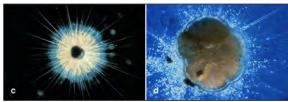
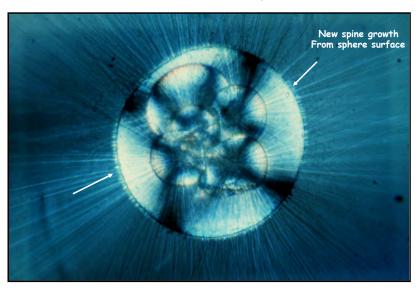
### Biology, Ecology and Geochemistry of Planktonic Foraminifera and Diatoms

Globigerinoides ruber Globorotalia menardii



Howard Spero
Dept. Earth and Planetary Sciences
UC Davis

## Research on the Process of Biomineralization in Planktonic Foraminifera



#### Symbiosis and carbon translocation

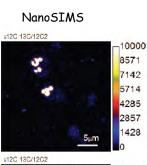
Orbulina universa with dinoflagellate symbionts on spines

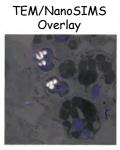


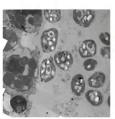


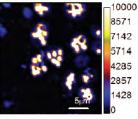
# Transmission Electron Microscopy and NanoSIMS quantifies <sup>13</sup>C uptake and carbon translocation between symbiont and foraminifera host

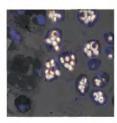




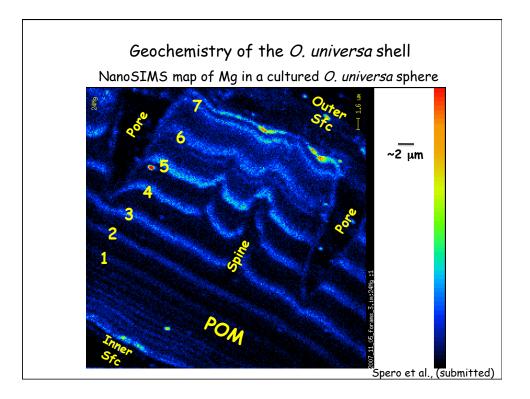








Unpublished data



#### Other Research activities in the Foram/Isotope lab



- Dr. Ann Russell (geochemistry, proxy development/ calibration; laser ablation ICPMS)
- Dr. Jennifer Fehrenbacher (geochemistry, circadian rhythms in foraminifera; laser ablation ICPMS
- Dr. Oscar Branson (biomineralization mechanisms; atom probe tomography and cryo-TOF-SIMS)
- Anthony Menicucci, PhD student (diatom/opal geochemistry; proxy development