1. Introduction
The CIBMTR Working Committee for Hodgkin & Non-Hodgkin Lymphoma met on Sunday February 20, 2011 at 12:15 pm. Dr Ginna Laport welcomed everyone and explained the evaluation and voting system to the audience. The minutes of the February 2011 meeting were approved.

2. Accrual summary
Because of a full agenda, the accrual summary was not discussed in further detail, but included as part of the CIBMTR Working Committee attachments at www.cibmtr.org. Any member of the Committee interested in proposing a study can look at the accrual summary.

3. Presentations and published papers
As accustomed a significant increase in activity of the Working Committee was reported last year including 2 published/submitted papers, 7 manuscripts in preparation and 4 presentations at the American Society of Hematology in Orlando, FL.


**Studies in progress**

a. **LY04-01**: Alternative donor hematopoietic cell transplantation after reduced intensity or nonmyeloablative conditioning in advanced non-Hodgkin lymphoma (G Hale): Current status: *Manuscript Preparation.* The study analyzed the outcomes of 248 (61% male) adult recipients of HCT for NHL from alternative donors after RIC/NMA conditioning reported to the CIBMTR from 1997 to 2004. Recipients of any prior transplants and those in first complete remission from follicular NHL were excluded. Outcomes of TRM, progression, progression-free survival and overall survival were analyzed in multivariate regression models adjusting for key pre-transplant variables. In NHL patients without sibling donor options, alternative donor HCT with RIC/NMA conditioning results in favorable long-term survival although advanced age, histology and resistant disease status remain concerning. Higher grade NHL, use of ATG or T-cell depletion and HLA mismatch were associated with inferior outcomes.

b. **LY04-03**: CNS remission predicts survival after autologous hematopoietic stem cell transplantation for non-Hodgkin's lymphoma with pre-existing CNS involvement (R Maziarz): Current status: *Manuscript Preparation.* This study was an oral presentation at the BMT Tandem Meetings in Orlando. The study analyzed the outcomes of 151 (64% male) adult recipients of AHCT with NHL and CNS involvement identified at any time prior to transplant and compared them to 4688 AHCT with no CNS lymphoma involvement during the years 1990-2005. Median follow-up of survivors was 77 months. No statistically significant differences in outcomes non-relapse mortality, relapse, DFS or OS were identified between the two groups. Patients with CNS remission (96/151) at time of AHCT had significantly superior survival compared with those with active CNS disease (55/151) at transplant. Significantly
higher relapse rates with an associated diminished DFS and OS (3 year OS 14%) were found in patients with active disease. This study was an oral presentation at the American Society of Hematology in Orlando, FL December 2010.

c. **LY06-03:** Comparison of unrelated and sibling donor allogeneic hematopoietic cell transplantation for follicular lymphoma (A Sureda): Current status: **Manuscript Preparation.** This study compared the outcomes of 702 recipients of allogeneic HCT for FL (198 unrelated and 504 sibling donors) from 171 centers world-wide reporting to the CIBMTR or EBMT between 1997 and 2005. This study shows that unrelated HCTs are performed later in the treatment course for FL; in higher risk patients; most commonly with reduced intensity conditioning; and in multivariate analysis adjusting for baseline differences between the 2 groups, unrelated HCTs were significantly associated with worse PFS and OS compared to sibling HCT.

d. **LY06-05:** Comparison of autologous vs allogeneic stem cell transplantation for relapsed T-cell NHL (S Smith): Current status: **Manuscript Preparation.** The main objective is to compare outcomes of autologous versus allogeneic hematopoietic stem cell transplantation in a large group of patients with relapsed T-NHL. The population was restricted to 113 autologous, 66 HLA-identical sibling and 40 unrelated patients ≤ 60 years old with relapsed mature T-NHL transplanted between 1996-2005, and with at least one year of follow up. The preliminary analysis suggests that there is no difference in outcome between autologous versus allogeneic stem cell transplant for patients with relapsed T-NHL in terms of PFS and OS. Non-relapse mortality was higher in patients undergoing allogeneic stem cell transplant. For patients undergoing allogeneic stem cell transplant, there was no difference in outcome between matched related and matched unrelated donor transplants, and there was no difference in outcome between myeloablative and non-myeloablative stem cell transplant. This study was an oral presentation at the American Society of Hematology in Orlando, FL.

