



**Hampton, VA - April 3-4, 2014**  
**Old Dominion University Peninsula Center**  
**600 Butler Farm Road**  
**Hampton, VA 23666**

[Directions: <https://www.odu.edu/peninsula/info>]

Forum Chair: Joan Vernikos, PhD, Taksha Institute (TI), USA  
Forum Co-Chair: Stephane Blanc, PhD, CNRS, France

*Sponsored by*  
Taksha Institute for Space Health and Aging (TISHA), Taksha Institute (TI)  
- a 501(c)3 not-for-profit institution founded in 1976 -  
[www.taksha.org](http://www.taksha.org)

*In Cooperation with*  
**Old Dominion University (ODU), Science and Technology Corporation (STC)**  
**and Others (TBA)**

***Seating is limited, so please register in advance!***

## **Purpose**

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Resilience, the ability of humans to recover, is the basis of healthy living. In Space, success in maintaining an Earth-healthy state by applying heavy energy-consuming exercise regimes has been questionable. An open-to-the-public Forum is proposed designed to encourage exchange of ideas and discussion by experts in physiological models of energy preservation and restoration, such as hibernation, meditation, and sleep. The purpose of this discussion is to stimulate the exchange of ideas and knowledge to identify how these mechanisms of energy efficiency may maintain health and prevent wasting in space explorers as well as humans on Earth.

This forum is intended to provide cross-fertilization of ideas from research on a variety of low energy states with the object of discovering ways of supporting the health of Space travelers on long duration missions. The important purpose is to review, assess, and make recommendations to initiate follow-up discussions and exploration in this new field.

## Objectives

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The primary objective of the Forum is to provide a venue to have an exchange of information on the cross-cutting topics of Hibernation, Sleep, and Meditation among distinguished experts in their fields, in the format of presentations, round-table discussions, and a panel discussion with audience Q&A. The secondary objective is to assess conclusions and knowledge gaps, and make recommendations for research and studies in this field. The tertiary objective is to compile the presentation papers and recorded discussions to publish a land-mark edited volume, the first such document in the field for the benefit of the scientific community.

## Tentative Program of Topics and Invited Experts

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### Thursday – April 3, 2014

9:00 am – TED Talk Video “What I Learned from Going Blind in Outer Space,” Chris Hadfield

9:20 am – Welcome and Introductions – *Space: Setting the Scene*

**Joan Vernikos, PhD** (Chair) - Taksha Institute for Space Health and Aging (TISHA), Taksha Institute (USA)

10:00 am – Coffee Break

10:15 am -- *Energy, Nutrition, and Muscle Metabolism*

**T. Peter Stein, PhD** - Institute of Successful Aging (USA)

11:15 am – Wrapping up Space: Q&A

**Stephane Blanc, PhD** (Co-Chair) - Centre d'Ecologie et de Physiologie Energétiques, CNRS, University of Strasbourg (France)

12:00 noon – Lunch

1:30 pm – *The Living Dead*

**Prof. Kenneth B. Storey, PhD** - Institute of Biochemistry, Carleton University (Canada)

2:30 pm – *Protein, Calcium Sparing, and Energy*

**Dr. Stephane Blanc**

3:30 pm – Discussion and Recommendations on Hibernation as an Energy Conservation Model

4:30 pm – Adjourn

### Forum Dinner

### Friday – April 4, 2014

9:00 am – *Sleep and Circadian Rhythms and Metabolic Issues*

**Dr. Joan Vernikos**

9:45 am – Coffee Break

10:00 am – *Sleep Apnea and Respiratory Conditions*

**Dilip Sarkar, MD** - School of Integrative Medicine, Taksha Institute (USA)

11:45 am – Lunch

1:30 pm – *Meditation and Yoga*

**Dr. Dilip Sarkar**

2:30 pm – Discussion and Wrap Up

4:00 pm -- Adjourn

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**Registration**  
**Recommended donation of \$40 is appreciated.**

Register at [www.taksha.org/event/TSH675](http://www.taksha.org/event/TSH675)

Contacts: Taksha Institute, Hampton, VA: [contact@taksha.org](mailto:contact@taksha.org); [www.taksha.org](http://www.taksha.org)  
Administrative: Catherine Houlahan: 757-766-7990; [contact@taksha.org](mailto:contact@taksha.org)

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Taksha plans to schedule other symposia on related topics, such as Yoga Therapy (YT) for Grief Relief, YT for Health and Healing, YT for Reproductive Health, Nutrition Therapy for Chronic Ailments, and Mindful Meditation, in the CA, DC, and VA areas. Please let us know of your interest, by writing [contact@taksha.org](mailto:contact@taksha.org), or by calling 757-766-7900. Note: Attendance at these and other Taksha events is for personal enrichment, and does not entail a promise of employment.

All proceeds from registration, sales, and donations support the educational and research programs of Taksha Institute, founded as a 501(c)3 not-for-profit institution in 1976 in Hampton, Virginia.

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