-7402.
78. Hutchison, E.A, J. Bueche and N. L. Glass, 2012. Diversification of a protein kinase cascade: IME-2 is involved in nonself recognition and programmed cell death in *Neurospora crassa*. **Genetics** 192:467-482.
79. Simonin, A., J. Palma-Guerrero, M. Fricker and N. L. Glass, 2012. The physiological significance of network organization in fungi. **Eukaryot Cell** 11:1345-1352.
80. Coradetti, S.T., Y. Xiong and N. L. Glass, 2013. Analysis of a conserved cellulose transcriptional regulator reveals inducer-independent production of cellulolytic enzymes in *Neurospora crassa*. **Microbiologyopen** 2:595-609.



81. Palma-Guerrero, J., C. R. Hall, D. Kowbel, J. Welch, J. W. Taylor, R. B. Brem and N. L. Glass, 2013. Genome wide association identifies novel loci involved in fungal communication. **PLoS Genetics** 9:e1003669.
82. Roper, M., A. Simonin, P. C. Hickey, A. Leeder and N. L. Glass, 2013. Nuclear dynamics in a fungal chimera. **Proc Natl Acad Sci USA** 110:12875-12880.
83. Roche, C. M., H. W. Blanch, D. S. Clark and N. L. Glass, 2013. Physiological role of acyl-CoA synthetase homologs in lipid metabolism in *Neurospora crassa*. **Eukaryot Cell** 12:1244-1257.
84. Leeder, A. C., W. Jonkers, J. Li and N. L. Glass, 2013. Early colony establishment in *Neurospora crassa* requires a MAP kinase regulatory network. **Genetics** 195:883-898.
85. Palma-Guerrero, J., A. C. Leeder, J. Welch and N. L. Glass, 2014. Identification and characterization of LFD1, a novel protein involved in membrane merger during cell fusion in *Neurospora crassa*. **Mol Microbiol** 92:164-182.
86. Benz, J. P., B. H. Chau, D. Zheng, S. Bauer, N. L. Glass and C. R. Somerville, 2014. A comparative systems analysis of polysaccharide-elicited responses in *Neurospora crassa* reveals carbon source-specific cellular adaptations. **Mol Microbiol** 91:275-299.
87. Znameroski, E. A., X. li, J. C. Tsai, N. L. Glass and J. H. D. Cate, 2014. Evidence for transceptor function of cellodextrin transporters in *Neurospora crassa*. **J Biol Chem** 289:2610-9.
88. Roche, C. M., N. L. Glass, H. W. Blanch and D. S. Clark, 2014. Engineering the filamentous fungus *Neurospora crassa* for lipid production from lignocellulosic biomass. **Biotechnol Bioeng** 111:1097-1107.
89. Ellison, C., D. Kowbel, N. L. Glass, J. Taylor and R. B. Brem, 2014. Discovering functions of unannotated genes from a transcriptome survey of wild fungal isolates. **mBio** 5:e01046-13, 2014.
90. Goncalves, A. P., C. Hall, D. Kowbel, J. M. Cordeiro, P. C-de-Sa, N. L. Glass and A. Videira, 2014. CZT-1 is a novel transcription factor controlling cell death and natural drug resistance in *Neurospora crassa* **G3** 4:1091-102.
91. Xiong Y, Coradetti ST, Li X, Gritsenko MA, Clauss T, Petyuk V, Camp D, Smith R, Cate JH, Yang F, Glass NL. 2014. The proteome and phosphoproteome of *Neurospora crassa* in response to cellulose, sucrose and carbon starvation. **Fungal Genet Biol** 72:21-33.
92. Xue Z, Ye Q, Anson SR, Yang J, Xiao G, Kowbel D, Glass NL, Crosthwaite SK, Liu Y. 2014. Transcriptional interference by antisense RNA is required for circadian clock function. **Nature** 514:650-3.
93. Xiong Y, Sun J, Glass NL. 2014. VIB1, a link between glucose signaling and carbon catabolite repression, is essential for plant cell wall degradation by *Neurospora crassa*. **PLoS Genet** 10:e1004500.
94. Jonkers W, Leeder AC, Ansong C, Wang Y, Yang F, Starr TL, Camp DG 2nd, Smith RD, Glass NL. 2014. HAM-5 functions as a MAP kinase scaffold during cell fusion in *Neurospora crassa*. **PLoS Genet** 10:e1004783.
96. Palma-Guerrero J, Zhao J, Gonçalves AP, Starr TL, Glass NL. 2015. Identification and characterization of LDF-2, a predicted FRINGE protein required for membrane integrity during cell fusion in *Neurospora crassa*. **Eukaryot Cell** 14:265-77.
97. Goncalves AP, Silva N, Oliveira C, Kowbel DJ, Glass NL, Kijjoe A, Pameira A, Sousa e, Pinto M, Videira A. 2015. Transcription profiling of the *Neurospora crassa* response to a

