

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 I would be grateful for notification of any errors. John Clutterbuck

[Author and Keyword Index](#)

1. Aguirre Linares, J. 1992 *Aspergillus nidulans* como sistema experimental, y la esporulacion como modelo de diferenciacion celular y regulacion genetica. *Ciencia (Mex. City)* 43: 445-450.
2. Aharonowitz, Y., Bergmeyer, J., Cantoral, J.M., Cohen, G., Demain, A.L., Fink, U., Kinghorn, J., Kleinkauf, H., MacCabe, A., Palissa, H., Pfeifer, E., Schwecke, T., van Liempt, H., von Dohren, H., Wolfe, S. & Zhang, J. 1993 delta-(D-alpha-aminoadipyl)-L-cysteinyl- D-valine synthetase, the multienzyme integrating the four primary reactions in beta- lactam biosynthesis, as a model peptide synthetase. *Bio/Technology* 11: 807-810.
3. Alvarez, E., Meesschaert, B., Montenegro, E., Gutierrez, S. & Diez, B. 1993 The isopenicillin-N acyltransferase of *Penicillium chrysogenum* has isopenicillin-N amido- hydrolase, 6-aminopenicillanic acid acyltransferase and penicillin amidase activities, all of which are encoded by the single penDE gene. *Eur. J. Biochem.* 215:323-332
4. Aplin, R.T., Baldwin, J.E., Cole, S.C.J., Sutherland, J.D. & Tobin, M.B. 1993 On the production of alpha, beta- heterodimeric acyl-coenzyme A isopenicillin N- acyltransferase of *Penicillium chrysogenum*. Studies using a recombinant source. *FEBS Lett.* 319: 166-170.
5. Aramayo, R. & Timberlake, W.E. 1993 The *Aspergillus nidulans* yA gene is regulated by abaA. *EMBO J.* 12: 2039-2048.
6. Babudri, N., Salvini, D., Pimpinelli, S. & Morpurgo, G. 1994 The genetic activity of 6-N-hydroxylaminopurine in *Aspergillus nidulans*. *Mutat. Res.* 321: 19-26.
7. Baldwin, J.E., Byford, M.F., Field, R.A., Shiau, C.-Y., Sobey, W.J. & Schofield, C.J. 1993 Exchange of the valine 2-H in the biosynthesis of L-delta-(alpha-aminoadipoyl)-L- cysteinyl-D-valine. *Tetrahedron* 49: 3221-3226.
8. Basten, C.J. & Asmussen, M.A. 1993 Estimation of mitotic stability in conidial fungi: a theoretical framework. *Genetics* 134: 361-368.
9. Benigni, R., Andreoli, C., Conti, L., Tafani, P., Cotta- Ramusino, M., Carere, A. & Crebelli, R. 1993 Quantitative structure-activity relationship models correctly predict the toxic and aneuploidizing properties of six halogenated methanes in *Aspergillus nidulans*. *Mutagenesis* 8: 301-305.

10. Berski, R.M., Carmona, C.L., Hayenza, K.J., Thompson, P.A. & Ward, M. 1993 Isolation and characterization of the *Aspergillus oryzae* gene encoding aspergillopepsin O. *Gene* 125: 195-8
11. Bowyer, P., De Lucas, J.R., & Turner, G. 1994 Regulation of expression of the isocitrate lyase gene (*acuD*) of *Aspergillus nidulans*. *Molec. Gen. Genet.* 242:484-9
12. Bowyer, P., Osbourn, A.E. & Daniels, M.J. 1994 An "instant gene bank" method for heterologous gene cloning: complementation of two *Aspergillus nidulans* mutants with *Gaeumannomyces graminis* DNA. *Molec. Gen. Genet.* 242: 448-454
13. Brakhage, A.A., Browne, P. & Turner, G. 1994 Analysis of the regulation of penicillin biosynthesis in *Aspergillus nidulans* by targeted disruption of the *acvA* gene. *Molec. Gen. Genet.* 242: 57-64
14. Brown, D.W. & Salvo, J.J. 1994 Isolation and characterization of sexual spore pigments from *Aspergillus nidulans*. *Appl. Env. Microbiol.* 60: 979-983.
15. Bulawa, C.E. 1993 Genetics and molecular biology of chitin synthesis in fungi. *Ann. Rev. Microbiol.* 47: 505-534.
16. Castro-Prado, M.A.A. & Zucchi, T.M.A.D. 1992 Characterization of the Dp(II,I) duplication in *Aspergillus nidulans*: presence of the *AcrA1* gene and its regulatory transcription sequence in the transposed segment. *Rev. Brasil. Genet.* 15: 777-788.
17. Clutterbuck, A.J. 1994 Mutants of *Aspergillus nidulans* deficient in nuclear migration during hyphal growth and conidiation. *Microbiology* 140: 1169-1174
18. Clutterbuck, J., Gems, D., & Robertson, S. 1993 Uses and analyses of the ARp1 *Aspergillus nidulans* replicating plasmid. Baltz, R.H., Hegeman, G.D. & Skatrud, P.P. (Eds.). *Industrial Microorganisms: Basic and Applied Molecular Genetics; Fifth ASM Conference on the Genetics and Molecular Biology of Industrial Microorganisms*, Bloomington, Indiana, pp 27-30.
19. Cooley, R.N. & Caten, C.E. 1993 Molecular analysis of the *Septoria nodorum* beta-tubulin gene and characterization of a benomyl-resistance mutation. *Mol. Gen. Genet.* 237: 58-64
20. Cove, D.J. 1993 Mutant analysis, a key tool for the study of metabolism and development. *Plant J.* 3: 303-308
21. Cubero, B. & Scazzocchio, C. 1994 Two different, adjacent and divergent zinc finger binding sites are necessary for CREA-mediated carbon catabolite repression in the proline gene cluster of *Aspergillus nidulans*. *EMBO J.* 13: 407-415.
22. Cuticchia, A.J., Arnold, J. & Timberlake, W.E. 1992 The use of simulated annealing in chromosome reconstruction experiments based on binary scoring. *Genetics*, 132: 591- 601.

