Table 1. Organizational Schema of Consortium

Clinical Sites/PIs	External DSMC	Scientific Advisory Committee	Cores
NYMC:Mitchell S. Cairo, MD	Michael Nieder, MD *All Children's Hospital*	Guido Lucarelli, MD *University of Tor Vergata*	**Donor Chimerism:** LeeAnn Baxter-Lowe, PhD (UCSF)
CHRCO:Mark Walters, MD	Russell E. Ware, MD, PhD *Baylor College of Medicine*	Adrian P. Gee, PhD *Baylor College of Medicine*	**Health Related Quality of Life:** Susan Parsons, MD (Tufts)
MCW: Julie-An Talano, MD	Rupert Handgretinger, MD *Eberhard Karls Universität Tübingen*	George Buchanan, MD *UT Southwestern*	**Neurocognition:** Elizabeth Kera, PhD (NYMC)
CUMC: Monica Bhatia, MD	Daniel Heitjan, PhD *UPenn*		**Neuroimaging:** Robert McKinstry, MD, PhD (WashU)
Wash U: Shalini Shenoy, MD			**Pulmonary Function:** Allen Dozor, MD (NYMC)
Cell Processing Core			**Pulmonary Vascular Core:** Deborah Friedman, MD (NYMC) Rajamma Mathew, MBBS (NYMC)
MCW: Carolyn Keever-Taylor, PhD; WashU: Brenda Grossman, MD; CUMC: Joseph Schwartz,MD; Progenitor Cell Therapy: Robert Preti, PhD			**Immunology:** NYMC: Mitchell S. Cairo, MD; MCW: James Verbsky, MD, PhD, Jack Gorski, PhD, and Carolyn Keever-Taylor, PhD
			Radiation Therapy: R. Chitti, MD (NYMC)

Methods: Patients 2-20.99 years of age and who meet SCURT eligibility without an 8/8 HLA matched unrelated donor will be enrolled. Patients will receive hydroxyurea (60mg/kg/day) and azathioprine (3mg/kg/day) from days-59 to -11. Fludarabine (30mg/m^2) will be given for 6 days (day -17 to -13), busulfan (4mg/kg/day) for 4 days (day -12 to -9) and cyclophosphamide for 4 days (day -7 to -4), thiotepa (10mg/kg, day -8), R-ATG (day -5 to -2), TLI (500cGy) followed by FHI T-cell depleted AlloSCT. GVHD prophylaxis will consist of tacrolimus. HPC, Apheresis-CD34-enriched cells will be collected by the CliniMACS (FDA IND 14359) with a target dose of 10.0 x 10^6 CD34+ cells/kg containing 2.0 x 10^5 CD3+ T cells/kg.
Results: We have developed a FHI TCD Consortium of five clinical sites, four processing centers, and cores in donor chimerism, anti-HLA antibodies, immunology, cell processing, biostatistics, neuroimaging, neurocognition, quality of life, pulmonary function, pulmonary vascular, radiation, and a patient advocacy group (www.haploscdconsortium.org) (Table 1).
Conclusion: We seek to develop a unique opportunity for high-risk SCD patients to be cured of this debilitating disease, potentially improving organ function, quality of life, and neurocognition while providing a universal allogeneic donor source for many more at-risk SCD patients.

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EPSTEIN-BARR VIRUS-RELATED POST-TRANSPLANT LYMPHOPROLIFERATIVE DISORDER IN CHILDREN TREATED WITH RITUXIMAB: THE IMPACT OF VIRAL LOAD AND NON-LYMPHOID TISSUE INVOLVEMENT

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Background: EBV-PTLD is a life threatening complication after allo-HSCT. No risk factor analysis for outcome of PTLD therapy has been reported so far. OBJECTIVE: Analysis of the risk factors influencing the outcome of rituximab-based treatment of EBV-PTLD after allo-HSCT in children.
Patients and Methods: PTLD was diagnosed in 55 (2.7%) cases of the 2050 children given an allo-HSCT; biopsy-proven in 28 (50.5%) cases or probable disease (lymphadenopathy with serum EBV-DNA-emia) in the remainder. The median age at transplant was 7.8 years (range, 0.3-16.8). Seven cases developed in HLA-identical siblings (MFD), 7 in mismatched family/haplo, 23 in MUD and 18 in MMUD. The source of stem cells: 32 PB, 18 BM and 5 CB. Patients were treated weekly with a median of 3 doses of rituximab (range, 1-16) and with median of 375 mg/m2 per dose. Early response and failure after therapy were defined by 1-log decrease and 1-log increase, respectively, of EBV-DNA load at 1 week after the first dose of rituximab.
Results: The incidence of EBV-PTLD ranged from 0.9% in MFD-HSCT, 1.6% in MMFD/haplo-HSCT, 3.5% in MUD-HSCT, to 7.6% in MMUD-HSCT, and 3.1% in CBT) and developed in a median of 2 months (range, 0.2-81) after allo-HSCT. Resolution of PTLD after rituximab therapy was observed in 43 (78%) cases. The initial risk factors influencing outcome of PTLD therapy were: EBV serology positive donor and recipient (HR = 5, p = 0.032), involvement of extra-lymphoid tissue (HR = 9, p = 0.037), initial plasma EBV-DNA load >10^5 gc/mL (HR = 8.3, p = 0.002) but after multivariate analysis only involvement of extra-lymphoid tissue (HR = 9, p = 0.041) and initial plasma EBV-DNA load >10^5 gc/mL (HR = 7.7, p = 0.003) remained significant. The response to therapy, determined by >1 log decrease of EBV-DNA load after 1 week of therapy (HR = 0.17, p = 0.015) and reduction of immunosuppression contributed to better outcome (HR = 0.23, p = 0.059) whereas an increase of EBV-DNA load during therapy by >1 log (HR = 8, p = 0.004) corresponded to a worse outcome. Reduction of immunosuppression possibly contributed to better survival from PTLD (HR = 0.23, p = 0.059).
Conclusions: Overall 78% of children with EBV-PTLD after allo-HSCT responded to treatment with rituximab and early response after 1 week of therapy corresponded with a good prognosis. Involvement of extra-lymphoid tissue, initial plasma EBV-DNA load >10^5 gc/mL and increase of EBV-DNA load during therapy by 1 log were predictors of poor outcome.