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**Mostafa Ghandehari\*** (ghandeha@uta.edu), Civil Engineering, Box 19308, Univ. of Texas at Arlington, Arlington, TX 76019, and **Khosrow Behbehani**. *An Optimal Control Problem in Pharmacokinetics*.

A system of ordinary differential equations for compartmental model of pharmacokinetics is used as an optimal control problem where the dosage is a control parameter. Pontryagin's maximum principle is applied to find optimal values of the dosage. Examples of compartmental medications are given. (Received July 09, 2009)