23. Dales, R.G.B., Moorhouse, J. & Croft, J.H. 1993 Evidence for a multi-allelic heterokaryon incompatibility (het) locus detected by hybridization among three heterokaryon- compatibility (h-c) groups of *Aspergillus nidulans*. *Heredity* 70: 537-543.
24. Davis, M.A., Kelly, J.M. & Hynes, M.J. 1993 fungal catabolic gene regulation: molecular genetic analysis of the *amdS* gene of *Aspergillus nidulans*. *Genetica* 90: 133-145.
25. de la Torre, R.A., Espinoza-Aguirre, J.J., Cortinas de Nava, C., Izquierdo, T. & Moron, F. 1994 Genotoxic activity of mebendazole in *Aspergillus nidulans*. *Mutat. Res.* 305: 139- 144
26. de Lucas, J.R., Monistrol, I.F. & Laborda, F. 1993 Effect of antimicrotubular drugs on the secretion process of extracellular proteins in *Aspergillus nidulans*. *Mycol. Res.* 97: 961-966.
27. de Vries, O.M.H., Fekkes, M.P., W’sten, H.A.B. & Wessels, J.G.H. 1993 Insoluble hydrophobin complexes in the walls of *Schizophyllum commune* and other filamentous fungi. *Arch. Microbiol.* 159: 330-335
28. Denison, S.H., Kafer, E. & May, G.S. 1993 Mutation in the *bimD* gene of *Aspergillus nidulans* confers a conditional block and sensitivity to DNA damaging agents. *Genetics* 134: 1085-1096.
29. Denison, S.H. & May, G.S. 1994 Mitotic catastrophe is the mechanism of lethality for mutations that confer mutagen sensitivity in *Aspergillus nidulans*. *Mutat. Res.* 304: 193- 202.
30. Dhawale, S.S. & Lane, A.C. 1993 Compilation of sequence- specific DNA-binding proteins implicated in transcriptional control in fungi. *Nucleic Acids Res.* 21: 5537-5546
31. Drysdale, M.R., Kolze, S.E. & Kelly, J.M. 1993 The *Aspergillus niger* carbon catabolite repressor encoding gene *creA*. *Gene* 130: 241-245.
32. Durand, N., Raymond, P. & Fevre, M. 1993 Randomly amplified polymorphic DNAs assess recombination following an induced parasexual cycle in *Penicillium roqueforti*. *Curr. Genet.* 24: 417-420.
33. Elliott, C.G. 1993 *Reproduction in fungi*. Chapman & Hall, London.
34. Espeso, E.A., Tilburn, J., Arst, H.N.Jr. & Penalva, M.A. 1993 pH regulation is a major determinant in expression of a fungal penicillin biosynthetic gene. *EMBO J.* 12: 3947-3956.
35. Fernandez-Espinar, M.T., Pena, J.L., Pinaga, F. & Valles, S. 1994 alpha-L-arabinofuranosidase production by *Aspergillus nidulans*. *FEMS Microbiol. Lett.* 115: 107-112.
36. Fernandez-Espinar, M.T., Pinaga, F., Sanz, P., Ramon, D. & Valles, S. 1993 Purification and characterization of a neutral endoxylanase from *Aspergillus nidulans*. *FEMS Microbiol. Lett.* 113: 223-228.

