

Poster Legend

Ubiquitin-mediated proteasomal degradation (Center): The dragon (proteasome) breaks up a stretch of polypeptide, tagged for degradation with a string of gold medallions (ubiquitin) bearing the image of Alfred Nobel to symbolize the award of the Nobel Prize in 2004 to Avram Hershko, Aaron Ciechanover, and Irwin Rose. The center card is surrounded by keys that open up locks in the surrounding cards.

Starting from upper right in clockwise rotation:

SUMO-mediated proteasomal degradation: Based on the oil painting *SUMO and SENP1 wrestling over the Goddess of Hypoxia (HIF1a)*, 2007. The Goddess stands on a high mountain peak, where the air is thin (hypoxic), sending out newly formed blood vessels from her gown and blood cells from her sleeves. SUMO is attempting to grab the Goddess to throw her to the Dragon (proteasome) lurking below them in the clouds. SENP1 wields a sword trying to attack SUMO, separating him from the Goddess and saving her from the jaws of the dragon. Cell 131:584, 2007.

Immune response: The Inca rose from a waning tribe to an empire through "strong leadership, strategic alliances, and skill in warfare" (Gods of Order, Gods of War, A Comparison of the Major Gods and Myths of the Inca and Aztec, by Gini Graham Scott), in much the same way developing a good immune system boosted survival of organisms.

Neurological diseases: After the painting *Nerve Eye on Channel Two*, 40" x 40", 1992.

Cardiovascular diseases: Heart was rendered using watercolor.

Cell division: From *Spindles of Necessity #3* (Anaphase) oil on canvas 3' x 4'.

Circadian rhythm: From "*Dance of the Clock Gene Proteins*", oil on canvas, 36" x 42", 2007. Cell 128: 59, 12 2007.

Signal transduction: From *Cell Signals and Mayan Legends*, 26" x 33", 2001. Growth hormone binds to the receptor tyrosine kinase (blue house structure) which attracts the protein grb2 (grandmother). This triggers a series of events which activate the proteins necessary for cell division.

DNA repair: Isis is an ancient Egyptian mother goddess associated, among other things, with healing. Here she "heals" a major break involving both strands in a stretch of DNA.

DNA replication: Stringing beads is an ancient past-time. Egyptians were stringing nucleic acid and phosphate backbone beads during DNA replication.

Cancer: Rendering of cancer cell after image courtesy of Zena Werb, UCSF.

All artwork by Julie Newdoll. Full credits can be found in www.brushwithscience.com