

Matthew M. Tanzer · Herbert N. Arst ·  
Amy R. Skalchunes · Marie Coffin ·  
Blaise A. Darveaux · Ryan W. Heiniger ·  
Jeffrey R. Shuster

## Global nutritional profiling for mutant and chemical mode-of-action analysis in filamentous fungi

Published online: 10 February 2004  
© Springer-Verlag 2004

---

### Funct Integr Genomics (2003) 3:160–170

Fig. 3 and Fig. 7 should have been printed in color. Due to a technical error they were printed in black and white.

---

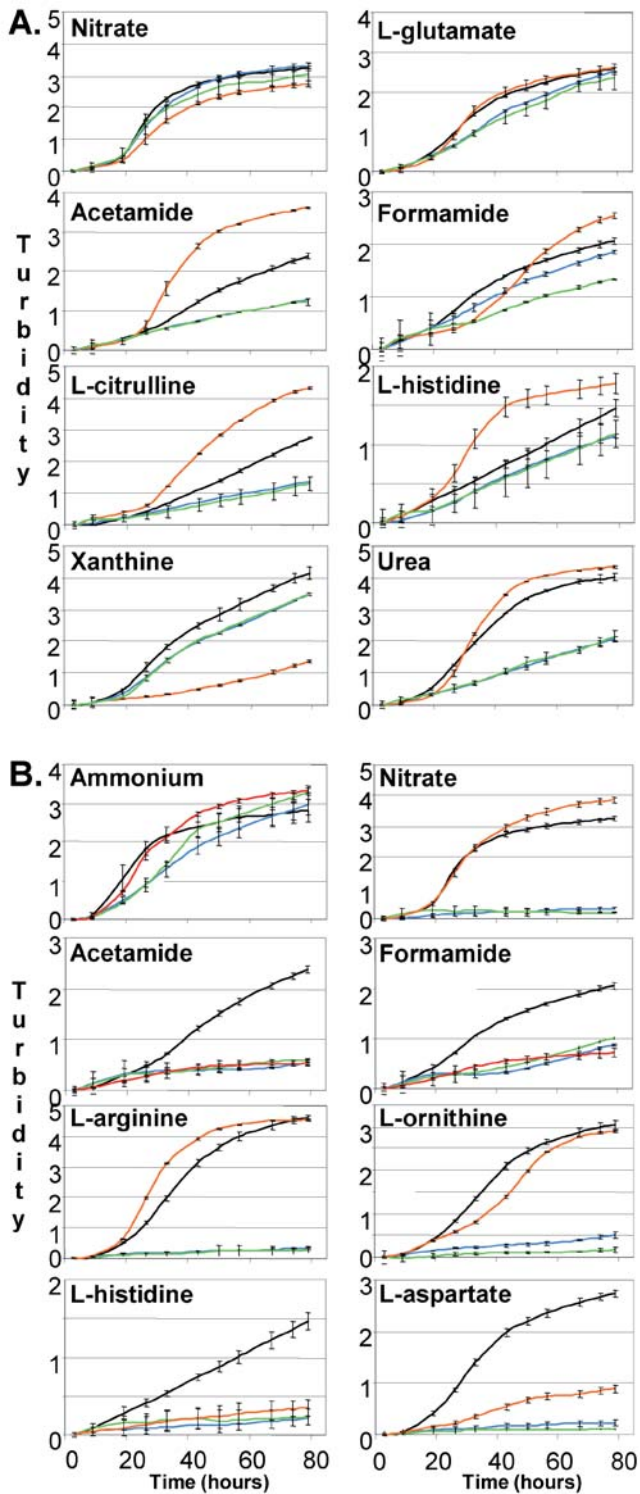
The online version of the original article can be found at <http://dx.doi.org/10.1007/s10142-003-0089-3>

---

M. M. Tanzer (✉) · A. R. Skalchunes · M. Coffin · R. W. Heiniger ·  
J. R. Shuster  
Paradigm Genetics, Building 1A, 108 TW Alexander Drive,  
Research Triangle Park, NC 27709, USA  
e-mail: [mtanzer@paragen.com](mailto:mtanzer@paragen.com)  
Tel.: +1-919-4252931  
Fax: +1-919-5448094

