

## Aspergillus Bibliography

This bibliography attempts to cover genetical and biochemical publications on *Aspergillus nidulans* and also includes selected references to related species and topics. I would be grateful for publication lists and reprints, especially for papers in books and less readily available periodicals. Entries have been checked as far as possible, but please tell me of any errors.

John Clutterbuck

The Authors are kindly requested to send a copy of each article to the FGSC for its reprint collection.

[Author](#) and [Keyword](#) indexes follow the references.

- 1. Aleksenko, A., Nikolaev, I., Vinetski, Y & Clutterbuck, A.J.** 1996 Gene expression from replicating plasmids in *Aspergillus nidulans*. Mol. Gen. Genet. **253**: 242-246.
- 2. An, Z., Farman, M.L., Budde, A., Taura, S. & Leong, S.A.** 1996 New cosmid vectors for library construction, chromosome walking and restriction mapping of the filamentous fungi. Gene **176**: 93-96.
- 3. Andrianopoulos, A., Brons, J., Davis, M.A. & Hynes, M.J.** 1997 The *amdA* regulatory gene of *Aspergillus nidulans*: characterization of gain-of-function mutations and identification of binding sites for the gene product. Fungal Genet. Biol. **21**: 50-63.
- 4. Aramayo, R., Peleg, Y., Addison, R. & Metzberg, R.** 1996 *Asm-1+*, a *Neurospora crassa* gene related to transcriptional regulators of fungal development. Genetics **144**: 991-1003.
- 5. Arst, H.N.Jr.** 1997 Cosying up to MoCo. Microbiol. **143**: 1037.
- 6. Arst, H.N.Jr.** 1997 New evidence for old detective work. 1997 Microbiol. **143**: 1481-1482.
- 7. Aufauvre-Brown, A., Mellado, E., Gow, N.A. R. & Holden, D.W.** *Aspergillus fumigatus chsE*: a gene related to *CHS3* of *Saccharomyces cerevisiae* and important for hyphal growth and conidiophore development but not pathogenicity. Fungal Genet. Biol. **21**: 141-152.
- 8. Barry, E.G.** 1997 Fungal chromosomes. J. Genet. **75**: 255-263.
- 9. Babudri, N., Morpurgo, G., Marini, A. & Prantera, G.** 1997 The base analog 6-N-hydroxylaminopurine (HAP) mutagenesis is dependent on the integrity of the *uvsE*, *uvsF* and *uvsB* genes in *Aspergillus nidulans*. Ant. van Leeuwenhoek **71**: 249-255.
- 10. Bencina, M., Panneman, H., Ruijter, G.J.G., Legisa, M. & Visser, J.** 1997 Characterization and overexpression of the *Aspergillus niger* gene encoding the cAMP-dependent protein kinase catalytic subunit. Microbiol. **143**: 1211-1220.

- 11. Bennett, J.W.** 1997 White paper: genomics of filamentous fungi. *Fungal Genet. Biol.* **21**: 3-7.
- 12. Bhandarka, S.M., Chirravuri, S. & Arnold, J.** 1996 PARODS - A study of parallel algorithms for ordering DNA sequences. *Comput. Applic. Biosci.* **12**: 269-280.
- 13. Bhattacharyya, A. & Blackburn, E.H.** 1997 *Aspergillus nidulans* maintains short telomeres throughout development. *Nucl. Acids Res.* **25**: 1426-1431.
- 14. Borgia, P., Iartchouk, N., Riggle, P.J., Winter, K.R., Koltrin, Y. & Bulawa, C.E.** 1996 The *chsB* gene of *Aspergillus nidulans* is necessary for normal hyphal growth and development. *Fungal Genet. Biol.* **20**: 193-203. [Erratum: *Fungal Genet. Biol.* **20**: 314.]
- 15. Borgia, P.T., Miao, Y., Dodge, C.L.** 1996 The *orlA* gene from *Aspergillus nidulans* encodes a trehalose-6-phosphate phosphatase necessary for normal growth and chitin synthesis at elevated temperatures. *Mol. Microbiol.* **20**: 1287-1296.
- 16. Bottomley, J.R., Hawkins, A.R. & Kleanthous, C.** 1996 Conformational changes and the role of metals in the mechanism of type II dehydroquinase from *Aspergillus nidulans*. *Biochem. J.* **319**: 269-278.
- 17. Brakhage, A.A.** 1997 Molecular regulation of penicillin biosynthesis in *Aspergillus (Emericella) nidulans*. *FEMS-Microbiol. Lett.* **148**: 1-10.
- 18. Brito, N., Avila, J., Perez, M.D., González, C. & Siverio, J.M.** 1996 The genes *YNII* and *YNRI*, encoding nitrite reductase and nitrate reductase respectively in the yeast *Hansenula polymorpha*, are clustered and co-ordinately regulated. *Biochem. J.* **317**: 89-95.
- 19. Brown, D.W., Adams, T.H. & Keller, N.P.** 1996 *Aspergillus* has distinct fatty acid synthases for primary and secondary metabolism. *Proc. Natl Acad. Sci. U.S.A.* **93**: 14873-14877.
- 20. Buades, C. & Moya, A.** 1996 Phylogenetic analysis of the isopenicillin-N-synthetase horizontal gene transfer. *J. Mol. Evol.* **42**: 537-542.
- 21. Burow, G.B., Nesbitt, T.C., Dunlap, J. & Keller, N.P.** 1997 Seed lipoxygenase products modulate *Aspergillus* mycotoxin biosynthesis. *Mol. Plant Microbe Interact.* **10**: 380-387.
- 22. Calera, J.A., Ovejero, M.C., López-Medrano, R., Seguardo, M., Puente, P. & Leal, F.** 1997 Characterization of the *Aspergillus nidulans aspnd1* gene demonstrates that the ASPND1 antigen, which it encodes, and several *Aspergillus fumigatus* immunodominant antigens belong to the same family. *Infect. Immun.* **65**: 1335-1344.
- 23. Cary, J.W., Wright, M., Bhatnagar, D., Lee, R. & Chu, F.S.** 1996 Molecular characterization of an *Aspergillus parasiticus* dehydrogenase gene, *norA*, located in the aflatoxin biosynthetic gene cluster. *Appl. Env. Microbiol.* **62**: 360-366.

