

International Symposium
on
Environmental Factors, Cellular Stress and Evolution
(Banaras Hindu University, Varanasi, India, 13–15 October 2006)

(Organizers: **Subhash C. Lakhotia, Martin E. Feder, Sree K. Apte**)

Stress affects every biological system and environmental stress factors have been key players in shaping organic evolution. Therefore, there is a strong need for understanding the roles of stress proteins and stress responses from an integrative biological perspective. This symposium would provide a common platform for interactions between those studying stress responses and stress proteins from different viewpoints like evolutionary biology, ecology, molecular biology or biotechnology.

The symposium will have lectures by the following invited speakers who would review the chosen topic and discuss future directions in keeping with the philosophy of Integrative Biology.

A. S. Sreedhar (India): HSFs and stress induced cell death pathways in a rat histiocytic cell line, BC-8

Albert F. Bennett (USA): Experimental evolutionary studies of temperature adaptation

Anil Grover (India): Molecular response of rice plants to different environmental stresses

Csaba Soti (Hungary) Protein misfolding and stress response: lessons from lymphocytes

Erwin Beck (Germany): Specific and unspecific responses of plants to cold and drought stress

Larry Hightower (USA): What is special about the Hsp70B stress protein in cancer cells?

Leah Cowen (USA): Hsp90 potentiates rapid evolution of new traits: drug resistance in diverse fungi

Len Neckers (USA): Hsp90 is a uniquely important molecular chaperone in cancer

Lutz Nover (Germany): Multiplicity of HSFs controlling the complex heat stress response in plants

Martin Feder (USA): How does stress resistance evolve?

Michael EvGenev (Russia): Molecular mechanisms underlying thermal adaptation of xeric animals

Neal Rosen (USA): The Hsp90 chaperone machine is permissive for transformation and a target for cancer therapy

Parag Sadhale (India): Basal transcription machinery: role in regulation of stress response in eukaryotes

Paul Brakefield (Netherlands): The evolution of developmental plasticity in response to seasonal stress

Peter Csermely (Hungary): Molecular chaperones: stability and evolvability of cellular networks

Sri K. Apte (India): Potassium signaling in bacteria – the Cyano-Deino story

Subhash C. Lakhotia (India): Developmental regulation of stress genes in *Drosophila*

Sudhir K. Sopory (India): Unraveling Molecular Basis of Salt Tolerance in Plants

Utpal Tatu (India): Heat shock protein 90 from *Plasmodium falciparum* as a potential drug target against malaria

Wolfgang Schumann (Germany): Evolution of heat-shock systems in bacteria

A limited number of young investigators from India and neighboring countries, who are either working in the field or who are interested in initiating research in stress biology, will be selected for attending this meeting. **Those interested should apply (through e-mail or hard copy), with brief information about their current position, ongoing research, research publications and future plans, before 30 June 2006 to Prof. S. C. Lakhotia, Department of Molecular & Human Genetics, Banaras Hindu University, Varanasi 221 005, India** (e-mail: lakhotia@bhu.ac.in, lakhotiasc@sify.com).

Those selected will be informed by 31 July 2006.

Registration fee for the selected participants **from India** will be **Rs 3000.00**, while for those **from outside India** it will be **US\$100.00**. Boarding and lodging in Varanasi for the duration of the Conference will be taken care of by the organizers.

(**Sponsored by:** International Union of Biological Sciences, Paris; Cell Stress Society International, USA; Banaras Hindu University, Varanasi; Indian National Science Academy, N. Delhi; Prof. S. P. Ray-Chaudhuri Memorial Foundation, Varanasi; and other funding agencies in India)