

Young Researcher's Day 2010 of the Annual Meeting of the SSP 2010, Crans-Montana

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For the second time, the traditional Young Researcher's Day was integrated in the program of the Annual Meeting of the Swiss Society of Pediatrics (SSP). The sessions were scheduled for the second day of the SSP meeting in order to attract the largest possible audience. In contrast to previous years, the call for abstract was performed without pre-selection by department heads. The invitation to submit abstracts was sent twice by e-mail using the largest possible distribution list, with the help of the SSP office and the administrative office of the Children's Hospital Zurich. A total of 21 abstracts were submitted (Basel 1, Bern 3, Geneva 3, Lausanne 5, Zurich 8, others 1). Following careful review and evaluation with a standardized scoring system by a panel of five researchers, including two experts from other Swiss academic pediatric hospitals, we finally selected 10 abstracts (Basel 1, Bern 1, Geneva 1, Lausanne 1, Zurich 5, others 1). This approach resulted in two compact sessions of high quality including representative talks of the various pre-clinical and clinical areas in pediatrics. We acknowledge the fact that excellent abstracts could not be considered given the limited space and time. The final program resulted in an outstanding frequentation of the sessions, filling the room with hundred seats completely at times. Talks were followed by lively and interesting discussions, which probably best reflect the success of these sessions.

The first session was mostly filled with clinical research talks. **Caroline Roduit (Zurich)** presented data supporting that maternal contact to farm animals and cats during pregnancy and a higher expression of Toll-like receptors (innate immune system) at birth have a protective effect on the development of atopic dermatitis. **Mascha Rochat (Munich)**

reported about a study derived from the German Multicentre Allergy Study (MAS) birth cohort, showing that the first manifestation of allergic rhinitis in preschool children was a risk factor for subsequent wheezing onset, while rhinitis until the age of two did not influence the development of wheezing in childhood. She discussed the implication of her data with respect to the early identification of children at risk for asthma. **Arnaud L'Huillier (Geneva)** presented a study of 97 vertically infected HIV+ children and HIV+ adults and aged-matched healthy control children, showing that in HIV+ children antibody affinity against VZV significantly decreased with time, suggesting an impairment to reactivate anti-VZV memory responses. **Oliver Fuchs (Bern)** presented data expanding previous knowledge by showing that in addition to the protective effect of farming on atopy and asthma in general, an objective difference could also be measured by assessment of the pulmonary function at school age. **Sibylle Köchli (Zurich)** presented comprehensive data on the immune reconstitution in pediatric patients after allogeneic stem cell transplantation. Her data provide the basis to evaluate the naive T-cell compartment readily using flow cytometry. **Giuditta Cippa (Zurich)** illustrated a new laboratory method to assess the stress associated with vaginal birth. The increase of AVP/Copeptin in cord blood after vaginal delivery exceed all values observed so far, including those in critically ill adult patients with myocardial infarction, shock, or brain injury.

An outstanding **keynote lecture** was scheduled after lunch, which did not conflict with any other sessions of the meeting to allow all participants to join. **Georg Holländer (Basel)** presented a captivating review of the thymic development, a research field with many im-

plications for pediatrics. This brilliant lecture prompted several faculty members in the audience to propose that this Keynote Lecture of the Researcher's Day should actually be integrated in the plenary session of the SSP meeting in the future.

The afternoon session was focused on preclinical research. **Julia Rytka (Zurich)** presented fascinating data using a mouse transplantation model to show that the localization of fat tissue had a dramatic effect on glucose homeostasis. Indeed fat pad that were placed into portal venous drainage resulted in impaired glucose tolerance and hepatic insulin resistance, but not fat pads that were transplanted in systemic venous drainage. Interestingly, fat from IL-6 knockout mice did not result in insuline resistance when transplanted in the portal venous drainage, suggesting an essential role for IL-6 in inducing the insuline resistant state. **Paulina Mirkowska (Zurich)** presented a new approach combining xenotransplantation of primary leukemia cells from diagnostic samples to generate a sufficient number of cells for high throughput cell surface proteome analysis. With this approach she showed first data on the cell surface atlas of ALL and provided an example of a new marker that identifies a new biological subgroup that is associated with poor prognosis in ALL. **Julie Liberman (Lausanne)** presented functional data suggesting the existence of a compartment of CD133 positive and MDR-1 positive tumor-initiating cells in neuroblastoma, which warrants further investigation and provides a new avenue for important investigations. Finally, **Caroline Berkemeier (Basel)** provided important data to support the role of the mTOR pathway for the development of the mouse thymic epithelium (TECs) and function. Targeted loss of the mTOR regulator Raptor expression in TECs resulted in severe changes of the thymic microenvironment, profound thymic hypoplasia and peripheral lymphopenia. Similarly the mTOR inhibitor rapamycin disturbed TEC biology, affecting the thymus-dependent maintenance of the peripheral T-cell compartment. These results have important implications for the use of mTOR inhibitors in the clinic.

As for the previous years, with the generous support of the sponsor Nestlé, two prizes were attributed for the best presentations, which were selected by a jury of five physicians and scientists. The prize for the best clinical presentation went to **Sibylle Köchli (Zurich)**. The prize for the best preclinical presentation went to **Caroline Berkemeier (Basel)**. The awards were presented to the winners at the beginning of the plenary session.

In many discussions before, during and after the meeting, we received support for the new format chosen. The positive echo and very active participation of the audience warrants in our opinion to integrate this Young Researcher's Day more completely into the annual meeting of the SSP. A few critical points should be addressed for the next meeting. First, strong research is also submitted to the main SSP meeting. By merging research sessions into the meeting, a better coordination of the program could be achieved. In particular, it is questionable whether these sessions should still be run in parallel to the main meeting. Given the time constraints, some sessions will probably have to be held simultaneously. Second, and as suggested by some participants, abstracts that are submitted to the Young Researcher's Day and that are not selected due to their ranking should be considered for other sessions in the meeting. A central submission process with the option to choose two different options may offer more flexibility and better opportunities for presentations. If this option was considered by the SSP and the pediatric training centers, preferential registration rates should be offered to students in order to attract more researchers to the annual meeting of the SSP, which we feel would be an asset for the meeting. Lastly, we would propose the creation of a more permanent committee consisting of experienced researchers to ensure continuity of the organization of these scientific sessions. With the support of such a group, the organization of the sessions could be fully integrated into the main SSP meeting.

Taken together, the Young Researcher's Day 2010 was an enriching experience

for everybody involved. We would like to thank the SSP for the logistical support and the lunch offered to the participants and Nestlé for the sustained and generous funding of the two research prizes.

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