1125-J1-999 **Abraham Levitan**, **Jessica Oehrlein*** (jessica.oehrlein@columbia.edu), **Laura Christakis** and **Shawn Ryan**. *Modeling of Gastrointestinal Stent Behavior.* Preliminary report.

We develop a model of the behavior of braided gastrointestinal stents under localized radial compression for use in the stent design process. Our approach is to develop an energy functional to calculate the energy in the stent given a radial profile. We then minimize this energy functional subject to a beltline constraint and calculate the resulting force response of the stent. This work was done under the sponsorship of Boston Scientific Corporation. (Received September 13, 2016)