## **Electronic Supplementary Information**

## Total Synthesis and Anti-cholinesterase Activity of Marinederived Bis-indole Alkaloid Fascaplysin

Sandip B. Bharate,\* Sudhakar Manda,<sup>†</sup> Prashant Joshi,<sup>†</sup> Baljinder Singh<sup>‡</sup> and Ram A. Vishwakarma<sup>†‡</sup>\*

<sup>†</sup>Medicinal Chemistry Division, <sup>‡</sup>Natural Products Chemistry Division, Indian Institute of Integrative Medicine (CSIR), Canal Road, Jammu-180001, India

\*E-mail: <a href="mailto:sbharate@iiim.ac.in">sbharate@iiim.ac.in</a>, <a href="mailto:ram@iiim.ac.in">ram@iiim.ac.in</a>, <a href="mailto:ram@iiim.ac.in">ram@iiim.ac.in</a>)

Fax: +91-191-2569333; Tel: +91-191-2569111

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**Figure S1** (a). Dixon plots representing reciprocal of initial AChE velocity versus fascaplysin concentrations (0.2 to10  $\mu$ M) at six different concentrations of ATChI as indicated in the graph; (b) secondary replot of the Dixon plot slopes versus reciprocal of the ATChI concentrations.

**Figure S2** (a). Dixon plots representing reciprocal of initial AChE velocity versus fascaplysin concentrations (2 to 100  $\mu$ M) at six different concentrations of BuTChI as indicated in the graph; (b) secondary replot of the Dixon plot slopes versus reciprocal of the substrate concentrations.

**Figure S3** <sup>1</sup>H NMR of fascaplysin (1) in CD<sub>3</sub>OD

**Figure S4**<sup>13</sup>C NMR of fascaplysin (1) in CD<sub>3</sub>OD

Figure S5 DEPT-135 spectrum of fascaplysin (1) in CD<sub>3</sub>OD



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£2 CHANNEL

waltz16

waltz16 1H 80.00 usec 1.00 dB 16.72 dB 20.00 dB 10.61479568 W 0.28438827 W 0.13363236 W 400.1316005 MHz 32768 100.6126227 MHz EM 0

0 1.00 Hz 1.40

CPDPRG2

NUC2 PCPD2 PL2

SFO.

ppm

Figure S4<sup>13</sup>C NMR of fascaplysin (1) in CD<sub>3</sub>OD

140

120

100

80

60

40

20

160

180



Figure S5 DEPT-135 spectrum of fascaplysin (1) in CD<sub>3</sub>OD