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Sommario/riassunto	In his thesis Fluorescence in Bio-inspired Nanotechnology, Jonas Hannestad describes the evolving field of DNA nanotechnology in a lucid and easily accessible way. A central theme in the thesis is how biological structures and mechanisms constitute a basis for the design of novel technologies. Hannestad discusses how self-assembled, nanometer-scale DNA constructs can be functionalized using fluorescent labeling. In particular, he highlights how applications are based on fluorescence resonance energy transfer (FRET). Another important contribution is the development of a lipid monolayer platform for the step-by-step assembly of DNA nanoconstructs. The work in the thesis is based on five peer-reviewed papers published in high-profile journals, all of which involve major contributions from the author.