

Time structures – *chronomes* – in child development

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I. INTRODUCTORY SECTION

Cornélissen G, Halberg F, Schwartzkopff O, Katinas G, Johnson D, Otsuka K, Watanabe Y, Wang ZR, Wan CW, Perfetto F, Tarquini R, Maggioni C, Syutkina EV, Masalov A, Siegelova J, Zhao ZY, Singh RB, Singh RK, Delyukov A, Gorgo Y, Zaslavskaya RM, Gubin GD, Gubin DG, Kumagai Y, Uezono K, Wilson D, Weydahl A, Bakken E.

Editor's foreword: What Gesell wished, Hellbrügge accomplished:

Chronomics of child development

Schneeweiss B.

Prologue from a colleague

Hellbrügge T, Lange JE, Rutenfranz J, Stehr K.

Circadian periodicity of physiological functions in different stages of infancy and

childhood. *Ann NY Acad Sci 1964; 117: 361-373. Reprinted with permission of the New York Academy of*

Sciences, Barbara Goldman, President

II. NEONATOLOGY

Cornélissen G, Rigatuso J, Syutkina EV, Schwartzkopff O, Johnson DE, Halberg F.

International Womb-to-Tomb Chronome Group:

Case report of an acceptable average but overswinging blood pressure in Circadian Hyper-Amplitude-Tension, CHAT

Garcia Alonso L, Cornélissen G, Syutkina EV, Masalov A, Perfetto F, Tarquini R, Halberg F.

Chronomics of human growth in body weight and length

Kellerova E. (Bratislava, Slovak Republic)

Stimulus-induced changes and circadian and ultradian periodicities of blood pressure and heart rate in newborns

Kenner T, Cornélissen G, Katinas G, Schwartzkopff O, Kenner B, Halberg F.

Population cycle in sudden infant death syndrome (SIDS)?

Korte J, Oppe C, Wulff K, Siegmund R (Berlin, Germany)

Activity-rest behaviour of preterm neonates compared to full-term neonates using actigraph monitoring

Maggioni C, Cornélissen G, Syutkina EV, Johnson D, Halberg F.

Pharmacovigilance: betamimetic drug exposure in pregnancy enhances cardiovascular disease risk of offspring

Marazzi A, Ruffieux C, Cornélissen G, Syutkina EV, Johnson D, Halberg F.

Circadian and circaseptan patterns of natality and perinatal mortality of infants with different birth weights

Masalov AV, Syutkina EV (Moscow, Russia)

Magnetic storms and neonatal blood pressure and heart rate chronomes

Mrowka R, Cimponeriu L, Patzak A, Rosenblum MG.

Development of cardiorespiratory interaction during different sleep stages in babies

Time structures – *chronomes* – in child development*Rivkees SA (New Haven, USA)***Developing circadian rhythmicity in infants***Siegelová J (Brno, Czech Republic), Cornélissen G, Schwartzkopff O, Halberg F (Minnesota, USA)***Time structures in the development of children***Syutkina EV, Cornélissen G, Yatsyk G, Studenikin M, Baranov A, Halberg F***Over a decade of clinical chrononeonatology and chronopediatrics in Moscow***Watanabe Y, Nintcheu-Fata S, Katinas G, Cornélissen G, Otsuka K, Hellbrügge T, Bakken E, Schwartzkopff O, Halberg F***A newborn's partial heart rate chronome in moving spectra during first 40 days of life**III. VASCULAR, METABOLIC AND ENDOCRINE CHRONOMES

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V. BASIC SCIENCE

Albrecht U. (Fribourg, Switzerland)

Molecular basis of circadian rhythm and behavior

Edmunds L, Balzer I, Cornélissen G, Halberg F

Toward a chronome of *Euglena gracilis* (Klebs)

Illnerová H, Jác M, Trávníčková Z, Šumová A. (Prague, Czech Republic;*

**President of the Czech Academy of Sciences)*

Modulation of the mammalian time-keeping system by the photoperiod

*Katinas G, Berger S, Cornélissen G, Hillman D, Woolum J, Engebretson M,
Syutkina EV, Masalov A, Wang ZR, Bakken EE, Schwartzkopff O, Halberg F*

***Acetabularia acetabulum*: Unicellular model of neonatal vascular chronome**

Shinoda H, Ohtsuka-Isoya M, Cornélissen G, Halberg F

Putative circaseptans or other infradians in murine dentin accretion and the suprachiasmatic nuclei

Woolum JC, Cornélissen G, Halberg F

Spectral aspects of *Acetabularia*'s light transmission chronome: effects of enucleation

Zhou B, Wang Z, Wan C, Sothorn RB, Cornélissen G, Halberg F

Diazepam and melatonin effects upon circadian variation of cultured murine myocardiocytes

VI. METHODOLOGY

Burioka N, Cornélissen G, Otsuka K, Shimizu E, Halberg F

Linear and nonlinear indices of variability in respiratory movement, the electroencephalogram and the electrocardiogram

Rädler J, Schubert I, Hecht K, Maschke C. (Berlin, Germany)

Circaseptan and circasemiseptan rhythms of electrophysiological sleep profiles in adolescents of pubertal age

Springer S, Bunk W. (Munich, Germany)

Basics of biosignal analysis of ECG and EEG with chaos theoretical methods

Wulff K, Wulff W, Siegmund R. (London, UK; Berlin, Germany)

Circadian patterns of rest and activity in infants and their mothers analyzed by SOPRAN – a wavelet approach for actigraphic data

Zaslavskaya RM, Makarova LA, Shakarova AN, Wang ZR, Cornélissen G, Halberg F

Melatonin effects on blood pressure in vivo and in vitro: model and method for pediatricians?