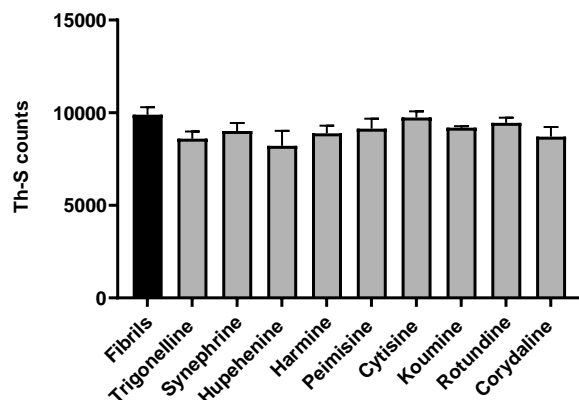


| Group | Maxima Wavelength (nm) |
|---|------------------------|
| α -syn monomers | 479 |
| α -syn monomers + α -syn pure seeds | 494 |
| Cytisine | 486 |
| Harmine | 485 |
| Hupehenine | 485 |
| Koumine | 486 |
| Peimisine | 486 |
| Synephrine | 486 |
| Trigonelline | 486 |
| Corydaline | 494 |
| Rotundine | 493 |

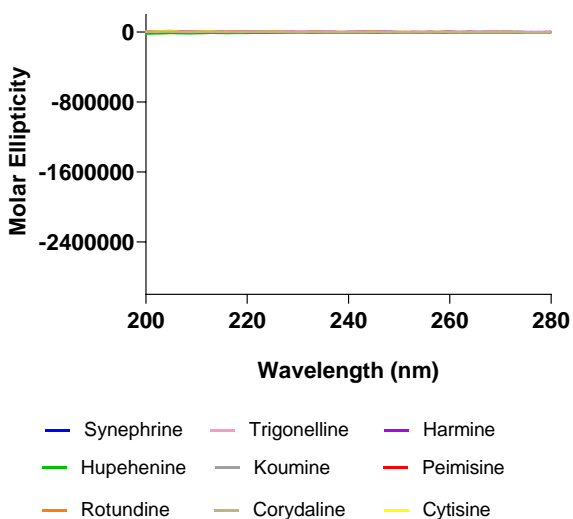
Supplementary Table 1: Maxima wavelength values (nm) of Congo red (CR) absorbance spectra for all groups.

| Group | Maxima Wavelength (nm) | Minima Wavelength (nm) |
|---|------------------------|------------------------|
| α -syn monomers | 274 | 200 |
| α -syn monomers + α -syn pure seeds | 208 | 226 |
| Cytisine | 279 | 200 |
| Harmine | 253 | 200 |
| Hupehenine | 253 | 200 |
| Koumine | 253 | 200 |
| Peimisine | 263 | 200 |
| Synephrine | 274 | 200 |
| Trigonelline | 267 | 200 |
| Corydaline | 208 | 225 |
| Rotundine | 208 | 223 |

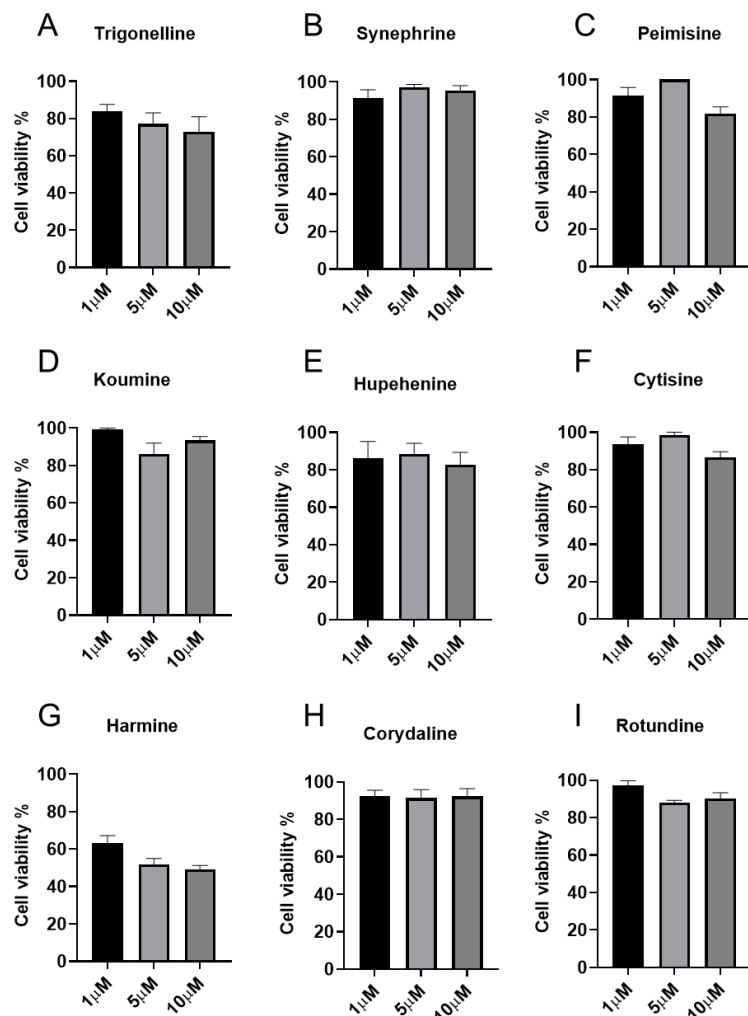
Supplementary Table 2: Maxima and minima wavelength values (nm) of Circular dichroism (CD) spectra for all groups.



Supplementary Figure 1: Effect of alkaloid compounds on α -syn aggregation. Fibril formation analysis for each sample was performed using Th-S assay. α -Syn fibril-solution (5 μ M) was incubated alone or with tested compound (20 μ M), and tested immediately at time point 0. The assay was performed in triplicates, and the means \pm standard deviations are shown.



Supplementary Figure 2: Circular dichroism (CD) spectra of alkaloid compounds alone (20 μ M). Means \pm standard deviations are from triplicates of one experiment.



Supplementary Figure 3: Effect of alkaloid compounds on cell toxicity (A – I). The viability of WT SH-SY5Y human neuroblastoma cells was evaluated using MTT cell viability assay. Cells were incubated for 48 hours with compounds (A) Trigonelline, (B) Synephrine, (C) Peimisine, (D) Koumine, (E) Hupehenine, (F) Cytisine, (G) Harmine, (H) Corydaline and (I) Rotundine at different molar concentrations (1 μ M, 5 μ M and 10 μ M). The results are expressed as percentages of the average of the untreated cells. Values are expressed as means \pm standard deviations.