WHAT IS TXLOR?

- Digital library of assets and objects
- Approval system for UT health institutions and Texas public higher education institutions
Welcome to TxlOR

The Texas Learning Object Repository (TxlOR) is a web application that provides a method for Texas higher education institutions to review and share a variety of learning materials.

TxlOR is available to faculty and staff of all Texas public two- and four-year institutions of higher education, as defined by Section 61.305, Texas Education Code.
WHO MAY CONTRIBUTE TO TXLOR?

- Faculty and staff members at UT health and Texas public higher education institutions
- Only one requirement: institutional agreement to create workflow manager
HOW DO I CONTRIBUTE TO TXLOR?

- Have your Provost or VPAA contact us:

  https://www.tdl.org/support/
WHO CAN ACCESS TXLOR?

- Anyone may view unless content is restricted
- Anyone may download (and modify) if allowed under Creative Commons license specified by author
HOW DO I SEARCH TXLOR?

- Go to http://www.txlor.org
- Select Search
- Enter keyword(s) and other delimiters such as date(s)
**HOW DO I USE TXLOR?**

1. Click filename to view
2. Click arrow to download
3. Copy URI to link
SAMPLE ACADEMIC ASSET
SAMPLE HEALTH OBJECT

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LABORATORY TESTING FOR IRON
OBJECTIVES

- Discuss the common method of analysis for iron.
- Discuss the determination of TIBC and the calculation of UIBC and % Saturation.
TOTAL IRON BINDING CAPACITY

1 µmol of transferrin binds 2 µmol of iron

= Transferrin
The ratio of serum iron to iron-binding capacity

9 transferrin molecules = 18 sites
13 Fe molecules = 72% Saturation

= Transferrin
Transferrin transports iron in the bloodstream (from intestine to cells).

Acid Rain removes iron from transferrin protein. "Alkaline Rain" changes ferrous iron to ferric iron. Color change is measured.

\[
\text{Fe}^{3+} + \text{Transferrin} \xrightarrow{\text{acid}} \text{Fe}^{3+} + \text{apotransferrin}
\]

\[
\text{Fe}^{3+} + \text{Reducing Agents} \rightarrow 2\text{Fe}^{2+}
\]

\[
\text{Fe}^{2+} + \text{Complexing chromogen} \rightarrow \text{Colored complex}
\]
TOTAL IRON BINDING CAPACITY

Add excess iron

Bind Fe$^{+3}$ to free transferrin binding sites

Remove Fe$^{+3}$ left in serum - measure per iron method on previous slide
Add 17 molecules of iron

Bind Fe$^{+3}$ to free transferrin binding sites

Measure Fe$^{+3}$ left in serum - subtract from original 17 molecules
QUESTIONS TO THINK ABOUT

✖ Iron is transported by _________________.
✖ The main storage form of iron is _____________.
✖ The purpose of hydroxyamine in the iron procedure is to ____________Fe$^{+3}$ to _________.
✖ A patient has a serum Fe of 100 mcq/dl and a TIBC of 225 mcq/dl. Calculate the UIBC and % saturation.