

SAN DIEGO CENTER OF EXCELLENCE IN DIVING Healthy Divers in Healthy Oceans

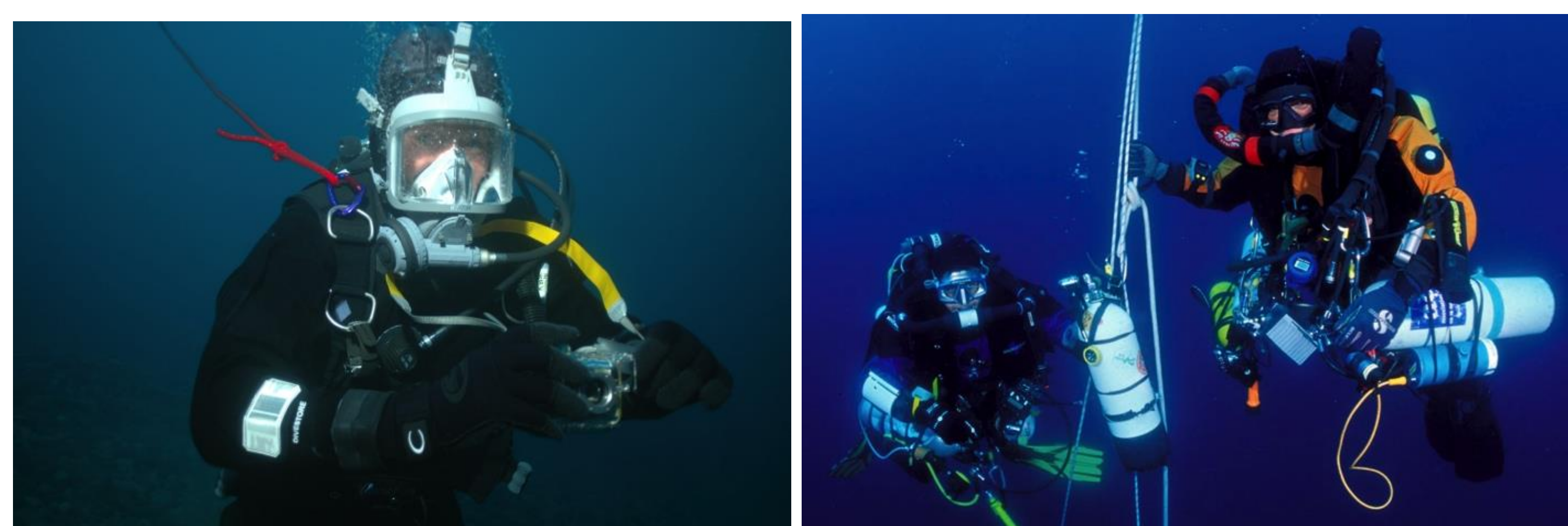
MA Lang, DPhil^{1,2}, KB Van Hoesen, MD²

¹Oxyheal Health Group, ²Department of Emergency Medicine, University of California, San Diego
<http://emergencymed.ucsd.edu/divisions/dive>



BACKGROUND

Human health and oceans are of increasing global importance. There exists nowhere an academic center forming the bridge between diving medicine and marine science. San Diego has a critical mass of diving medicine specialists, marine researchers, manufacturers, divers, and expedient ocean access.



SDCED

Purpose

To create knowledge and competencies in recreational, scientific, commercial, military and public safety diving through diving research, education, and ocean conservation.

Mission

In support of "Healthy Divers in Healthy Oceans" SDCED aims to advance collaborative research, education and training throughout the world's oceans for the benefit of all divers.

Vision

To provide global leadership as a Center of Excellence with a research and education focus on emerging topics at the intersection of diving medicine and ocean health.



SDCED

Unique, global, research focused, education oriented, collaborative partnership integrating the expertise of the interdisciplinary diving physiology and medicine fields with the marine science and conservation communities to promote
"Healthy Divers in Healthy Oceans"

GOALS

- To serve as an academic center of excellence to provide practical evidence-based information to the global diving communities (recreational, scientific, commercial, military, and public safety) through research, education, and training.
- Advance an international agenda to pursue cutting-edge, innovative research in diving physiology and medicine and ocean conservation, building a complimentary bridge between the diving medical and marine research communities.
- Promote 'Healthy Divers in Healthy Oceans' as a combinatorial effect towards improving diver health and fitness and the ocean environment they are diving in.



INTERESTS

Breath-hold diving physiology: Comparative analyses of diving adaptations of marine mammals and birds and its application to human medicine.

Diver protection: Evaluations of new thermal protection technologies and life support breathing equipment for work in extreme polar environments;

Human health: Understanding mechanisms of severe DCS in indigenous diving fishermen;

Public safety divers: Acute and chronic health effects of contaminated water diving;

Diver health: Effects of changing water quality in tropical, temperate and polar regions; and,

Citizen science: Monitoring MPAs, water quality, equipment performance, rebreather database with UC San Diego Calit2.

SAN DIEGO: OCEAN!

UCSD Dept. of Emergency Medicine:

- 16 MDs Board-certified in undersea and hyperbaric medicine

UCSD Hyperbaric Chamber (1984-2013):

- 548 dive accident Pts seen; 568 Tx performed

UCSD Dive Clinic: 288 divers/yr

Scripps Institution of Oceanography:

- Facilities and Dive Program, CMBB, CMBC

San Diego County Diver Death Committee:

- 97 since 1969; 13 since 2008

San Diego: UC San Diego, SIO, DUI, Scubapro, U.S.Navy, National University, Phoenix Holdings International, DEMA, Ocean Enterprises, and OxyHeal Health Group,

