

Nanomaterials for biosensing and regenerative medicine

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Bio-responsive nanomaterials are of growing importance with potential applications including drug delivery, diagnostics and tissue engineering [1,2]. This talk will describe our research on the design of new nanomaterials to direct stem cell differentiation for regenerative medicine. This talk will also provide an overview of our recent developments in the design of materials for ultrasensitive biosensing. We are applying these biosensing approaches both in high throughput drug screening and to diagnose diseases ranging from cancer to global health applications.

[1] M.M. Stevens and J.H. George, *Science*, 2005, **310**, 1135.

[2] P. Howes, R. Chandrawati and M.M. Stevens, *Science*, 2014, **346**, 6205.