

## Pediatric Cardiology & ICND 2017



3<sup>rd</sup> Annual Summit on

## Clinical Pediatrics and Cardiology & Infancy, Child Nutrition and Development

October 16-18, 2017 New York, USA

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## Keynote Forum

Day 1

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3<sup>rd</sup> Annual Summit on

# CLINICAL PEDIATRICS AND CARDIOLOGY & INFANCY, CHILD NUTRITION AND DEVELOPMENT

October 16-18, 2017 New York, USA



## John Wells Logan

*Nationwide Children's Hospital, USA*

### Early postnatal illness severity scores predict neurodevelopmental impairments at 10 years of age in children born extremely preterm

A neonatal illness severity score, the score for neonatal acute physiology-II (SNAP-II), predicts neurodevelopmental impairments at two years of age among children born extremely preterm. We sought to evaluate to what extent SNAP-II is predictive of cognitive and other neurodevelopmental impairments at 10 years of age. In a cohort of 874 children born before 28 weeks of gestation, we prospectively collected clinical, physiologic and laboratory data to calculate SNAP-II for each infant. When the children were 10 years old, examiners who were unaware of the child's medical history assessed neurodevelopmental outcomes. We used logistic regression to adjust for potential confounders. An undesirably high SNAP-II ( $\geq 30$ ) was associated with an increased risk of cognitive impairment, adverse neurological outcomes, behavioral abnormalities, social dysfunction and education-related adversities. In analyses that adjusted for potential confounders, Z-scores  $\leq -1$  on 11 of 18 cognitive outcomes was associated with SNAP-II in the highest category and 6 of 18 were associated with SNAP-II in the intermediate category. Odds ratios and 95% confidence intervals ranged from 1.4 (1.01, 2.1) to 2.1 (1.4, 3.1). Similarly, 2 of the 8 social dysfunctions were associated with SNAP-II in the highest category, and 3 of 8 were associated with SNAP-II in the intermediate category. Odds ratios and 95% confidence intervals were slightly higher for these assessments, ranging from 1.6 (1.1, 2.4) to 2.3 (1.2, 4.6). Among very preterm newborns, physiologic derangements present in the first 12 postnatal hours were associated with dysfunctions in several neurodevelopmental domains at 10 years of age.

### Biography

John Wells Logan is Board-certified in Pediatrics and Neonatal-Perinatal Medicine. He completed his Medical Training at the Medical University of South Carolina in 1995, and his Fellowship in Neonatal-Perinatal Medicine at Duke University Medical Center in 2007. Ongoing collaboration with the Extremely Low Gestational Age Newborn (ELGAN) Study Group has led to several contributions to the field. He is working as the Associate Medical Director of the Broncho-pulmonary Dysplasia Unit at Nationwide Children's Hospital and has over 15 peer-reviewed publications. He is interested in improving the long-term pulmonary and neurocognitive outcomes of infants with severe phenotype broncho-pulmonary dysplasia.

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## O A Sharipova

*Samarkand Medical Institute, Uzbekistan*

### Evaluation of sexual development in patients with chronic bronchitis

The study included 84 children with chronic bronchitis in the age from 11 to 16 years of this 37 (35.7%) were girls and 47 (64.3%) were boys. To check the status of sexual development in boys we carried out genitometric analysis and evaluation of the stages of sexual development by J.M. Tanner (1967). So we have revealed that the boys with chronic bronchitis have reliable lessening in size of penis and testicles. When evaluating the sexual development of girls we paid attention to the pubis and axillary hair distribution, the growth of the mammary glands, for a period of menarche. So we have revealed that by the age of 16 in 8 (25%) patients with chronic bronchitis mammary glands were at Ma3 stage and in 24 (75%) did not exceed Tanner II degree. By the age of 16 the sexual body hair was in P2Ax2 stage in 26 (81.3%) and in P3Ax2 stage was only in 6 (18.7%) sick girls. Steady menstrual cycle had only 5 (15.6%) girls aged 14-16. Thus, our findings allow us to draw a conclusion about the negative impact of chronic bronchitis on sexual development, which requires the development of purposeful practical measures in this direction. In general, all patients maintained a sequence of development of secondary sexual characteristics, but the rates of development of secondary sexual characteristics in comparison with healthy peers are different, i.e. in patients with chronic bronchitis process of puberty occur gradually and does not complete until the end of puberty.

### Biography

O A Sharipova has completed her PhD from Tashkent Pediatric Medical Institute. She is an Associate Professor of the Department of Pediatrics and Medical Genetics. She has published more than 30 papers in Uzbekistan and international reputed journals.

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### Notes:

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## Keynote Forum

Day 2

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## Barbara Hugonin

*University of Siena, Italy*

### **The negative effects of pre-pregnancy and pregnancy diabetes on neurodevelopment and metabolism of newborn: Screening and foetal programming for the prevention**

Diabetes and related complications are very problematic in a pregnancy for maternal and fetal health. This research is a focus on women in pre-pregnancy and pregnancy, in particular the attention is about risk factors as obesity, genetic conditions, familiar preeclampsia and metabolic diseases. This research is divided into parts: first is the analysis of diabetes conditions and consequences, in a pregnancy, for neurodevelopment of newborn and the second is an educational foetal programming for prevention. The problems are related in seven cases on 10 to diabetes mellitus in pre-pregnancy. In a cohort study on 92 women, 45 in pregnancy and 47 in pre-conceptional age, only 10% of pregnant women and 3% of non-pregnant know their diabetic conditions. In pre-pregnancy the diabetes and malnutrition, in association with a bad lifestyle, create a pre-inflammatory conditions with oxidation reactions, dangerous for mitochondrial genomic and for regulation of gene expression in future fetal development. Infact in this study in women with pre-pregnancy diabetes as new condition, the related complications as hypertension and metabolic scompenses was evident in 15 women, with overweight or obesity too. After this study the screening revealed in 15 cases the diabetes condition and complications with hypertension and hyperglycemia, in particular the consequence was the influences for fetal nutrition and neurodevelopment. The epigenetic effect of inflammatory status caused a vasoconstriction and damage against tissues in development in particular neuromuscular structures. The foetal programming and educational diabetics screening is the purpose for improvement in the pre-pregnancy health for a future life.

### **Biography**

Barbara Hugonin did her Bachelor of Biological Sciences in University of Naples, Master's degree in Human Genetics and Genomics on prenatal diagnosis, cytogenetics, screening for inherited inborn error of metabolism and screening programming in Children's hospital of Florence and one more Master's degree in molecular and medical genetics and genetic pathologies. Her research and training programme includes Counseling genetics (2015-now) and research in maternal fetal nutrition and metabolic conditions. She is working for a Preconceptional Health Education Programme, The National Institute of Health in Rome, the group GLISP (Group of work for preconceptional health). She is a Diabetes Pediatric, Maternal Educator as well as Genetic Counselor.

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