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## Enzymatic color combined with unsymmetrical ring hairpin probe to detect genotyping of Spoligotyping with drug-resistant tuberculosis

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**H**airpin probe which is composed of nucleic acid beacon with loop-stem structure is highly specific and sensitive. It can detect the results of numerous samples when fixed on carrier surface. However normal hairpin probe lacks a connecting arm which helps it to be fixed on the surface of a carrier as a result the fluorescence and quenching molecules are budged on their respective ends. So, by modifying, fixing and changing of complex electrochemical signal the stem arm can explore the hybridization response via fluorescence. We devised a new pattern of unsymmetrical ring hairpin probe that is simple and does not need the stem arm modification. This new pattern that do not has the markers of fluorescence and quenching molecules enables us to observe the signal of hybridization response using enzymatic colorimetric amplificatory affect. This technology has been used to detect genotype of Spoligotyping with drug-resistant tuberculosis. In the detection of genotype of Spoligotyping in 67 cases with drug-resistant tuberculosis, two genotypes namely Beijing and Non-Beijing family have been found in this region are 59.71% (40/67) and 40.29% (27/67) respectively. However, the percentage from the highest to the lowest order was resistant to streptomycin and isoniazid to rifampin.

### Biography

Q H Chen has completed his PhD at the age of 37 years from the third military medical university and postdoctoral studies from Arizona University. He is the Assistant Professor of the Laboratory, the Clinical Experimental Base of Biosensor and Microarray, and the Center of Molecule and Gene Diagnosis, Southwest Hospital, Third Military Medical University. He has published more than 40 papers in reputed journals and serving as an editorial board member of repute.