- 24. Castro-Prado, M.A.A., Gebara, J.S., Querol, C.B., Zucchi, O.L.A.D. & Zucchi, T.M.A.D.** 1996 Duplicate gene inactivation affects ascospore viability in *Aspergillus nidulans*. Braz. J. Genet. **19** 381-386.
- 25. Chae, S.-K. & Kafer, E.** 1997 Two *uvs* genes of *Aspergillus nidulans* with different functions in error-prone repair: *uvsI*, active in mutation-specific reversion, and *uvsC*, a *recA* homolog, required for all UV mutagenesis. Molec. Gen. Genet. **254**: 643-653.
- 26. Chae, K.S., Chang, M.H., Song, Y.E., Chung, J.H., Jahng, K.Y., Han, Y.J. & Han, D.M.** 1994 Isolation and characterization of a genomic DNA fragment complementing the *velA1* mutation of *Aspergillus nidulans*. Kor. J. Genet. **16**: 333-342.
- 27. Chang, P.K., Ehrlich, K.C., Linz, J.E., Bhatnagar, D., Cleveland, T.E. & Bennett, J.W.** 1996 Characterization of the *Aspergillus parasiticus niaD* and *niiA* gene cluster. Curr. Genet. **30**: 68-75.
- 28. Chen, J.-s., Saxton, J., Hemming, F.W. & Peberdy, J.F.** 1996 Purification and partial characterization of the high and low molecular weight form (S- and F-form) of invertase secreted by *Aspergillus nidulans*. Biochim. Biophys. Acta **1296**: 207-218.
- 29. Chiu, Y.H. & Morris, N.R.** 1997 Genetic and molecular analysis of a tRNA-Leu missense suppressor of *nudC3*, a mutation that blocks nuclear migration in *Aspergillus nidulans*. Genetics **145**: 707-714.
- 30. Christiansen, S.K., Knudsen, S. & Giese, H.** 1995 Biolistic transformation of the obligate plant pathogenic fungus, *Erysiphe graminis* f. sp. *hordei*. Curr. Genet. **29**: 100-102.
- 31. Cimerman, A.** 1995 *Aspergillus* toxins. Alpe Adria Microbiol. J. **3**: 181-188.
- 32. Clutterbuck, A.J.** 1997 parasexual recombination in fungi. J. Genet. **75**: 281-86.
- 33. Coenen, A., Croft, J.H., Slakhorst, M., Debets, F. & Hoekstra, R.** 1996 Mitochondrial inheritance in *Aspergillus nidulans*. Genet. Res. **67**: 93-100.
- 34. Coenen, A., Kevei, F. & Hoekstra, R.F.** 1997 Factors affecting the spread of double-stranded RNA viruses in *Aspergillus nidulans*. Genet. Res. Camb. **69**: 1-10.
- 35. d'Enfert, C.** 1996 Selection of multiple disruption events in *Aspergillus fumigatus* using the orotidine-5'-decarboxylase gene *pyrG* as a unique transformation marker. Curr. Genet. **30**: 76-82.
- 35a. d'Enfert, C.** 1997 fungal spore germination: insights from the molecular genetics of *Aspergillus nidulans* and *Neurospora crassa*. Fungal Gen. Biol. **21**: 163-172.
- 36. d'Enfert, C. & Fontaine, T.** 1997 Molecular characterization of the *Aspergillus nidulans treA* gene encoding an acid trehalase required for growth on trehalose. Mol. Microbiol. **24**: 203-216.

- 37. D'Souza, T.M., Boominathan, K. & Reddy, C.A.** 1996 Isolation of laccase gene-specific sequences from white rot and brown rot fungi by PCR. *Appl. Env. Microbiol.* **62**: 3739-3744.
- 38. Daboussi, M.J.** 1997 fungal transposable elements: generators of diversity and genetic tools. *J. Genet.* **75**: 325-339.
- 39. Davis, M.A., Small, A.J., Kourambas, S. & Hynes, M.J.** 1996 The *tamA* gene of *Aspergillus nidulans* contains a putative zinc cluster motif which is not required for gene function. *J. Bacteriol.* **178**: 3406-3409.
- 40. Davis, R.** 1997 the fungal genetic system: a historical overview. *J. Genet.* **75**: 245-253.
- 41. Dayton, J.S. & Means, A.R.** 1996 Ca<sup>2+</sup>/calmodulin-dependent kinase is essential for both growth and nuclear division in *Aspergillus nidulans*. *Mol. Biol. Cell* **7**: 1511-1519.
- 42. Dayton, J.S., Sumi, M., Nanthakumar, N.N. & Means, A.R.** 1997 Expression of a constitutively active Ca<sup>2+</sup>/calmodulin-dependent kinase in *Aspergillus nidulans* spores prevents germination and entry into the cell cycle. *J. Biol. Chem.* **272**: 3223-3230.
- 43. Del Sorbo, G., Andrade, A.C., Van Nistelrooy, J.G.M., Van Kan, J.A.L., Balzi, E. & De Waard, M.A.** 1997 Multidrug resistance in *Aspergillus nidulans* involves novel ATP-binding cassette transporters. *Molec. Gen. Genet.* **254**: 417-426.
- 44. Dian, I. & Firsov, L.M.** 1995 [In Russian] Species identification of fungi of the genus *Aspergillus* and localisation of glucoamylase genes by PCR and electrophoretic caryotypification. *Mikol. Fitopatol.* **29**: 30-34.
- 45. Díaz, R., Sapag, A., Peiano, A., Steiner, J. & Eyzaguirre, J.** 1997 Cloning, sequencing and expression of the cDNA of endoxylanase B from *Penicillium purpurogenum*. *Gene* **187**: 247-251.
- 46. Díaz, M., Pedregosa, A.M., de Lucas, J.R., Torralba, S., Monistrol, I.F. & Laborda, F.** 1996 Purification and properties of -galactosidase from *Aspergillus nidulans*. *Microbiologia (Madrid)* **12**: 585-592.
- 47. Dohlman, H.G., Song, J., Ma, D., Courchesne, W.E. & Thorner, J.** 1996 Sst2, a negative regulator of pheromone signaling in the yeast *Saccharomyces cerevisiae*: Expression, localization, and genetic interaction and physical association with G $\alpha$ l (the G-protein  $\alpha$  subunit). *Mol. Cell. Biol.* **16**: 5194-5209.
- 48. Doyle, W.A., Burke, J.F., Chovnick, A., Dutton, F.L., Whittle, J.R.S. & Bray, R.C.** 1996 Properties of xanthine dehydrogenase variants from rosy mutant strains of *Drosophila melanogaster* and their relevance to the enzyme's structure and mechanism. *Eur. J. Biochem.* **239**: 782-795.

