1158-92-10 **David M. Bortz*** (dmbortz@colorado.edu), Department of Applied Mathematics, University of Colorado, Boulder, CO 80309-0526. *Data-driven Model Selection for Spatio-temporal Models of Wound Healing.* Preliminary report.

Recently there has been a dramatic rise in interest in the data-driven creation of mathematical models governing biological phenomena. In this talk, we will provide an overview of our information-theoretic-based sparse regression approach for recovering parsimonious models from data. To illustrate the utility of this approach we consider the migration of keratinocytes during the re-epithelialization stage of wound healing. We will discuss the biological insights gained concerning physical vs. chemical signaling in the instigation of migration. We will also discuss some of the computational challenges in our approach as well as the framework we are developing for model distinguishability. (Received December 08, 2019)