**CD++ Model Data Form**

Title: Regulatory behaviour of skeletal muscle thin filaments

Type:

Acronym/Short name: MTF

Purpose for which Developed: A model used to simulate the regulatory behaviour of skeletal muscle thin filaments

Other Applications for which it is Suitable: N/A

Date Developed/Implemented: 2011 November 15

Domain:

Current Version: N/A

URL: N/A

Description (including characteristics): There are six proteins that are involved in muscle contraction: actin, myosin, tropomyosin, troponin C, troponin I and troponin T. The cellular automata model implemented simulates the interactions between the actin sites and a troponin sites (integrated functional units of tropomyosin-troponin complex).

Links to Related Documents

Short Title: modeled with Cell-DEVS

URL: MTF\_Paper\_2011-11.pdf

Description: Assignment 2 for SYSC 5104; describes the conceptual model, provides the formal specification, and presents the test results.

Keywords: Biological system modeling, Biological systems, Biology computing, Computational modeling, Computer Simulation, Discrete event simulation, Discrete event systems, Formal specifications, Muscles

Developer:

|  |  |
| --- | --- |
| Name: Cheryl Anne D'Souza | Acronym: Student Number : 100771069 |
| Address 1: Carleton University | [e-mail]: cdsouza3@carleton.carleton.ca |
| Address 2: N/A |  |
| City: OTTAWA | Province/State-Country: CA |
| Zip - | Phone: - - |

Comments: All components of the model were tested, and appear to behave as specified.