- 49. Ebbole, D.J.** 1997 Morphogenesis and vegetative differentiation in filamentous fungi. *J. Genet.* **75**: 361-374.
- 50. El-Rady, J. & Shearer, G.Jr.** 1996 Isolation and characterization of a calmodulin-encoding cDNA from the pathogenic fungus *Histoplasma capsulatum*. *J. Med. Vet. Mycol.* **34**: 163-169.
- 51. Espeso, E.A. & Peñalva, M.A.** 1996 Three binding sites for the *Aspergillus nidulans* PacC zinc-finger transcription factor are necessary and sufficient for regulation by ambient pH of the isopenicillin N synthase gene promoter. *J. Biol. Chem.* **271**: 28825-28830.
- 52. Fernández-Cañón, J.M. & Luengo, J.M.** 1997 The phenylacetic acid uptake system of *Aspergillus nidulans* is under a *creA*-independent model of catabolic repression which seems to be mediated by acetyl-CoA. *J. Antibiotics (Tokyo)* **50**: 45-52.
- 53. Fernández-Cañón, J.M. & Peñalva, M.A.** 1997 Spectrophotometric determination of homogentisate using *Aspergillus nidulans* homogentisate dioxygenase. *Anal. Biochem.* **245**: 218-221.
- 54. Fernández-Espinar, M.T., Vallés, S., Piñaga, F., Pérez-González, J.A. & Ramón, D.** 1996 Construction of an *Aspergillus nidulans* multicopy transformant for the *xlnB* gene and its use in purifying the minor X-24 xylanase. *Appl. Microbiol. Biotechnol.* **45**: 338-341.
- 55. Fontaine, T., Hartland, R.P., Diaquin, M., Simenel, C. & Latgé, J.P.** 1997 Differential patterns of activity displayed by two exo- $\alpha$ -1,3-glucanases associated with the *Aspergillus fumigatus* cell wall. *J. Bacteriol.* **179**: 3154-3163.
- 56. Froeliger, E.H. & Carpenter, B.E.** 1996 *NUT1*, a major nitrogen regulatory gene in *Magnaporthe grisea*, is dispensable for pathogenicity. *Mol. Gen. Genet.* **251**: 647-656.
- 57. Fry, A.M. & Nigg, E.A.** 1995 The NIMA kinase joins forces with Cdc2. *Curr. Biol.* **5**: 1122-1125.
- 58. Fujii, I., Ono, Y., Tada, H., Gomi, K., Ebizuka, Y. & Sankawa, U.** 1996 Cloning of the polyketide synthase gene *atX* from *Aspergillus terreus* and its identification as the 6-methylsalicylic acid synthase gene by heterologous expression. *Mol. Gen. Genet.* **253**: 1-10.
- 59. Gilkens, M.M.C., Visser, J. & de Graaf, L.H.** 1996 Arabinoxylan degradation by fungi: characterization of the arabinoxylan-arabinofuranohydrolase encoding genes from *Aspergillus niger* and *Aspergillus tubigenensis*. *Curr. Genet.* **31**: 22-29.
- 60. Goldman, G.H. & Morris, N.R.** 1995 *Aspergillus nidulans* as a model system for cell and molecular biology studies. in *Methods in Molecular Genetics*, Vol. 6. Microbial gene techniques. ed. Adolph, K.W. Academic Press, Inc. San Diego, pp. 48-65.

- 61. Gonzales, R., Gavrias V., Gomez, D., Scazzocchio, C. & Cubero, B.** 1997 The integration of nitrogen and carbon catabolite repression in *Aspergillus nidulans* requires the GATA factor AreA and an additional positive-acting element, ADA. *EMBO J.* **16**: 2937-2944.
- 62. Gorinstein, S., Paccola-Meirelles, L.D., Belo, V.A. & Azevedo, J.L.** 1996 Characterization of *Beauveria bassiana*, *Metarhizium anisopliae* and *Aspergillus nidulans* through electrophoretic patterns of their protein fractions. *J. Ferment. Bioeng.* **82**: 89-92.
- 63. Gouka, R.J., Punt, P.J., Hessing, J.G.M. & van den Hondel, C.A.M.J.J.** 1996 Analysis of heterologous protein production in defined recombinant *Aspergillus awamori* strains. *Appl. Env. Microbiol.* **62**: 1951-1957.
- 64. Griffiths, A.J.F.** 1997 Mitochondrial inheritance in filamentous fungi. *J. Genet.* **75**: 403-414.
- 65. Gromada, A. & Fiedurek, J.** 1997 Selective isolation of *Aspergillus niger* mutants with enhanced glucose oxidase production. *J. Appl. Microbiol.* **82**: 648-632.
- 66. Gustafson, G., Davis, G., Waldron, C., Smith, A. & Henry, M.** 1996 Identification of a new antifungal target site through a dual biochemical and molecular-genetics approach. *Curr. Genet.* **30**: 159-165.
- 67 Guzmán-de-Peña, D. & Ruiz-Herrera, J.** 1997 Relationship between aflatoxin biosynthesis and sporulation in *Aspergillus parasiticus*. *Fungal Genet. Biol.* **21**: 198-205.
- 68. Haas, H., Angermayr, K. & Stöffler, G.** 1997 Molecular analysis of a *Penicillium chrysogenum* GATA factor encoding gene (*sreP*) exhibiting significant homology to the *Ustilago maydis urbs1* gene. *Gene* **184**: 33-37.
- 69. Hamer, L.** 1997 from genes to genomes: sequencing of filamentous fungal genomes. *Fungal Genet. Biol.* **21**: 8-10.
- 70. Hamer, J.E. & Holden, D.W.** 1997 Linking approaches in the study of fungal pathogenesis: a commentary. *Fungal genet. Biol.* **21**: 11-16.
- 71. Han, D.M. & Han, Y.J.** 1994 Effect of NPGA1 mutation on the development of *Aspergillus nidulans* with *velA+* or *velA1* allele. *Kor. J. Genet.* **16**: 323-332.
- 72. Hatamoto, O., Watavai, T., Kikuchi, M., Mizusawa, K. & Sekine, H.** 1996 Cloning and sequencing of the gene encoding tannase and a structural study of the tannase subunit from *Aspergillus oryzae*. *Gene* **175**: 215-221.
- 73. Herzog, R.W., Daniell, H., Singh, N.K. & Lemke, P.A.** 1996 A comparative study on the transformation of *Aspergillus nidulans* by microprojectile bombardment of conidia and a more conventional procedure using protoplasts treated with polyethyleneglycol. *Appl. Microbiol. Biotechnol.* **45**: 333-337.

- 74. Holdom, M.D., Hay, R.J. & Hamilton, A.J.** 1996 The Cu, Zn superoxide dismutases of *Aspergillus flavus*, *Aspergillus niger*, *Aspergillus nidulans*, and *Aspergillus terreus*: Purification and biochemical comparison with the *Aspergillus fumigatus* Cu, Zn superoxide dismutase. *Infect. Immun.* **64**: 3326-3332.
- 75. Horiuchi, H., Ohkuma, M. & Takagi, M.** 1996 [In Japanese] Gene targeting in yeasts and filamentous fungi. *Nippon Noeikagaku Kaishi* **70**: 893-896.
- 76. Hughes, M., Arundhati, A., Lunness, P., Shaw, P.J. & Doonan, J.H.** 1996 A temperature-sensitive splicing mutation in the *bimG* gene of *Aspergillus* produces an N-terminal fragment which interferes with type 1 protein phosphatase function. *EMBO J.* **15**: 4574-4583.
- 77. Hynes, M.J.** 1997 Genetic transformation of filamentous fungi. *J. Genet.* **75**: 297-311.
- 78. Ilmén, M., Thrane, C. & Penttilä, M.** 1996 The glucose repressor gene *cre1* of *Trichoderma*: Isolation and expression of a full-length and a truncated mutant form. *Mol. Gen. Genet.* **251**: 451-460.
- 79. Ireland, J.T. & Selkar, E.U.** 1997 Gene silencing in fungi: RIP, MIP and quelling. *J. Genet.* **75**: 313-324.
- 80. Kafer, E. & May, G.** 1997 The *uvsF* gene region in *Aspergillus nidulans* codes for a protein with homology to DNA replication factor C. *Gene* **191**: 155-159.
- 81. Kapoor, M.** 1995 Gene transfer by electroporation of filamentous fungi. Ch 29 in *Methods in Molecular Biology 47: Electroporation protocols for microorganisms*, ed J.A. Nickoloff-J-A., Humana Press Inc. Totowa, New Jersey, USA, pp. 279-289.
- 82. Karos, M. & Fischer, R.** 1996 *hymA* (hypha-like metulae), a new developmental mutant of *Aspergillus nidulans*. *Microbiol.* **142**: 3211-3218.
- 83. Kato, M., Aoyama, A., Naruse, F., Kobayashi, T. & Tsukagoshi, N.** 1997 An *Aspergillus nidulans* nuclear protein, AnCP, involved in enhancement of Taka-amylase A gene expression, binds to the CCAAT- containing *taaG2*, *amdS*, and *gatA* promoters. *Mol. Gen. Genet.* **254**: 119-126.
- 84. Kawaguchi, T., Enoki, T., Tsurumaki, S., Sumitani, J.-i., Ueda, M., Ooi, T. & Arai, M.** 1996 Cloning and sequencing of the cDNA encoding -glucosidase 1 from *Aspergillus aculeatus*. *Gene* **173**: 287-288.
- 85. Kawasaki, L., Wysong, D., Diamond, R. & Aguirre, J.** 1997 Two divergent catalase genes are differentially regulated during *Aspergillus nidulans* development and oxidative stress. *J. Bacteriol.* **179**: 3284-3292.

