

Supplementary Information for Inhibition of the early-stage cross-amyloid aggregation of amyloid- β and IAPP via EGCG: insights from molecular dynamics simulations

Amit Srivastava,[†] Kenana Al Adem,^{‡,¶} Aya Shanti,[§] Sungmun Lee,^{||,⊥} Sufian
Abedrabbo,[†] and Dirar Homouz^{*,†}

[†]*Department of Physics, Khalifa University of Science and Technology, Abu Dhabi, UAE*

[‡]*Chair of Biological Imaging, Central Institute for Translational Cancer Research
(TranslaTUM), School of Medicine, Technical University of Munich, Munich, Germany.*

[¶]*Institute of Biological and Medical Imaging, Helmholtz Zentrum München, Neuherberg,
Germany.*

[§]*Department of Biology, Khalifa University of Science and Technology, Abu Dhabi, UAE*

^{||}*Department of Biomedical Engineering and Healthcare Engineering Innovation Center,
Khalifa University of Science and Technology, Abu Dhabi, UAE*

[⊥]*Khalifa University's Center for Biotechnology, Khalifa University of Science and
Technology, Abu Dhabi, UAE*

E-mail: dirar.homouz@ku.ac.ae

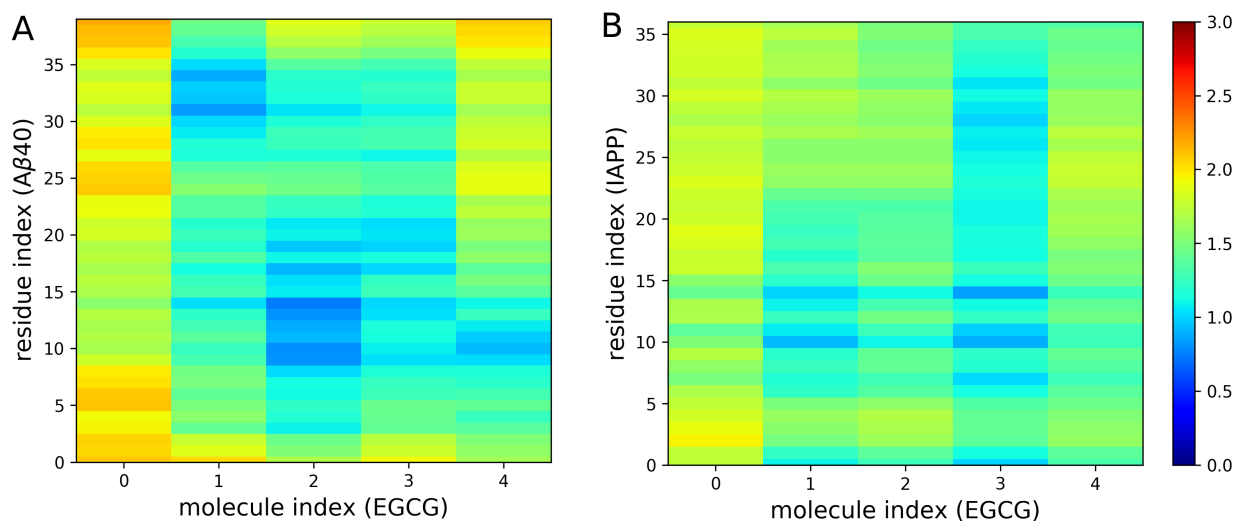


Figure S1: The distance matrices illustrating inter-molecular contacts between EGCG molecule and A β 40 (**A**), and IAPP and (**B**). The inter-molecular contacts are shown for the whole simulation time. The color bar on the right indicates average inter-molecular distances (in nanometers)

