21ST HERMANN STAUDINGER LECTURE NOBEL PRIZE LAUREATES AT FRIAS **RANDY SCHEKMAN** HOWARD HUGHES MEDICAL INSTITUTE UNIVERSITY OF CALIFORNIA, BERKELEY

UNCONVENTIONAL SECRETION OF PROTEINS AND RNA FROM CULTURED HUMAN CELLS

Large particles, such as lipoproteins, collagen and extracellular vesicles are secreted from animal cells *in vivo* and in cell culture. These particles represent a challenge for the normal secretory machinery. We have found that the rigid rod of procollagen can be accommodated in a giant transport vesicle dependent on the usual machinery involved in traffic from the endoplasmic reticulum.

Extracellular vesicles are secreted by budding into an endosome or from the cell surface. Extracellular vesicles package a select set of micro RNAs that are sorted by an RNA binding protein and are dependent on a short nucleotide sequence that constitutes an RNA sorting signal.

> Wednesday, March 9th, 2016 4:15 p.m. Anatomy Lecture Hall

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