1107-92-497   **Paula Grajdeanu*** (`pgrajdea@su.edu`). *Balancing inflammation to impact disease dynamics.* Inflammation seems to be at the heart of various health conditions, including cancer, autoimmune diseases, neurodiseases, tuberculosis, and more. Anti-inflammatory medications are therefore used to reduce the inflammation when necessary, most of the time with undesirable long term side effects. Questions arise related to effective balancing of anti-inflammatory vs. pro-inflammatory mediators (cells, cytokines) and the importance of these interactions in defining the disease dynamic (remission, flare). These questions can be addressed by mathematical modeling to effectively temper/control the effects of inflammation, and subsequently improve long term disease management. (Received January 20, 2015)