Peroral drug delivery in cancer

M.N.V. Ravi Kumar

Strathclyde Institute of Pharmacy and Biomedical Science, University of Strathclyde, Glasgow, UK

Nanomedicines are multiple component systems whose distribution *in vivo*, targeted or otherwise, remains a critical area of understanding the clinical outcomes as well as safety. The current practise of using labelled particles for understanding the distribution has not led to meaningful conclusions while the particles themselves may not resemble drug loaded particles. This drawback is considered as one of the major hurdles hampering the progress in evaluating the therapeutic efficacy and safety of nanomedicines, which ideally should be obtained during the same *in vivo* experiment used to determine the nanoparticles' tissue distribution and environment. Part 1 of this talk will highlight a new label free method to understand the tissue distribution of drug loaded nanoparticles, while part 2 is an attempt to realise *peroral* delivery in cancer chemotherapy.