Lab Manager Responsibilities

In the Department of
Pharmacology & Toxicology of
the Medical College of VCU

By Kathryn Studer

Ordering Procedures

- **Purchase Orders**
  - All orders under $5,000
  - Order form is filled out (with grant code, address, quantity, and quotes, etc)
  - 1 copy is placed in our records, another is taken up stairs

- **RO1 NIH Federally Funded Grants**

5-45075	5-45104
5-45022	5-41124

  - All reagents or equipment is ordered under one of these grants.

Ordering Procedures

Credit Card Order

- This lab has 2 Corporate Credit Cards
- Statements must be turned in every month, along with the invoice and packing slip for each charge

Equipment Orders over $5,000

- A justification, and a financing quote must be approved by the business office before purchasing

Maintaining Lab Safety

- Hazardous Waste
  - Each Bottle/Drum is labeled
  - An appointment is then made with OEHS
  - All Hazardous Waste is disposed of in B2 of Sanger Hall

HAZARDOUS WASTE

Generator's Name_____

Department & Phone #_____

Bldg./Floor/Room#_____

Date Filled_____ **pH**_____

Chemical Name(s)	**Percent *or* Volume**
_____	_____
_____	_____
_____	_____
_____	_____

Once container is full, contact the Chemical Safety Section for disposal at (804) 828-1392.

Maintaining Lab safety

- Radiation Safety
  - Attending Radiation Safety Class to become certified
  - Ordering shipments of radioactivity
  - Keeping a detailed inventory
  - Properly disposing of solid and liquid waste

A	B	C	D	E	F	G	H	I
Investigator/ Pin-Lan Li	Isotope (I-125) Compound	Control#	Pickup Date	Activity mCi	Name	Remaining in Lab	Waste Activity mCi	Date
Limit 0.010 mCi	PRA Kit	#16	4/6/2005	0.00150	Matt/ Op	0.00000	0.00150	6/24/2005
Previous Lab Inventory	Angiotensin	#14	3/8/2006	0.00170	Fan Li/RG	0.00000	0.00170	6/9/2006
12/5/2007	Angiotensin	#20	3/24/2006	0.00160	FL/BS	0.00000	0.00160	6/9/2006
0.0000 Recent Activity	Angiotensin	#13	6/5/2008	0.00150	Fan Yi	0.00150	0.00000	
	Angiotensin	#16	6/12/2008	0.00150	Fan Yi	0.00150	0.00000	
	Angiotensin	#18	7/17/2008	0.00150	Fan Yi	0.00150	0.00000	
Lab Waste Total				0.00000		0.00000	0.00000	
0.00480				0.00000		0.00000	0.00000	
				0.00000		0.00000	0.00000	
				0.00000		0.00000	0.00000	
				0.00000		0.00000	0.00000	
				0.00000		0.00000	0.00000	
Lab Remaining Total/All				0.00000		0.00000	0.00000	
0.0045				0.00000		0.00000	0.00000	
				0.00000		0.00000	0.00000	

Lab Cleanliness Responsibilities

Dr. Ningjun Li

June → Biochemistry Lab

- Fluorescence Microplate Reader
- Spectrophotometer
- HPLC
- ESR
- Flowcytometer
- Refrig/Freezer
- D water system (Nano Pure)

Lily → Molecular Lab

- Cell Culture Hood
- Liquid N2 Tank
- Water bath
- Incubators
- Ultrasonic Cell Disruptor
- iCycler
- Refrig/Freezer

Jenny → Vessel Function Lab

- Micro-vessel Profusion System
- 8 Channel DMT System
- Patch Clamp Setup
- ELISA
- 2 Micro-dissection systems

Mark → Renal Functions Lab

- 3 Surgery Operation Stations
- Tetemetry System
- Metabolic Cages
- IVIS System
- In Vivo Imaging System
- Servo Control System
- Micro-dissection
- Fluorescence Microscope

Lab Instruments

- All Instruments have a file in the main office
- If an instrument breaks down:
  - Tech Support or Ed Dimen must be called immediately

Last month:

- Our centrifuge & our distill was not working
- Tech support fixed our Centrifuge
- Ed Dimen could not repair our distill
- We ordered a deionizer which Ed intalled

Genotyping ASM Mice Protocol

Rationale

Genotyping determines whether a mouse is homozygous for wild type (WT) or knockout (KO), or whether a mouse is heterozygous for both the WT and the KO genes.

Reagents

Platinum PCR SuperMix: Invitrogen cat. #: 11306-016

Primers:

Ps 5’-AGC CTG GTC CTC TTC CTT AC-3’

PA1 5’ –CGA GAC TGT TGC CAG ACA TC-3’

PA2 5’ –GGC TAC CCG TGA TAT TGC TG-3’

0.5ul of template mouse DNA* for each sample (0.25ug)

(3 mice with 2 DNA samples each)

100bp DNA ladder

Genotyping ASM Mice Protocol

Solutions

40ml 1X TAE Buffer (extra buffer is needed) and 0.6g of Agarose heated in the microwave until dissolved. (11/2min, mix every 20sec. Do Not Boil Over)

10ul Ethidium Bromide dye

Protocol

1. Add 22.5ul of PCR SuperMix, 0.5ul of the Ps primer, and 0.5ul of template mouse DNA to 6 thin-walled 0.5ml tubes.
2. Add 0.5ul of A1 primer to the first set of tubes for the 3 mice to test for the WT gene. Vortex briefly.
3. Add 0.5ul of A2 primer to the second set of tubes for the 3mice to test for the ASM KO gene. Vortex briefly.
4. Centrifuge all tubes for 6 sec.
5. Place tubes in PCR machine on the “ASM Tail 2” setting to amplify the DNA segments.

