

COG-AALL03B1: Classification of Acute Lymphoblastic Leukemia

FAST FACTS

Eligibility Reviewed and Verified By _____

MD/DO Date _____

RN Date _____

Consent Version Dated _____

PATIENT ELIGIBILITY:

Note: Registration on AALL03B1 and sample submission is required for all patients in order to be eligible for entry onto a COG protocol for treatment of newly diagnosed ALL.

- ___ 1. **PATIENTS MUST BE ENROLLED ON AALL03B1 BEFORE TREATMENT BEGINS** (with the exception of the first dose of intrathecal chemotherapy or selected cases of steroid pretreatment). **PATIENTS THAT BEGIN PROTOCOL THERAPY PRIOR TO ENROLLMENT ON AALL03B1 ARE INELIGIBLE FOR BOTH AALL03B1 AND COG ALL THERAPEUTIC TRIALS.** The Eligibility worksheet must be completed in the RDE system at the time of registration.
- ___ 2. After entry on AALL03B1, the Pre-induction Data sheet must be completed in the RDE system within 72 hours or the patient will be deemed inevaluable for the therapeutic study and for AALL03B1. This data sheet includes essential information for sample processing during induction. Prior to obtaining samples and prior to shipping, a signed informed consent for AALL03B1 must be obtained. Please remember that an additional consent for the appropriate therapeutic trial based on the patient's age and initial white blood cell count needs to be signed separately for the initiation of therapy.
- ___ 3. Patient has newly diagnosed acute leukemia
 - $\geq 25\%$ blasts on a bone marrow aspirate, or
 - If a bone marrow aspirate is not performed, or adequate material cannot be obtained, peripheral blood can be substituted for bone marrow if there are at least 2,500 circulating blasts/ μl (i.e. a WBC of 10,000 with 25% blasts or a WBC of 5,000 with 50% blasts).
- ___ 4. **A bone marrow examination is required**, unless there is a medical contraindication to having the test performed (e.g. a patient with respiratory distress secondary to anterior mediastinal mass who cannot have anesthesia or sedation). Documentation of the contraindication to the bone marrow procedure must be present in the medical record.
- ___ 5. Patient has suspected acute lymphoblastic leukemia. Patients whose blast morphology is obviously myeloid, or whose blasts are myeloperoxidase positive, should not be enrolled on AALL03B1. However, patients with true biphenotypic or bilineage leukemia as defined in 4.5.2 are eligible to enroll in AALL03B1 for cell banking (see also 2.7.3).
- ___ 6. Patient must be < 31.00 years of age.
- ___ 7. The patient may be registered on COG AALL03B1 on the basis of the local institution morphology, cytochemical, and immunophenotype screening results. If the results of the local institution cytochemical stains OR the Reference Laboratory immunophenotype results fail to confirm the diagnosis of ALL, then the patient will become ineligible for COG AALL03B1.
- ___ 8. Consultation may be requested from a COG Hematopathology central reviewer.
- ___ 9. Some patients who have received steroids prior to diagnosis will be eligible (see 4.6.3.6).
- ___ 10. Patient has suspected acute lymphoblastic leukemia. Patients whose blast morphology is obviously myeloid, or whose blasts are myeloperoxidase positive, should not be enrolled on AALL03B1. However, patients with true biphenotypic or bilineage leukemia as defined in 4.5.2 are eligible to enroll in AALL03B1 for cell banking (see also 2.7.3).

INDUCTION STRATIFICATION FACTORS:

See 4.6.3.7 for description of CNS Leukemia.

See 4.6.4 through 4.6.9 for post induction treatment recommendations.

SPECIMEN REQUIREMENTS:

See Page 5 of this Fast Facts for required bone marrow and peripheral blood specimens.

At Diagnosis

Preferred 12cc bone marrow, 12cc blood	Required 7cc bone marrow, 7cc blood
---	--

Bone Marrow Collection Procedures for Reference Laboratories:

- a. Collect BM into a syringe and transfer the specimen immediately into the 15 cc shipping media conical tube with RPMI/EDTA.
- b. Mix well. Up to 5 ml of BM can be placed in one 15 cc tube with RPMI/EDTA. If you don't have shipping media tubes, you can place the BM into large purple EDTA tubes that are commonly available in most hospitals. However, the viability of the cells is greatly enhanced in the shipping media tubes.
- c. Use multiple syringes and tubes as necessary. Reposition the bone marrow aspirate needle at least once during the diagnostic procedure to ensure the maximum quality of bone marrow.

