

FINAL PROGRAM

# RECENT ADVANCES IN NEONATAL MEDICINE

IX<sup>th</sup> INTERNATIONAL SYMPOSIUM  
HONORING  
PROF. RICHARD B. JOHNSTON, MD, DENVER



WÜRZBURG, GERMANY  
OCTOBER 1 - 3, 2021



SCIENTIFIC ORGANIZATION  
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Dear colleagues, dear ladies and gentlemen,

It is a great pleasure to welcome you to the IXth International Symposium RECENT ADVANCES IN NEONATAL MEDICINE which is dedicated to my admired academic mentor Prof. Richard B. Johnston Jr., MD, Denver, USA. His basic research focused on the development of innate immunity and host defense mechanisms; as Medical Director of "March of Dimes" he was instrumental in reducing birth defects with folic acid, and, moreover, he established a huge program into the causes of preterm labor.

RECENT ADVANCES IN NEONATAL MEDICINE was originally scheduled for April 2020, however, due to the SARS-CoV2 pandemic we had to postpone the IXth edition to October 2021. The unique feature of RECENT ADVANCES IN NEONATAL MEDICINE 2021 is that all faculty members and delegates will be fully immunized by October 2021 and, in addition, a hygiene concept will be provided in the conference center which will include all safety measures of disease protection.

Unfortunately, however, delegates from some countries may not be able to attend this year's symposium due to the current epidemiological situation of SARS-COV 2 in their country or ongoing travel restrictions. For these colleagues we offer an "on demand" registration which will give them access to the symposium's presentations and panel discussions for 3 months.

I would like to thank all faculty members for their great personal support and, moreover, to express my sincere gratitude to the generous sponsors of RECENT ADVANCES IN NEONATAL MEDICINE; without their essential help it would have been impossible to invite such a prominent faculty, to offer reduced registration fees for delegates from low- and middle-income countries and to realize this ambitious project.

Despite all limitations I wish all of you a rewarding and memorable RECENT ADVANCES IN NEONATAL MEDICINE which will celebrate it's 25th anniversary in 2021.

Christian P. Speer

Würzburg, September 23, 2021





# TIME TABLE

	FRIDAY OCTOBER 1, 2021		SATURDAY OCTOBER 2, 2021	SUNDAY OCTOBER 3, 2021
Time	Workshops		Symposium	Symposium
08 <sup>00</sup>	WS I Cardiopulmonary Transition, Postnatal Stabilization and Emergencies	WS V Intrauterine Inflammation and Infection	Opening	Brain Injury and Pain Perception
			The First Minutes of Life	
	WS II  RDS and Surfactant	WS VI  The Neonatal Immune System and Immuno- deficiencies	Respiratory Care in 2021	Poster Prize
				Hidden Risks for Retinal and Cerebral Damage; Neurodevelopmental Outcome
	Poster		Poster Satellite Symposium	Lunch Seminar
	WS III  Optimal Ventilatory Strategies	WS VII  Strategies for a Successful Feeding	BPD and Respiratory Outcome	Growth Failure and Optimal Nutrition
	WS IV  BPD: From Bench to Bedside	WS VIII  Pain, Seizures and ROP	Microbiome, Platelets and Stem Cells	Drugs and Other Interventions
				Concluding Remarks
18 <sup>00</sup>			Seminars D - F	
	Seminars A - C			

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**Prof. Sture Andersson, MD, PhD**  
Department of Neonatology  
University of Helsinki  
Helsinki, Finland

**Prof. John N. van den Anker, MD, PhD**  
Children's National Medical Center  
Washington, DC, USA

**Prof. Eduardo Bancalari, MD**  
Division of Neonatology  
Jackson Memorial Medical Center  
Miami, USA

**Prof. Eugenio Baraldi, MD**  
Women's and Children's Health Department  
University of Padova  
Padova, Italy

**Prof. Christoph Bührer, MD**  
Department of Neonatology  
Charité University Medical Center  
Berlin, Germany

**Prof. Robert Carr, MD**  
Department of Haematology  
St. Thomas Hospital  
London, UK

**Prof. Tore Curstedt, MD, PhD**  
Karolinska University Laboratory  
Karolinska University Hospital  
Stockholm, Sweden

**Prof. Gabriel Dimitriou, MD, PhD**  
Paediatric Department NICU  
University General Hospital of Patras  
Patras, Greece