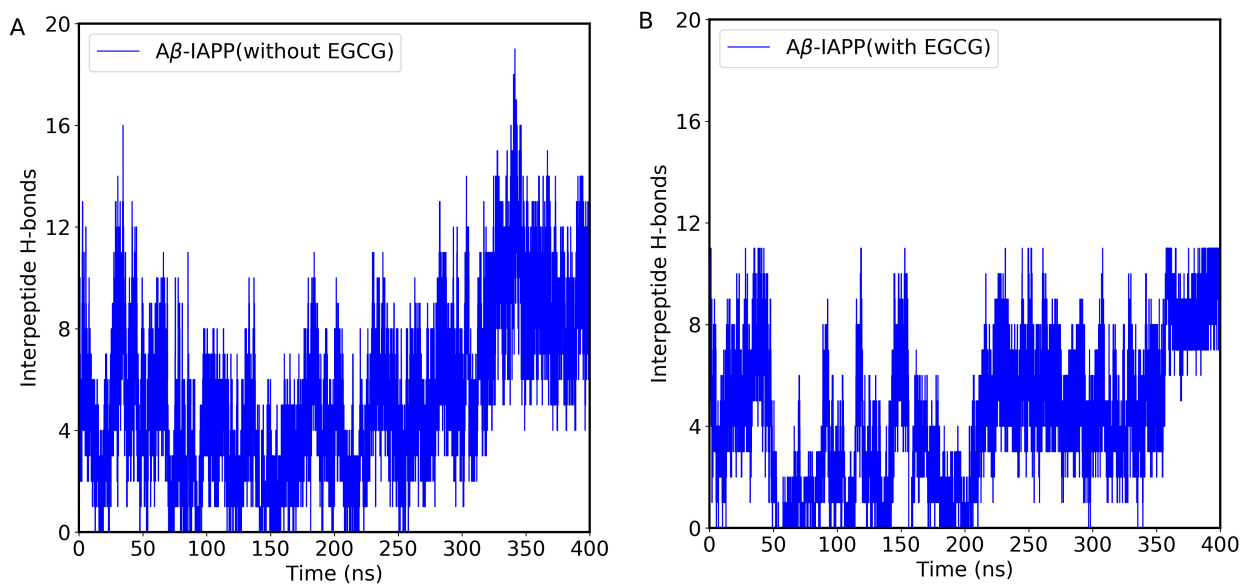


Figure S2: Time evolution of inter-peptide hydrogen bonds formed between A β 40 and IAPP (**A**) in the absence of EGCG (**B**) in the presence of EGCG of hetero-dimer system.

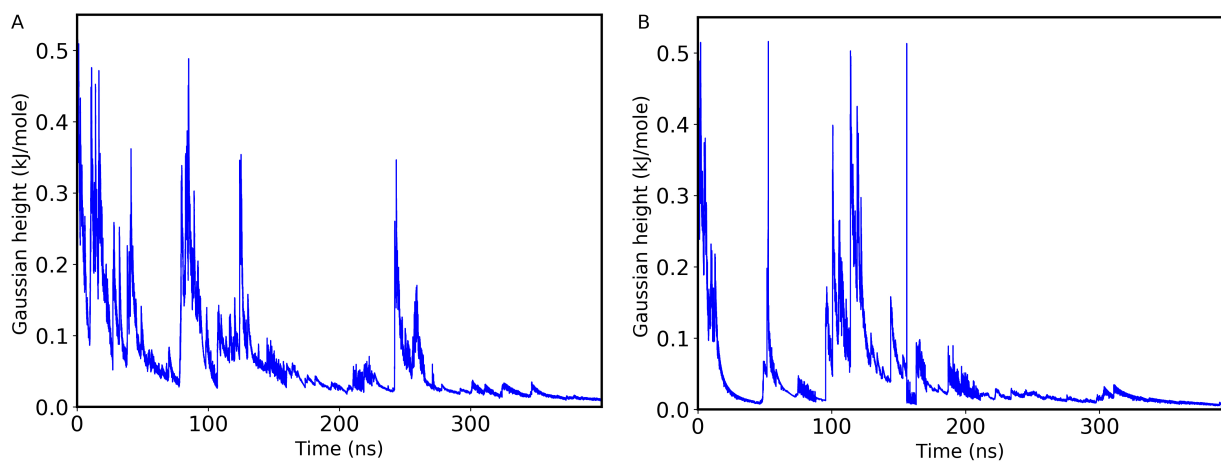


Figure S3: Time evolution of Gaussian hills of heterodimer system during the metadynamics simulation (**A**) in the absence of EGCG, and (**B**) in the presence of EGCG.