

## The Deepsea Challenger Submersible Expedition of James Cameron and the Future of Hadal Research

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**Wednesday, January 29**

**3:00-3:30 pm Coffee Hour**

**3:30-4:30 pm Seminar**

### **Abstract**

On March 26, 2012 James Cameron piloted his manned submersible Deepsea Challenger to the world's greatest depth in the Mariana Trench. How does a non-scientist achieve what the academic community decided was unfeasible. His engineering team spent seven years building the manned submersible capable of diving to the ocean's greatest depths. The design and fabrication of the one-pilot personnel sphere and the submersible's essential systems was accomplished in non-descript warehouses in the suburbs of Sydney, Australia. The development of a unique formula for syntactic foam capable of withstanding the extreme pressure of full-ocean depth proved to be pivotal in the design of the sub. Pressure-balanced, oil-filled electronic systems and other innovative ideas have extended this unusual vehicle's ability beyond that of any previous one for scientific and imaging work in the world's deepest environments. The expedition included numerous science partners and shed light on the virtually unknown habitats and geology of the New Britain Trench, the Challenger Deep, and the Sirena Deep. What's next?



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Please join us for the coffee hour at the seminar venue a half hour before the seminar, 3:00 – 3:30 pm