**Prof. A. David Edwards, MA, DSc, FRCP**  
Center for Developing Brain  
King's College London  
London, UK

**Kirsten Glaser, MD**  
University Children's Hospital  
University of Leipzig  
Leipzig, Germany

**Rangmar Goelz, MD**  
Department of Neonatology  
University Hospital Tübingen  
Tübingen, Germany

**Prof. Johannes B. van Goudoever, MD**  
Emma Children's Hospital  
Amsterdam UMC  
Amsterdam, The Netherlands

**Prof. Joseph Haddad, MD**  
Neonatal and Pediatric Intensive Care  
Saint George University Hospital  
Beirut, Lebanon

**Prof. Henry L. Halliday, MD, FRCP, FRCPE**  
Royal Maternity Hospital  
Belfast, Northern Ireland

**Prof. Mikko Hallman, MD, PhD**  
Department of Pediatrics  
University of Oulu  
Oulu, Finland

**Prof. Thor W.R. Hansen, MD, PhD, FAAP**  
Institute for Clinical Medicine  
University of Oslo  
Oslo, Norway

**Prof. Christoph Härtel, MD**  
University Children's Hospital  
University of Würzburg  
Würzburg, Germany

**Prof. Dominique Haumont, MD**  
Neonatal Unit  
Saint-Pierre University Hospital  
Brussels, Belgium

**Prof. William W. Hay, Jr., MD**  
Children's Hospital Colorado  
University of Colorado School of Medicine  
Denver, USA

**Prof. Ann Hellström, MD, PhD**  
The Queen Silvia Children's Hospital  
Sahlgrenska Academy  
Göteborg, Sweden

**Prof. Helmut D. Hummler, MD, MBA**  
Department of Neonatology  
University Hospital Tübingen  
Tübingen, Germany

**Prof. Iman F. Iskander Boulos, MD**  
Department of Pediatrics  
Cairo University  
Cairo, Egypt

**Prof. Arunas Liubsys, MD**  
Neonatal Center  
Vilnius University  
Vilnius, Lithuania

**Prof. Neil Marlow, MD, FRCP, FRCPCH**  
Faculty of Population Health Sciences  
University College London  
London, UK

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Brigham and Women's Hospital  
Boston, USA

**Prof. Richard J. Martin, MD**

Neonatal Research  
Rainbow Babies & Children's Hospital  
Cleveland, USA

**Prof. Neena Modi, MD, FRCP, FRCPE**

Imperial College London  
Chelsea and Westminster Hospital Campus  
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**Henner Morbach, MD**

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University of Würzburg  
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**Prof. Rory E. Morty, MD**

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Heidelberg University Hospital  
Heidelberg, Germany

**Prof. Won Soon Park, MD, PhD**

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Sungkyunkwan University  
Seoul, Korea

**Prof. Arjan B. te Pas, MD**

Department of Pediatrics  
Leiden University Medical Centre  
Leiden, The Netherlands

**Prof. Natella Rakhmanina, MD, PhD**

HIV Services & Special Immunology  
The George Washington University  
Washington D.C., USA

**Prof. Charles Christoph Roehr, MD**

National Perinatal Epidemiology Unit  
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Southmead Hospital, University of Bristol  
Oxford / Bristol, UK

**Prof. Ola D. Saugstad, MD, PhD, FRCPE**

Department of Pediatric Research  
The National Hospital  
Oslo, Norway

**Prof. Eric S. Shinwell, MD**

Neonatology  
Bar-Ilan University  
Tsfat, Israel

**Prof. Dominique Singer, MD**

Center for Obstetrics and Pediatrics  
University Medical Center Eppendorf  
Hamburg, Germany

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Department of Pediatrics  
University of Ottawa  
Ottawa, Canada

**Prof. Henrik A. Verder, MD**

Department of Pediatrics  
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Department of Pediatrics  
Wilhelmina Children's Hospital  
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**Prof. Clyde Wright, MD**

Perinatal Research Center  
University of Colorado School of Medicine  
Denver, USA

**Prof. Michael Zemlin, MD, MHBA**

Dept. General Pediatrics and Neonatology  
Saarland University Hospital  
Homburg, Germany

## WORKSHOPS

FRIDAY, OCTOBER 1, 2021

### **Workshop I CARDIOPULMONARY TRANSITION, POSTNATAL STABILIZATION AND EMERGENCIES**

*Chair: O.D. Saugstad, Oslo, Norway; D. Singer, Hamburg, Germany*

8<sup>15</sup>     **Monitoring stabilization/resuscitation at birth**  
*A.B. te Pas, Leiden, The Netherlands*

**Neonatal resuscitation guidelines: Scientific rationale and  
evidence**  
*O.D. Saugstad, Oslo, Norway*

**Reversing the irreversible? Interactions between hypoxia and  
hypothermia in the perinatal period**  
*D. Singer, Hamburg, Germany*

9<sup>45</sup>     INTERACTIVE DISCUSSION

10<sup>15</sup>    COFFEE BREAK

### **Workshop II RDS AND SURFACTANT**

*Chair: G. Dimitriou, Patras, Greece; H. Verder, Holbaek, Denmark*

10<sup>45</sup>    **Effects of diabetes during pregnancy on the fetus and newborn**  
*H. Hummler, Tübingen, Germany*