If a bone marrow aspirate is not performed, or adequate material cannot be obtained, peripheral blood can be substituted for bone marrow if there are at least 2,500 circulating blasts/ μ l (i.e. a WBC of 10,000 with 25% blasts or a WBC of 5,000 with 50% blasts). If only peripheral blood is submitted, please obtain and send twice the volume of PB as the recommended BM volume specified in the tables. The patient will remain on 03B1 as long as all required central laboratory tests can be successfully performed. As long as there are at least 2,500 circulating blasts/ μ l peripheral blood, institutions are encouraged to submit PB in addition to BM samples whenever there is any doubt concerning the quantity or quality of the BM sample.

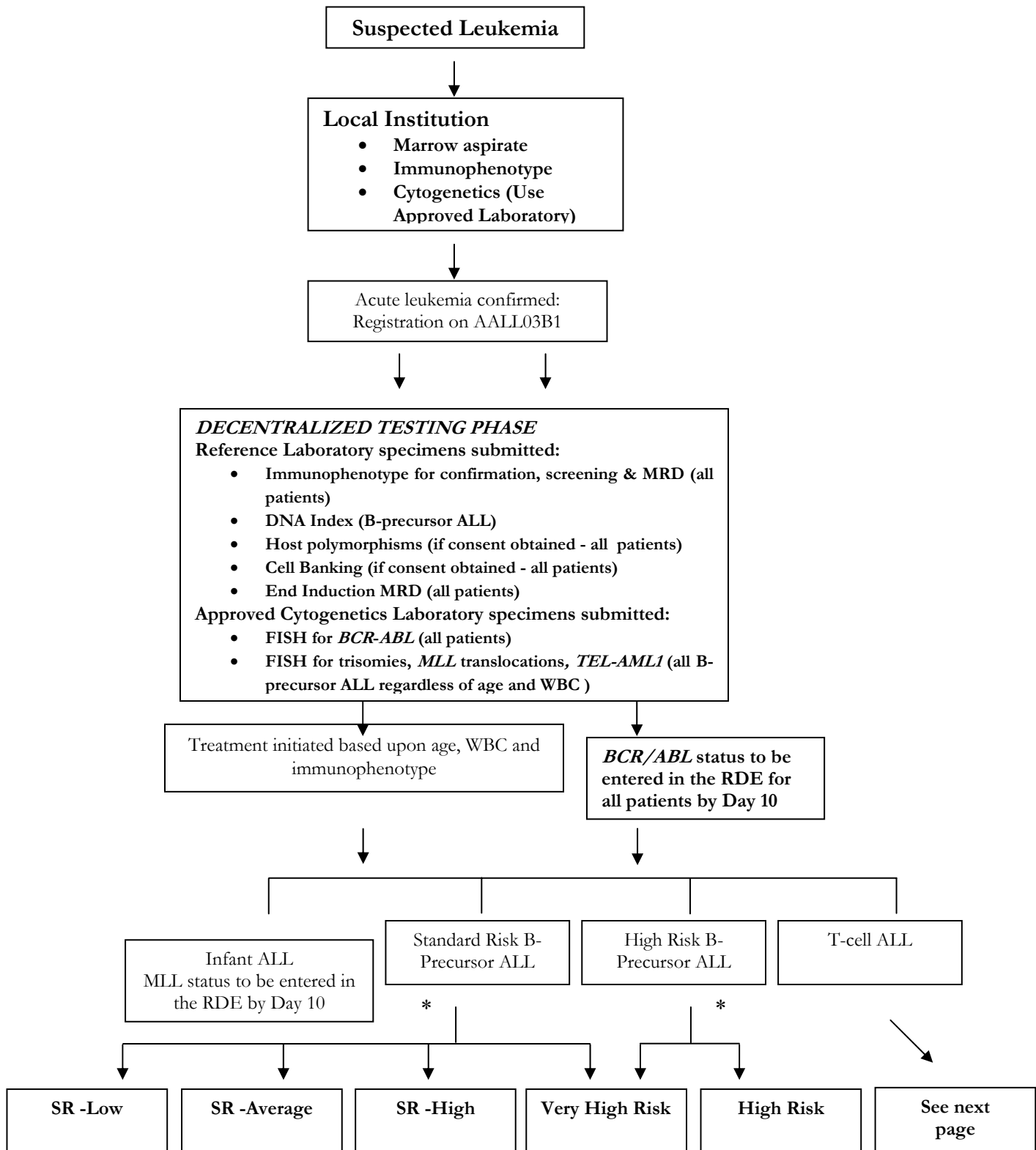
If an adequate bone marrow aspirate cannot be obtained and there are fewer than 2,500/ μ l peripheral blood blasts, the patient is not eligible for AALL03B1 or a front line COG ALL clinical trial (there are NO exceptions to this rule).