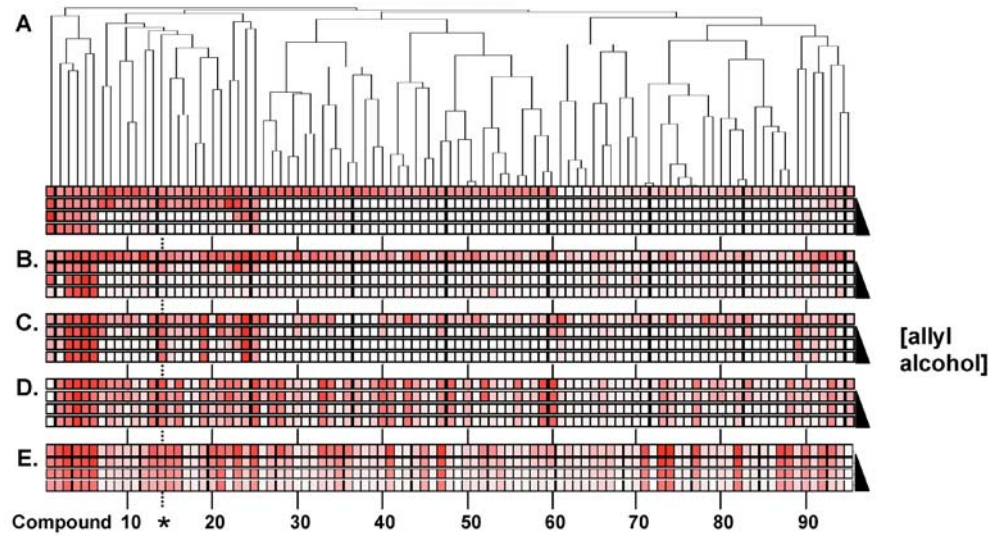
H. N. Arst Jr.  
Department of Infectious Diseases, Faculty of Medicine,  
Imperial College London,  
Ducane Rd., London, W12 0NN, UK

B. A. Darveaux  
Mycosynthetix, Suite 5, 4905 Pine Cone Drive, Durham,  
NC 27707, USA



**Fig. 3** Nutrient utilization analysis of several nitrogen-containing compounds by *Aspergillus nidulans* wild-type strain A (black) and strains with: **A** *areA-102* (strain M, orange) or *areA-30* alleles (strain K, blue; strain Z, green) or **B** *areA<sup>r</sup>-366* (strain R, green), *areA<sup>r</sup>-600* (strain E, blue), and *areA-1900* alleles (strain S, orange)

**Fig. 7A–E** Comparative analysis of carbon compound utilization. **A** Hierarchical clustering of *Aspergillus nidulans* strain 2158 compared to: **B** *A. nidulans* strain FGSC A28, **C** *Aspergillus fumigatus*, **D** *Magnaporthe grisea*, and **E** *Mycosphaerella graminicola* in the presence of increasing concentrations of allyl alcohol (concentrations listed in Materials and methods). Each square represents a single carbon compound and the growth level is indicated by the intensity of red color. \* indicates dextrin (compound 14). The carbon sources are listed in order and in Table 2 of the Electronic supplementary material



1. succinic acid monomethyl ester	33. fumaric acid,	65. adonitol,
2. D-fructose,	34. L-alanine,	66. D-arabinose,
3. D-mannose,	35. D-malic acid,	67. D-psicose,
4. D-xylose,	36. succinic acid,	68. N-acetyl-D-mannosamine,
5. sucrose,	37. $\alpha$ -ketoglutaric acid,	69. N-acetyl-D-galactosamine,
6. $\alpha$ -D-glucose,	38. D-saccharic acid,	70. sedoheptulosan,
7. $\gamma$ -aminobutyric acid,	39. L-alanylglycine,	71. $\alpha$ -methyl-D-glucoside,
8. arbutin,	40. L-aspartic acid,	72. uridine,
9. D-glucuronic acid,	41. $\alpha$ -D-lactose,	73. D-galactose,
10. D-galacturonic acid,	42. putrescine,	74. stachyose,
11. D-gluconic acid,	43. maltotriose,	75. adenosine-5'-monophosphate,
12. sebacic acid,	44. amygdalin,	76. N-acetyl-L-glutamic acid,
13. gentiobiose,	45. bromosuccinic acid,	77. lactulose,
14. dextrin,	46. $\gamma$ -hydroxybutyric acid,	78. turanose,
15. D-mannitol,	47. D-raffinose,	79. L-rhamnose,
16. $\beta$ -methyl-D-gluconic acid,	48. xylitol,	80. D-lactic acid methyl ester,
17. palatinose,	49. L-threonine,	81. maltitol,
18. 2-keto-D-gluconic acid,	50. L-ornithine,	82. D-melibiose,
19. maltose,	51. D-melezitose,	83. glycogen,
20. glycerol,	52. succinamic acid,	84. adenosine,
21. L-arabinose,	53. L-phenylalanine,	85. alaninamide,
22. L-proline,	54. $\beta$ -hydroxybutyric acid,	86. $\alpha$ -cyclodextrin,
23. quinic acid,	55. <i>p</i> -hydroxyphenylacetic acid,	87. $\alpha$ -methyl-D-galactoside,
24. D-sorbitol,	56. L-serine,	88. $\beta$ -methyl-D-galactoside,
25. D-trehalose,	57. 2-aminoethanol,	89. D-ribose,
26. N-acetyl-D-glucosamine,	58. L-lactic acid,	90. Tween 80,
27. salicin,	59. L-asparagine,	91. $\beta$ -cyclodextrin,
28. L-malic acid,	60. L-glutamic acid,	92. D-arabitol,
29. glucose-1-phosphate,	61. L-sorbose,	93. D-cellobiose,
30. L-pyroglutamic acid,	62. D-tagatose,	94. l-erythritol,
31. glycyL-L-glutamic acid,	63. glucuronamide,	95. D-glucosamine.
32. m-inositol,	64. L-fucose,	