Development and Disorders of Senses, Skin and Brain and the Emergence of Behaviour and Consciousness in the Newborn Infant
In honour of Professor Hugo Lagercrantz, Stockholm

OBJECTIVES
This seminar shall deal with the development and disorders of the sense organs and the skin of the newborn, in particular, with the visual and hearing organs and their disorders, screening and management (ROP, hearing deficits). Likewise, functions and diseases of the newborn skin, touch and pain sensation shall be taught. The seminar will also focus on development of brain and emergence of behaviour and consciousness/mind in the newborn infant.

LECTURERS
Kjellmer I University of Gothenburg, Sweden
Hoath St University of Cincinnati, Cincinnati, USA
Anand KJS University of Tennessee, Memphis TN, USA
Hellström A Sahlgrenska Academy at University of Gothenburg, Gothenburg, Sweden
Olusanya BO Maternal and Child Health Unit, Department of Community Health and Primary Care, University of Lagos, Lagos, Nigeria. Formerly of the Institute of Child Health & Great Ormond Street Hospital for Children NHS Trust, University College London, London, United Kingdom
Conneman HNL ErasmusMC - Sophia Children’s Hospital, Rotterdam, The Netherlands

DATE
May 13-15, 2010, starts at 8:00

PLACE
Island of Rhodos, Greece

LIMITED NUMBER OF PARTICIPANTS: 70 Please Note: Only registered participants, NO on site registration!
Please register via internet: http://www.ipokrates.info

PROGRAM DESIGN
Simbruner G, Med Univ Innsbruck

TARGET GROUPS
Doctors and nurses in Neonatology, Pediatrics and Health Care, doctors in the field of Dermatology, Ophthalmology, Audiology and Anesthesiology

MAJOR SPONSORS
Dräger, Elsevier, Nestlé Nutrition Institute, Heinen + Löwenstein

LOCAL HOST
Konstantinos Diakolios, Rhodos in Cooperation with the Hellenic Neonatal Society
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LOCAL ORGANIZER

INFORMATION/REGISTRATION
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PARTICIPATION FEES
Single person before February 28, 2010 300.-€
Single person after March 1, 2010 350.-€

FOR FURTHER DETAILS PLEASE SEE: WWW.IPOKRATES.INFO
## Program

**Thursday, May 13, 2010**

**Morning Session: 08:00 - 12:30**

### The Skin-Brain Connection: Embryology, Perception, and the Consciousness of Self

Touch, according to Aristotle, is the mother of the senses. Embryologically, the skin and the brain share a common origin as ectodermal derivatives. Psychologically, the boundary of the body is often considered the most obvious interface between self and non self (environment). Recent reviews to the contrary, it is argued that there is no objective evidence underlying the distinction of “self” and, consequently, the notion of ‘self’ consciousness, as opposed to consciousness of another, is a persuasive and increasingly dangerous illusion which merits close examination in both scientific discourse and healthcare.

Hoath St

### The development of the Brain

From fetal to neonatal life as the basis of neurological and cognitive functions and consciousness. Impact of maternal environment (teratogenic and neurotoxic effects of drugs, alcohol, nicotine and fetal growth retardation) on CNS development assessed by neurophysiological methods.

Kjellmer I

### Break

### Developmental, epidemiological and clinical aspects of ROP

This talk will focus on the prerequisite for the disease with historical and epidemiological aspects. In addition the long-term consequences of ROP for the child will be discussed.

Hellström A

### Lunch Time 12:30 – 14:00

**Afternoon Session: 14:00 - 18:00**

### Pain and Consciousness: Developmental considerations in the Fetus & Neonate

This talk will focus on early development of the cerebral cortex and pain systems, the evidence for subcortical mechanisms of consciousness, and a correlation between pain perception and conscious sensory perception in the human fetus and newborn.

Anand KJS

### Common Skin Conditions Affecting the Fetus and Newborn

This talk examines the many common and benign skin conditions encountered by the newborn care giver. These conditions offer many insights into perinatal biology. They can be concerning to the parents and are often misdiagnosed by the clinician leading to unnecessary concern and cost.