Peripheral Blood Collection Procedures for Reference Laboratories:

The peripheral blood is drawn into a syringe and transferred immediately into the supplied 15 cc conical tube and mixed well. (No more than 5 ml PB per 15 ml conical tube.)

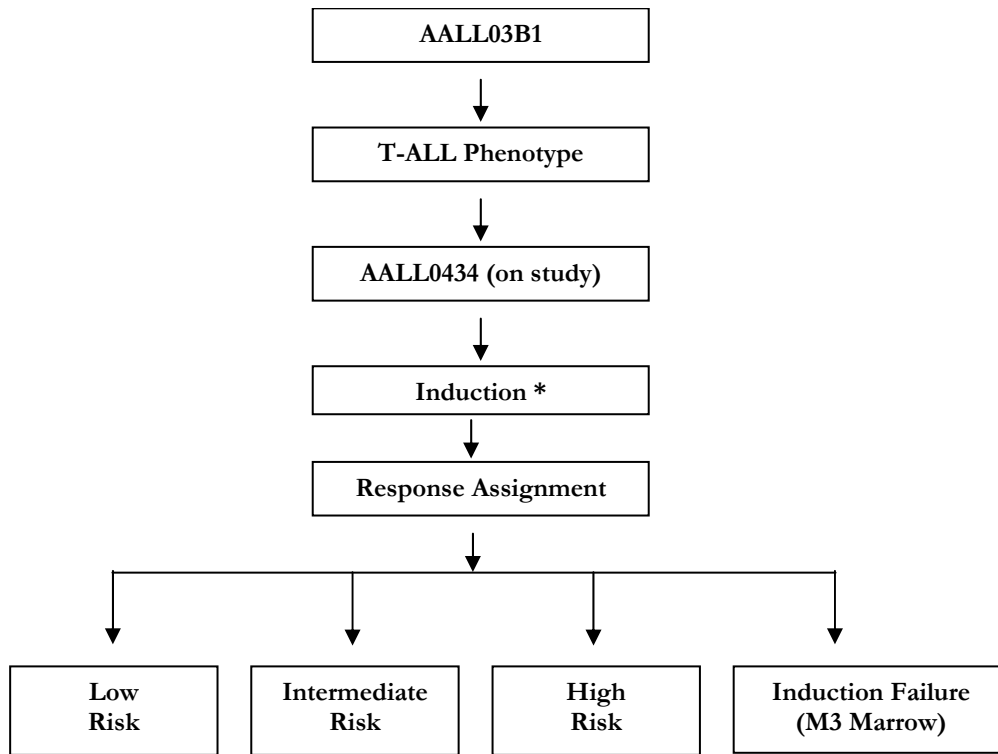
TREATMENT PLAN:

