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PhD Supervisor	Covalent Microcontact Printing of Biomeolecules

Soft lithography offers great potential for the fabrication of 2D and 3D patterned structures using a variety of materials and patterns. It complements and extends conventional fabrication methods. This PhD project was particularly focus on microcontact printing (μ CP) as a method to create biological patterns on surfaces and also as a tool used in "in-situ" synthesis. The combination of surface chemistry, modification or proper selection of stamp material and μ CP of biomolecules has yielded methods for patterning of bioassays. Despite increasing complexity, the size of the devices has continued to decrease and their surface properties become very important since they can determine the performance of the device. The wide range of applications presented in these studies such as: reversible imine patterning, immobilization of proteins for cell guidance, triazol formation by printing, DNA covalent attachment - show the flexibility and the potential of micro- and nano-fabrication techniques such as microcontact printing and dip-pen nanolithography.