Genotyping ASM Mice Protocol

The gel electrophoresis

- Heat 40ml of 1X TAE buffer and 0.6g of Agarose until it dissolves.
- Pour solution into gel holder. Add comb to make wells.
- When the PCR is done, put 10ul from each tube into new tubes with 2ul of 6x dye.
- Remove the barriers and comb from the gel after it has set and cover the gel with 1X TAE buffer.
- Add 12ul of the sample to each separate well on the gel.
- Add the 100bp DNA ladder to the middle well.
- Run the gel at 70volts for about 50min.

13. Afterwards Cover the gel with 1X TAE Buffer and add 10ul of Ethidium Bromide.

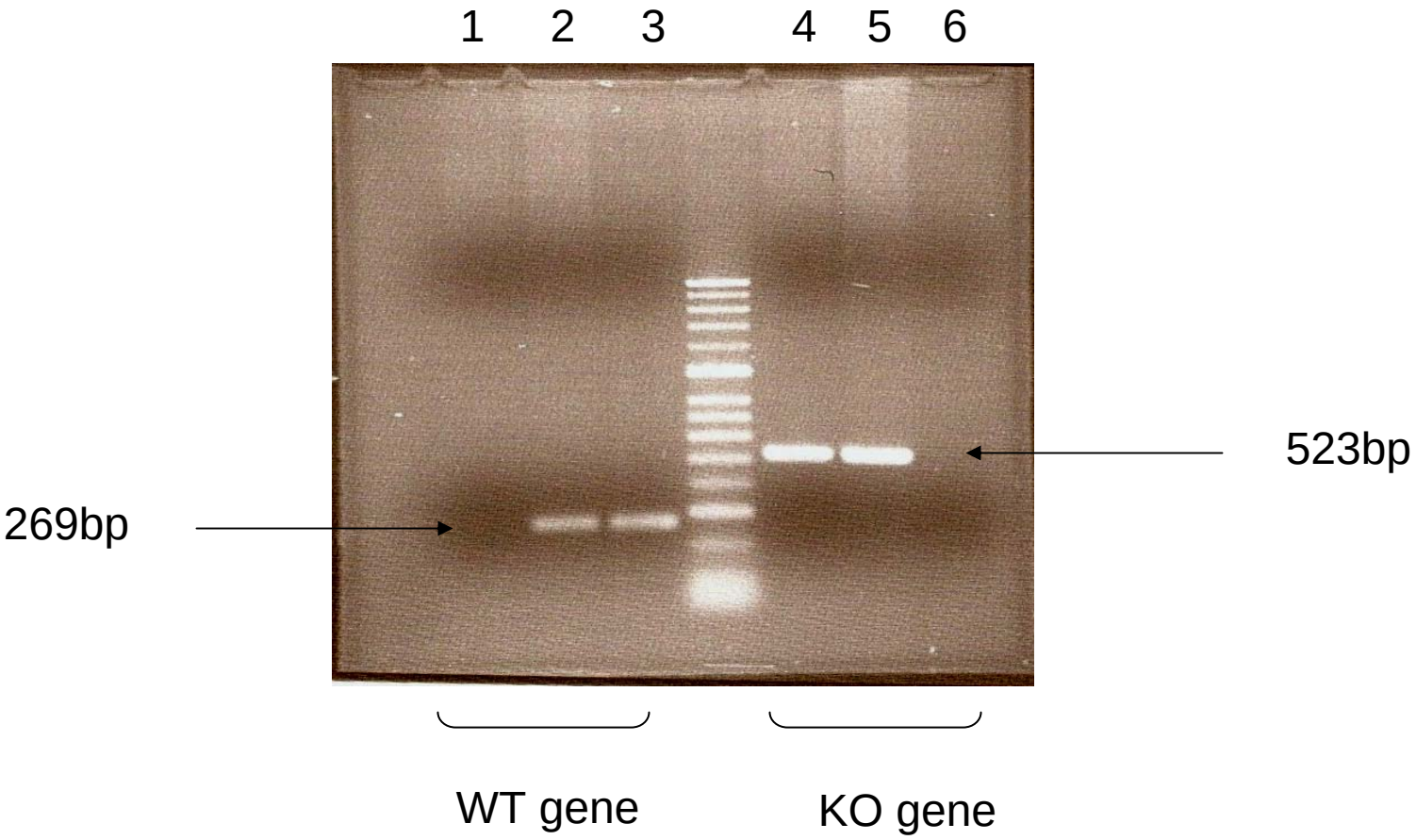
14. Shake gently for 10min then pour off the solution into appropriate container.

15.Take a picture of the gel results

Reading the gel

16. In ASM mice the KO gene has 523bp, and the WT gene has 269bp

ASM Mouse Genotyping Results



New Fellows

Computer

Lab Coat & NIH Notebook

VCU Card/VCU Email/Building Access

Register at the Office of International Education

Social Security Number

Bank Account

WACHOVIA