e. **LY06-06:** Comparison of prognostic models for autologous hematopoietic stem cell transplantation for relapsed Hodgkin lymphoma (P McCarthy): Current status: **Manuscript Preparation.** The study compared 3 models from Dana-Farber Cancer Institute (DFCI), Roswell Park Cancer Institute (RPCI) and University of Minnesota (UMinn) in an independent multicenter dataset of 597 relapsed or refractory HL patients receiving AHCT from 1996-2004, reported to the CIBMTR by 150 centers. The DFCI model risk factors were: chemotherapy-resistant disease, KPS<90, ≥1 extranodal site; with corresponding risk groups low (0 factors), intermediate, (1 factor) and high (2-3 factors). The RPCI model risk factors were: chemotherapy-resistant disease, KPS<90, ≥3 prior regimens with risk groups low (0-1 factor) and high (2-3 factors). The UMinn model risk factors were: chemotherapy-resistant disease, B symptoms, not in CR at BMT with risk groups low (0-1 factor), intermediate (2 factors) and high (3 factors). Only 1 factor (chemo-resistant disease) was included in all 3 models. The high risk group PFS was similar for the DFCI and RPCI models but the DFCI model separated a low and intermediate risk group which were not significantly different from each other. The UMinn model high risk group had a higher PFS than either of the other 2 models’ high risk group and the intermediate group in this model was not significantly different from the high risk group. The relative incremental change in $R^2$ was 26% higher for the DFCI than the RPCI model and 120% higher for the RPCI than the UMinn model. From the B and $R^2$ values, the DFCI model had marginal superiority over RPCI model while both performed better than the UMinn model. The new CIBMTR model was established and defines three risk groups with ≥2 prior chemotherapy regimens being the single most important predictor of PFS. Similar outcomes were found when examining OS. This new model appears to more accurately stratify treatment failure in
HL after AHCT but remains to be validated in an independent patient cohort. Plan to divide the entire cohort into two (one to build the new model and second for verification). If verification works then will compare against the other 3 models.

f. **LY07-02:** Transplant outcomes in the mycosis fungoides and sezary syndrome patients (M Lechowicz): Current status: Manuscript Preparation. Forty nine cases transplanted from 1999-2007 were identified in the CIBMTR and had full report forms. Only 48 patients, each with at least 2 years of follow-up, were used for analysis. The primary outcomes described in the study were treatment-related mortality, overall survival and progression-free survival, progression relapse, hematopoietic recovery (neutrophil and platelet engraftment), AGVHD II-IV and cGVHD. The median follow-up of survivors was 37 (3-102) months. This study was an oral presentation at the American Society of Hematology in Orlando, FL December 2010.

g. **LY08-01:** Outcomes of allogeneic and autologous hematopoietic progenitor cell transplant for Burkitt’s and Burkitt-like lymphoma (J Gajewski): Current status: Manuscript Preparation. Burkitt lymphoma (BL) is an aggressive B cell lymphoma primarily affecting children and young adults and is characterized by the highest doubling time of any tumor. We report the outcomes of 241 recipients of HCT for BL between 1985 and 2007 reported to the CIBMTR. Five patients (pts) received syngeneic twin grafts in addition to autoHCT in 113 pts, HLA identical sibling alloHCT (SIB) in 80 pts and mismatched related or unrelated donor (UNR/MM) alloHCT in 48 pts. Treatment related mortality was higher in alloHCT recipients. For autoHCT, 5-yr progression free survival (PFS) was 48(39-58)%, 78% for those in first CR versus 27% for disease beyond CR1 (p<0.001). For alloHCT, 5-yr PFS was 50% for those in first CR versus 19% for disease beyond CR1 (p=0.001). 5-yr PFS was 30 (20-41)% for SIB and 22 (12-35)% for UNR/MM. Approximately one fifth of advanced BL pts receiving alloHCT beyond CR1 had long term disease free survival. This study was a poster presentation at the American Society of Hematology in Orlando, FL December 2010 and manuscript is underway.

h. **LY08-02:** Outcome of patients with mantle cell lymphoma treated with autologous versus allogeneic transplantation (T Fenske): Current status: Analysis. Dr Timothy Fenske presented the study. This study compares the clinical outcomes between 401 autologous, 101 myeloablative and 191 RIC/NST patients reported to the CIBMTR from 1996-2006 undergoing stem cell transplantation for mantle cell non-Hodgkin lymphoma as to the following: 100-day mortality, engraftment (neutrophil recovery; platelet transfusion), acute and chronic graft-versus-host disease, treatment related mortality, disease recurrence or progression, progression-free survival and overall survival. Two abstracts were submitted to the 11th International Conference on Malignant Lymphoma in Lugano.

i. **LY08-03:** Comparison of reduced and standard conditioning in allogeneic stem cell transplantation in patients with B-cell non Hodgkin’s lymphoma (U Bacher): Current status: Data File Preparation. This study intends to compare clinical outcomes and complications of reduced intensity or non-myeloablative (n=94) vs myeloablative conditioning regimens (n=103) in allogeneic stem cell transplantation in patients aged ≥18 with diffuse large B-cell lymphoma reported to the CIBMTR from 1997-2006.
j. **LY09-01**: Clinical outcomes of hematopoietic stem cell transplantation in patients with diffuse large B cell lymphoma transformed from chronic lymphocytic leukemia, follicular lymphoma or waldenstrom macroglobulinemia (B Wirk): Current status: **Protocol Development**. Dr Wirk presented the study. There are 173 autologous, 41 myeloablative and 40 NST/RIC patients who underwent hematopoietic stem cell transplantation in patients with diffuse large B cell lymphoma transformed from chronic lymphocytic leukemia and follicular lymphoma reported to the CIBMTR, from 1990-2005. Plan to restrict to follicular lymphoma cases.

