A mathematical modeling toolbox for ion channels and transporters across cell membranes

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The following supplementary material is from " A mathematical modeling toolbox for ion channels and transporters across cell membranes" manuscript. It contains an overview of all equations related to Ion channels, Pumps, Cotransporters, and Symporters, organized in a table form. The detailed transporters along with the descriptions of their equatuons can be found from here.

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2.4. Calcium ATPase pumps ($Ca - ATPase$):

2.4.1. Plasma membrane calcium ATPase (PMCA)

Plasma Membrane Calcium ATPase (PMCA)	Ref
$$I_{PMCA} = I_{PMCA}^{max} \frac{1}{1 + \left(\frac{K_{PMCA,Ca_i}}{[Ca]_{M(i)}}\right)^{\eta_{PMCA}}} \quad (119)$$	[3, 7, 17, 24, 40, 41]

Table 13: The corresponding equations describing the flux and current transported via Plasma membrane calcium ATPase (PMCA) pumps across the cell membrane