- 86. Kelkar, H.S., Keller, N.P. & Adams, T.H.** 1996 *Aspergillus nidulans stcP* encodes an O-methyltransferase that is required for sterigmatocystin biosynthesis. *Appl. Env. Microbiol.* **62**: 4296-4298.
- 87. Kelkar, H.S., Skloss, T.W., Haw, J.F., Keller, N.P. & Adams, T.H.** 1997 *Aspergillus nidulans stcL* encodes a putative cytochrome P-450 monooxygenase required for bisfuran desaturation during aflatoxin/sterigmatocystin biosynthesis. *J. Biol. Chem.* **272**: 1589-1594.
- 88. Keller, N.P. & Hohn, T.M.** 1997 Metabolic pathway gene clusters in filamentous fungi. *Fungal Genet. Biol.* **21**: 17-29.
- 89. Kelly, R., Register, E., Hsu, M.-J., Kurtz, M. & Nielsen, J.** 1996 Isolation of a gene involved in 1,3- $\beta$ -glucan synthesis in *Aspergillus nidulans* and purification of the corresponding protein. *J. Bacteriol.* **178**: 4381-4391.
- 90. Kennedy, J. & Turner, G.** 1996 d-(L- $\alpha$ -aminoadipyl)-L-cysteiny-D-valine synthetase is a rate limiting enzyme for penicillin production in *Aspergillus nidulans*. *Mol. Gen. Genet.* **253**: 189-197.
- 91. Kevei, F., Tóth, B., Coenen, A., Haman, Z., Varga, J. & Croft, J.H.** 1997 Recombination of mitochondrial DNAs following transmission of mitochondria among incompatible strains of black *Aspergilli*. *Mol. Gen. Genet.* **254**: 379-388.
- 92. King, R.W., Deshaies, R.J., Peters, J.-M. & Kirschner, M.W.** 1996 How proteolysis drives the cell cycle. *Science* **274**: 1652-1659.
- 93. Krell, T., Horsburgh, M.J., Cooper, A., Kelly, S.M. & Coggins, J.R.** 1996 Localization of the active site of type II dehydroquinases: Identification of a common arginine-containing motif in the two classes of dehydroquinases. *J. Biol. Chem.* **271**: 24492-24497.
- 94. Krüger, M. & Fischer, R.** 1996 Isolation of two *apsA* suppressor strains in *Aspergillus nidulans*. *Genet.* **144**: 533-540.
- 95. Kucharski, R. & Bartnik, E.** 1997 The TBP gene from *Aspergillus nidulans* - structure and expression in *Saccharomyces cerevisiae*. *Microbiol.* **143**: 1263-1270.
- 96. Lamb, H.K., Newton, G.H., Levett, L.J., Cairns, E., Roberts, C.F. & Hawkins, A.R.** 1996 [The QUTA activator and QUTR repressor proteins of *Aspergillus nidulans* interact to regulate transcription of the quinate utilization pathways genes. *Microbiology* **142**: 1477-1490] Corrigendum to Corrigendum to entry 93, FGN **43** : *Microbiology* **143**: 2983.
- 97. Landman, O., Borovok, I., Aharonowitz, Y. & Cohen, G.** 1997 The glutamine ligand in the ferrous iron active site of isopenicillin N synthase of *Streptomyces jumonjinensis* is not essential for catalysis. *FEBS Lett.* **405**: 172-174.

- 98. Le Dall, M.-T., Nicaud, J.-M., Tréton, B.Y. & Gaillardin, C.M.** 1996 The 3-phosphoglycerate kinase gene of the yeast *Yarrowia lipolytica* de-represses on gluconeogenic substrates. *Curr. Genet.* **29**: 446-456.
- 99. Leslie, J.F. & Zeller, K.A.** 1997 Heterokaryon incompatibility in fungi - more than just another way to die. *J. Genet.* **75**: 415-424.
- 100. Levesley, I., Newton, G.H., Lamb, H.K., van Schothorst, E., Dalglish, R.W.M., Samson, A.C.R., Roberts, C.F. & Hawkins, A.R.** 1996 Corrigendum to entry 100, FGN 43 (*Microbiology* **142**: 87-98): *Microbiology* **142**: 1909.
- 101. Lewandowska, I., Balinska, M., Natorff, R. & Paszewski, A.** 1996 Regulation of folate-dependent enzyme levels in *Aspergillus nidulans*: Studies with regulatory mutants. *Biochim. Biophys. Acta* **1290**: 89-94.
- 102. Li, W. & Mitchell, A.P.** 1997 Proteolytic activation of Rim1p, a positive regulator of yeast sporulation and invasive growth. *Genet.* **145**: 63-73.
- 103. Litzka, O., Then Bergh, K. & Brakhage, A.A.** 1996 The *Aspergillus nidulans* penicillin-biosynthesis gene *aat* (*penDE*) is controlled by a CCAAT-containing DNA element. *Eur. J. Biochem.* **238**: 675-682.
- 104. Lockington, R.A., Borlace, G.N. & Kelly, J.M.** 1997 Pyruvate decarboxylase and anaerobic survival in *Aspergillus nidulans*. *Gene* **191**: 61-67.
- 105. Lu, K.P. & Means, A.R.** 1993 Conditional mutants for studying functions of calmodulin in *Aspergillus nidulans*. in *Methods in Molecular Genetics*, Vol. 2. Gene and chromosome analysis, Part B. ed. Adolph, K.W. Academic Press, Inc. San Diego, pp. 255-275.
- 106. MacCabe, A.P., Fernández-Espinar, M.T., De Graaff, L.H., Visser, J. & Ramón, D.** 1996 Identification, isolation and sequence of the *Aspergillus nidulans xlnC* gene encoding the 34-kDa xylanase. *Gene* **175**: 29-33.
- 107. Machida, M., Chang, Y.-C., Manabe, M., Yasukawa, M., Kunichiro, S. & Tigami, Y.** 1996 Molecular cloning of a cDNA encoding enolase from the filamentous fungus, *Aspergillus oryzae*. *Curr. Genet.* **30**: 423-431.
- 108. Marhoul, J.F. & Adams, T.H.** 1996 *Aspergillus fabM* encodes an essential product that is related to poly (A)-binding proteins and activates development when overexpressed. *Genetics* **144**: 1463-1470.
- 109. Marhoul, J. & Adams, T.H.** 1997 Isolation of *Aspergillus nidulans* mutants that overcome *brlA*-induced growth arrest. *Fungal Genet. Biol.* **21**: 109-117.

