

## Fungal endophyte misidentified as *Neurospora crassa*.

S. Riyaz-Ul-Hassan

*Indian Institute of Integrative Medicine*

S. Rehman

*Indian Institute of Integrative Medicine (branch Srinagar)*

A. S. Shawl

*Indian Institute of Integrative Medicine (branch Srinagar)*

*See next page for additional authors*

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## Fungal endophyte misidentified as *Neurospora crassa*.

### Abstract

The endophytic fungus isolate, ZP5SE, recently described in Rehman et al. 2008 was misidentified identified as *Neurospora crassa*. The 28S ribosomal gene sequence of the isolate shows 100% sequence similarity with GenBank accession *Neurospora crassa* M38154.

### Authors

S. Riyaz-Ul-Hassan, S. Rehman, A. S. Shawl, G. N. Qazi, and J. Taylor

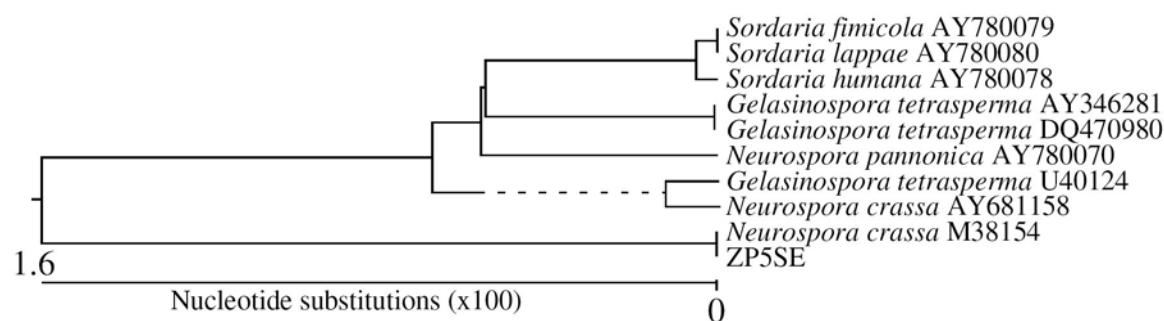
**Fungal endophyte misidentified as *Neurospora crassa*.**

S. Riyaz-Ul-Hassan<sup>1</sup>, S. Rehman<sup>2</sup>, A. S. Shawl<sup>2</sup>, G. N. Qazi<sup>1</sup>, and J. Taylor<sup>3\*</sup>.

<sup>1</sup>Biotechnology Division, Indian Institute of Integrative Medicine, Canal Road, Jammu, INDIA 180001. <sup>2</sup>Indian Institute of Integrative Medicine (Branch Srinagar), Sanatnagar, Srinagar, INDIA 190005. <sup>3</sup>Department of Plant and Microbial Biology, University of California, Berkeley, CA USA 94720-3102 \*corresponding author: email: [jtaylor@berkeley.edu](mailto:jtaylor@berkeley.edu)

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The endophytic fungus isolate, ZP5SE, recently described in Rehman et al. 2008 was misidentified identified as *Neurospora crassa*. The 28S ribosomal gene sequence of the isolate shows 100% sequence similarity with GenBank accession *Neurospora crassa* M38154. However, there are three additional 28S ribosomal gene sequences deposited in GenBank as *N. crassa* U40124 (culture NRRL 13141), *N. crassa* AF286411 (culture MUCL 19026), and *N. crassa* AY681158.1 (culture ICMP 6360). Phylogenetic analyses shows that these three additional sequences are closest relatives (100% similarity) and that this group is more distantly related to the ZP5SE and *N. crassa* M38154 sequences (88%-91% similarity). In phylogenetic analysis, the ZP5SE sequence and M38154 form a sister group to many Sordariaceae, including species of *Neurospora*, *Gelasinospora* and *Sordaria* (Figure 1). As a result, ZP5SE cannot yet be assigned to a particular genus or species on the basis of the 28S ribosomal gene sequence. In addition, we infer that the GenBank sequence M38154 must be incorrectly attributed to *N. crassa*.



**Figure 1.** Phylogenetic analysis comparing the fungal endophyte (ZP5SE) with related fungi using partial SSU and LSU rDNA sequences from Figure 4 of Rehman et al. 2008. *N. crassa* AY681158 represents three GenBank sequences of *N. crassa* (AY681158, U40124 and AF286411), and is nestled with *Gelasinospora* species, as expected. *N. crassa* M38154 is quite distant from the three other *N. crassa* sequences and likely is misattributed to *N. crassa*.

**References:**

Rehman, S., Shawl, A.S., Verma, V., Kour, A., Athar, M., Andrabi, R., Sultan, P., and G.N. Qazi. 2008. An endophytic *Neurospora* sp. from *Nothapodytes foetida* producing camptothecin. *Applied Biochemistry and Microbiology* 44:203–209. ( *Prikladnaya Biokhimiya i Mikrobiologiya* 44:225–231.)