**Disease specific strategies of neonatal ventilation**  
*G. Dimitriou, Patras, Greece*

**European guidelines for the management of RDS**  
*D.G. Sweet, Belfast, Northern Ireland*

12<sup>15</sup>    INTERACTIVE DISCUSSION

12<sup>45</sup>    LUNCH BREAK

13<sup>00</sup>    **POSTER SESSION I - II**



FRIDAY, OCTOBER 1, 2021

## **Workshop III** **OPTIMAL VENTILATORY STRATEGIES**

*Chair: C. Bühner, Berlin, Germany; C. Wright, Denver, USA*

**14<sup>00</sup> Ventilatory strategies to prevent lung injury**  
*E. Bancalari, Miami, USA*

**iNo for preterm infants: Evidence versus practice**  
*B. Thériault, Ottawa, Canada*

**Lung hypoplasia or dry lung syndrome?**  
*H. Hummler, Tübingen, Germany*

**15<sup>30</sup> INTERACTIVE DISCUSSION**

**16<sup>00</sup> COFFEE BREAK**

## **Workshop IV** **BPD: FROM BENCH TO BEDSIDE**

*Chair: S. Andersson, Helsinki, Finland; K. Glaser, Leipzig, Germany*

**16<sup>30</sup> Experimental models of BPD**  
*R.E. Morty, Heidelberg, Germany*

**Pulmonary hypertension and BPD**  
*L.J. van Marter, Boston, USA*

**Present and future of BPD**  
*E. Baraldi, Padova, Italy*

**18<sup>00</sup> INTERACTIVE DISCUSSION**

**18<sup>30</sup> Parallel Seminars**

**A How to get your manuscript rejected?**  
*E.S. Shinwell, Tsfat, Israel*

**B How to design a clinical trial: From basics to pitfalls**  
*N. Modi, London, UK*

**C Neonatal clinical pharmacology: A delicate combination of developmental biology and genetics**  
*J.N. van den Anker, Washington D.C., USA*

The image shows a newborn baby lying in a transparent incubator. A doctor with a beard and a stethoscope around his neck is leaning over the incubator, adjusting a tube connected to the baby. The incubator is a clear plastic box with various medical tubes and sensors attached. In the background, there is a faint blue silhouette of a person's head. The overall scene is clinical and professional.**F&P****950 System**

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## WORKSHOPS

FRIDAY, OCTOBER 1, 2021 (Parallel Sessions)

### Workshop V

#### INTRAUTERINE INFLAMMATION AND INFECTION

*Chair: S. Andersson, Helsinki, Finland; W.S. Park, Seoul, Korea*

8<sup>15</sup>     **Antibiotics, animals and antimicrobial resistance**  
*C. Bühner, Berlin, Germany*

**Ureaplasma species: The hidden danger for preterm infants**  
*K. Glaser, Leipzig, Germany*

**Postnatal CMV-infection in very premature infants:  
Does it matter?**  
*R. Goelz, Tübingen*

9<sup>45</sup>     INTERACTIVE DISCUSSION

10<sup>15</sup>    COFFEE BREAK

### Workshop VI

#### THE NEONATAL IMMUNE SYSTEM AND IMMUNODEFICIENCIES

*Chair: S. Andersson, Helsinki, Finland; B. Thébaud, Ottawa, Canada*

10<sup>45</sup>    **Modulation of the immune-microbiome interplay - any benefit  
for the newborn?**  
*C. Härtel, Würzburg, Germany*

**When mother's antibodies attack the neonate**  
*C. Bühner, Berlin, Germany*

**Rare but dangerous: Immunodeficiencies of the newborn**  
*H. Morbach, Würzburg, Germany*

12<sup>15</sup>    INTERACTIVE DISCUSSION

12<sup>45</sup>    LUNCH BREAK

13<sup>00</sup>    **POSTER SESSION I - II**

# THE GOLDEN HOUR

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FRIDAY, OCTOBER 1, 2021 (Parallel Sessions)

### Workshop VII

#### STRATEGIES FOR A SUCCESSFUL FEEDING

*Chair: W.W. Hay Jr., Denver, USA; I. Iskander, Cairo, Egypt*

- 14<sup>00</sup> **Parenteral nutrition for immature preterm infants in the first week of life and beyond:  
Fluid intake, electrolytes and energy supply**  
*W.W. Hay Jr., Denver, USA*

**Do we need fortifiers and nutritional supplements for preterm infants?**  
*N. Modi, London, UK*

**Strategies for a successful feeding of the premature baby**  
*A. Liubsys, Vilnius, Lithuania*

- 15<sup>30</sup> INTERACTIVE DISCUSSION

- 16<sup>00</sup> COFFEE BREAK

### Workshop VIII

#### PAIN, SEIZURES AND ROP

*Chair: N. Marlow, London, UK; J.M. Solano, Bogotá, Colombia*

- 16<sup>30</sup> **Is there a way to measure pain perception in preterm infants?**  
*R. Slater, Oxford, UK*

**The role of aEEG in seizure identification and prediction of outcome**  
*L.S. de Vries, Utrecht, The Netherlands*

**Growth factors and Anti-VEGF in severe ROP: Has the time come?**  
*A. Hellström, Gothenburg, Sweden*

- 18<sup>00</sup> INTERACTIVE DISCUSSION

- 18<sup>30</sup> **Parallel Seminars**

A **How to get your manuscript rejected?**  
*E.S. Shinwell, Tsfat, Israel*

B **How to design a clinical trial: From basics to pitfalls**  
*N. Modi, London, UK*

