

PRESENTS

VOYAGE TO THE BOTTOM OF THE SEA, 2003



Pamela (Pan) Conrad

JPL Astrobiologist

Arthur Lonne Lane

JPL Planetary Scientist

THURSDAY

DECEMBER 4,

2003

4:45 P.M. TO

6:00 P.M.

VON KÁRMÁN

AUDITORIUM

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The scientific community is paying increasing attention to deep-sea hydrothermal vents as analogues for possible alien astrobiology environments. So, what do you do when filmmaker Jim Cameron invites you to dive to the bottom of the sea? It's like being offered a free rocket launch and a place to mount your payload on his spacecraft. Of course, you accept the invitation!

After accepting Cameron's invitation, Lonne Lane, Pan Conrad, and the engineering team embarked on a saga involving fast footwork, intense design effort, and late-night hours, and overcame many obstacles in the pre-voyage phase — then endured high-stress weeks at sea, with the goal of capturing in situ measurements in an alien, undersea environment. The speakers will share stories about their adventures with Cameron on the research vessel *Keldysh*, using photographs and movie clips to provide a glimpse into the unique and wondrous world they visited.

Over 37 years at JPL, Dr. Lane has performed robotic exploration at 7 of the 9 planets (and their moons) in the solar system. His multifaceted career has included scientific activities, instrument development, and mission operations. His interests in subsurface Europa, the Mars polar caps, and Antarctica's Lake Vostok led to an examination of the deep ocean's hydrothermal vents as analogous places for developing and proving instrument capabilities to enable future scientific investigations.

Dr. Conrad serves not only as a principal investigator involved in several life-detection research activities, but also as an astrobiology and geobiology consultant to other members of the JPL community conducting instrument development and mission and program planning. She is engaged in field campaigns to measure chemical biosignatures with instruments intended to detect subtle markers of life, both past and present, that exist on and in rocks and sediment.

This event is free. All JPL/Campus personnel and retirees are welcome. For more information about this event, please send e-mail to cma.announce@jpl.nasa.gov or call Michael Eastwood, (818) 354-9273.