Supporting Information

Excited state interactions between flurbiprofen and tryptophan in drug/protein complexes and in model dyads. Fluorescence studies from the femtosecond to the nanosecond time domains

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S2. Figure SI-1. UV-vis absorption spectra of (S)-FBP (black), (S)-TrpMe (green), (S,S)-FBP-TrpMe (red) and (R,S)-FBP-TrpMe (blue) at \( \lambda_{\text{exc}} = 267 \) nm in acetonitrile/air (2.5×10⁻⁵ M).

S3. Figure SI-2. Steady-state emission of (S)-FBP (black), (S)-TrpMe (green), (S,S)-FBP-TrpMe (red) and (R,S)-FBP-TrpMe (blue) at \( \lambda_{\text{exc}} = 267 \) nm in acetonitrile/air. A) The relative intensities are representative of the quantum yields. B) Normalised spectra.

S4. Figure SI-3. FU anisotropy decays of (S)-FBP (black), (S,S)-FBP-TrpMe (red), (R,S)-FBP-TrpMe (blue) and (S)-TrpMe (green) at \( \lambda_{\text{exc}} = 267 \) nm in acetonitrile/air at A) \( \lambda_{\text{em}} = 310 \) nm and B) \( \lambda_{\text{em}} = 340 \) nm.

S5. Figure SI-4. Normalised TCSPC decays of (S,S)-FBP-TrpMe (red) and (R,S)-FBP-TrpMe (blue) at \( \lambda_{\text{exc}} = 267 \) nm and \( \lambda_{\text{em}} = 310 \) nm (solid lines) and \( \lambda_{\text{em}} = 340 \) nm (open circles) in acetonitrile/air.

S6. Figure SI-5. Normalised TCSPC decays of HSA at \( \lambda_{\text{exc}} = 267 \) nm and \( \lambda_{\text{em}} = 380 \) nm in PBS solution. Best fit (in red) obtained using A) second order exponential fit and B) third order exponential fit. Inset: residual of the corresponding fit.

S7. Figure SI-6. Normalised TCSPC decays of (S)-FBP@HSA at \( \lambda_{\text{exc}} = 267 \) nm and \( \lambda_{\text{em}} = 380 \) nm in PBS solution. Best fit (in red) obtained using A) second order exponential fit and B) third order exponential fit. Inset: residual of the corresponding fit.

S8. Figure SI-7. Normalised TCSPC decays of (R)-FBP@HSA at \( \lambda_{\text{exc}} = 267 \) nm and \( \lambda_{\text{em}} = 380 \) nm in PBS solution. Best fit (in red) obtained using A) second order exponential fit and B) third order exponential fit. Inset: residual of the corresponding fit.

S9. Figure SI-8. Geometry optimised (HyperChem Release 8.0.3 for Windows Molecular Model System, PM3) structure for (S,S)-FBP-TrpMe (A) and (S,R)-FBP-TrpMe (B).
Figure S1-1. UV-vis absorption spectra of \((S)\)-FBP (black), \((S)\)-TrpMe (green), \((S,S)\)-FBP-TrpMe (red) and \((R,S)\)-FBP-TrpMe (blue) in acetonitrile/air (2.5×10^{-5} M).
Figure S1-2. Steady-state emission of (S)-FBP (black), (S)-TrpMe (green), (S,S)-FBP-TrpMe (red) and (R,S)-FBP-TrpMe (blue) at $\lambda_{\text{exc}} = 267$ nm in acetonitrile/air. A) The relative intensities are representative of the quantum yields. B) Normalised spectra.
**Figure SI-3.** FU anisotropy decays of (S)-FBP (black), (S,S)-FBP-TrpMe (red), (R,S)-FBP-TrpMe (blue) and (S)-TrpMe (green) at $\lambda_{\text{exc}} = 267$ nm in acetonitrile/air at A) $\lambda_{\text{em}} = 310$ nm and B) $\lambda_{\text{em}} = 340$ nm.
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