C **Neonatal clinical pharmacology: A delicate combination of developmental biology and genetics**  
*J.N. van den Anker, Washington D.C., USA*

SATURDAY, OCTOBER 2, 2021

- 8<sup>15</sup> **Opening and Welcome**  
*C. P. Speer, Würzburg, Germany*

## THE FIRST MINUTES OF LIFE

*Chair: S. Andersson, Helsinki, Finland; R. Martin, Cleveland, USA*

- 8<sup>25</sup> **Cardiopulmonary transition at birth:  
Optimal strategies for support and stabilization**  
*A. B. te Pas, Leiden, The Netherlands*

- 8<sup>45</sup> **Neonatal oxygen exposure and optimal oxygen saturations:  
Do we have the answer yet?**  
*O.D. Saugstad, Oslo, Norway*

- 9<sup>05</sup> PANEL DISCUSSION

- 9<sup>30</sup> **Laudatio for Prof. Richard B. Johnston Jr., Denver, USA**  
*C. P. Speer, Würzburg, Germany*

**Chiesi Prize for Excellence in Neonatology**  
*O.D. Saugstad, Oslo, Norway*

- 10<sup>00</sup> COFFEE BREAK

## RESPIRATORY CARE IN 2021

*Chair: G. Dimitriou, Patras, Greece; D.G. Sweet, Belfast, Northern Ireland*

- 10<sup>30</sup> **Non-invasive respiratory support of preterm infants with RDS**  
*C. Wright, Denver, USA*

- 10<sup>50</sup> **Limitations of non-invasive ventilation:  
When is mechanical ventilation in the very immature infant indicated?**  
*E. Bancalari, Miami*

- 11<sup>10</sup> **Minimally invasive surfactant therapy: Useful or fashionable?**  
*C. Härtel, Würzburg, Germany*

- 11<sup>30</sup> **CPAP failure, LISA and mechanical ventilation**  
*C.C. Roehr, Oxford/Bristol, UK*

- 9<sup>05</sup> PANEL DISCUSSION

SATURDAY, OCTOBER 2, 2021

12<sup>30</sup> LUNCH BREAK

13<sup>00</sup> POSTER SESSION III - IV

13<sup>30</sup> NNI SYMPOSIUM: UPDATE ON NEONATAL NUTRITION

**The role of human milk oligosaccharides (HMOs) in early infant nutrition**  
*N. Sprenger, Lausanne, Switzerland*

**Individualized nutrition in preterms – quo vadis?**  
*N. Haiden, Vienna, Austria*

## BPD AND RESPIRATORY OUTCOME

*Chair: M. Hallman, Oulu, Finland; L.J. van Marter, Boston, USA*

14<sup>00</sup> **BPD from pathogenesis to prevention: An unresolved problem**  
*E. Bancalari, Miami, USA*

14<sup>20</sup> **Topical steroids: Inhaled or mixed with surfactant?**  
*E. Shinwell, Tsfat, Israel*

14<sup>40</sup> **Why do former preterm infants wheeze?**  
*R.J. Martin, Cleveland, USA*

15<sup>00</sup> **Follow-up and long term respiratory function following prematurity**  
*E. Baraldi, Padua, Italy*

15<sup>20</sup> PANEL DISCUSSION

15<sup>45</sup> COFFEE BREAK

## MICROBIOME, PLATELETS AND STEM CELLS

*Chair: C. Härtel, Würzburg, Germany; W.S. Park, Seoul, Korea*

16<sup>15</sup> **Gut microbiome and sepsis – what's the gardener's perspective?**  
*M. Zemlin, Bad Homburg, Germany*

16<sup>35</sup> **Platelet transfusion: More harm than benefit?**  
*R. Carr, London, UK*

16<sup>55</sup> **Stem cells: The magic cure for BPD and brain damage?**  
*B. Thébaud, Ottawa, Canada*

17<sup>15</sup> PANEL DISCUSSION

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1. Newburg DS, et al. Glycobiology 2004;14(3):253-263.

2. Austin S, et al. Nutrients 2019;11:1282.

3. Hascoët JM, et al. Abstract at WCPGHAN 2021.

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SATURDAY, OCTOBER 2, 2021

## Parallel Seminars

17<sup>45</sup>

- D Antibiotics for the newborn baby: Friends or foes?**  
*A. Liubsys, Vilnius, Lithuania*
- E Challenges in neonatal care in resource poor settings**  
*J. Haddad, Beirut, Lebanon*
- F Pharmacological prevention and treatment of maternal and neonatal HIV infection**  
*N. Rakhmanina, Washington, D.C., USA*



SUNDAY, OCTOBER 3, 2021

**BRAIN INJURY AND PAIN PERCEPTION***Chair: T.W.R. Hansen, Oslo, Norway; N. Marlow, London, UK*

- 8<sup>00</sup> **Special Lecture**  
**How can we reduce brain injury in preterm infants?**  
*A.D. Edwards, London, UK*
- 8<sup>30</sup> **Monitoring the neonatal brain: How, when and for how long?**  
*L.S. de Vries, Utrecht, The Netherlands*
- 8<sup>50</sup> **Analgetic drugs: Impact on pain perception and brain activity**  
*R. Slater, Oxford, UK*
- 9<sup>10</sup> **The use of opioids in the NICU: Navigating between Scylla and Charybdis**  
*J.N. van den Anker, Washington D.C., USA*
- 9<sup>30</sup> PANEL DISCUSSION
- 10<sup>00</sup> COFFEE BREAK
- 10<sup>30</sup> **Poster Prize**
- Announcement of the Awardees**  
*T. Curstedt, Stockholm, Sweden*

