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An efficient method for delivery of proteins into living cells.

A novel method for delivering functional proteins into living cells involving proteins cationized with polyethylenimine (PEI) was presented. The photos on the cover show the transduction of PEI-cationized green fluorescent protein (GFP) into mouse kidney (above left), peritoneum (above right), and liver (below left), which was analyzed by fluorescence micrography of tissue sections. Other than GFP, PEI-cationized RNase (ribonuclease) and PEI-cationized immunoglobulin (IgG) were also incorporated into the cells, in receptor- and transporter-independent manners, and functioned in the cytosol, suggesting the usefulness of this method for the development of protein transduction technology in the post-genomic era.

Related article: Futami, J., Kitazoe, M., Maeda, T., Nukui, E., Sakaguchi, M., Kosaka, J., Miyazaki, M., Kosaka, M., Tada, H., Seno, M., Sasaki, J., Huh, N.-H., Namba, M., and Yamada, H., "Intracellular delivery of proteins into mammalian living cells by polyethylenimine-cationization", *J. Biosci. Bioeng.*, vol. 99, 95-103 (2005).

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