Title: Phase III Trial of Single vs. Tandem Myeloablative Consolidation Therapy for High-Risk Neuroblastoma (ANBL0532)

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Synopsis:
ANBL0532 is a Phase III trial to study the use of intensified consolidation (Primary Aim 1), the use of newer agents during induction (Primary Aim 2), and the use of high dose local radiation (Primary Aim 3). The primary goal of ANBL0532 is to test whether further intensification of myeloablative therapy will improve cure rate for high risk neuroblastoma.

Myeloablative consolidation therapy is given at the completion of induction therapy and is categorized into Regimen A and Regimen B. Regimen A consists of one myeloablative consolidation with a carboplatin – etoposide – melphalan (CEM) preparative regimen. For Regimen B, patients will receive two myeloablative consolidations: Thiotepa – cyclophosphamide (TC) preparative regimen followed by CEM preparative regimen.

ANBL0532 will also assess the efficacy of a dose intensive topotecan containing induction regimen, substituting 2 cycles of dose intensive cyclophosphamide and topotecan for the initial 2 cycles of induction utilized on the prior COG A3973 protocol. Patients will receive 6 cycles of induction chemotherapy. Patients will undergo peripheral blood stem cell (PBSC) harvest after 2 cycles with no ex vivo manipulation prior to cryopreservation. PBSC collection will be performed prior to randomization and PBSC product must be negative for tumor cell contamination by immunocytochemistry (ICC).

ANBL0532 will also test whether additional radiation therapy delivered to gross residual disease improves local control for those patients with less than a gross total resection.

Patients will be encouraged to enroll onto ANBL0032 for Maintenance biologic therapy. Alternatively, post-transplant Maintenance therapy with cis-RA daily for 14 days every 28 days repeated for 6 months will be administered.

Clinical outcome data for patients treated on this study will be used in conjunction with ongoing biologic studies on ANBL00B1 to identify new biological surrogate markers for disease relapse and/or disease progression. In addition, immunologic assays will be employed to assess functional cellular immunity against neuroblastoma at diagnosis and after myeloablative therapy and to enumerate T-cell lymphocyte recovery following single versus tandem myeloablative therapy.