- 110. Marx, F., Haas, H., Reindl, M., Stöffler, G., Lottspeich, F. & Redl, B.** 1996 Cloning, structural organization and regulation of expression of the *Penicillium chrysogenum paf* gene encoding an abundantly secreted protein with antifungal activity. *Gene* **167**: 167-171.
- 111. Mazur, P. & Baginsky, W.** 1996 In vitro activity of 1,3- $\beta$ -D-glucan synthase requires the GTP-binding protein Rho1. *J. Biol. Chem.* **271**: 14604-14609.
- 112. Mellado, E., Specht, C.A., Robbins, P.W. & Holden, D.W.** 1996 Cloning and characterization of *chsD*, a chitin synthase-like gene of *Aspergillus fumigatus*. *FEMS Microbiol. Lett.* **143**: 69-76.
- 113. Minetoki, T., Nunokawa, Y., Gomi, K., Kitamoto, K., Kumagai, C. & Tamura, G.,** 1996 Deletion analysis of promoter elements of the *Aspergillus oryzae agdA* gene encoding  $\alpha$ -glucosidase. *Curr. Genet.* **30**: 432-438.
- 114. Mitchell, D.B., Vogel, K., Weimann, B.J., Pasamontes, L. & van Loon, A.P.G.M.** 1997 The phytase subfamily of histidine acid phosphatases: isolation of genes for two novel phytases for the fungi *Aspergillus terreus* and *Myceliophthora thermophila*. *Microbiology* **143**: 245-252.
- 115. Momany, M. & Hamer, J.E.** 1997 The *Aspergillus nidulans* septin encoding gene, *aspB*, is essential for growth. *Fungal Genet. Biol.* **21**: 92-100.
- 116. Monfort, A., Blasco, A., Prieto, J.A. & Sanz, P.** 1996 Combined expression of *Aspergillus nidulans* endoxylanase X24 and *Aspergillus oryzae*  $\alpha$ -amylase in industrial Baker's yeasts and their use in bread making. *Appl. Env. Microbiol.* **62**: 3712-3715.
- 117. Morris, S.M., Anaya, P., Xiang, X., Morris, N.R., May, G.S. & Yu-Lee, L.Y.** 1997 A prolactin-inducible T cell gene product is structurally similar to the *Aspergillus nidulans* nuclear movement protein NUDC. *Mol. Endocrinol.* **11**: 229-236.
- 118. Motoyama, T., Fujiwara, M., Kojima, N., Horiuchi, H., Ohta, A. & Takagi, M.** 1997 The *Aspergillus nidulans* genes *chsA* and *chsD* encode chitin synthases which have redundant functions in conidia formation. *Mol. Gen. Genet.* **253**: 520-528.
- 119. Murakami, H. & Okayama, H.** 1997 Cell cycle checkpoint control. *Exp. Mol. Medicine* **29**: 1-11.
- 120. Murphy, R.L., Andrianopoulos, A., Davis, M.A. & Hynes, M.J.** 1997 Identification of *amdX*, a new cys-2-his-2 (C2H2) zinc-finger gene involved in the regulation of the *amdS* gene of *Aspergillus nidulans*. *Mol. Microbiol.* **23**: 591-602.
- 121. Nakamura, A., Nishimura, I., Yokoyama, A., Lee, D.-G., Hidaka, M., Masaki, H., Kimura, A., Chiba, S. & Uozumi, T.** 1997 Cloning and sequencing of an  $\alpha$ -glucosidase gene from *Aspergillus niger* and its expression in *A. nidulans*. *J. Biotechnol.* **53**: 75-84.

- 122. Namgung, J., Park, B.C., Lee, D.H., Bae, K.S. & Park, H.-M.** 1996 Cloning and characterization of chitin synthase gene fragments from *Penicillium chrysogenum*. FEMS Microbiol. Lett. **145**: 189-194.
- 123. Natvig, D.O. & May, G.**, 1997 Fungal evolution and speciation. J. Genet. **75**: 441-452.
- 124. Negrete-Urtasun, S., Denison, S.H. & Arst, H.N.Jr.** 1997 Characterization of the pH signal transduction pathway gene *pala* of *Aspergillus nidulans* and identification of possible homologs. J. Bacteriol. **179**: 1832-1835.
- 125. Newbury, J. & Peberdy, J.F.** 1996 Characterization of the heat shock response in protoplasts of *Aspergillus nidulans*. Mycol. Res. **100**: 1325-1332.
- 126. Ngiam, C., Jeenes, D.J. & Archer, D.B.** 1997 Isolation and characterisation of a gene encoding protein disulphide isomerase, *pdiA* from *Aspergillus niger*. Curr. Genet. **31**: 133-138.
- 127. Nyssönen, E., Armutan, M., Enfield, L., Stubbs, J. & Dunn-Coleman, N.S.** 1996 The transposable element *Tan1* of *Aspergillus niger* var. *awamori*, a new member of the *Fot1* family. Mol. Gen. Genet. **253**: 50-56.
- 128. O'Herrin, S.M., Kulkarni, S., Kenealy, W.R., Fechner, J.H.Jr., Sollinger, H., Schneck, J.P. & Burlingham, W.J.** 1996 Expression of human recombinant 2-microglobulin by *Aspergillus nidulans* and its activity. Hum. Immunol. **51**: 63-72.
- 129. Oestreicher, N., Scazzocchio, C. & Suárez, T.** 1997 Mutations in a dispensable region of the UaY transcription factor of *Aspergillus nidulans* differentially affect the expression of structural genes. Mol. Microbiol. **24**: 1189-1199.
- 130. Osmani, S.A. & Ye, X.S.** 1996 Cell cycle regulation of *Aspergillus* by two protein kinases. Biochem. J. **317**: 633-641.
- 131. Papagiannopoulos, P., Andrianopoulos, A., Sharp, J.A., Davis, M.A. & Hynes, M.J.** 1996 The *hapC* gene of *Aspergillus nidulans* is involved in the expression of CCAAT-containing promoters. Mol. Gen. Genet. **251**: 412-421.
- 132. Paquin, B., Laforest, M.-J., Forget, L., Roewer, I., Wang, Z., Longcore, J. & Lang, B.F.** 1997 The fungal genome project: evolution of fungal mitochondrial genomes and their gene expression. Curr. Genet. **31**: 380-395.
- 133. Parry, J.M., Parry, E.M., Bourner, R., Doherty, A., Ellard, S., O'Donovan, J., Hoebee, B., de Stoppelaar, J.M., Mohn, G.R., Önfelt, A., Renglin, A., Schultz, N., Söderpalm-Berndes, C., Jensen, K.G., Kirsch-Volders, M., Elhajouji, A., Van Hummelen, P., Degrassi, F., Antoccia, A., Cimini, D., Izzo, M., Tanzarella, C., Adler, I.D., Kliesch, U., Schriever-Schwemmer, G., Gassar, P., Crebelli, R., Carere, A., Andreoli, C., Benigni, R., Leopardi, P., Marcon, F., Zinjo, Z., Natarajan, A.T., Boei, J.J.W.A., Kappas, A., Voutsinas, G.,**