37. Ferrari, N., Giusti, S.C. & Carneiro, M.R. 1993 Mutagenic activity of *Achyrocline satureioides* (Lam.) DC. (Compositae) detected by the bimeth ssytem in *Aspergillus nidulans*. *Rev. Brasil. Genet.* 16: 275-282.
38. Fierro, F., Gutierrez, S., Diez, B. & Martin, J.F. 1993 Resolution of four large chromosomes in penicillin- producing filamentous fungi: the penicillin gene cluster is located on chromosome II (9.6 Mb) in *Penicillium notatum* and chromosome I (10.4 Mb) in *Penicillium chrysogenum*. *Mol. Gen. Genet.* 241: 573-578.
39. Flipphi, M.J.A., van Heuvel, M., van der Veen, P., Visser, J. & de Graaf, L.H. 1993 Cloning and characterization of the *abfB* gene coding for the major alpha-L- arabinofuranosidase (ABF B) of *Aspergillus niger*. *Curr. Genet.* 24: 525-532.
40. Foster, L.M., Kozak, K.R., Loftus, M.G., Stevens, J.J. & Ross, K.K. 1993 The polymerase chain reaction and its use in filamentous fungi. *Mycol Res.* 97: 769-781.
41. Frederick, G.D., Rombouts, P. & Buxton, F.P. 1993 Cloning and characterization of *pepC*, a gene encoding a serine protease from *Aspergillus niger*. *Gene* 125: 57-64.
42. Geisen, R. 1993 Cloning of a protease gene from *Penicillium nalgioense* by expression in *Escherichia coli*. *Lett. Appl. Microbiol.* 16: 303-306
43. Geiser, D.M., Arnold, M.L. & Timberlake, W.E. 1994 Sexual origins of British *Aspergillus nidulans* isolates. *Proc. Natl. Acad. Sci. USA* 91: 2349-2352.
44. Gems, D., Aleksenko, A., Belenky, L., Robertson, S., Ramsden, M., Vinetski, Y. & Clutterbuck, A.J. 1994 An 'instant gene bank' method for gene cloning by mutant complementation. *Molec. Gen. Genet.* 242: 467-71.
45. Gems, D.H. & Clutterbuck, A.J. 1993 Co-transformation with autonomously-replicating helper plasmids facilitates gene cloning from an *Aspergillus nidulans* gene library. *Curr. Genet.* 24: 520-524.
46. Gems, D.H. & Clutterbuck, A.J. 1994 Enhancers of conidiation mutants in *Aspergillus nidulans*. *Genetics* 137: 79-85.
47. Gimeno, C.J. & Fink, G.R. 1994 Induction of pseudohyphal growth by overexpression of *PHD1*, a *Saccharomyces cerevisiae* gene related to transcriptional regulators of fungal development. *Mol. Cell. Biol.* 14: 2100-2112.
48. Gorfinkiel, L., Diallinas, G. & Scazzocchio, C. 1993 Sequence and regulation of the *uapA* gene encoding a uric acid-xanthine permease in the fungus *Aspergillus nidulans*. *J. Biol. Chem.* 268: 23376-23381.