**HIDDEN RISKS FOR RETINAL AND CEREBRAL DAMAGE; NEURODEVELOPMENTAL OUTCOME***Chair: A.D. Edwards, London, UK; C. Bührer, Berlin, Germany*

- 10<sup>45</sup> **Preventive strategies and up-to-date treatment of severe ROP**  
*A. Hellström, Gothenburg, Sweden*
- 11<sup>05</sup> **Hypoxic-ischemic episodes:**  
**A hidden risk for brain damage of very immature preterm infants?**  
*R.J. Martin, Cleveland, USA*
- 11<sup>25</sup> **Neonatal jaundice: A puzzle still unresolved**  
*T.W.R. Hansen, Oslo, Norway*
- 11<sup>45</sup> **Outcomes into adulthood for our most immature infants**  
*N. Marlow, London, UK*
- 12<sup>05</sup> PANEL DISCUSSION



SUNDAY, OCTOBER 3, 2021

12<sup>30</sup> LUNCH BREAK

12<sup>45</sup> **Lunch Seminar**

**Partial Personhood:  
The Newborn in History**  
*M. Obladen, Berlin, Germany*

## GROWTH FAILURE AND OPTIMAL NUTRITION

*Chair: S. Andersson, Helsinki, Finland; D. Haumont, Brussels, Belgium*

13<sup>30</sup> **Preterm nutrition in 2020 - breast milk, probiotics & co:  
Myths and facts**  
*N. Modi, London*

13<sup>50</sup> **Essentials and pitfalls of parenteral nutrition**  
*J. van Goudoever, Amsterdam, The Netherlands*

14<sup>10</sup> **How to manage postnatal growth failure?**  
*W.W. Hay Jr., Denver, USA*

14<sup>30</sup> PANEL DISCUSSION

15<sup>00</sup> COFFEE BREAK

## DRUGS AND OTHER INTERVENTIONS

*Chair: M. Hallman, Oulu, Finland; C. Wright, Denver, USA*

15<sup>30</sup> **Pre- and postnatal steroids:  
A critical appraisal**  
*E.S. Shinwell, Tsfat, Israel*

15<sup>55</sup> **Caffeine in preterm infants:  
where are we in 2021?**  
*C.C. Roehr, Oxford/Bristol, UK*

16<sup>20</sup> PANEL DISCUSSION

16<sup>45</sup> **CONCLUDING REMARKS**  
*C. P. Speer, Würzburg, Germany*



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1. Riskin A et al. Clinical Nutrition 37 (2018) 2409-2417

2. Baxter Healthcare. NUMETA G13E Summary of Product Characteristics, 201



## **The Oxygen Dilemma - *and the Fight for Air***

One doctor's journey to understanding the balance

# SOPHIE



## THE INNOVATIVE VENTILATION SYSTEM FOR NEONATOLOGY

SpO<sub>2</sub>-Controller "SPOC" controlled Oxygen Saturation, automatic FiO<sub>2</sub> Adjustment, adaptive Increase of Ventilation

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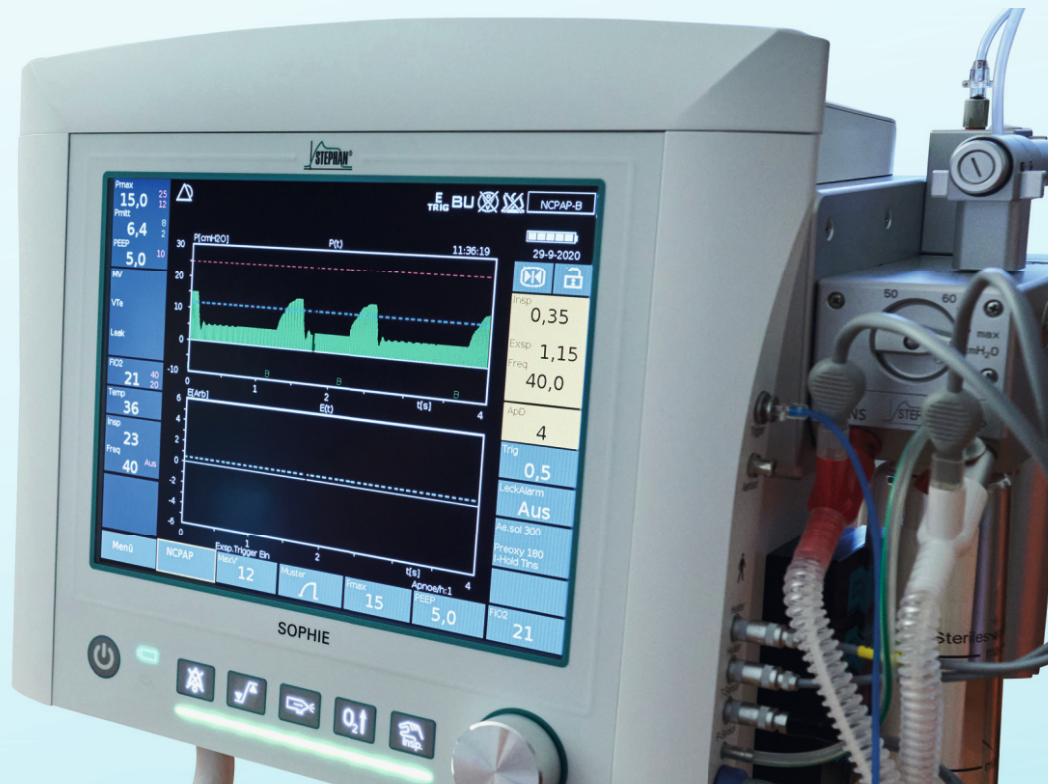
### How does SPOC react to desaturation?

