

# Universal surface chemistry for capturing small molecules without linkers on glass slides.

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An ideal way of deploying the small molecule or chemical microarrays platform would be in ways that circumvent the preparation of specific small molecule libraries, thus eliminating the typically tedious synthetic effort needed to incorporate a tag/linker in the molecules. We have pursued several different types of chemistries for covalent attachment of small molecules to glass microscope slides with success.

We provide a solution where a set universal chemical handles is developed on a single surface which can be readily introduced into diverse libraries of small molecules while preserving their biological activities.

Specific protein targets can be fluorescently labeled and applied onto chemical microarrays for identifying possible hit molecules based on affinity interactions. Using the same microarray and two differentially labeled proteins it is possible to detect specific molecules for one or the other target. Moreover, drug-target identification and validation can be performed by using the Avicor's chemical microarray platform with total protein extracts. Examples will be presented for one, two protein targets and for the identification of a potential anti-cancer drug by using the AviChemix<sup>TM</sup> microarray system.

