**Multicomponent Reactions as a Privileged Tool for Multitarget-Directed Ligand Strategies in Alzheimer’s Disease Therapy**

Table 1S…………………………………………………………………………………………………………………………S2

Figure 1S………………………………………………………………………………………………………………………..S3

Figure 2S………………………………………………………………………………………………………………………..S3

Figure 3S………………………………………………………………………………………………………………………..S3

**Table 1S**

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| --- | --- | --- | --- | --- | --- | --- |
| Table 1S. Multicomponent reactions (MCRs): reaction name and year of discovery. | | | | | | |
|  | | **Year** | | **Reaction Name** | | **Reaction** |
| 1 | | 1850 | | Strecker[41] | |  |
| 2 | | 1881 | | Hantzsch[42,43] | |  |
| 3 | | 1887 | | Döbner[47] |  | |
| 4 | | 1891 | | Biginelli[49] |  | |
| 5 | | 1912 | | Mannich[53] |  | |
| 6 | | 1921 | | Passerini[55] |  | |
| 7 | | 1959 | | Ugi[57] |  | |
| 8 | 1963 | | Povarov[59] | |  | |

**Figure 1S**. Hantzsch 3-component reaction (H-3CR) leading to 1,4-dihydropyridine (1,4-DHP).



**Figure 2S**. Biginelli 3-component reaction (B-3CR) leading to dihydropyrimidin-2-(thi)one (DHPM).



**Figure 3S**. Ugi 4-component reaction (U-4CR) leading to bis-amide α-acylaminocarboxamide.

