

## Contents

## Theme issue: The biomedical applications of graphene

	Article ID		Article ID
<b>INTRODUCTION</b>			
The biomedical applications of graphene M Edirisinghe	20180006	Investigating the bioavailability of graphene quantum dots in lung tissues via Fourier transform infrared spectroscopy TA Tabish, L Lin, M Ali, F Jabeen, M Ali, R Iqbal, DW Horsell, PG Winyard and S Zhang	20170054
<b>ARTICLES</b>			
Graphene and its derivatives as biomedical materials: future prospects and challenges AN Banerjee	20170056	Multifunctional chitosan–magnetic graphene quantum dot nanocomposites for the release of therapeutics from detachable and non-detachable biodegradable microneedle arrays R Justin and B Chen	20170055
Mechano-bactericidal mechanism of graphene nanomaterials DP Linklater, VA Baulin, S Juodkazis and EP Ivanova	20170060	Graphene-based biosensors S Szunerits and R Boukherroub	20160132
Curcumin-loaded graphene oxide flakes as an effective antibacterial system against methicillin-resistant <i>Staphylococcus aureus</i> F Bugli, M Cacaci, V Palmieri, R Di Santo, R Torelli, G Ciasca, M Di Vito, A Vitali, C Conti, M Sanguinetti, M De Spirito and M Papi	20170059	Aquaporin–graphene interface: relevance to point-of-care device for renal cell carcinoma and desalination J Jakowiecki, A Sztylek, S Filipek, P Li, K Raman, N Barathiraja, S Ramakrishna, JR Eswara, A Altaee, AO Sharif, PM Ajayan and V Renugopalakrishnan	20170066
Improving the glial differentiation of human Schwann-like adipose-derived stem cells with graphene oxide substrates AF Verre, A Faroni, M Iliut, C Silva, C Muryl, AJ Reid and A Vijayaraghavan	20180002	New routes to the functionalization patterning and manufacture of graphene-based materials for biomedical applications A De Sanctis, S Russo, MF Craciun, A Alexeev, MD Barnes, VK Nagareddy and CD Wright	20170057
Ultrananocrystalline diamond-coated nanoporous membranes support SK-N-SH neuroblastoma endothelial cell attachment K-H Yang, AK Nguyen, PL Goering, AV Sumant and RJ Narayan	20170063	The effect of graphene–poly(methyl methacrylate) fibres on microbial growth RK Matharu, H Porwal, L Ciric and M Edirisinghe	20170058
		Hybrid graphene–ceramic nanofibre network for spontaneous neural differentiation of stem cells J Kazantseva, I Hussainova, R Ivanov, T Neuman and M Gasik	20170037