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Supplementary Material

Role of cation in enhancing the conversion of the Alzheimer's peptide into amyloid fibrils using protic ionic liquids

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Analysis of CD spectra: K2d Analysis software[1,2]

Table 1a: Abeta1-42 in EAMS

	Protic Ionic Liquid Composition			
Structural characterisation	**10% EAMS**	**30% EAMS**	**50% EAMS**	**70% EAMS**
Alpha helix (%)	8	9	23	31
Beta sheet (%)	44	43	27	15
Random coil (%)	48	48	50	54

Table 1b: Abeta1-42 in TEAMS

	Protic Ionic Liquid Composition			
Structural characterisation	**10% TEAMS**	**30% TEAMS**	**50% TEAMS**	**70% TEAMS**
Alpha helix (%)	9	13	20	25
Beta sheet (%)	40	32	25	19
Random coil (%)	51	55	55	56

Table 2a: Abeta11-42 in EAMS

	Protic Ionic Liquid Composition			
Structural characterisation	**10% EAMS**	**30% EAMS**	**50% EAMS**	**70% EAMS**
Alpha helix (%)	2	5	28	28
Beta sheet (%)	51	47	25	36
Random coil (%)	47	47	48	37

Table 2b: Abeta11-42 in TEAMS

	Protic Ionic Liquid Composition			
Structural characterisation	**10% TEAMS**	**30% TEAMS**	**50% TEAMS**	**70% TEAMS**
Alpha helix (%)	12	13	30	38
Beta sheet (%)	40	39	21	8
Random coil (%)	48	48	50	54

Table 3a: Abeta3-42 in EAMS

	Protic Ionic Liquid Composition			
Structural characterisation	**10% EAMS**	**30% EAMS**	**50% EAMS**	**70% EAMS**
Alpha helix (%)	5	4	6	37
Beta sheet (%)	48	48	47	12
Random coil (%)	48	48	47	51

Table 3b: Abeta11-42 in TEAMS

	Protic Ionic Liquid Composition			
Structural characterisation	**10% TEAMS**	**30% TEAMS**	**50% TEAMS**	**70% TEAMS**
Alpha helix (%)	20	20	32	29
Beta sheet (%)	27	29	16	15
Random coil (%)	53	51	52	55

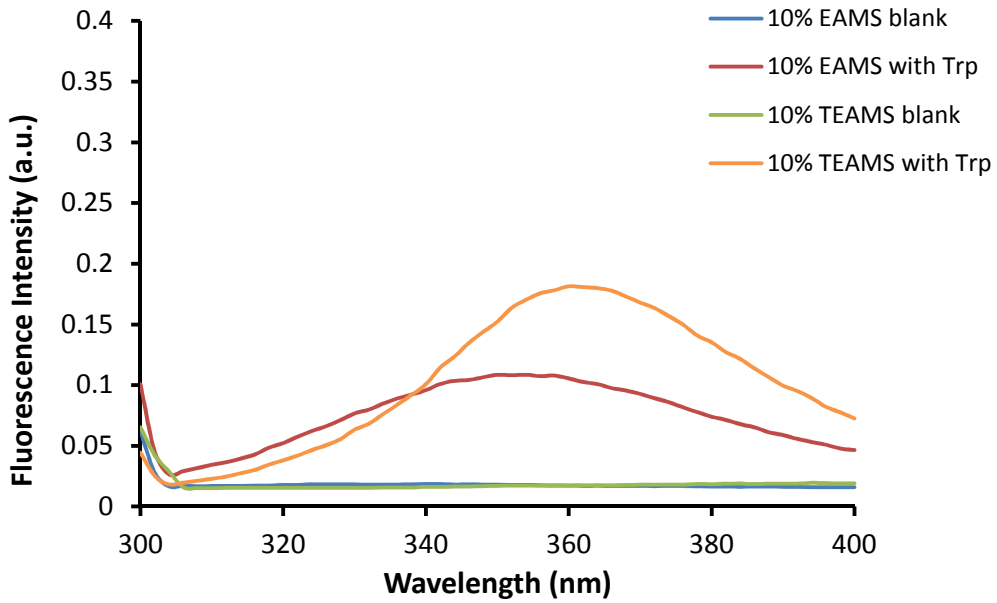

Figure S1: Fluorescence emission of the intrinsic Trp residue as at 10wt%EAMS and 10wt%TEAMS with and without peptide.