- group of synthetic (thio)xanthenes and a natural acetophenone. **Genomics Data** 4:26-32.
97. Li X, Yu VY, Lin Y, Chomvong K, Estrela R, Park A, Liang JM, Znameroski EA, Feehan J, Kim SR, Jin YS, Glass NL, Cate JH. 2015. Expanding xylose metabolism in yeast for plant cell wall conversion to biofuels. **Elife** 4. doi: 10.7554/eLife.05896.
  98. Feldman D, Kowbel DJ, Glass NL, Yarden O, Hadar Y. 2015. Detoxification of 5-hydroxymethylfurfural by the *Pleurotus ostreatus* lignolytic enzymes aryl alcohol oxidase and dehydrogenase. **Biotechnol Biofuels** 8:63.
  99. Zhao J, Gladieux P, Hutchison E, Bueche J, Hall C, Perraudeau F, Glass NL. 2015. Identification of allorecognition loci in *Neurospora crassa* by genomics and evolutionary approaches. **Mol Biol Evol** Mol Biol Evol. 32:2417-32. doi: 10.1093/molbev/msv125.
  100. Reilly MC, Qin L, Craig JP, Starr TL, Glass NL. 2015. Deletion of homologs of the SREBP pathway results in hyper-production of cellulases in *Neurospora crassa* and *Trichoderma reesei*. **Biotechnol Biofuels**. 19;8:121. doi: 10.1186/s13068-015-0297-9.
  101. Craig JP, Coradetti ST, Starr TL, Glass NL, 2015. Direct target network of the *Neurospora crassa* plant cell wall deconstruction regulators, CLR-1, CLR-2 and XLR-1. **MBio**. 2015 Oct 13;6. pii: e01452-15. doi: 10.1128/mBio.01452-15.

#### REVIEW ARTICLES (1990-present)

1. Glass, N.L. and Staben, C. 1990. Genetic control of mating in *Neurospora crassa*. **Sem Dev Biol** 1: 177-184.
2. Metzzenberg, R.L. and N. L. Glass, 1990. Mating-type and mating strategies in *Neurospora*. **BioEssays** 12: 53-59.
3. Glass, N.L. and Kuldau, G.A. 1992. Mating type and vegetative incompatibility in filamentous ascomycetes. **Ann Rev Phytopathol** 30: 201-224.
4. Glass, N.L. and Lorimer, I. 1991. Ascomycete mating types. pp. 194-216. In: J.W. Bennett and L.S. Lasure (Eds.), *More Gene Manipulations in Fungi*. Academic Press, San Diego, CA.
5. Glass, N.L. and Nelson, M.A. 1994. Mating-type genes in Ascomycetes . pp. 295-306. In: *The Mycota, Volume I, "Growth Differentiation and Sexuality"*. Volume Eds. J.G.H. Wessels and F. Meinhardt, Series Eds. K. Esser and P. Lemke. Springer Verlag.
6. Losick, R. and N. L. Glass, 2000. Growth and Development: Conversing with the microbes. **Curr Opin Microbiol** 2:579-581.
7. Shiu, P.K.T. and N. L. Glass, 2000. Cell and nuclear recognition mechanisms mediated by mating type in filamentous fungi. **Curr Opin Microbiol** 3:183-188.
8. Glass, N.L., D.J. Jacobson and P.K.T. Shiu, 2000. The genetics of hyphal fusion and vegetative incompatibility in filamentous ascomycete fungi. **Annu Rev Genetics** 34:165-186.
9. Glass, N.L. and S.J. Saupe, 2002. Vegetative incompatibility in filamentous ascomycetes. In *Molecular Biology of Fungal Development*. Ed. H.D. Osiewacz. Marcel Dekker, Inc. New York, NY., pp. 109-131.
10. Glass, N.L. and K. Nordström, 2002. Growth and Development: The space/time continuum of microbial growth and development. **Curr Opin Microbiol** 5:545-7.
11. Glass, N.L. and I. Kaneko, 2003. Fatal attraction: Nonself recognition and heterokaryon incompatibility in filamentous fungi. **Eukaryot Cell** 2:1-8.

