the current questions asked by synchrony evaluation and the state of the art related methods. Definitions and functions of synchrony in early years and adulthood will be first presented. Then, we will review the non-computational and computational approaches to annotate, evaluate and model interactional synchrony. To stress our point, recent applications of computational approaches to ASD studies will be discussed.

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Mo-S-101

Michelangelo, an European research project exploring new, ICT-supported approaches in the assessment and treatment of autistic children
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Michelangelo – a currently running research project partially funded by the European Commission (FP7) - intends to bring the assessment and the therapy of the autism out of the clinical environment and develop a patient-centric home-based intervention requiring a minimal human involvement and therefore extremely cost effective. The project exploits ICT and other technologies in assessing and treating ASD in children in a more “natural” home environment where non-obtrusive techniques are used. At the same time the proposed methodology aims at enhancing the effectiveness of the treatment though its “intensiveness” and “personalization” matching the individual characteristics of the autistic children. As outcomes of the research work, advances will be achieved also in various technological fields. Michelangelo project is expected to have impacts from the medical, social and economic perspectives. The results of its research work will be validated through an exploratory study with autistic children in France and in Italy.

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Adults born very or extremely premature

Mo-S-102

Social vs pharmacological stimulation of the stress system, mentalisation processes and behavior problems in adults born premature
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Empirical evidence showed that oxytocin (OT) is associated with a variety of social behaviours in mammalian animals and in humans. Stressful situations activate the HPA axis resulting in the release of hormones, such as CRH, ACTH and glucocorticoids (cortisol) into the blood stream; OT is also secreted under stress and seems to play a role in the regulation of the stress system, notably in inhibiting ACTH release. While the response to a social stress test (TSST) depends on the personal stress experienced, the pharmacological stress stimulation (CRH test) can evaluate the HPA in absence of a social stress. Currently, the literature does not allow us to define a clear hypothesis on mechanisms involved in the oxytocinergic response, in premature born population, and how OT secretions are associated to the attachment system. To confront results of these two different types of HPA axis stimulation will help us to answer.

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Mo-S-103

Cortisol responses to induced stress (TSST) in a young adult prematurely born sample
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Epidemiologic studies have reported increased levels of neurologic and cognitive disabilities in adolescents and young adults born premature. The purpose of the present study was to examine the relation between cortisol reactivity and comorbid internalizing and externalizing behavior problems among children born premature. Method: In 70 young adults born very premature (<29 wga) and 35 comparison young adults born in the same hospital and matched for age and SLE level, we collected salivary cortisol samples at 5 moments in the course of 3 days. The 2nd day, subjects were asked to perform the Trier Social Stress Test, which includes a public speaking task and a mental arithmetic task. The diurnal cortisol slope (Area under the Curve (AUC) was calculated and parents and young adult completed the CBCL. Results have shown a reduced physiological response to stressors in the premature group, which were linked to internalize behaviors.

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Mo-S-104

Attachment system, reflective function, and response to stress in premature born adults
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The attachment can be related with individual differences of response to stress at neurophysiologic and cognitive levels (Maunier et al., 2001). Objective: Study the relationship between neonatal biological risk, psychosocial risk at 30 month and later minor sequel at 7 years old with the response to stress, attachment and reflective function and health of former VLBW at young adulthood. Sample.– Fifty VLBW, 19–21 years old randomized, born in Hospital Sent Joan de Deu. 25 VLBW present later minor sequel at 7 years and 25 don’t present. Control group.– Seventy-five normal birth, 19–22 years old. Measures.– Response to stress: Trier Social Stress Test and cortisol measures, Achenbach System of Empirically Based Assessment (ASEBA) Youth Self Report/11-18 (YSR), Child Health and Illness Profile-Adolescent Edition, Stressing Life Events Bartolomew Attachment questionnaire, Adult Attachment Interview (AAI) (Main 1985). Results will highlight the relationship between social development and stress coping in adults born VLBW.

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Meetings of minds in psychotherapy

Mo-S-105

The baby and her parents: The clinician’s role in helping parents to see and experience the inner world of the infant
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