Hoath St

### Break

### Burden and developmental consequences of permanent childhood hearing loss

This talk will focus on the burden of permanent childhood hearing loss on motor, cognition, psychosocial speech and language development and the consequences for education, vocation, family and social life in later years.

Olusanya B
Emerging consciousness, the growing brain and the developing sensory system.
When the baby's brain develops it receives more and more input from a developing sensory system, that slowly opens up to it's environment. This leads to developmental finetuning, giving birth to a baby's first step: social contact in order to survive.
Conneman N.

Disorders and Diseases of Fetal and Newborn Skin
This talk reviews recent knowledge on the genetics and clinical presentation underlying significant skin diseases affecting the fetus and newborn. Knowing when to consult the dermatologist for further workup and/or biopsy of the skin is important for the neonatal care giver.
Hoath St.

Break

Retinopathy of prematurity: current concepts in molecular pathogenesis.
A review of the current knowledge of the patho-physiological background for the disease with focus on growth factors and nutrition will be presented.
Hellström A.

Lunch Time 12:30 – 14:00

Pain Management in the NICU
This talk will present a review of the various pharmacological, behavioural, and environmental interventions that can be used to treat pain in the newborn. A clinical approach will be developed and examples of therapeutic strategies will be discussed.
Anand K.J.S.

Benefits and options of early hearing detection
This talk will examine the adverse effects of sound deprivation on the development of the central auditory system and the advantages of early hearing detection on communication skills in early childhood. The relative effectiveness and drawbacks of the available subjective and objective technologies for screening and diagnosis will be discussed.
Olusany B.

Break

A new retinopathy of prematurity screening method monitoring longitudinal postnatal weight and insulinlike growth factor I.
The background, validation and current status of this promising new screening tool, which may have a significant impact on present screening routines, will be discussed.
Hellström A.

End 18:00
Morning Session: 08:30

Infection, Monitoring, Temperature Control and More: The Multiple Faces of the Skin in the NICU
The skin participates in many critical aspects of care in the NICU. These include thermoregulation, adhesive interactions, electrophysiological monitoring, infection control, kangaroo care, etc. Often these aspects of care are performed by Nursing and they are often disease independent. This talk highlights the importance of the skin as the boundary of a complex system with significant impact on patient outcomes and family participation.
Hoath St.

The emergence of communication skills and consciousness Imitation
The increasing complexity of interaction between neonate and mother.
Kjellmer Ingemar

Break

Taking care of Very Low Birthweight Babies
Understanding the prematurely born infant through the observations of his behaviour: the Synactive theory of development. / Video vignets of infant behaviour will illustrate the lecture.
Conneman N.

Options for early intervention for childhood hearing loss
This talk will review the current intervention options for achieving commensurate speech and language development from early infancy. Preliminary assessment of communication needs for achieving the desired outcomes especially in infants with multiple challenges and the benchmarks for measuring progress will be discussed.
Olusanya B.

Lunch Time 12:30 – 14:00

Afternoon Session: 14:00 - 18:00

Love, Pain and Neonatal Care: What is the evidence?
In this presentation, participants will be able to explore the evidence for repetitive pain during neonatal care, examine the role love and compassion in the delivery of neonatal care, and survey the cultural and spiritual bases showing love as a component of the healing process.
Anand K.J.S.

Are we conscious of a supportive environment in the NICU?
How do we create and hold a developmentally supportive environment?
Conneman N.

Break

Role of the paediatrician in the management of childhood hearing loss
This talk will examine the role of the paediatrician who is charged with the primary responsibility for the health and well-being of all children, within an interdisciplinary system of collaboration rather than competition with or abdication to related specialties for the good of the child with hearing impairment.
Olusanya B.

Developmentally Supportive Care in the NICU: A Neonatologist’s View
The controversial field of developmental care is reviewed as well as recent advances in which the skin participates prominently in the context of a shared care interface.
Hoath St.

End 18:00