- Zarani, F.E., Patrinelli, A., Pachierotti, F., Tiveron, C. & Hess, P.** 1996 The detection and evaluation of aneugenic chemicals. *Mutation-Research* **353**: 11-46.
- 134. Peñalver, M.C., Casanova, M., Martínez, L.P. & Gil, M.L.** 1996 Cell wall protein and glycoprotein constituents of *Aspergillus fumigatus* that bind to polystyrene may be responsible for the cell surface hydrophobicity of the mycelium. *Microbiology* **142**: 1597-1604.
- 135. Pérez, M.D., González, C., Ávila, J., Brito, N. & Siverio, J.M.** 1997 The *YNT1* gene encoding the nitrate transporter in the yeast *Hansenula polymorpha* is clustered with genes *YNI1* and *YNR1* encoding nitrite reductase and nitrate reductase, and its disruption causes inability to grow in nitrate. *Biochem. J.* **321**: 397-403.
- 136. Pérez-González, J.A., de Graaf, L.H., Visser, J. & Ramón, D.** 1996 Molecular cloning and expression in *Saccharomyces cerevisiae* of two *Aspergillus nidulans* xylanase genes. *Appl. Env. Microbiol.* **62**: 2179-2182.
- 137. Peters, J.-M., King, R.W., Hoog, C. & Kirschner, M.W.** 1996 Identification of BIME as a subunit of the anaphase-promoting complex. *Science* **274**: 1199-1201.
- 138. Pinto, F., Valera, J.L., Pedregosa, A.M., Monistrol, I.F. & Laborda, F.** 1996 Effect of antimicrotubular fungicides on germination and protoplast regeneration processes in *Aspergillus nidulans*. *Rev. Iberoam. Micol.* **13**: 68-72.
- 139. Plamann, M.** 1997 Nuclear division, nuclear distribution and cytokinesis in filamentous fungi. *J. Genet.* **75**: 351-360.
- 140. Podile, A.R. & Prakash, A.P.** 1996 Lysis and biological control of *Aspergillus niger* by *Bacillus subtilis* AF 1. *Can. J. Microbiol.* **42**: 533-538.
- 141. Polley, S.D. & Caddick, M.X.** 1996 Molecular characterisation of *meaB*, a novel gene affecting nitrogen metabolite repression in *Aspergillus nidulans*. *FEBS Lett.* **388**: 200-205.
- 142. Raju, N.B.** 1997 Meiotic drive in fungi: chromosomal elements that cause fratricide and distort genetic ratios. *J. Genet.* **75**: 287-296.
- 143. Ramos Ruiz, A., De la Torre R.A., Alonso, N., Villaescusa, A., Betancourt, J. & Vizoso, A.** 1996 Screening of medicinal plants for induction of somatic segregation activity in *Aspergillus nidulans*. *J. Ethnopharmacol.* **52**: 123-127.
- 144. Reymond-Cotton, P., Fraissinet-Tachet, L. & Fèvre, M.** 1996 Expression of the *Sclerotinia sclerotiorum* polygalacturonase *pgl* gene: Possible involvement of CREA in glucose catabolite repression. *Curr. Genet.* **30**: 240-245.
- 145. Rosenkranz, H.S. & Klopman, G.** 1996 A study of the structural basis of the ability of chlorinated alkanes and alkenes to induce aneuploidy and toxicity in the mold *Aspergillus nidulans*. *Mutation Res.* **354**: 183-193.

- 146. Ruijter, G.J.G., Panneman, H., van den Broeck, H.C., Bennett, J.M. & Visser, J.** 1996 Characterisation of the *Aspergillus nidulans* *frA1* mutant: hexose phosphorylation and apparent lack of involvement of hexokinase in glucose repression. FEMS Microbiol. Lett. **139**: 223-228.
- 147. Sami, M., Brown, T.J.N., Roach, P.L., Schofield, C.J. & Baldwin, J.E.** 1997 Glutamine-330 is not essential for activity in isopenicillin N synthase from *Aspergillus nidulans*. FEBS Lett. **405**: 191-194.
- 148. Sano, M., Nakamura, A., Masaki, H. & Uozumi, T.** 1996 Isolation and characterization of the nuclease 0 gene (*nuc0*) from *Aspergillus oryzae*. Curr. Genet. **30**: 312-317.
- 149. Scazzocchio, C.** 1997 Alkaptonuria: From humans to moulds and back. Trends Genet. **13**: 125-127.
- 150. Shroff, R.A., Lockington, R.A. & Kelly, J.M.** 1996 Analysis of mutations in the *creA* gene involved in carbon catabolite repression in *Aspergillus nidulans*. Can. J. Microbiol. **42**: 950-959.
- 151. Specht, C.A., Liu, Y., Robbins, P.W., Bulawa, C.E., Iartchouk, N., Winter, K.R., Riggle, P.J., Rhodes, J.C., Dodge, C.L., Culp, D.W. & Borgia, P.T.** 1996 The *chsD* and *chsE* genes of *Aspergillus nidulans* and their roles in chitin synthesis. Fungal Genet. Biol. **20**: 153-167.
- 152. Stadler, D.R.** 1997 Meiotic recombination in filamentous fungi. J. Genet. **75**: 265-280.
- 153. Stein, T., Vater, J.** 1996 Amino acid activation and polymerization at modular multienzymes in nonribosomal peptide biosynthesis. Amino Acids (Vienna) **10**: 201-227.
- 154. Stoldt, V.R., Sonneborn, A., Leuker, C.E. & Ernst, J.F.** 1997 Efg1p, an essential regulator of morphogenesis of the human pathogen *Candida albicans*, is a member of a conserved class of bHLH proteins regulating morphogenetic processes in fungi. EMBO J. **16**: 1982-1991.
- 155. Stewart, P., Whitwam, R.E., Kersten, P.J., Cullen, D. & Tien, M.** 1996 Efficient expression of a *Phanerochaete chrysosporium* manganese peroxidase gene in *Aspergillus oryzae*. Appl. Env. Microbiol. **62**: 860-864.
- 156. Suykerbuyk, M.E.G., van de Vondervoort, P.J.I., Schaap, P.J. & Visser, J.** 1996 Identification of regulatory mutants of *Aspergillus aculeatus* affected in rhamnogalacturonan hydrolase expression. Curr. Genet. **30**: 439-441.
- 157. Takashima, S., Iikura, H., Nakamura, A., Masaki, H. & Uozumi, T.** 1996 Analysis of Cre1 binding sites in the *Trichoderma reesei* *cbh1* upstream region. FEMS Microbiol. Lett. **145**: 361-366.
- 158. Talbot, N.J.** 1997 Fungal biology: Growing into the air. Curr. Biol. **7**: R78-R81.