- + under NIV, the synchronized mechanical ventilation is intensified and helps to positively influence oxygen uptake (VO<sub>2</sub>).
- + Increase of FiO<sub>2</sub> is not uniform, previous and current events are taken into account.
- + In case of hyperoxia SPOC reduces FiO<sub>2</sub> to below 25% within a very short time.

### SPOC helps to:

- + prevent hyperoxia, to reduce oxidative stress
- + prevent hypoxia, to avoid hemorrhage and damage to brain tissue
- + reduce SpO<sub>2</sub> fluctuation
- + increase the period within the SpO<sub>2</sub> target range

SPOC operates independently of the selected ventilation form.





Friday, October 1, 2021, 13<sup>00</sup> hrs

## **I RESPIRATORY CARE, PULMONARY DISEASES AND BPD**

Chair: G. Dimitriou, Patras, Greece; J.M. Solano, Bogota, Colombia

**1**

### **THE COMPARISON OF TWO DIFFERENT WEANING METHODS FOR CONTINUOUS POSITIVE AIRWAY PRESSURE**

*I. Šliaužienė, R. Brinkis, I. Aldauskienė, A. Pužas, D. Stonienė, R. Tamelienė*

Department of Neonatology, Hospital of Lithuanian University of Health Sciences Kaunas Clinics, Kaunas, Lithuania

**2**

### **RESPIRATORY FAILURE IN A PRETERM NEONATE WITH A COMBINATION OF CYSTIC FIBROSIS TRANSMEMBRANE CONDUCTANCE REGULATOR GENE MUTATIONS: A CASE REPORT**

*M. Tsigotaki, E. Saitakis, A. Kleisarchaki, V. Kotsira, P. Skoula, E. Hatzidaki*

Department of Neonatology & Neonatal Intensive Care Unit, University Hospital of Heraklion, Crete, Greece

**3**

### **ACCURACY OF TRANSCUTANEOUS BLOOD GAS MEASUREMENT IN CRITICALLY ILL NEONATES**

*P. Baumann<sup>1,2</sup>, V. Gotta<sup>3</sup>, S. Adzikah<sup>1</sup>, V. Bernet<sup>1,2,4</sup>*

<sup>1</sup>University Children's Hospital; <sup>2</sup>Children's Research Centre, University Children's Hospital Zurich, Zurich; <sup>3</sup>Department of Pediatric Pharmacology and Pharmacometrics, University of Basel Children's Hospital, Basel; <sup>4</sup>current affiliation: Department of Neonatology, Hospital Zollikerberg, Switzerland

**4**

### **DD-SURF: SURFACTANT ADMINISTRATION IN BETWEEN INSURE AND LISA**

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University Hospital Carl Gustav Carus, Department of Pediatrics, Division of Neonatology & Pediatric Intensive Care, Dresden, Germany

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### **PREDICTION OF BRONCHOPULMONARY DYSPLASIA AT BIRTH BY MACHINE LEARNING ANALYSIS OF CLINICAL AND DIGITAL SPECTRAL DATA**

*H. Verder<sup>1</sup>, C. Heiring<sup>2</sup>, R. Ramanathan<sup>3</sup>, N. Scoutaris<sup>1</sup>, P. Schousboe<sup>1</sup>, P. Verder<sup>1</sup>, T.E.*

*Jessen<sup>4</sup>, L. Bender<sup>5</sup>, M. Dahl<sup>6</sup>, C. Eschen<sup>1</sup>, J. Fenger-Grøn<sup>7</sup>, J. Reinholdt<sup>8</sup>, H.*

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**II - NUTRITION / GROWTH / NEURODEVELOPMENTAL OUTCOME**

Chair: A. Liubsys, Vilnius, Lithuania; W.W. Hay Jr., Denver, USA

**6**

**CHANGES IN HUMAN MILK MACRONUTRIENT, LYSOZYME AND LACTOFERRIN COMPOSITION DURING MILK PROCESSING IN VILNIUS DONOR HUMAN MILK BANK**

