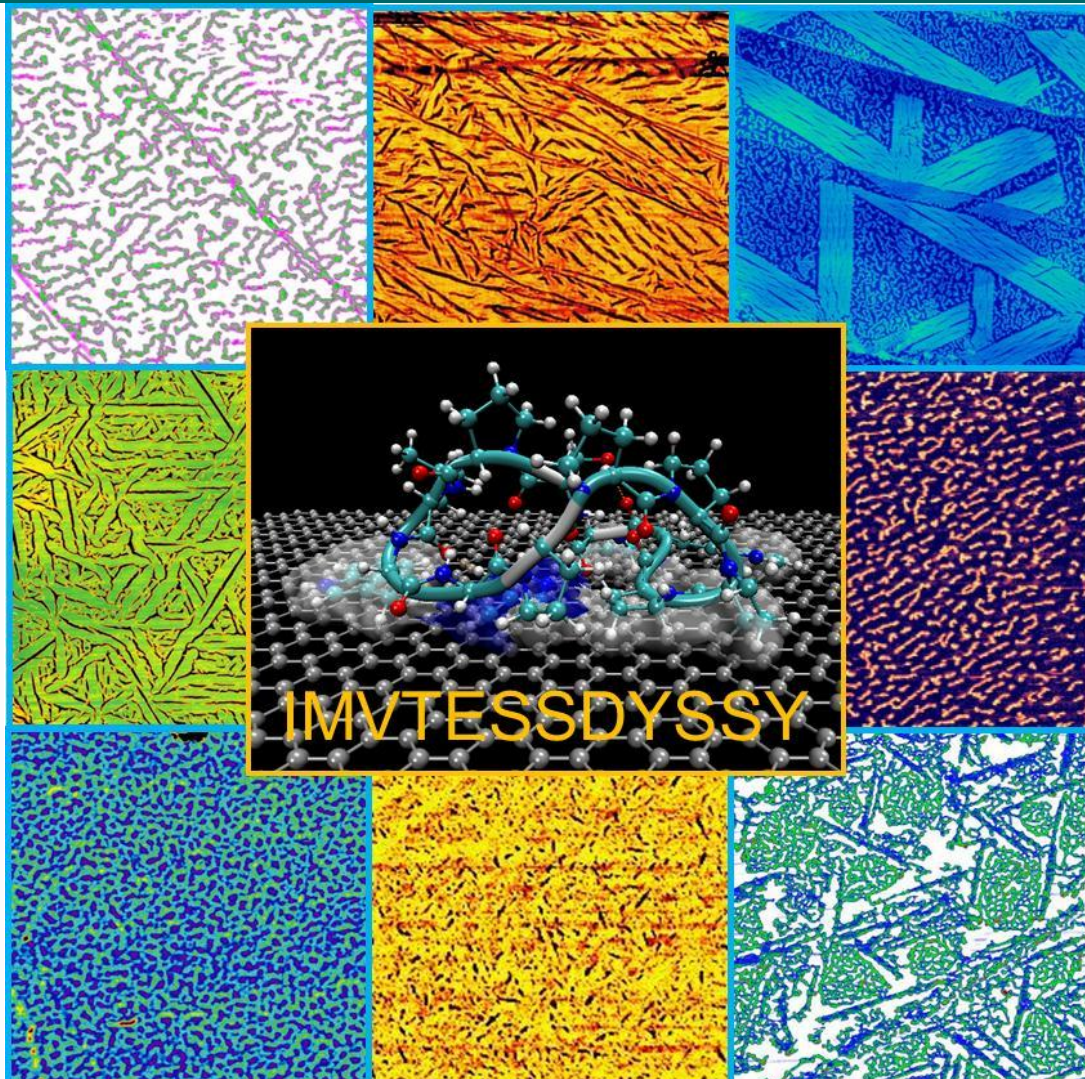




RESEARCH

SAPs: Self Assembled Peptides – Developed in GEMSEC, biocombinatorially selected solid binding peptides with short (7-15) amino acid (AA) sequences can bind to atomically flat materials via molecular recognition that leads to surface diffusion, clustering and long-range ordered assembly commensurate with the underlying crystallographic solid lattice. Similar to SAMs, SAPs are monolayer-thick and long-range ordered, but they have enormously richer chemical, physical and biological information content, derived from their AA sequences leading to formation of diversity of biomolecular nanostructures, genetically tailored to perform engineered functions, potentially the basis for future bionanodevices. Ref. C. So, Y. Hayamizu, H. Yazici, C. Gresswell, D. Khatayevich, C. Tamerler, & M. Sarikaya, “Controlling Self Assembly of Engineered Peptides on Graphite by Rational Mutation,” *ACS Nano*, **6**(2) 1648-1656 (2012).



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