k. **LY09-02**: Comparison of non myeloablative allogeneic stem cell transplantation as upfront salvage therapy for relapsed lymphoma compared to a strategy of utilizing nonmyeloablative allogeneic stem cell transplantation after autologous transplant failure (C Freytes): Current status: **Dropped**. Dr Freytes presented the study. After voting, the Committee decided to drop the study.

l. **LY09-04**: Outcomes of patients with non-Hodgkin’s lymphoma with pre-existing parenchymal CNS involvement treated with autologous stem cell transplantation versus standard chemotherapy and radiation therapy approaches (R Maziarz): Current status: **Dropped**. Dr Maziarz presented the study. After voting, the Committee decided to drop the study.

m. **LY10-01**: Outcomes of allogeneic stem cell transplantation for patients with chemorefractory aggressive non-Hodgkin’s lymphomas (M Hamadani): Current status: **Protocol Development**. Dr Hamadani presented the study. This study aims to describe outcomes after allogeneic transplantation in patients with chemotherapy-refractory aggressive non-Hodgkin’s lymphomas. There are 311 patients that underwent an allogeneic transplant for chemorefractory aggressive non-Hodgkin lymphoma reported to the CIBMTR between 1990 and 2007. Plan to restrict transplant years to >1998 and will only include large cell lymphoma and transformed per Dr Sonali Smith suggestion.

n. **LY10-02**: Umbilical cord blood versus unrelated or related donor allogeneic hematopoietic cell transplantation for patients with lymphoma (V Bachanova): Current status: **Protocol Development**. Dr Linda Burns presented the study. The study aims are to compare the clinical outcomes between patients undergoing an allogeneic hematopoietic cell transplant from unrelated umbilical cord blood versus matched unrelated or sibling donor for non-Hodgkin’s and Hodgkin’s lymphoma and to determine patient-, disease-, and transplant- related factors associated with favorable progression-free and overall survival. EBMT has on ongoing study looking at the same idea and this study will validate theirs. Suggestions: distinguish between single vs double cord blood and will analyze CD34 cell doses. Would like to keep Hodgkin’s lymphoma in this study and include haploidentical transplants. (PROP 1210-13: Role of haploidentical related hematopoietic cell transplantation in relapsed, refractory Hodgkin lymphoma and non-Hodgkin lymphoma from Dr Wirk.)

o. **LY10-03**: An updated comparison of allogeneic versus autologous hematopoietic stem cell transplantation for lymphoblastic lymphoma (A Chen): Current status: **Protocol Development**. Dr Maziarz presented the study. One of the specific aims is to compare the overall survival after allogeneic vs autologous hematopoietic stem cell transplantation for lymphoblastic lymphoma in the modern era. There are 27 autologous and 115 allogeneic patients that underwent hematopoietic cell transplantation for patients with lymphoblastic lymphoma reported to the CIBMTR between 1997 and 2007. Suggested to focus on allogeneic transplants only and merge ALL cases as one study.
4. **Future/proposed studies**
   
a. **PROP 1210-10/1210-04/1210-54** Study the outcome of patients undergoing autologous stem cell transplant for patient with primary central nervous system lymphoma (S Montoto/ N Reddy / GP Avraham).
   Dr Montoto presented the proposal. The study aim is to analyse the outcome of patients receiving autologous stem cell transplant for PCNSL and compare PFS and OS according to the conditioning regimen received. Total number of potential cases are CIBMTR=15, EBMT=90 and MSKCC=25. Will not include HIV+ cases and will verify how many cases are reported before 1998.

Dr Wirk presented the proposal. The proposal will be dropped and included as part of the LY10-02 study.

c. **PROP 1210-19/1210-26/1210-35** Development of a prognostic scoring system to predict relapse of adults with either follicular lymphoma, Hodgkin lymphoma, or DLBCL after allogeneic hematopoietic stem cell transplantation (A Beitinjaneh/ R Salit/ N Hardy).
Dr Beitinjaneh, Salit and Hardy presented 3 individual proposals for each disease subtype. After voting, the Committee decided to accept only DLBCL proposal from Dr. Salit. The total number of cases with DLBCL is 605. The primary objective is to develop a prognostic scoring system predictive of relapse after allogeneic HSCT in patients with DLBCL. The secondary objective is to assess association of variables identified within this scoring system with transplantation outcomes and outcomes after relapse. Suggested to look at PET scan before transplant.

6. **Other business**

No other business was proposed and the meeting was adjourned at 2:10 PM.