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**7**

**LACTOBACILLUS ACIDOPHILUS/BIFIDOBACTERIUM INFANTIS PROBIOTICS ARE BENEFICIAL TO EXTREMELY LOW GESTATIONAL AGE INFANTS IN THE CONTEXT OF HUMAN MILK EXPOSURE**

*I. Fortmann<sup>1</sup>, K. Hanke<sup>1</sup>, J. Spiegler<sup>1</sup>, K. Faust<sup>1</sup>, D. Viemann<sup>2</sup>, A. Stein<sup>3</sup>, E. Herting<sup>1</sup>, W. Göpel<sup>1</sup>, C. Härtel<sup>1</sup>*

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**8**

**PREVALENCE OF BREASTFEEDING IN INFANTS DISCHARGED FROM A NICU AND UP TO 2 YEARS OF LIFE**

*R. Sokou, E. Tavoulari, G. Ioakeimidis, S. Parastatidou, A. Makrogianni, E. Isaakidou, S. Chaniotis, D. Malliou, V. Falaina, A. Konstantinidi*

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**9**

**ASSESSMENT OF DEHYDRATION IN EXCLUSIVELY BREASTFED NEONATES**

*R. Sokou, A. Makrogianni, S. Parastatidou, E. Tavoulari, G. Ioakeimidis, S. Papadakis, A. Konstantinidi*

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**10**

**SURGICAL NECROTIZING ENTEROCOLITIS BUT NOT SPONTANEOUS INTESTINAL PERFORATION IS ASSOCIATED WITH ADVERSE NEUROLOGICAL OUTCOME AT SCHOOL AGE**

*A. Humberg<sup>1</sup>, J. Spiegler<sup>1</sup>, M.I. Fortmann<sup>1</sup>, M. Zemlin<sup>2</sup>, J. Marissen<sup>1</sup>, I. Swoboda<sup>1</sup>, T.K. Rausch<sup>3</sup>, E. Herting<sup>1</sup>, W. Göpel<sup>1</sup>, C. Härtel<sup>1</sup>*

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**THROMBOELASTOMETRY VARIABLES IN NEONATES WITH PERINATAL HYPOXIA**

*A. Konstantinidi<sup>1</sup>, R. Sokou<sup>1</sup>, A.G. Tsantes<sup>2</sup>, S. Parastatidou<sup>1</sup>, S. Bonovas<sup>3,4</sup>, A.K.*

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Saturday, October 2, 2021, 13<sup>00</sup> hrs

### III INFECTIONS AND INFLAMMATION

Chair: R. Carr, London, UK; D. Singer, Hamburg, Germany

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#### EARLY – ONSET SEPSIS IN PRETERM INFANTS: DIAGNOSTICS AND TREATMENT DIFFERENCES IN 2011 AND 2016

*P. Aldauskaitė<sup>1</sup>, R. Brinkis<sup>2</sup>, R. Tamelienė<sup>2</sup>, I. Aldauskienė<sup>2</sup>*

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#### ROAD TO THE NEW WORLD OF EARLY ONSET SEPSIS PRACTICE

*A. Ahmed, P. Gopalakrishnan*

Department of Neonatology, University Hospital of Wishaw, Glasgow, Scotland

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#### SEPSIS MORTALITY OF EXTREMELY PRETERM INFANTS IN GERMANY AFTER THE INTRODUCTION OF COLONIZATION SCREENING

*K. Faust<sup>1</sup>, I. Fortmann<sup>1</sup>, A. Humberg<sup>1</sup>, J. Pagel<sup>1</sup>, C. Haug<sup>1</sup>, R. Kühf<sup>2</sup>, B. Bohnhorst<sup>3</sup>, D. Viemann<sup>3</sup>, A. Simon<sup>4</sup>, M. Zemlin<sup>4</sup>, S. Poralla<sup>5</sup>, A. Müller<sup>5</sup>, N. Köstlin-Gille<sup>6</sup>, C. Gille<sup>6</sup>, M. Heckmann<sup>7</sup>, J. Rupp<sup>8</sup>, E. Herting<sup>1</sup>, W. Göpel<sup>1</sup>, C. Härtel<sup>1</sup>*

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#### ANTIMICROBIAL SKIN PEPTIDES IN PREMATURE INFANTS: CHARACTERIZATION AND IMPACT OF PERINATAL FACTORS

*A. Humberg<sup>1</sup>, L. Neuenburg<sup>1</sup>, H. Böckel<sup>1</sup>, M.I. Fortmann<sup>1</sup>, C. Härtel<sup>2</sup>, E. Herting<sup>1</sup>, H. Hinrichs<sup>3</sup>, J. Harder<sup>3</sup>*

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#### EPIDEMIOLOGY OF STAPHYLOCOCCUS AUREUS INFECTION IN THE NEONATAL PERIOD: A 12-YEAR SINGLE CENTER EXPERIENCE

*M. Tsigotaki<sup>1</sup>, I. Goniou<sup>1</sup>, S. Maraki<sup>2</sup>, E. Korakaki<sup>1</sup>, O. Michopoulou<sup>1</sup>, E. Hatzidaki<sup>1</sup>*

