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Abstract for an Invited Paper
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Studies in Biological-Materials Interfaces.¹

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The control of the physicochemical properties of surfaces in contact with biological systems represents a fundamental issue in many applications ranging from coatings to biotechnology and microelectronics. In particular, advances in biotechnology depend on the ability to fashion materials with precise control of feature size and functionality. This presentation focuses on issues of specific and non-specific binding and strategies being developed to control both. Examples of specific binding that enable investigation of cell function will be presented. The broader issue of non-specific binding and how it relates to fouling release will also be discussed in terms of surface structure. Both polar and non-polar surfaces have been investigated and each type shows promise for release specific biological systems. The identification of a “universal” surface for release of all biological systems remains elusive.

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