**Supporting data for “Discovery of New Butyrylcholinesterase Inhibitors via Structure-Based Virtual Screening”**

Noor Atatreh1, Sara AlRawashdah1, Shaikha S. AlNeyadi3, Sawsan M. Abuhamdah1,2\*, Mohammad A. Ghattas1\*

1 College of Pharmacy, Al Ain University of Science and Technology, Abu Dhabi, UAE, P.O. Box 112612. Tel: +971 (0) 2 4444696. Fax: +971 (0) 2 4444304

2 Department of Biopharmaceutics and Clinical Pharmacy, Faculty of Pharmacy, The University of Jordan, Amman 11942, Jordan

3 Department of Chemistry, College of Science, UAE University Al-Ain, 15551 UAE

***List of figures:***

Figure 1**.** 1H-NMR spectrum for compound **4**

Figure 2**.** 1H-NMR spectrum for compound **5**

Figure 3**.** 1H-NMR spectrum for compound **12**

Figure 4**.** 1H-NMR spectrum for compound **26**

****

**Figure 1**. 1H NMR spectra of compound 4 (NCS **602697**) in DMSO-*d*6 at 298 K





**Figure 2**. 1H NMR spectra of compound 5 (NCS 11052) in DMSO-*d*6 at 298



**Figure 1**. 1H NMR spectra of compound 5 (NCS 11052) in DMSO-*d*6 at 298 K

**Figure 3**. 1H NMR spectra of compound 12 (NCS 39813) in DMSO-*d*6 at 298 K



**Figure 4**. 1H NMR spectra of compound 26 (NCS **135824**) in DMSO-*d*6 at 298 K