- 159. Tan, D. & Ferreira, G.C.** 1996 Active site of 5-aminolevulinate synthase resides at the subunit interface. Evidence from *in vivo* heterodimer formation. *Biochem.* **35**: 8934-8941.
- 160. Tatsuno, K., Yamada-Okabe, H., Takagi, M., Arisawa, M. & Sudoh, M.** 1997 Properties of yeast expressed *Aspergillus nidulans* chitin synthase B which is essential for hyphal growth. *FEMS Microbiol. Lett.* **149**: 279-284.
- 161. Tazebay, U.H., Sophianopoulou, V., Scazzocchio, C. & Diallinas, G.** 1997 The gene encoding the major proline transporter of *Aspergillus nidulans* is upregulated during conidiospore germination and in response to proline induction and amino acid starvation. *Mol. Microbiol.* **24**: 105-117.
- 162. Then Bergh, K., Litzka, O. & Brakhage, A.A.** 1996 Identification of a major cis-acting DNA element controlling the bidirectionally transcribed penicillin biosynthesis genes *acvA* (*pcbAB*) and *ipnA* (*pcbC*) of *Aspergillus nidulans*. *J. Bacteriol.* **178**: 3908-3916.
- 163. Thompson, S.A., Golightly, E.J. & Yaver, D.S.** 1996 Nucleotide sequence of the *Aspergillus niger srpA* gene. *Gene* **167**: 337-338.
- 164. Todd, R.B., Murphy, R.L., Martin, H.M., Sharp, J.A., Davis, M.A., Katz, M.E. & Hynes, M.J.** 1997 The acetate regulatory gene *facB* of *Aspergillus nidulans* encodes a Zn(II)2Cys6 transcriptional activator. *Molec. Gen. Genet.* **254**: 495-504.
- 165. Topzewski, J., Sienko, M. & Paszewski, A.** 1997 Cloning and characterization of the *Aspergillus nidulans cysB* gene encoding cysteine synthase. *Curr. Genet.* **31**: 348-356.
- 166. Torralba, S., Pedregosa, A.M., de Lucas, J.R., Díaz, M.S., Monistrol, I.F. & Laborda, F.** 1996 Effect of the microtubule inhibitor methyl benzimidazol-2-yl carbamate (MBC) on production and secretion of enzymes in *Aspergillus nidulans*. *Mycol. Res.* **100**:1375-1382.
- 167. Trueman, L.J., Onyeocha, I. & Forde, B.G.** 1996 Recent advances in the molecular biology of a family of eukaryotic high affinity nitrate transporters. *Plant Physiol. Biochem.* **34**: 621-627.
- 168. Trueman, L.J., Richardson, A. & Forde, B.G.** 1996 Molecular cloning of higher plant homologues of the high-affinity nitrate transporters of *Chlamydomonas reinhardtii* and *Aspergillus nidulans*. *Gene* **175**: 223-231.
- 169. Tsuchiya, A., Nakazawa, H., Toida, J., Ohnishi, K. & Sekiguchi, J.** 1996 Cloning and nucleotide sequence of the mono- and diacetylglycerol lipase gene (*mllB*) of *Aspergillus oryzae*. *FEMS Microbiol. Lett.* **143**: 63-67.
- 170. Valenciano, S., de Lucas, J.R., Pedregosa, A., Monistrol, I.F. & Laborda, F.** 1996 Induction of -oxidation enzymes and microbody proliferation in *Aspergillus nidulans*. *Archiv. Microbiol.* **166**: 336-341.

- 171. van Generen, I.A.** 1997 Production of cutinase by *Aspergillus awamori*. Ph.D. thesis, University of Utrecht.
- 172. van Heemst, D., Swart, K., Holub, E.F., van Dijk, R., Offenbergh, H.H., Goosen, T., van den Broek, H.W.T. & Heyting, C.** 1997 Cloning, sequencing, disruption and phenotypic analysis of *uvsC*, an *Aspergillus nidulans* homologue of yeast *RAD51*. Mol. Gen. Genet. **254**: 654-664.
- 173. Ventura, L., Pérez-González, J.A. & Ramón, D.** 1997 Cloning and molecular analysis of the *Aspergillus terreus arg1* gene coding for an ornithine carbamoyltransferase. FEMS Microbiol. Lett. **149**: 207-212.
- 174. Vichitsoonthonkul, T., Chu, Y.-W., Patel, V., Patel, R. & Saunders, G.** 1996 Factors affecting DNA-binding proteins and *pcbC* transcript levels in *Penicillium chrysogenum*. Curr. Genet. **30**: 447-454.
- 175. von Döhren, H.** 1997 Genetics on the move into natural-product chemistry. Trends Biotechnol. **15**: 117-119.
- 176. Wessels, J.G.H.** 1996 Fungal hydrophobins: proteins that function at an interface. Trends Plant Sci. **1**: 9-15.
- 177. Williams, B.A., Sillaots, S., Tsang, A. & Storms, R.** 1996 Isolation by genetic complementation of two differentially expressed genes for -isopropylmalate dehydrogenase from *Aspergillus niger*. Curr. Genet. **30**: 305-311.
- 178. Wolkow, T.D., Harris, S.D. & Hamer, J.E.** 1996 Cytokinesis in *Aspergillus nidulans* is controlled by cell size, nuclear positioning and mitosis. J. Cell Sci. **109**: 2179-2188.
- 179. Wynne, J.P. & Ratledge, C.** 1997 Malic enzyme is a major source of NADPH for lipid accumulation by *Aspergillus nidulans*. Microbiology **143**: 253-257.
- 180. Xiang, X., Osmani, A.H., Osmani, S.A., Roghi, C.H., Willins, D.A., Beckwith, S., Goldman, G., Chiu, Y., Xin, M., Liu, B. & Morris, N.R.** 1995 Analysis of nuclear migration in *Aspergillus nidulans*. Cold Spring Harbor Symp. Quant. Biol. **60**: Protein kinesin: The dynamics of protein trafficking and stability. Cold Spring Harbor Laboratory Press, New York. pp. 813-819.
- 181. Xu, B., Wild, J.R. & Kenerley, C.M.** 1996 Enhanced expression of a bacterial gene for pesticide degradation in a common soil fungus. J. Ferment. Bioeng. **81**: 473-481.
- 182. Yamashita, Y.M., Nakaseko, Y., Samejima, I., Kumada, K., Yamada, H., Michaelson, D. & Yanagida, M.** 1996 20S cyclosome complex formation and proteolytic activity inhibited by the cAMP/PKA pathway. Nature **384**: 276-279.