49. Griffith, G.W., Jenkins, G.I., Milner-White, E.J. & Clutterbuck, A.J. 1994 Homology at the amino acid level between plant phytochromes and a regulator of asexual sporulation in *Emericella* (= *Aspergillus*) *nidulans*. *Photochem. Photobiol.* 59: 252-256.
50. Han, Y.J. & Han, D.M. 1993 [In Korean] Isolation and characterization of null pigment mutant in *Aspergillus nidulans*. *Korean J. Genet.* 15: 1-10
51. Harmsen, M.C., Schuren, F.H.J., Moukha, S.M., van Zuilen, C.M., Punt, P.J. & Wessels, J.G.H. 1992 Sequence analysis of the glyceraldehyde-3-phosphate dehydrogenase genes from the basidiomycetes *Schizophyllum commune*, *Phanerochaete chrysosporium* and *Agaricus bisporus*. *Curr. Genet.* 22: 447-454.
52. Harris, S.D., Morrell, J.L. & Hamer, J.E. 1994 Identification and characterization of *Aspergillus nidulans* mutants defective in cytokinesis. *Genetics* 136: 517-532.
53. Haus, H., Friedlin, E., St"ffler, G. & Redl, B. 1993 Cloning and structural organization of a xylanase-encoding gene from *Penicillium chrysogenum*. *Gene* 126: 237-42
54. Hawkins, A.R., Lamb, H.K., Moore, J.D., Charles, I.G. & Roberts, C.F. 1993 The pre-chorismate (shikimate) and quinate pathways in filamentous fungi: theoretical and practical aspects. *J. Gen. Microbiol.* 139: 2891-9.
55. Hawkins, A.R., Lamb, H.K., Moore, J.D. & Roberts, C.F. 1993 Genesis of eukaryotic transcriptional activator and repressor proteins by splitting a multidomain anabolic enzyme. *Gene* 136: 49-54.
56. Hawkins, A.R., Moore, J.D. & Adeokun, A.M. 1993 Characterization of the 3-dehydroquinase domain of the pentafunctional arom protein, and the quinate dehydrogenase from *Aspergillus nidulans*, and the overproduction of the type II 3- dehydroquinase from *Neurospora crassa*. *Biochemical J.* 296: 451-457.
57. Henwick, S., Hetherington, S.V. & Patrick, C.C. 1993 Complement binding to *Aspergillus conidia* correlates with pathogenicity. *J. Lab. Clin. Med.* 16: 259-274.
58. Hintz, W.E. & Lagorsky, P.A. 1993 A glucose-derepressed promoter for expression of heterologous products in the filamentous fungus *Aspergillus nidulans*. *Bio/Technology* 11: 815-818.
59. Hoh, Y.K., Yeoh, H.-H. & Tan, T.K. 1993 Isolation and characterization of -glucosidases from *Aspergillus nidulans*. *World J. Microbiol. Biotechnol.* 9: 555-558.
60. Holt, C.L. & May, G.S. 1993 A novel phage lambda replacement Cre-lox vector that has automatic subcloning capabilities. *Gene* 133: 95-97.
61. Jarai, G., Kirchherr, D. & Buxton, F.P. 1994 Cloning and characterization of the pepD gene of *Aspergillus niger* which codes for a subtilisin-like protease. *Gene* 139: 51-7.

62. Jha, S.H. & Sinha, U. 1991 Selection or induction of griseofulvin produced haploids in *Aspergillus nidulans*. *Acta Bot. Ind.* 19: 171-175.
63. Joshi, H.C. 1993 gamma-tubulin: the hub of cellular microtubule assemblies. *Bioessays* 15: 637-643
64. Judelson, H.S. 1993 Intermolecular ligation mediates efficient cotransformation in *Phytophthora infestans*. *Mol. Gen. Genet.* 239: 241-250.
65. Kafer, E. & Chae, S.-K. 1994 Phenotype and epistatic grouping of hypo- and hyper-rec⁺ mutants in *Aspergillus nidulans*. *Curr. Genet.* 25: 223-32
66. Keller, N.P., Kantz, N.J. & Adams, T.H. 1994 *Aspergillus nidulans* *verA* is required for production of the mycotoxin sterigmatocystin. *Appl. Env. Microbiol.* 60: 1444-1450.
67. Kirk, K.E & Morris, N.R. 1993 Either alpha-tubulin isogene product is sufficient for microtubule function during all stages of growth and differentiation in *Aspergillus nidulans*. *Mol. Cell. Biol.* 13: 4465-4476.
68. Kitamoto, N., Kimura, T., Kito, Y., Ohmiya, K. & Tsukagoshi, N. 1993 Structural features of a polygalacturonase gene cloned from *Aspergillus oryzae* KBN616. *FEMS Microbiol. Lett.* 111: 37-42.
69. Koch, A., Weigel, C.T.D. & Schutz, G. 1993 Cloning, sequencing, and heterologous expression of a cellulase- encoding cDNA (*cbh1*) from *Penicillium janthinellum*. *Gene* 124: 57-65
70. Kulmberg, P., Mathieu, M., Dowzer, C., Kelly, J. & Felenbok, B. 1993 Specific binding sites in the *alcR* and *alcA* promoters of the ethanol regulon for the CREA repressor mediating carbon catabolite repression in *Aspergillus nidulans*. *Mol. Microbiol.* 7: 847-857.
71. Kurokawa, N. & Ohfun, Y. 1993 Synthetic studies on antifungal cyclic peptides echinocandins. Stereoselective total synthesis of echinocandin D via a novel peptide coupling. *Tetrahedron* 49: 6195-6222.
72. Kusnadi, A.R., Ford, C. & Nikolov, Z.L. 1993 Functional starch-binding domain of *Aspergillus glucoamylase* I in *Escherichia coli*. *Gene* 127: 193-197.
73. Lee, B.N. & Adams, T.H. 1994 The *Aspergillus nidulans* *fluG* gene is required for production of an extracellular developmental signal and is related to prokaryotic glutamine synthetase I. *Genes Dev.* 8: 641-651.
74. Lendenfeld, T., Ghali, D., Wolschek, M., Kubicek-Pranz, E.M. & Kubicek, C.P. 1993 subcellular compartmentation of penicillin biosynthesis in *Penicillium chrysogenum*. The amino-acid precursors are derived from the vacuole. *J. Biol. Chem* 268: 665-671.

