

## FACULTY PROFILE

**Name:** Dr. Ranu Dutta

**Highest educational qualification:** PhD Nanomedicine

**Institute name:** University of Allahabad

**Research areas of interest:** Nanomaterials fabrication related to controlled drug delivery, Molecular MRI imaging, early stage cancer detection and therapy, engineering nanomaterials for Nanomaterials for Regenerative medicine, Nanotoxicology, Personalized Medicine and Personalized Healthcare.

Neurological Music Therapy for Stress, anxiety, depression and other neurological and behavioural cognitive disorders

**Teaching Subjects:** Biotechnology and Nano Sciences

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### Selected publications:

1. Gadolinium Metallo nanocongregates as potential magnetosensors for detecting early stage cancers, **Ranu Dutta** and Avinash C. Pandey, *Appl. Phys. Lett.*, (2015), 106.
2. Engineering of gadofluoroprobes: Broad-spectrum applications from cancer diagnosis to therapy, **Ranu Dutta**, P K Sharma, Vandana Tiwari, Vivek Tiwari, Anant B. Patel, Ravindra Pandey and Avinash C. Pandey *Appl. Phys. Lett.*, (2014), 104, 023703.
3. DNA base (cytosine) modified/capped ultrasmall  $Gd_2S_3:Eu^{3+}$  gadofluoroprobes for platelet isolation, **Ranu K Dutta**, P K Sharma and Avinash C Pandey. *Appl Phys Letts.*, (2010) 97, 253702.
4. Design and surface modification of potential luminomagnetic nanocarriers for biomedical applications, **Ranu K Dutta**, P K Sharma and Avinash C Pandey, *J. Nanopart. Res.*, (2010), 12 (4), 1211-1219.
5. Differential susceptibility of *Escherichia coli* cells towards TM doped and matrix embedded ZnO nanoparticles, **Ranu K Dutta**, P K Sharma, Richa Bhargava, Naresh Kumar and Avinash C Pandey, *J. Phys. Chem. B*, (2010), 114 (16), 5594–5599.