

## **Sanjay Tyagi**

Professor of Medicine

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### **Education**

Ph.D. University of Maryland, 1987;  
M.Phil. Jawaharlal Nehru University, 1982;  
M.Sc. Jawaharlal Nehru University, 1980;  
B.Sc. University of Rajasthan, 1978.

### **Awards**

NJMS Research Excellence Award, 2012

Jacob Heskel Gabbay Award in Biotechnology and Medicine, 2005

### **Publications**

Tyagi S, Kramer FR (2012) **Molecular beacons in diagnostics**. Faculty of 1000 Medicine Reports 4: 4-10.

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Tyagi S (2010) **E. coli, what a noisy bug**. Science 329: 518-519. PMI: 20671174

Tyagi S (2009) **Imaging intracellular RNA distribution and dynamics in living cells**. Nat Methods 6: 331-338. PMI: 19404252

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Mhlanga MM, Vargas DY, Fung CW, Kramer FR, Tyagi S (2005) **tRNA-linked molecular beacons for imaging mRNAs in the cytoplasm of living cells.** Nucleic Acids Res 33: 1902-1912. PMI: 15809226

Tyagi S, Alsmadi O (2004) **Imaging native beta-actin mRNA in motile fibroblasts.** Biophys J 87: 4153-4162. PMI: 15377515

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Marras SAE, Kramer FR, Tyagi S (2002) **Efficiencies of fluorescence resonance energy transfer and contact-mediated quenching in oligonucleotide probes.** Nucleic Acids Research 30: e122. PMI: 12409481

Tyagi S, Marras SAE, Kramer FR (2000) **Wavelength-shifting molecular beacons.** Nature Biotechnology 18: 1191-1196.: PMI: 11062440

Marras SAE, Kramer FR, Tyagi S (1999) **Multiplex detection of single-nucleotide variations using molecular beacons.** Genetic Analysis: Biomolecular Engineering 14: 151-156.: PMI: 10084107

Bonnet G, Tyagi S, Libchaber A, Kramer FR (1999) **Thermodynamic basis of the enhanced specificity of structured DNA probes.** Proc Natl Acad Sci USA 96: 6171-6176. PMI: 10339560

Tyagi S, Bratu DP, Kramer FR (1998) **Multicolor molecular beacons for allele discrimination.** Nat Biotechnol 16: 49-53. PMI: 9447593

Piatek AS, Tyagi S, Pol AC, Telenti A, Miller LP, Kramer FR, Alland D (1998) **Molecular beacon sequence analysis for detecting drug resistance in Mycobacterium tuberculosis.** Nat Biotechnol 16: 359-363. PMI: 9555727

Kostrikis LG, Tyagi S, Mhlanga MM, Ho DD, Kramer FR (1998) **Spectral genotyping of human alleles.** Science 279: 1228-1229. PMI: 9508692

Tyagi S, Landegren U, Tazi M, Lizardi PM, Kramer FR (1996) **Extremely sensitive, background-free gene detection using binary probes and beta replicase.** Proc Natl Acad Sci USA 93: 5395-5400. PMI: 8643586

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**hybridization.** Nat Biotechnol 14: 303-308. PMI: 9630890

Tyagi S, Ponnampereuma C (1990) **Nonrandomness in prebiotic peptide synthesis.** J Mol Evol 30: 391-399. PMI: 2111852

Lomeli H, Tyagi S, Pritchard CG, Lizardi PM, Kramer FR (1989) **Quantitative assays based on the use of replicatable hybridization probes.** Clin Chem 35: 1826-1831. PMI: 2673578

Tyagi S (1981) **Origins of translation: the hypothesis of permanently attached adaptors.** Orig Life 11: 343-351. PMI: 6799890