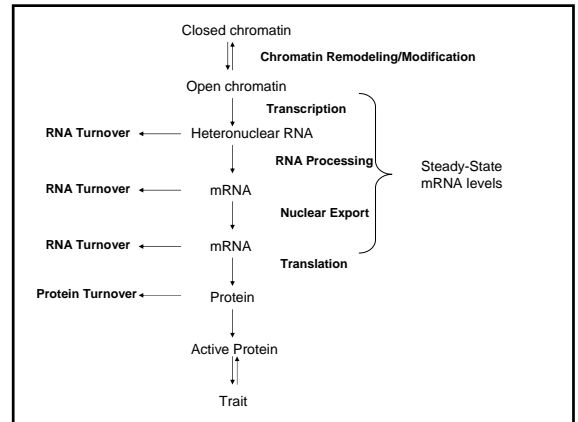


BIO305 Lab Project



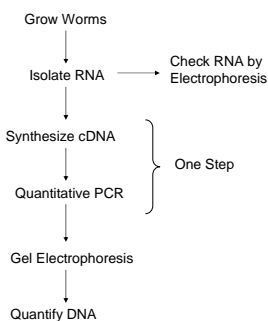
GRP Proteins

- ER Chaperones
- Classic GRP78 transcriptionally induced by the Unfolded Protein Response (UPR)
- Role of structurally related GRP170 unknown.
- Experimental Question. Are GRP170 induced by UPR

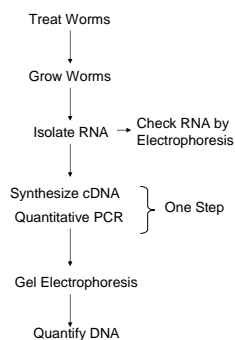
Experiment

- Compare levels of GRP78 and GRP170 mRNA in UPR stressed and control worms.

Pilot Assay



Experiment



RNA

- Protect samples from RNases on our skin.
 - Wear gloves
 - Always use RNA only reagents
 - Use plastic wear you are sure hasn't been touched by others.
 - Keep reagents on ice (except during incubations)
 - Don't touch samples or tubes with bare hands

Safety

- Personal Protective Equipment
 - Laboratory Coat
 - Eye Protection
 - Gloves?
- Clean Benches (before and after use)
- Hoods required for Phenol/Chloroform

Calendar for Pilot Exp

9/7 Start plates of worms (Short)

9/11 Isolate RNA (Full)

9/18 RNA Gel Electrophoresis (Full)

9/25 cDNA and PCR (Short)

10/2 Gel Electrophoresis and Quantification (Long)

Working Groups

- Divide into groups of 5
- Exchange Contact Information
- Fill out Index Cards
 - Last Name, First
 - e-mail
 - Local Phone Contact
 - Address

 - Career Goal