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**EPIDEMIOLOGICAL STUDY OF HOSPITAL-ACQUIRED CONJUNCTIVITIS IN A LEVEL III NEONATAL UNIT**

*I. Goniotakis, M. Tsirigotaki, A. Manoura, N.H. Anagnostatou, C. Thomou, E. Hatzidaki*  
Department of Neonatology & Neonatal Intensive Care Unit, University Hospital of Heraklion, Crete, Greece

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**VANCOMYCIN-INDUCED OTOTOXICITY IN VERY-LOW-BIRTHWEIGHT INFANTS**

*J. Marissen<sup>1</sup>, I. Fortmann<sup>2</sup>, A. Humberg<sup>2</sup>, T.K. Rausch<sup>2,3</sup>, A. Simon<sup>4</sup>, A. Stein<sup>5</sup>, T. Schaible<sup>6</sup>, J. Eichhorn<sup>7</sup>, J. Wintgens<sup>8</sup>, C. Roll<sup>9</sup>, F. Heitmann<sup>10</sup>, E. Herting<sup>2</sup>, W. Göpel<sup>2</sup>, C. Härtel<sup>1</sup>*

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##### AN OBSERVATIONAL STUDY ON THE USE OF PERIPHERAL LINES VERSUS CENTRAL LINES IN NEONATAL INTENSIVE CARE UNITS

A. Riskin<sup>1</sup>, A. Iofe<sup>1</sup>, D. Zidan<sup>2</sup>, I. Shoris<sup>1</sup>, A. Toropine<sup>1</sup>, D. Bader<sup>1</sup>

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##### IS PHOTOTHERAPY ASSOCIATED WITH FUTURE CANCER RISK? A SYSTEMATIC REVIEW AND META-ANALYSIS OF 6,637,417 CHILDREN

M. Abdellatif<sup>1</sup>, B. Hoang-Trong<sup>2</sup>, G. Tawfik<sup>3</sup>, D. Papadopoulos<sup>4</sup>, M. Khaled<sup>5</sup>, M. Dobs<sup>6</sup>, P. Duong<sup>7</sup>, NT. Huy<sup>8</sup>

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##### "NEOBRIS" A RISK SCORE FOR PREDICTING THE INCIDENCE OF HEMORRHAGE IN CRITICALLY ILL NEONATES

R. Sokou<sup>1</sup>, D. Piovan<sup>2,3</sup>, A. Konstantinidi<sup>1</sup>, A.G. Tsantes<sup>4</sup>, S. Parastatidou<sup>1</sup>, M. Lampridou<sup>1</sup>, G. Ioakeimidis<sup>1</sup>, A. Gounaris<sup>5</sup>, N. Iacovidou<sup>6</sup>, A.G. Kriebardis<sup>7</sup>, M. Politou<sup>8</sup>, P. Kopterides<sup>9</sup>, S. Bonovas<sup>2,3</sup>, A.E. Tsantes<sup>4</sup>

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**EVALUATION OF THE FAMILY-INTEGRATING CARE CONCEPT NEOPASS  
FOCUSING ON PARENTAL STRESS, SELF-EFFICACY, SENSE OF COMPETENCE  
AND THE PARENT-CHILD BONDING**

*H. Seegerer<sup>2,3</sup>, M Zeller<sup>1</sup>, M Keller<sup>1,3</sup>*

<sup>1</sup>Children`s Hospital Passau, Germany; <sup>2</sup>University of Regensburg, Germany; <sup>3</sup>Technical University of Munich, Germany

**23**

**COMPARATIVE SPECTROSCOPY OF THE 25 PAIRS OF THE FETAL (HB-F, CORD  
BLOOD) & MATERNAL (HB-A) HEMOGLOBIN**

*S.G. Gokhale<sup>1</sup>, V. S. Daggubati<sup>2</sup>*

<sup>1</sup>Department of Biomedical Engineering, University of Texas Arlington, USA; <sup>2</sup>Chief Executive Officer, Shani Biotechnologies LLC, USA

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**40 YEARS OF EXPERIENCE IN A PRIVATE NICU IN GREECE**

*M. Saklamaki-Kontou, C. Panousopoulou, S. Mpikouvarakis, A. Ntanika, E. Apostolou*  
NICU, Mitera Hospital, Athens, Greece



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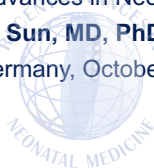
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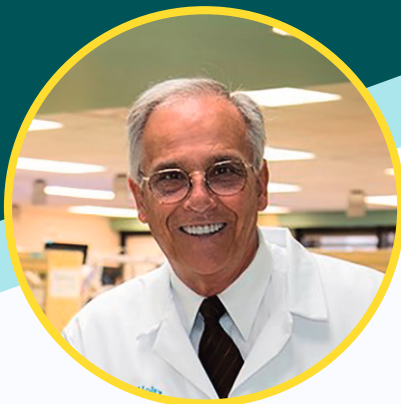
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