

## Design of reactive DNA oligomer for efficient immobilization of DNA probe on the surface

백승필\*, 장의경, 조찬희, 정현호, Keisuke Makino<sup>1</sup>  
고려대학교; <sup>1</sup>Kyoto University  
(spack@korea.ac.kr\*)

To develop reactive DNA oligomer, we focused on use of oxanine (Oxa), one of mutagenic lesions, which is produced from nitrosative deamination of guanine. Since Oxa has a kind of activated carboxyl group (*O*-acylisourea formation) in the base ring, Oxa shows amino group-directed reactivity, which is useful for linkage of DNA probe on the surface. We set up the synthesis procedure for chemical preparation of Oxa-containing DNA oligomer (Oxa-DNA) and fabricated DNA microarray by ink-jet spotting of this Oxa-DNA probe on NH<sub>2</sub>-functionalized glass-slide. Reactive DNA oligomer and its immobilized system will be useful for developing advanced nano/biotech systems.