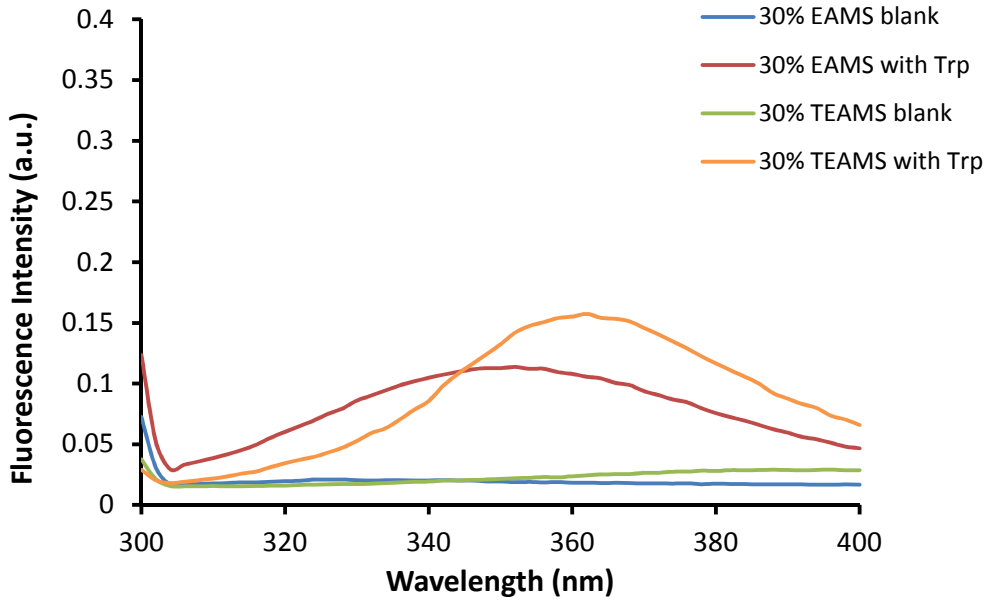

Figure S2: Fluorescence emission of the intrinsic Trp residue as at 30wt%EAMS 10wt%TEAMS with and without peptide.

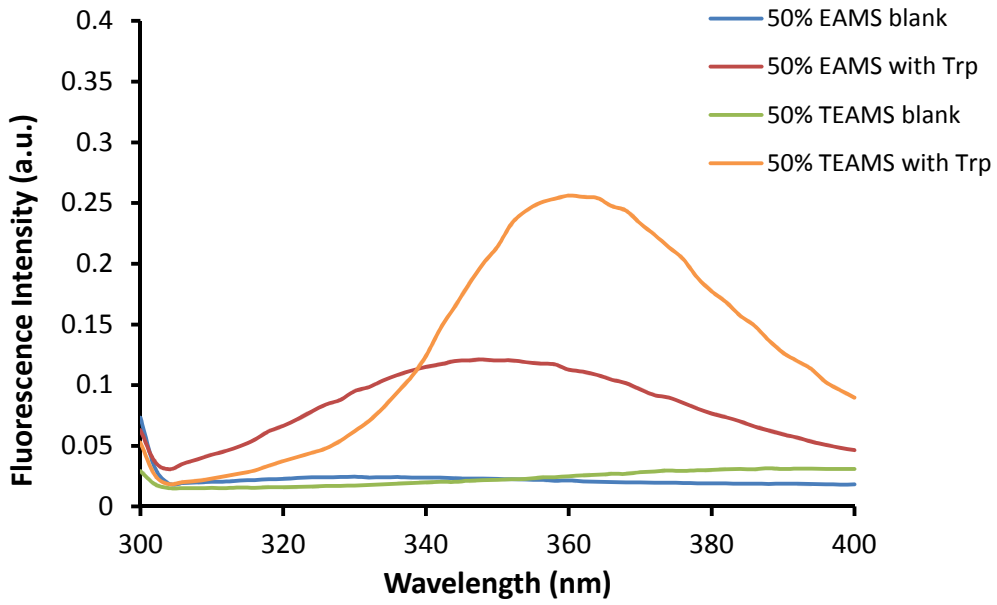

Figure S3: Fluorescence emission of the intrinsic Trp residue as at 50wt%EAMS and 10wt%TEAMS with and without peptide.

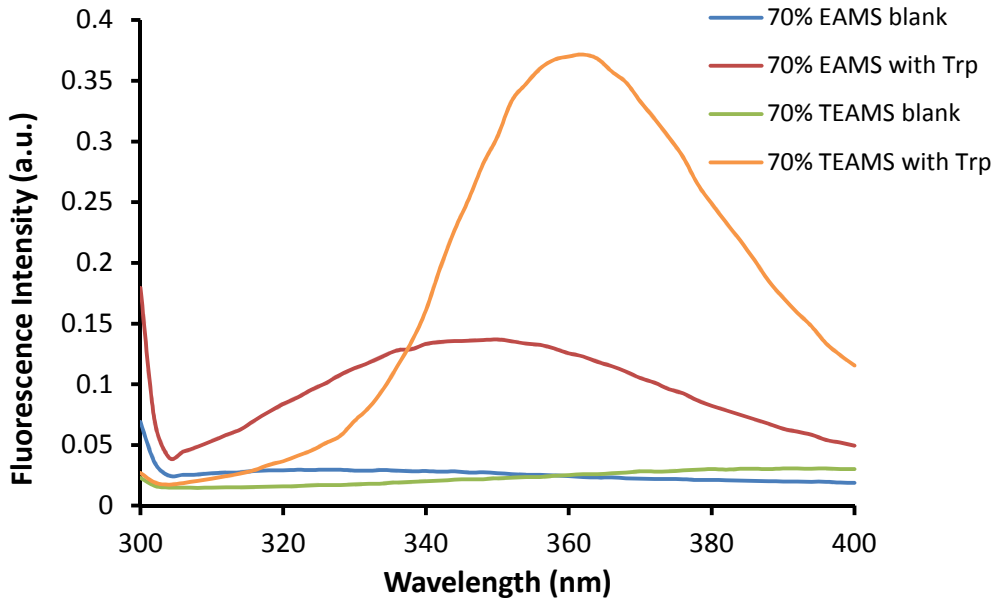

Figure S4: Fluorescence emission of the intrinsic Trp residue as at 70wt%EAMS and 10wt%TEAMS with and without peptide.

1) Merelo, J.J., M.A. Andrade, A. Prieto and F. Morán. 1994. Proteinotopic Feature Maps. Neurocomputing. **6**, 443-454

2) Andrade, M.A., P. Chacón, J.J. Merelo and F. Morán. 1993. Evaluation of secondary structure of proteins from UV circular dichroism using an unsupervised learning neural network. Prot. Eng. **6**, 383-390