The 2014 Scientific Sessions of the International Society for Heart and Lung Transplantation (ISHLT) were held in San Diego, California, from April 10th to 13th 2014. We would like to present a meeting summary of relevant studies and sessions dealing with children in thoracic transplantation [heart transplantation (HTx) or lung transplantation (LuTx)] and mechanical circulatory support (MCS). This year there have been 1,537 abstracts submitted to the ISHLT; 995 (65%) have been accepted. There were three pre-meeting symposia, one sunrise symposia, five concurrent sessions and one mini-oral session involving the Pediatric Council of the ISHLT.

Transition of pediatric patients to adult care was the first pre-meeting symposia (#6). It was shown that effective transition programs have the ability to decrease morbidity and mortality (Dr. Benden) associated with the transfer of care from adolescents and young adults with chronic childhood illnesses to adult care (Dr. Uzark). Psychosocial challenges (Dr. Shellmer) as well as family factors (Dr. Reardon) and different transition strategies (Dr. Anthony) were part of the session. This session was followed by the second pre-meeting symposia what it takes and what is required for ‘Developing a Pediatric VAD Program’ (Pre-meeting symposium #18). Dr. Peter Weardon summarized the options what kind of ventricular assist devices (VAD) are available for pediatric patients. Trying to get pediatric patients home after VAD implantation (Dr. Buchholz) and outpatient management as well as complications (Dr. Conway) were also part of this symposium. The success rate for children bridged to HTx on VAD is highly successful with 98-100% survival (Singh et al., abstract #28, Zafar et al., abstract #27) and it is possible to discharge them home as shown by a multi-centre trial involving nine pediatric centres (Schweiger et al., abstract #29). Nevertheless Aileen Lin concluded in her talk that the long-term psychosocial impact on these children remains largely unknown and will require further careful observation. In a concurrent session (#5) the Berlin group showed that appropriate size of Berlin Heart paracorporeal VAD pump chambers are important to avoid high rates of thromboembolic events (Miera et al., abstract #31). Holzer et al. presented their experience with centrifugal VADs using flow rates <3 L/min (abstract #30). Further a novel portable pediatric artificial pump-lung was introduced (Liu et al., abstract #32).

The final (pediatric) pre-meeting symposium highlighted infectious disease in pediatric thoracic transplant recipients (lung and heart) in a state of the arte update. Besides well known issues like CMV and EBV infections (Drs. Upton Allen, Amparo Sole), transmission of infections from donor to recipient (Dr. Burchett), reducing infections (Dr. Estabrook) and finally vaccination after transplantation (Dr. Michaels) were discussed.

Risk assessment of pediatric heart candidates was another scientific session (Concurrent Session #42). Children with congenital heart disease (CHD) listed for HTx have a higher waitlist mortality which may be related to age and decreased availability of infant donors (Richmond et al., abstracted #393). Similar children listed for HTx who have potential donors declined for HLA sensitization reasons have a higher risk of death (Richmond et al., abstract #394). Matching the DQ or C locus of the HLA system does not improve graft survival and should not be considered in donor selection (Butts et al., abstract #396). It was demonstrated that development of de-novo donor specific anti-HLA antibodies (DSA) has a strong negative impact on development of cardiac allograft and allograft survival (T ran et al., abstract #397). Protein losing enteropathy (PLE) is not associated with waitlist mortality or post-HTx morbidity or mortality (Schumacher et al., abstract #398).

Management of the pediatric heart recipient (Concurrent session 17) started with Dr. Khan showing that donor heart
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**Limitations**

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None.

**Footnote**

*Conflicts of Interest:* The authors have no conflicts of interest to declare.

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