

## THE DISTILLERY

## This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug delivery			
Polymeric carriers for cancer-specific gene targeting	A mouse study suggests that peptide-linked polymers complexed with plasmid DNA may help ensure that cancer gene therapy is activated specifically in tumor cells and not in normal cells. A peptide that targeted protein kinase $C_{\alpha}$ (PKC <sub><math>\alpha</math></sub> ) was linked to a polymer complexed with luciferase-encoding plasmid DNA (pDNA), creating a proof-of-concept 'polyplex'. When the polysome encounters the active enzyme PKC <sub><math>\alpha</math></sub> , the polysome dissociates to allow gene expression from the released pDNA. In mice xenografted with B16 melanoma cells, which have high levels of PKC <sub><math>\alpha</math></sub> , injection of the polyplex increased luciferase expression in tumors but caused negligible luciferase expression in noncancerous tissue. Next steps include coating the polyplex to improve its i.v. deliverability.	Patents pending for use in intracellular signal– responsive gene regulation; available for licensing through Kyushu University's Intellectual Property Management Center <b>Contact:</b> e-mail: unic@imaq.kyushu-u.ac.jp	Kang, JH. <i>et al. J. Am. Chem. Soc.</i> ; published online Oct. 18, 2008; doi:10.1021/ja805364s <b>Contact:</b> Yoshiki Katayama, Kyushu University, Fukuoka, Japan e-mail: ykatatcm@mbox.nc.kyushu-u.ac.jp <b>Contact:</b> Jeong-Hun Kang, same affiliation as above e-mail: jrjhkangtcm@mbox.nc.kyushu-u.ac.jp

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