

Module 1: Introduction & ABO/Rh

- Introduction to this week and to the IRL
- Pre-test
- Theory: ABO/Rh



| Residents in IRL, Social Distancing | | | |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | To do prior to labwork | Activity in the IRL | Virtual Discussion: |
| Day 1 | <ul style="list-style-type: none"> • Module 1: Pretest, welcome to IRL, ABO/Rh testing • Module 2: ABO & discrepancies | <ul style="list-style-type: none"> • ABO/Rh testing | NA |
| Day 2 | <ul style="list-style-type: none"> • Module 3: Antibody screens, panels & ruleouts • Module 4: Different methods | <ul style="list-style-type: none"> • Antibody screens • Antibody identification | <ul style="list-style-type: none"> • ABO Disc worksheet • 9 dry cases • Comparing methods • Questions? • Review calculations • Acquiring blood for transfusion • Pathology on-call case studies • Questions? |
| Day 3 | <ul style="list-style-type: none"> • Module 5: Antigen typing | <ul style="list-style-type: none"> • Antigen typing | <ul style="list-style-type: none"> • Eluate dry cases • IRL/Genomics case studies – IRL part • Review pretest • Questions? |
| Day 4 | <ul style="list-style-type: none"> • Module 6: DAT/Eluate/RH | <ul style="list-style-type: none"> • DATs • Elution | <ul style="list-style-type: none"> • Review Diff ads cases • Review assessments • Final thoughts/questions |
| Day 5 | <ul style="list-style-type: none"> • Module 7: Adsorptions | <ul style="list-style-type: none"> • Adsorptions • Assessments | |



What is an “IRL”?

- **Immunohematology Reference Laboratory**
 - Accredited by the AABB
 - Staffed by Medical Laboratory Scientists/Specialists in Blood Banking
 - Testing/consulting:
 - Complex serology (antibody) problems
 - Warm autoantibodies
 - Provision of rare blood/blood products for patients
 - Platelet antibody testing



What is an IRL?



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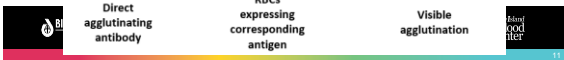
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Agglutination reactions

Tube testing

- **Direct agglutination:**
 - Antibody + RBCs = visible agglutination
 - Used for ABO/Rh testing
 - Detects mostly IgM antibodies
 - Immediate spin phases of testing



Grading Agglutination Reactions



<https://www.youtube.com/watch?v=J98Wj4YiaMc>