We will present a research that was carried out on children followed at the Unit “Early childhood and Parenting Vivaldi” (clinical participants: Dr D. Rabain, Dr E. Aidane, L. Camon-Sénéchal, L. Khin-Franck, M. David, M. Garrigue-Abrall). Relationships between the family linguistic context, the early interactions and the development of the young children was studied. From a statistical point a view, the impact of two factors was studied: choice of languages spoken with the child and type of bilingualism. Early communication was the subject of a qualitative study. Valorizations operations and family languages support were set up in a study context. Our research also evaluated the interest of therapeutic programs taking into account family languages surrounding the young child during his language acquisition.

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Attachment and psychopathology from infancy to adolescence

Mo-S-096
Attachment in infancy
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Attachment process in Infancy in 2012: what neurosciences learn about? Forty years after the publication of the first volume of “Attachment and Loss” by Bowlby, neurosciences highlight biological foundations of attachment process in infancy, what can be called the brain basis of attachment and caregiving process. We will summarize 5 major issues which can inform clinical practices with newborns and their parents. The evolutionary perspective is highlighting the “strange/familiar” paradigm, and the evolutionary co-configuration of caregiving/attachment processes. The “imprinting like process” is considering with new knowledge about foetal and neonatal sensoriality. The role of key hormones and neurotransmitters in the regulation of social bonding and particularly in the reciprocal processes of proximity seeking and proximity giving. The social regulation of emotion and stress. The genetic and epigenetic perspective in maternal care.

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Mo-S-097
Adolescence in the light of attachment
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We will present the psychological, interpersonal axis of development in adolescence through the lens of the attachment theory. The key task of adolescence is to develop autonomy. At first glance, adolescents appear to be engaged in an active flight away from parents, together with an increased exploratory behavior. In fact, autonomy-seeking behavior is most easily established in the background of secure attachment to parents, and most youngsters turn to parents under conditions of extreme stress. The only difference between infants and adolescence, in that respect, is the threshold level of stress necessary to activate their attachment systems and the intensity of the need to explore. We will review the links between different psychopathologies in adolescence and security of attachment.

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Mo-S-098
Learning the acoustics of autism-spectrum emotional expressions – a children’s game?
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Synchrony refers to the temporal coordination between individuals during social interaction. The analysis of this phenomenon is complex, requiring the perception and integration of multimodal communicative signals. For its influence in early development, language learning and social connection, the evaluation of synchrony has received multidisciplinary contributions. Originally studied by developmental psychologists, it is now interesting researchers, from social signal processing, robotics and machine learning fields. We will emphasize on

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Mo-S-099
Dynamic modeling of prosody: Application to atypical prosody recognition in ASD, PDD-NOS and specific language impairment
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Atypical prosody contributes to language, communication and social interaction disorders, which adds a barrier to social integration in individuals with communication disorders. Advances in automatic speech processing have permitted to study the feasibility of automated systems for characterizing prosodic skills of language-impaired children. However, the systems are faced with multiple challenges, since speech prosody concerns many perceptual components that present high variability due to contextual and speaker’s idiosyncratic variables. Despite progress in extracting a wide set of prosodic features, there is no clear consensus today about the most efficient features. In this talk, I present a novel metric of speech rhythm that aims to characterize the dynamic of prosody. The ability of acoustic and rhythmic features to recognize atypical prosody from ASD, PDD-NOS, specific language impairment and typically developing children is evaluated on 6 hours of speech recorded from three independent tasks: text reading, sentence imitation and emotional story telling.

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Mo-S-100
Interpersonal synchrony: A survey of evaluation methods across disciplines and its application to ASD
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Synchrony refers to the temporal coordination between individuals during social interaction. The analysis of this phenomenon is complex, requiring the perception and integration of multimodal communicative signals. For its influence in early development, language learning and social connection, the evaluation of synchrony has received multidisciplinary contributions. Originally studied by developmental psychologists, it is now interesting researchers, from social signal processing, robotics and machine learning fields. We will emphasize on

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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 (Maunder 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, 19–21years 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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