## **Supporting Information**

The ESI for Analyst, 2021, 12, 3988-3999, DOI: 10.1039/d1an00478f, originally published on 20th May 2021, was updated on 14th June 2023

Supramolecular self-assembly of amantadine hydrochloride with ferulic acid *via* dual optimization strategy establishes a precedent of synergistic antiviral drugphenolic acid nutraceutical cocrystal

Ling-Yang Wang<sup>‡a</sup>, Yuan-Yuan Niu<sup>‡a</sup>, Ming-Yu Zhao<sup>a</sup>, Yue-Ming Yu,<sup>a</sup> Yan-Tuan Li<sup>a,b,\*</sup>, Zhi-Yong Wu<sup>a</sup>, Cui-Wei Yan<sup>a,\*</sup>

<sup>a</sup>School of Medicine and Pharmacy and College of Marine Life Science, Ocean University of China, Qingdao, Shandong 266003, PR China

<sup>b</sup>Laboratory for Marine Drugs and Bioproducts, Qingdao National Laboratory for Marine Science and Technology, 266003, PR China

<sup>\*</sup>Correspondence to: Yan-Tuan Li and Cui-Wei Yan (Telephone: +86-53282031695). E-mail addresses: yantuanli@ouc.edu.cn (Yan-Tuan Li), cuiweiyan@ouc.edu.cn (Cui-Wei Yan). ‡These authors contributed equally to this work.

## **Contents**

- Figure S1. FT-IR spectra of (a) FLA, (b) AMH, and (c) AMH-FLA cocrystal.
- **Figure S2.** XRPD comparison of simulated pattern for the cocrystal and the residual solids after the powder dissolution measurements.
- Figure S3. IDR profiles of the cocrystal and pure AMH at pH 1.2, 4.0 and 6.8.

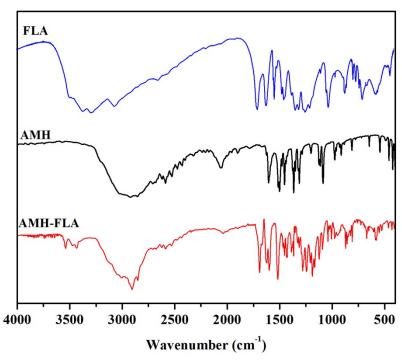
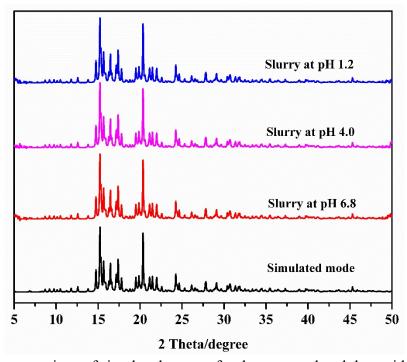


Figure S1. FT-IR spectra of (a) FLA, (b) AMH, and (c) AMH-FLA cocrystal.



**Figure S2.** XRPD comparison of simulated pattern for the cocrystal and the residual solids after the powder dissolution measurements.

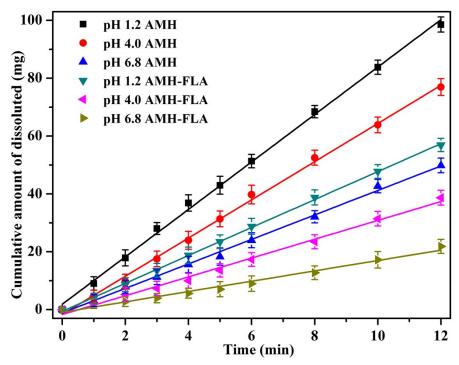


Figure S3. IDR profiles of the cocrystal and pure AMH at pH 1.2, 4.0 and 6.8.