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INTRODUCTION

The Internet assists the growth of information sharing and communication of divers worldwide. In preparation for the DAN Technical Diving Symposium 2008, we wanted to facilitate communication between the technical divers and diving researchers. We requested information from technical divers on research needed to improve their safety. A thread and poll were posted to the forum asking the question "If it were up to you, which of the following areas would you like to see the hyperbaric/medical research community focus on?"

METHODS

- The Rubicon Foundation requested the assistance of The Deco Stop (TDS), an Internet forum of technical divers from around the world.
- The TDS forum has 13,140 members and receives 3,000 visits per day. TDS software is vBulletin Version 3.6.1 (Jelsoft Enterprises Ltd. Pangbourne, UK).
- The categories used in this poll were decided upon by the authors and commented on by the "Inner Circle Members". The Inner Circle is a group of forum members that serve as a steering and oversight committee to assist the founders with decision making and other tasks associated with the operation of the forum.
- It was decided that the question should be rephrased at the end of the first post as well to eliminate confusion associated with the known funding concerns for diving and hyperbaric research. This was stated as: If you had unlimited funds to study something related to physiology and technical diving--what would you study?
- The poll was then set up by forum moderators to allow members to vote for one category, listed below. The associated thread was used to discuss these specific topics as well as any others not included in the poll.
- The final poll categories are:
 - Decompression Theory
 - Diver Health
 - High Pressure Nervous Syndrome
 - Gas Narcosis
 - Oxygen Toxicity
 - Post-Mortem Accident Analysis
 - Thermal Stress
 - Basic Sciences
 - Recompression Therapy

RESULTS

- There were 302 members that elected to vote in the poll over the first six months.
- Two hundred fifty five (255) votes were made in the first 60 days after posting the poll.
- The initial thread received 69 replies and over 2,902 views.
- The vote distribution of responses are shown in table 1.

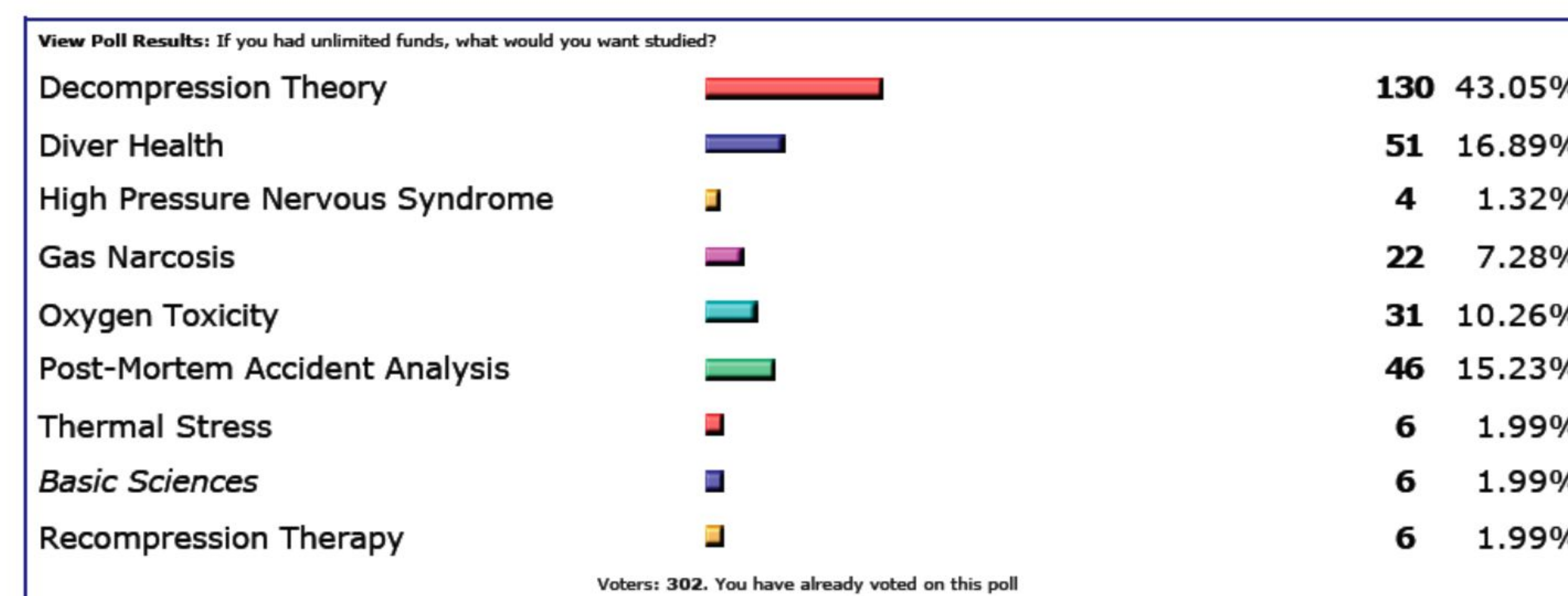


Table 1. Distribution of votes collected.

- The topics below were broken out and a discussion started as an attempt to tease out other thoughts and comments on the topics:
 - Decompression Theory - 45 replies and 1,017 views
 - Diver Health - 5 replies and 221 views
 - Gas Narcosis - 0 replies and 78 views
 - Oxygen Toxicity - 7 replies and 422 views
 - Post-Mortem Accident Analysis - 23 replies and 1,018 views
 - Thermal Stress - 1 replies and 103 views

DISCUSSION

This poll and discussion thread has clarified some interests and risks incurred by technical divers recreationally and the potential use of these divers in further research. The poll and thread have remained open so that more opinions and comments could be collected in future months. We speculate that the number of votes has been lower due to data being collected over the months of December to beginning of June. These are typically lower traffic months for the forum.

DISCUSSION (cont.)

The comments from each category are summarized below, most of the examples are mentioned in multiple comments:

- Decompression Theory
 - Realistic behavior/properties of helium
 - What causes DCS incidents well within all normal limitations
 - Flying After Technical Diving
 - Diving at altitude
- Diver Health
 - I believe it would provide to most benefit to the largest segment of the diving community - non specific
 - Effects of medication on divers during decompression
 - CO2 and how it effects decompression, oxygen, narcosis, etc
 - Exercise and diver anthropometrics
 - General fitness and decompression
 - Nutrition/hydration planning and pre-dive exercise
 - PFO - need for testing, efficacy post repair
 - Osteonecrosis from Technical exposures
 - Women's health
- High Pressure Nervous Syndrome - No concerns expressed in thread
- Gas Narcosis(and toxicity) - as a part of the discussion, we found that there was no area set aside for breathing gas contamination. This was added here.
 - Breathing gas safety and various compressed gas
 - Oil vapor narcosis - toluene
 - Carbon Monoxide - pre-dive and testing in Post-Mortem
- Oxygen Toxicity
 - How to predict it
 - Oxygen exposure during long decompression (6-12 hour deco)
 - Multiple hour constant oxygen exposure and decompression
- Post-Mortem Accident Analysis
 - Concerned with the quantity of incidents lately with 'no apparent cause' or 'heart attacks'
 - Human factors analysis
- Thermal Stress
 - How to 'feel better' after colder decompression dives
- Basic Sciences
 - Neural Function and Technical Diving (Biomarkers)
 - Hyper-coagulation effects on technical divers - genetics
 - Data Warehousing
- Recompression Therapy
 - Reduce 'delay to treatment' seen after long oxygen exposures during decompression
 - In Water Recompression