

1067-X1-2181 **Patricia Theodosopoulos*** (ptheodosopoulos@saintannsny.org), 129 Pierrepont Street, Brooklyn, NY 11201, and **Ted Theodosopoulos** (ttheodosopoulos@saintannsny.org), 60 Wyckoff Street, Brooklyn, NY 11201. *The constructive role of noise in cellular processes*. Preliminary report.

In his classic “What is Life?” Schrödinger uses the evocative analogy of “aperiodic crystals” to describe the need for new ways to conceptualize randomness in living systems, beyond the realm of equilibrium statistical mechanics. We strive to convey this necessity to our students through a series of computational lab exercises, along with the partial answers that have been uncovered in the past sixty years. In our talk we will show the progression of simulation experiments we use to explore the role of noise in morphogenesis and cell differentiation, including current attempts to reverse this process and induce somatic cells to express their latent pluripotency. (Received September 22, 2010)