

Santa Fe Science Café For Young Thinkers

“The Complexity, Simplicity, and Unity of Life: From Cells to Cities”

Dr. Geoffrey B. West, Santa Fe Institute

Monday, November 12

6 – 8 PM

Georgia O’Keeffe Museum Education Annex

123 Grant Street, Santa Fe

Life is very likely the most complex and diverse phenomenon in the Universe, ranging over an enormous scale – from the tiniest bacterium to the blue whale. Yet many of life's most fundamental and complex phenomena change with size in a surprisingly systematic and simple fashion. For example, a simple formula tells us how metabolic rate (how much you need to eat to stay alive) scales with size over all life forms.

West will review these scaling laws, including a theory for their origin, based on fundamental universal principles of the networks that underlie life, such as the circulatory and respiratory systems. He will also discuss how these ideas apply to such diverse topics as plants and trees, growth (and why we stop growing), sleep (and why we need those 8 hours per night), and aging (and why we die).

The Café is sponsored by the Santa Fe Alliance for Science, the Santa Fe Institute, the Santa Fe Public Schools, the Georgia O’Keeffe Museum and the N.M. Public Education Department.

Admission is Free. Youth (ages 13-19) seating a priority. Light refreshments will be served. Dr. West will also appear on The Santa Fe Radio Café with host Mary-Charlotte Domandi at 8:30 am on Monday November 12, on KSFR 101.1 FM, streaming on the web live at <http://www.ksfr.org>.

Dr. West is president and distinguished professor at the Santa Fe Institute, where he specializes in exploring the connections between physics and biology.