75. Leslie, J.F. 1993 Fungal vegetative compatibility. *Ann. Rev. Phytopathol.* 31: 127-150.
76. Lever, M.C., Robertson, B.E.M., Buchan, A.D.B., Miller, P.E.P., Gooday, G.W. & Gow, N.A.R. 1994 pH and Ca²⁺ dependent galvanotropism of filamentous fungi: implications and mechanism. *Mycol. Res.* 98: 301-306.
77. Lu, K.P., Kemp, B.E. & Means, A.R. 1994 Identification of substrate specificity determinants for the cell cycle- regulated NIMA protein kinase. *J. Biol. Chem.* 269: 6603- 6607.
78. Lu, K.P. & Means, A.R. 1993 Regulation of the cell cycle by calcium and calmodulin. *Endocrine Rev.* 14: 40-58.
79. Lu, K.P., Osmani, S.A. & Means, A.R. 1993 Properties and regulation of the cell cycle-specific nima protein kinase of *Aspergillus nidulans*. *J. Biol. Chem.* 268: 8769-8776
80. Lu, K.P., Osmani, S.A., Osmani, A.H. & Means, A.R. 1993 Essential roles for calcium and calmodulin in G2/M progression in *Aspergillus nidulans*. *J. Cell Biol.* 121: 621- 630.
81. Luduena, R.F. 1993 Are tubulin isotypes functionally significant? *Mol. Biol. Cell* 4: 445-457
82. Luo, H. & Perlin, M.H. 1993 The α -tubulin-encoding gene from the fungus, *Ustilago violacea*, has a long 5'- untranslated region. *Gene* 137 :187-194.
83. Maat, J., Rosa, M., Verbakel, H., Stam, H., Santos da Silva, M.J., Bosse, M., Egmond, M.R., Hagemans, M.L.D., van Gorcom, R.F.M., Hessing, J.G.M., van den Hondel, C.A.M.J.J. & van Rotterdam, C. 1992 Xylanases and their application in bakery. In *Xylans and Xylanases*, ed. Visser, J., Elsevier B.V. pp. 349-360.
84. MacKenzie, D.A., Jeenes, D.J., Belshaw, N.J. & Archer, D.B. 1993 Regulation of secreted protein production by filamentous fungi recent developments and perspectives. *J. Gen Microbiol.* 139: 2295-2307.
85. MacRae, W.D., Buxton, F.P., Gwynne, D.I. & Davies, R.W. 1993 Heterologous protein secretion directed by a repressible acid phosphatase system of *Aspergillus niger*. *Gene* 132: 193-198.
86. MacRae, W.D., Buxton, F.P., Sibley, S., Garven, S., Gwynne, D.I., Arst, H.N.Jr. & Davies, R.W. 1993 Characterization of an *Aspergillus nidulans* genomic DNA fragment conferring phosphate-non-repressible acid phosphatase activity. *Gene* 130: 247-251.
87. Markham, P., Robson, G.D., Bainbridge, B.W. & Trinci, A.P.J. 1993 Choline: its role in the growth of filamentous fungi and the regulation of mycelial morphology. *FEMS Microbiol. Rev.* 104: 287-300.