EXPERIMENTAL DESIGN SCHEMA



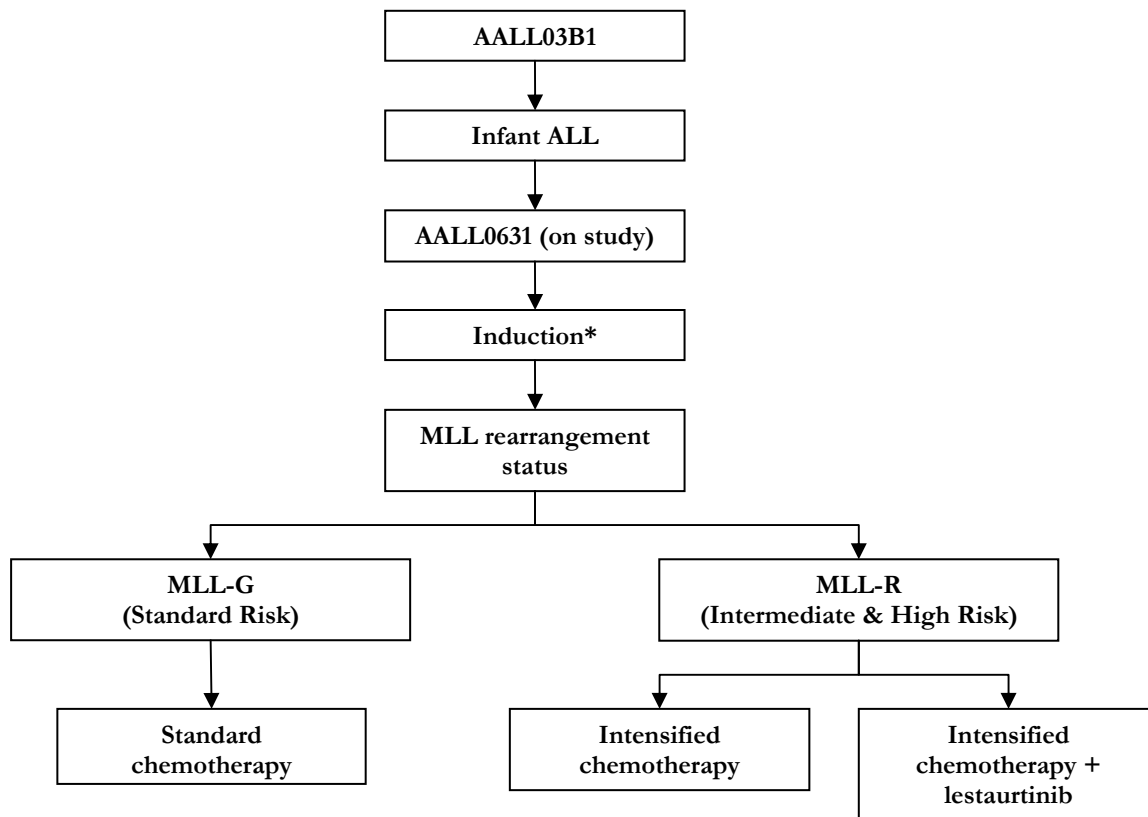
* Day 29 Induction: Completion of Local and Reference Laboratory studies and refinement of initial risk group assignment

EXPERIMENTAL DESIGN SCHEMA FOR T CELL ALL



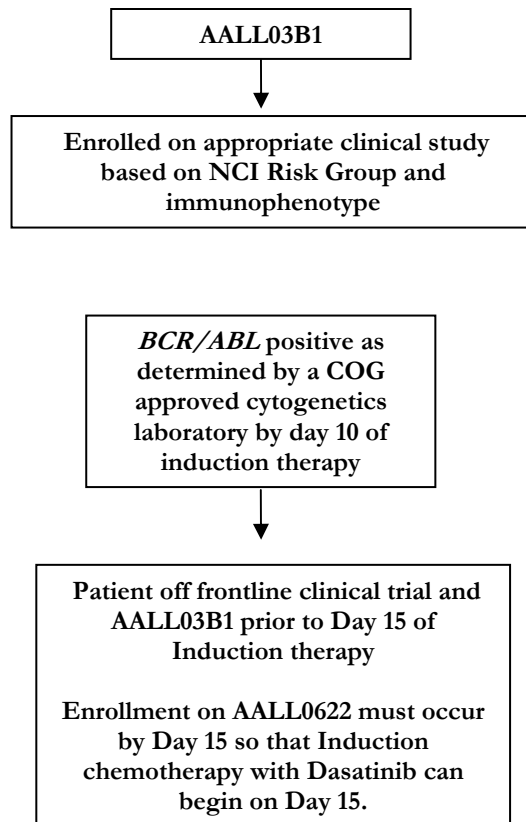
* Day 29 induction: completion of local and reference laboratory studies and refinement of initial risk group assignment

EXPERIMENTAL DESIGN SCHEMA FOR INFANT ALL



* Day 29 Induction: completion of local and reference laboratory studies and refinement of initial risk group assignment

EXPERIMENTAL DESIGN SCHEMA FOR *BCR/ABL* positive ALL



All MRD and research studies for *BCR/ABL* positive patients after patients start therapy on AALL0622 will be submitted as part of the AALL0622 clinical trial and will no longer be submitted as part of AALL03B1. Please see AALL0622 for a list of required and research studies.