- 183. Ye, X.S., Fincher, R.R., Tang, A., O'Donnell, K. & Osmani, S.A.** 1996 Two S-phase checkpoint systems, one involving the function of both BIME and Tyr15 phosphorylation of p34cdc2, inhibit NIMA and prevent premature mitosis. *EMBO J.* **15**: 3599-3610.
- 184. Ye, X.S., Fincher, R.R., Tang, A. & Osmani, S.A.** 1997 The G2/M DNA damage checkpoint inhibits mitosis through Tyr15 phosphorylation of p34cdc2 in *Aspergillus nidulans*. *EMBO J.* **16**: 182-192.
- 185. Yu, J.H., Wieser, J. & Adams, T.H.** 1996 The *Aspergillus* FlbA RGS domain protein antagonizes G protein signaling to block proliferation and allow development. *EMBO J.* **15**: 5184-5190.
- 186. Zachariae, W., Shin, T.H., Galova, M., Obermaier, B. & Nasmyth, K.** 1996 Identification of subunits of the anaphase-promoting complex of *Saccharomyces cerevisiae*. *Science* **274**: 1201-1204.
- 187. Zimmerman, J.W., Specht, C.A., Xoconostle-Cazares, B. & Robbins, P.W.** 1996 The isolation of a Dol-P-Man synthase from *Ustilago maydis* that functions in *Saccharomyces cerevisiae*. *Yeast* **12**: 765-771.
- 188. Zucchi, T.M.A.D.** 1996 RNA-mediated transformation in *Aspergillus nidulans* recovers gene functions lost by deletion or by point mutations. *Cell. Mol. Biol. (Noisy-Le-Grand)* **42**: 889-904.
- 189. Zucchi, T.M.A.D., Cunha, F.Q., Ribeiro, R.A., Ferreira, S.H. & De Lucca, F.L.** 1996 Transformation of *Aspergillus nidulans* by RNA from rat macrophages stimulated with lipopolysaccharide. *Cell. Mol. Biol. (Noisy Le Grand)* **42**: 235-240.
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*aatA* 17 103  
*abaA* 109  
*acvA* 17 90 162  
*amdA* 3  
*amdX* 120s  
*ankA* 184  
*apsA* 94 178  
*areA* 56c 61 104  
*argB* 173c  
*aspB* 115s  
*aspd1* 22  
*atrA,B* 43s  
*benA,C* 166  
*benA* promoter 30h

*bim* 139  
*bimE* 76 137c 182c 183 186c  
*brlA* 109  
*CaMK* 41  
*catB* 85s  
*chsA* 118s  
*chsB* 14s 160h  
*chsD* 118s 151s  
*chsE* 151s  
*cnxC* 5  
*creA* 61 78c 150 157c  
*crnA* 135c 167c 168c  
*cysB* 165s  
endoxylanase 116h  
*fabM* 108  
*facB* 164s  
*fadA* 185s  
*fahA* 149  
*fasA,B* 19s  
*fksA* 89s  
*flbA* 47c 185  
*flbB,D* 109  
*frA* 146s  
*glnA* 6  
*gpdA* promoter, terminator 181  
*hapC* 131s  
*hemA* 159c  
*het* 99  
*hfaB* 178  
*hmgA* 149  
*hxA* 48c  
*hymA* 82  
*ipnA* 17 20c 51 97 147 162  
*meaB* 141s  
*mecC* 101  
*methD,H* 101  
*muyA,B* 129  
*niaD* 135c  
*niiA* 18c 135c  
*nim* 139

*nimA* 57 130 178 184  
*nimE* 42  
*nimT* 130 184  
*nimX* 42 130 184  
*npeE* 17  
*npgA* 26 71  
*nud* 139  
*nudA* 178 180  
*nudC* 29c 117ce 178 180  
*nudF* 178 180  
*orlA* 15s  
*pacC* 51 102c  
*palA* 124s  
*pdca* 104s  
*pgkA* 98c  
*prgA,B* 17  
*prnB* 161  
*pyrE* 66s  
*pyroB* 6  
*qutA* 96 100  
*qutE* 16 93c  
*qutR* 96  
*rodA* 35 158  
*samA,B* 94  
*sep* 139  
*sepA* 178  
*snaA-E* 180  
*sbrA-D* 109  
*stcJ,K* 19  
*stcL* 87  
*stcP* 86s  
*stuA* 4c 154c  
*sufA* 180  
*tamA* 6 39s  
*TBP* 95hs  
*treA* 35a 36s  
*tubA* 180  
*uaY* 129  
*uvrB* 9  
*uvrC* 25 172s

*uvsE* 9  
*uvsF* 9 80s  
*uvsI* 25  
*velA* 26 71s  
*xlnC* 106s  
*xlnA* 136sh  
*xlnB* 54e 136sh  
*yA* 37c

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-amylase 116h  
B -glucosidase 121s  
*abfB* 59  
*agdA* 113s  
*argI* 173s  
*atX* 58s  
*axhA* 59s  
*bglI* 84s  
*bipA* 171  
*CaM* 50  
*chsD* 112s  
*chsE* 7  
*chsG* 14s  
*enoA* 107s  
*facB* 164s  
glucoamylases 44  
*leu2A,B* 177s  
*mdlB* 169s  
*niaD* 27  
*niiA* 27  
*norA* 23s  
*nucO* 148es  
[*oliA*] 91  
*pdiA* 126s  
*pkaC* 10s  
*rhgA* 156  
*srpA* 163s

### **Other fungi**

*AFP* 110

*Asm-1* 4c  
*bgaS* 1e  
*cbh1* 157  
*cre1* 78c  
*cut4* 182c  
Endoxylanase B 45s  
*NUT1* 56c  
*paf* 110c  
*pcbC* 174  
*PcCHS1-4* 122s  
*Rim1* 102c  
*sreP* 68s  
*urbs1* 68c  
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*YNRI* 18

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*narK* 168c  
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*Histoplasma capsulatum* 50  
*Magnaporthe grisea* 2 56c  
*Metarhizium anisopliae* 62  
*Neurospora crassa* 4c 81  
*Penicillium canescens* 1e  
*P. chrysogenum* 20 68 103 110 122 174 175  
*P. purpurogenum* 45  
*P. urticae* 81  
*Phanerochaete chrysosporium* 155h  
*Saccharomyces cerevisiae* 95h 102 136h 160h 163 182c 186c187  
*Sclerotinia sclerotiorum* 144  
*Trichoderma reesei* 157c  
*Trichoderma* sp. 78  
*Ustilago maydis* 2 68 187  
*Yarrowia lipolytica* 98c  
**Other organisms**  
*Bacillus subtilis* 140  
*Escherichia coli* 168  
*Streptomyces jumonjinensis* 97  
*Xenopus laevis* 137c

**Superscripts:**

c sequence comparison  
e Expression of  
heterologous gene in *Aspergillus*  
h *Aspergillus* gene  
expressed elsewhere  
s Sequence or clone