88. Martinez-Blanco, H., Orejas, M., Reglero, A., Luengo, J.M. & Penalva, M.A. 1993 Characterization of the gene encoding acetyl-CoA synthetase in *Penicillium chrysogenum*: conservation of intron position in plectomycetes. *Gene* 130: 265-270.
89. Marzluf, G.A. 1993 Regulation of sulfur and nitrogen metabolism in filamentous fungi. *Ann. Rev. Microbiol.*, 47: 31-55.
90. Melki, R., Vainberg, I.E., Chow, R.L. & Cowan, N.J. 1993 Chaperonin-mediated folding of vertebrate actin-related protein and gamma-tubulin. *J. Cell Biol.* 122: 1301-1310.
91. Miller, B.L. 1993 Brushing up on bristles: complex genes and morphogenesis in molds. *Trends Genet.* 9: 293-295.
92. Mirabito, P.M. & Morris, N.R. 1993 BIMA, a TPR- containing protein required for mitosis, localizes to the spindle pole body in *Aspergillus nidulans*. *J. Cell Biol.* 216: 959-968.
93. Moore, J.D. & Hawkins, A.R. 1993 Overproduction of, and interaction within, bifunctional domains from the amino- and carboxy-termini of the pentafunctional arom protein of *Aspergillus nidulans*. *Mol. Gen. Genet.* 240: 92- 102.
94. Murakami, K., Aikawa, J.-I, Horinouchi, S. & Beppu, T. 1993 Characterization of an aspartic proteinase of *Mucor pusillus* expressed in *Aspergillus oryzae*. *Molec. Gen. Genet.* 241: 312-318.
95. Naruse, A., Yamamoto, H. & Sekiguchi, J. 1993 Nucleotide sequence of the large mitochondrial rRNA gene of *Penicillium chrysogenum*. *Biochim. Biophys. Acta* 1172: 353-356.
96. Nikolaev, I.V., Vavilova, E.A. & Vinetski, Y.P. 1992 [In Russian] Molecular structure of the lac-phenotype in the filamentous fungus *Penicillium canescens*: existence of secreted and two intracellular beta-galactosidases. *Biochemistry USSR* 57: 594-599.
97. Nowak, C. & Kuck, U. 1994 development of an homologous transformation system for *Acremonium chrysogenum* based on the beta-tubulin gene. *Curr. Genet.* 25: 34-40
98. Nuero, O.M., Alfonso, C., De Lamo, F. & Reyes, F. 1993 Study of beta-1,3-glucanase activity during autolysis of *Aspergillus nidulans* by FPLC ion-exchange chromatography. *Lett. Appl. Microbiol.* 17: 104-108.
99. Oestreicher, N. & Scazzocchio, C. 1993 Sequence, regulation, and mutational analysis of the gene encoding urate oxidase in *Aspergillus nidulans*. *J. Biol. Chem.* 268: 23382-23389.
100. Oestreicher, N., Sealy-Lewis, H.M. & Scazzocchio, C. 1993 Characterization, cloning and integrative properties of the gene encoding urate oxidase in *Aspergillus nidulans*. *Gene* 132: 185-192.
101. Ohta, E., Oda, K., Yamato, K., Nakamura, Y., Takemura, M., Nozato, N., Akashi, K., Ohya, K. & Michel, F. 1993 Group I introns in the liverwort mitochondrial genome: the gene

- coding for subunit 1 of cytochrome oxidase shares five intron positions with its fungal counterparts. *Nucleic Acids Res.* 21: 1297-1305.
102. Paris, S., Monod, M., Diaquin, M., Lamy, B., Arruda, L.K., Punt, P.J. & Latg., J.P. 1993 A transformant of *Aspergillus fumigatus* deficient in the antigenic cytotoxin ASPFI. *FEMS Microbiol. Lett.* 111: 31-36.
103. Parry, J.M. 1993 An evaluation of the use of in vitro tubulin polymerization, fungal and wheat assays to detect the activity of potential chemical aneugens. *Mutat. Res.* 287: 23-28
104. Parry, J.M. 1993 The detection and assessment of the aneugenic potential of environmental chemicals: the European Community Aneuploidy Project. *Mutat. Res.* 287: 3-15.
105. Penalva, M.A., Espeso, E., Perez-Esteban, B., Orejas, M., Fernandez-Canon, J.M. & Martinez-Blanco, H. 1993 Expression of fungal genes involved in penicillin biosynthesis. *World J. Microbiol. Biotechnol.* 9: 461-467.
106. Peng, M., Lemke, P.A. & Singh, N.K. 1993 A nucleotide sequence involved in replicative transformation of a filamentous fungus. *Curr. Genet.* 24: 114-121.
107. Perez-Esteban, B., Orejas, M., Gomez-Pardo, E. & Penalva, M.A. 1993 Molecular characterization of a fungal secondary metabolism promoter: transcription of the *Aspergillus nidulans* isopenicillin N synthetase gene is modulated by upstream negative elements. *Mol. Microbiol.* 9: 881-895
108. Piddington, C.S., Houston, C.S., Paloheimo, M., Cantrell, M., Miettinen-Oinonen, A., Nevalainen, H. & Rambosek, J. 1993 The cloning and sequencing of the genes encoding phytase (phy) and pH 2.5-optimum acid phosphatase (aph) from *Aspergillus niger* var. *awamori*. *Gene* 133: 55-62.
109. Pileggi, M., Pileggi, S.A.V. & de Azevedo, J. 1993 [in Portuguese] Genetic heterogeneity resulting from mycelial elongation of *nicB* supressors from *Aspergillus nidulans*. *Arq. Biol. Tecnol.* 36: 149-163.
110. Pinaga, F., Fernandez-Espinar, M.T., Valles, S. & Ramon, D. 1994 Xylanase production in *Aspergillus nidulans*: induction and carbon catabolite repression. *FEMS Microbiol. Lett.* 113: 319-323.
111. Prosser, J.L. 1993 Growth kinetics of mycelial colonies and aggregates of ascomycetes. *Mycol Res.* 97: 513-528.
112. Punt, P.J. & van den Hondel, C.A.M.J.J. 1992 Transformation of filamentous fungi based on hygromycin B and phleomycin resistance markers. *Meth. Enzymol.* 216: 447-457.

