rabbit anti-human CD83 antibodies prevented GVHD in mouse and human preclinical alloHCT models. A second generation human mAb 3C12C has been evaluated as a novel therapeutic (Seldon et al, in prep) and its ability to deplete activated DC and preserve protective T cell responses was investigated.

**Methods:** Control human IgG1 (trastuzumab) and 3C12C mAb were tested in human peripheral blood mononuclear cell (PBMC) cultures and in allogeneic mixed lymphocyte cultures (alloMLC) for their ability to deplete DC. The antibody was tested in a human xenogeneic TBI and anti-NK conditioned SCID mouse model of GVHD. Survival, clinical scoring and histology were used to document the effect of 3C12C compared to the control mAb. Flow cytometry and immunohistology were used to investigate CD83 induction and the effect of 3C12C on human DC and T cell biology.

**Results:** 3C12C but not the control mAb reduced the number of CD83+ DC in PBMC cultures. The 3C12C mAb reduced T cell proliferation in the alloMLC but did not affect Cytomegalovirus specific CD8+ T cell numbers. Human cells were identified in the liver, lung, spleen and gut of the control mAb treated PBMC grafted mice, which developed histological GVHD d+8-13. Human DC were activated by d+2 and expressed the CMRF-44 activation marker plus CD83, CD80 and CD86. Treatment with 3C12CmAb eliminated CD83+ CMRF44+ DC early post-transplant and reduced T cell activation in terms of CD25, CD69 and CD137 and cytokine expression but maintained Treg cells.

**Conclusion:** A potential therapeutic human anti-CD83 mAb appears to induce significant immunosuppression, associated with the depletion of CMRF-44+ activated DC, whilst preserving T cell numbers.

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**Liver Transplantation for Hepatic Graft-Versus-Host-Disease: A United Network for Organ Sharing (UNOS) Database Study**

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**Background:** Liver graft-versus-host-disease (GVHD) after hematopoietic stem cell transplantation (HSCT) is uniformly fatal once it becomes steroid-refractory. No FDA-approved treatments exist for this condition and majority of the clinical trials in GVHD treatment paradigm have focused on the general treatment of acute GVHD as a whole rather than organ specific treatment. Case reports and case series of orthotopic liver transplantation (OLT) for hepatic GVHD have been published with varying results. Herein, we present the analysis from a large national database on the outcomes of OLT in hepatic GVHD.

**Methods:** A United Network for Organ Sharing (UNOS) database review of all OLTs between 1998 and 2012 was performed*. Rejection, transplant list registration, blood group type, indications, waiting time, MELD score and other relevant variables for both HSCT and OLT were obtained and analyzed for clinical outcomes, using the Cox proportional hazards model. Survival after OLT performed for GVHD was compared to OLT performed for non-GVHD indications.

**Results:** 112 OLTs were reported by UNOS for GVHD. N was 94 for the final sample for analysis given the criteria used for inclusion in the study. Among these, 46 had hepatic GVHD secondary to renal or intestinal transplantation, and 48 following HSCT. Median survival for HSCT-GVHD patients was 8.5 years. 1, 3 and 5 year survival of the HSCT-GVHD patients were 0.69, 0.64 and 0.59, respectively. ABO grouping, age, gender, and MELD score did not affect the patient survival in the HSCT-GVHD cohort. Survival analyses performed for OLT stratified by indication (GVHD vs no GVHD) [figure 1] indicate significant differences in outcome.

**Conclusion:** OLT is an underutilized treatment modality for hepatic GVHD in HSCT patients. Although the survival after OLT for GVHD is inferior to that of OLT for non-GVHD indications, it is remarkably better than non-OLT strategies currently utilized for treatment of hepatic GVHD (5 year survival <10%, historic data). Thus, OLT should be considered early in management of steroid refractory hepatic GVHD.

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**A Phase I Study of Milatuzumab for Prevention of Acute Graft Versus Host Disease Following Reduced-Intensity Conditioning Allogeneic Stem Cell Transplantation in Patients with Hematologic Malignancies**

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**Introduction:** Milatuzumab is a humanized IgG1κ monoclonal antibody that interacts with CD74, leading to rapid internalization and cytotoxicity independent of antibody crosslinking. CD74, also known as HLA class II invariant chain, is a cell-surface antigen expressed on antigen presenting cells (APCs) and involved in pro-survival signaling.