

Mechanical Engineering Department Seminar

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1130 Mechanical Engineering

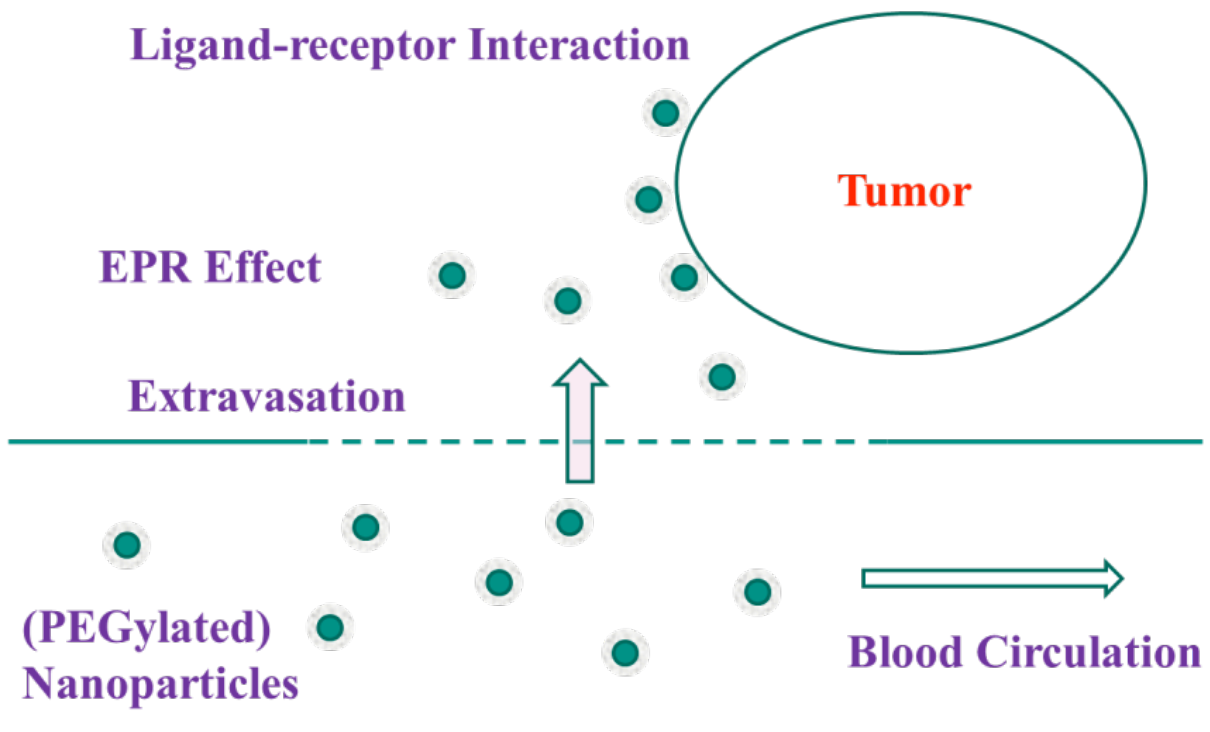


Targeted Drug Delivery: Myth, Reality & Possibility

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Drug delivery technologies have advanced significantly during the last several decades, and numerous clinical formulations have been developed. Further advances are required to treat various diseases that are currently difficult to cure. One of them is cancer. Of the many treatment modes, drug targeting to solid tumor is most desirable, and naturally a large number of targeted drug delivery systems have been under development. True drug targeting, however, has not been achieved to date. The current difficulties in drug targeting originate from our misunderstanding of the issues associated with drug delivery to a target site after intravenous administration. This presentation is focused on clarifying our current confusion in the design of targeted drug delivery systems and the factors to consider for making more efficient drug targeting.



Bio Kinam Park received his Ph.D. degree in pharmaceutics from the University of Wisconsin in 1983. After postdoctoral training at the UW Department of Chemical Engineering, he joined the faculty of Purdue University in 1986. He was promoted to Full Professor of Pharmaceutics in 1994, and then to Showalter Distinguished Professor of Biomedical Engineering in 2006. Prof. Park's research has been focused on the use of various polymers and hydrogels for controlled drug delivery. His current research includes homogeneous microparticles using nano/micro fabrication, hydrotropic polymeric micelles, superporous hydrogels, fast melting tablet formulations, and drug-eluting stents. He is currently Editor-in-Chief of the Journal of Controlled Release.