113. Punt, P.J. & van den Hondel, C.A.M.J.J. 1992 Analysis of transcription control sequences in filamentous fungi. In EMBO Workshop on Molecular Biology of Filamentous Fungi, ed. Stahl, U. & Tudzynski, P.; VCH, Weinholm, pp. 177-187.
114. Raitt, D.C., Bradshaw, R.E. & Pillar, T.M. 1994 Cloning and characterisation of the cytochrome c gene of *Aspergillus nidulans*. *Molec. Gen. Genet.* 242: 17-22.
115. Ramon, D., van der Veen, P. & Visser, J. 1993 Arabinan degrading enzymes from *Aspergillus nidulans*: Induction and purification. *FEMS Microbiol. Lett.* 113: 15-22.
116. Randez-Gil, F. & Sanz, P. 1993 Expression of *Aspergillus oryzae* alpha-amylase gene in *Saccharomyces cerevisiae*. *FEMS Microbiol. Lett.* 112: 119-124.
117. Rasmussen, C.D., Lu, K.P., Means, R.L. & Means, A.R. 1992 Calmodulin and cell cycle control. *J. Physiol. Paris* 86: 83-88.
118. Rios, S., Pedrogosa, A.M., Monistrol, I.F. & Laborda, F. 1993 Purification and molecular properties of an alpha- galactosidase synthesized and secreted by *Aspergillus nidulans*. *FEMS Microbiol. Lett.* 112: 35-41.
119. Sanchis, V., Vinas, I., Roberts, I.N., Jeenes, D.J., Watson, A.J. & Archer, D.B. 1994 A pyruvate decarboxylase gene from *Aspergillus parasiticus*. *FEMS Microbiol. Lett.* 117: 204-211.
120. Saxena, R.K., Khurana, N., Kuhad, R.C. & Gupta, R. 1992 D-glucose soluble starch, a novel medium for inducing microcycle conidiation in *Aspergillus*. *Mycol. Res.* 96: 490- 494.
121. Schindler, M., Mach ,R.L., Vollenhofer, S.K., Hodits, R., Gruber, F., Visser, J., De Graaff, L. & Kubicek, C.P. 1993 Characterization of the pyruvate kinase-encoding gene (pkil) of *Trichoderma reesei*. *Gene* 130: 271-275.
122. Schrickx, J.M., Krave, A.S., Verdoes, J.C., van den Hondel, C.A.M.J.J., Stouthamer, A.H. & van Verseveld, H.W. 1993 Growth and product formation in chemostat and recycling cultures by *Aspergillus niger* N402 and a glucoamylase overproducing transformant, provided with multiple copies of the glaA gene. *J. Gen. Microbiol.* 139:2811-2817
123. Schultz, S.J. & Nigg, E.A. 1993 Identification of 21 novel human protein kinases, including 3 members of a family related to the cell cycle regulator nimA of *Aspergillus nidulans*. *Cell Growth Differentiation* 4: 821-830.
124. Sealy-Lewis, H.M. 1994 A new selection method for isolating mutants defective in acetate utilisation in *Aspergillus nidulans*. *Curr. Genet.* 25: 47-48.
125. Sequeval, D. & Felenbok, B. 1994 Relationship between zinc content and DNA-binding activity of the DNA- binding motif of the transcription factor ALCR in *Aspergillus nidulans*. *Molec. Gen. Genet.* 424: 33-39.