SPECIMEN REQUIREMENTS:**Tests at Diagnosis for SR and HR B-Precursor, T-ALL and Infant ALL Patients during Centralized Genetic Stratification Testing**

Specimen	Studies	Laboratory
Bone marrow* Sample requirements as per local cytogenetic lab; 5 ml preferred	<ul style="list-style-type: none"> • FISH for trisomies 4, 10, 17## • FISH for <i>BCR-ABL</i> • FISH for <i>TEL-AML1##</i> • FISH for <i>MLL</i> translocations## 	COG-approved Cytogenetic Laboratory
Bone marrow 2-5 ml * Peripheral blood 5 ml *	<ul style="list-style-type: none"> • DNA Ploidy 	Molecular Lab
Bone marrow 2 ml * Peripheral blood 2 ml *	<ul style="list-style-type: none"> • Confirmatory Immunophenotyping (IP) 	Flow Cytometry Lab
Peripheral blood 5 ml	<ul style="list-style-type: none"> • Host polymorphisms 	Molecular Lab
Bone marrow 5 ml	<ul style="list-style-type: none"> • Cell Banking 	Molecular Lab

* Required Sample

ALSO NOTE: If a patient does not enroll on a therapeutic study, the Day 8, 15, 29 and Day 43 samples are NOT required, and should NOT be submitted to the Reference Laboratories.

Tests at Diagnosis for SR and HR B-Precursor, T-ALL (##Not required for T-ALL) and Infant ALL Patients during Decentralized Genetic Stratification Testing

Tests on Day 8 for SR, HR B-Precursor and T-ALL Patients **

Specimen	Studies	Laboratory
Peripheral blood 5 ml*	<ul style="list-style-type: none"> MRD 	Flow Cytometry Lab

* This sample is optional and results will not be used for clinical decisions

** If a patient does not enroll on a therapeutic study, the Day 8 sample is NOT required, and should not be submitted to the Reference Laboratories.

Tests on Day 15 for SR and HR B-Precursor ALL Patients that are M2 or M3 at day 8 **

Specimen	Studies	Laboratory
Bone marrow 2 ml *	<ul style="list-style-type: none"> MRD 	Flow Cytometry Lab

* **All patients that with an M2/M3 marrow at day 8 must have a day 15 bone marrow aspirate performed. When this is performed, patients that consent to optional research studies should have a sample sent to one of the COG ALL Flow Cytometry Reference Laboratories.** The results of day 15 MRD assays will not be used for clinical decisions, and results will not be provided to treating physicians.

** If a patient does not enroll on a therapeutic study, the Day 15 sample is NOT required, and should not be submitted to the Reference Laboratories.

Tests on Day 29 for SR and HR B-Precursor and T-ALL Patients **

Specimen	Studies	Laboratory
Bone marrow 2 ml *	<ul style="list-style-type: none"> MRD 	Flow Cytometry Lab Molecular Lab
Peripheral blood 5 ml*	<ul style="list-style-type: none"> Host polymorphisms 	Molecular Lab

* Required Samples – Note 2 ml of marrow should be sent to both the Flow and Molecular laboratories.

** If a patient does not enroll on a therapeutic study, the Day 29 samples are NOT required, and should not be submitted to the Reference Laboratories.

Tests on Day 43 ONLY for B-Precursor ALL patients who receive Extended Induction **

Specimen	Studies	Laboratory
Bone marrow 2 ml *	<ul style="list-style-type: none"> MRD 	Flow Cytometry Lab

* Required sample

** If a patient does not enroll on a therapeutic study, the Day 43 samples are NOT required, and should not be submitted to the Reference Laboratories.

Tests at end Consolidation ONLY for B-Precursor ALL patients non-randomly assigned to receive augmented therapy and T-ALL patients that are identified as High Risk or Induction Failures

Specimen	Studies	Laboratory
Bone marrow 2 ml *	<ul style="list-style-type: none"> MRD 	Flow Cytometry Lab

- Required sample

Tests at the time of marrow relapse for all patients (if informed consent obtained for cell banking on AALL03B1)

Specimen	Studies	Laboratory
Bone marrow 2 ml *	<ul style="list-style-type: none"> Immunophenotyping 	Flow Cytometry Lab
Bone marrow 5 ml *	<ul style="list-style-type: none"> Cell Banking 	Molecular Lab

Eastern Division (includes DeVos Children's Hospital)

Elizabeth Raetz, MD, AALL03B1 Co-Chair
(212)-241-7022

Eastern Flow Cytometry Laboratory

Michael Borowitz, M.D., Ph.D.
Johns Hopkins Medical Institution
Flow Cytometry Lab
Weinberg Building - Room 2300
401 N. Broadway
Baltimore, MD 21231-2410
Tel: (410) 614-2968

Eastern Molecular Laboratory

Julie Gastier-Foster, Ph.D.
COG ALL Reference Laboratory
Columbus Children's Research Institute
700 Children's Drive, WA 1340
Columbus, OH 43205
Contact Person: Yvonne Moyer
Phone: (614) 722-2585
Fax: (614) 722-2897
Laboratory Phone: (614) 722-2866