

Models for cell populations structured by content

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We derive a class of models for cell populations structured by the concentration of an effector micromolecule the cells contain. These models take the form of a transport equation coupled to an integrodifferential one. We discuss the applicability of such models and the appropriate mathematical setting for proving global existence of solutions.

This is joint work with N. Mottram (Glasgow University) and J. Farkas (Stirling University).