126. Singh, N.K. & Tiwary, B.N. 1992 Modeling for competition between phenylalanine and its toxic analogue in a phen A auxotroph of *Aspergillus nidulans*. *Acta Bot. Ind.* 20: 177-181.
127. Springer, M.L. 1993 Genetic control of fungal differentiation: the three sporulation pathways of *Neurospora crassa*. *Bioessays*, 15: 365-374.
128. Taylor, J.W., Bowman, B.H., Berbie, M.L. & White, T.J. 1993 Fungal model organisms: phylogenetics of *Saccharomyces*, *Aspergillus* and *Neurospora*. *Syst Biol.* 42: 440-457.
129. Tiedt, L.R. 1993 An electron microscope study of conidiogenesis and wall formation of conidia of *Aspergillus niger*. *Mycol. Res.* 97: 1459-1462.
130. Timberlake, W.E. 1993 Translational triggering and feedback fixation in the control of fungal development. *Plant Cell* 5: 1453-1460.
131. Tobin, M.B., Baldwin, J.E., Cole, S.C.J., Miller, J.R., Skatrud, P.L. & Sutherland, J.D. 1993 The requirement for subunit interaction in the production of *Penicillium chrysogenum* acyl-coenzyme A: isopenicillin N acyltransferase in *Escherichia coli*. *Gene* 132: 199-206.
132. van den Ackerveken, G.F.J.M., Vossen, P. & De Wit, P.J.G.M. 1993 The AVR9 race-specific elicitor of *Cladosporium fulvum* is processed by endogenous and plant proteases. *Plant Physiol.* 103: 91-96.
133. van den Hondel, C.A.M.J.J., Punt, P.J. & van Gorcom, R.F.M. 1992 Production of extracellular proteins by filamentous fungus *Aspergillus*. *Ant. van Leeuwenhoek* 61: 153-160.
134. Varga, J. & Croft, J.H. 1994 Assignment of RFLP, RAPD and isozyme markers to *Aspergillus nidulans* chromosomes, using chromosome-substituted segregants of a hybrid of *A. nidulans* and *A. quadrilineatus*. *Curr. Genet.* 25: 311-317.
135. Varga, J., Kevei, F., Fekete, C., Coenen, A., Kozakiewicz, Z. & Croft, J.H. 1993 Restriction length polymorphism in the mitochondrial DNAs of the *Aspergillus niger* aggregate. *Mycol Res.* 97: 1207-1212.
136. Verdoes, J.C., Punt, P.J., Schrickx, J.M., van Verseveld, H.W., Stouthamer, A.H. & van den Hondel, C.A.M.J.J. 1993 Glucoamylase overexpression in *Aspergillus niger*: molecular genetic analysis of strains containing multiple copies of the *glaA* gene. *Transgenic Res.* 2: 84-92.
137. Viniegra-Gonzalez, G., Saucedo-Castaneda, G., Lopez- Isunza, F. & Favela-Torres, E. 1993 Symmetric branching model for the kinetics of mycelial growth. *Biotechnol. Bioeng.* 42: 1-10.
138. Walz, M. & Kuck, U. 1993 Targeted disruption into the *Acremonium chrysogenum* genome: disruption of the *pcbC* gene. *Current Genetics* 24: 421-427.

139. Wennekes, L.J.M., Goosen, T., van den Broek, P.M.J. & van den Broek, H.W.J. 1993 Purification and characterization of glucose-6-phosphate dehydrogenase from *Aspergillus niger* and *Aspergillus nidulans*. *J. Gen. Microbiol.* 139: 2793-2800
140. Wilkie, D. 1993 Early recollections of fungal genetics and the cytoplasmic inheritance controversy. In *The Early Days of Yeast Genetics*, ed. Hall, M.N. & Linder, P. Cold Spring Harbor Press, Plainview, New York. pp. 259-270.
141. Winkelman, G. 1992 Structures and functions of fungal siderophores containing hydroxamate and complexone type iron binding ligands. *Mycol Res.* 96: 529-534.
142. Withers, J.M., Wiebe, M.G., Robson, G.D. & Trinci, A.P.J. 1994 Development of morphological heterogeneity in glucose-limited chemostat cultures of *Aspergillus oryzae*. *Mycol. Res.* 98: 95-100.
143. Witteveen, C.F.B., van den Vondervoort, P.J.I., van den Broek, H.C., van Engelenberg, F.A.C., de Graaf, L.H., Hillebrand, M.H.B.C., Schaap, P.J. & Visser, J. 1993 Induction of glucose oxidase, catalase, and lactonase in *Aspergillus niger*. *Current Genetics* 24: 408-416.
144. Wendt, S., Felshi-Zuh, H., Henz, P.-P.C., Ulrich, N. & Stahl, U. 1993 Characterization of the gene encoding alpha- sarcin, ribosome-inactivating protein secreted by *Aspergillus giganteus*. *Gene* 124: 239-244.
145. Wolff, G., Burger, G., Lang, B.F. & Kuck, U. 1993 Mitochondrial genes in the colorless alga *Prototheca wickerhamii* resemble plant genes in their exons but fungal genes in their introns. *Nucleic Acids Res.* 21: 719-726.
146. Woloshuk, C.P. & Payne, G.A. 1994 the alcohol dehydrogenase gene *adh1* is induced in *Aspergillus flavus* grown on medium conducive to aflatoxin biosynthesis. *Appl. Env. Microbiol.* 60: 670-676.
147. Zucchi, T.M.A.D. 1993 Location of the suppressor of the *methA17* mutant 29 of *Aspergillus nidulans*. *Rev. Bras. Genet.* 16: 259-274.

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[(c)-sequence comparison, (h)-heterologous expression, (s)-clone or sequence, (r)-regulation]