Abstract Submitted
for the SES10 Meeting of
The American Physical Society

Magnetic bead microrheology in *Drosophila* embryos[1] MARIA PAULA ANGARITA — In this project, we developed the materials and methods that will be used to investigate the germ band retraction and dorsal closure stages of development in fruit fly embryos (about seven to eleven hours after fertilization) using the microinjection of superparamagnetic beads. As a first step, we calibrate the electromagnet by tracking bead displacement with the magnetic field on and off and use the bead velocity to estimate the magnetic force applied to the beads. This gives us an approximation of the magnetic field gradient around the pole tip, which will contribute to the *in vivo* calculations of the magnetic force exerted on the beads. We can thus extract the viscoelastic properties of the embryonic tissues during different stages of development by using Stokes' Law.

[1]2010 Vanderbilt University REU Program; National Science Foundation

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Date submitted: 10 Aug 2010 Electronic form version 1.4