12. Glass, N. L., C. Rasmussen, M. G. Roca and N. D. Read, 2004 Hyphal homing, fusion and mycelial interconnectedness. **Trends Microbiol** 12:135-41.
13. Fleißner, A. and N. L. Glass, 2006. Re-wiring the network: understanding the mechanism and function of anastomosis in filamentous ascomycete fungi. In *The Mycota I: Growth Differentiation and Sexuality*. Eds. U. Kües and R. Fischer, Springer-Verlag, Berlin Heidelberg, pp.123-139.
14. Glass, N. L., 2006. Review of "Fungi: Experimental Methods in Biology", by Maheshwari (CRC Press, Taylor and Francis). **Mycopathologia** 161:341-342.
15. Glass, N. L. and K. Dementhon, 2006. Nonsel self recognition and programmed cell death in filamentous fungi. **Curr Opin Microbiol** 9:553-558.
16. Dunlap J. C., K. A. Borkovich, M. R. Henn, G. E. Turner, M. S. Sachs, N. L. Glass et al. 2007. Enabling a community to dissect an organism: overview of the *Neurospora* functional genomics project. **Adv Genet** 57:49-96.
17. Fleißner, A., A. R. Simonin and N. L. Glass, 2008. Cell fusion in the filamentous fungus, *Neurospora crassa*. **Methods Mol Biol** 475:21-38.
18. Aanen, D.K., A.J.M. Debets, N. L. Glass and S.J. Saupe, 2010. Biology and genetics of vegetative incompatibility in fungi. In *Cellular and Molecular Biology of Filamentous Fungi*. K.A. Borkovich and D. Ebbole, Eds. American Society of Microbiology, pp. 274-288.
19. Read, N. D., A. Fleißner, M. G. Roca and N. L. Glass, 2010. Hyphal Fusion. In *Cellular and Molecular Biology of Filamentous Fungi*. K.A. Borkovich and D. Ebbole, Eds. American Society of Microbiology, pp. 260-273.
20. Leeder, AC., J. Palma-Guerrero and N. L. Glass, 2011. The Social Network: Deciphering Fungal Language. **Nature Rev Microbiol** 9:440-451.
21. Roper, M., C. Ellison, J. W. Taylor and N. L. Glass, 2011. Nuclear and genome dynamics in multinucleate ascomycete fungi. **Curr Biol** 21:R786-93.
22. Hutchison, E. and N. L. Glass, 2012. Programmed cell death and heterokaryon incompatibility in filamentous fungi In *Biocommunication of Fungi*. G. Witzany, Ed. Springer Science, The Netherlands. Pp. 115-138.
23. Znameroski, E. A. and N. L. Glass, 2013. Using a model filamentous fungus to unravel mechanisms of lignocellulose deconstruction. **Biotechnol Biofuels** 6:6. doi: 10.1186/1754-6834-6-6.
24. Glass, N. L., M. Schmoll, J. H. Cate and S. Coradetti, 2013. Plant cell wall deconstruction by ascomycete fungi. **Annu Rev Microbiol** 67:477-498.
25. Kubicek, C. P., T. L. Starr and N. L. Glass, 2014. Plant cell wall degrading enzymes and their secretion in plant pathogenic fungi. **Annu Rev Phytopathol** 52:427-51.
26. Roche CM, Loros JJ, McCluskey K, Glass NL. 2014. *Neurospora crassa*: looking back and looking forward at a model microbe. **Am J Bot** 101:2022-35.