

Skin Lab Setup

Equipment:

1. Freezing-sliding Microtome
Model: HM450 from Microm, purchase from Richard Allen Scientific (Tel: 1-800-522-7270) , about \$11,000. MUST include a universal stage clamp which is a separate charge from Thermo.
2. Brass Microtome Stage
Purchase from Biomedical Engineering at Johns Hopkins University (Jay Burns, Tel# 410-955-3444), \$500.
3. Microtome knife
C-profile Steel Wedge Knife 21.5 cm, purchase from Richard Allen Scientific, price: \$250/each, need 2.
4. Platinum Transfer Loops (3-5 mm)
Purchase from Ted Pella Inc (Tel:1-800-237-3526), Cat#13087, \$17.5/each, need 3
5. Binocular Dissecting Microscope
Model: Zeiss STEMI SV2000, about \$3,000 and appropriate light source. Usually use a fiber optic light box with gooseneck light. It is helpful if you have a transmitted light that projects from under the filter plates. It makes it easier to see white sections on a white filter.
6. Millipore Vacuum Manifold System (800-645-5476) Cat#MSVMHTS00
7. Stainless Steel Slide Rack EMS Cat# 70312-34
8. Glass Staining Dishes (qty: 11) EMS Cat# 70312-33
9. Refrigerator and Freezer - Sears
10. Shaker Table
11. Hot plate / Stir plate
12. pH Meter
13. Vortexer
14. Digital scale capable of weighing to 0.01g
15. Lab Timer
16. Microcentrifuge (Eppendorf 5415)
17. Multi-head Microscope (Zeiss)
18. 100,250,500, and 1000mL Graduated Cylinders
19. 1000mL Erlenmeyer Flask
20. Loop handle for platinum or nichromium loops. Ted Pella cat # 13081
21. Small drying oven for drying subbed slides. Need to have drying vents and ability to heat slides to 60C.
22. chemical duty pump WP6111560 Thermo/Millipore (IF you have no house vacuum line to run the Millipore vacuum manifold system – not needed if you have a vacuum line)

Consumable Supplies:

1. 96-well Low Evaporation Culture Plates
Fisher, Cat# 08-772-2C, \$122/case of 50 or use Falcon 3072 plates
2. Millipore MultiScreen HTS 96-well filter plates Cat#MSBVN1250
3. Superfrost/Plus microscope slides

- Fisher, Cat# 12-550-15, \$544.5/case
4. Coverslips
Fisher, Cat# 12-548C, \$169.5/case
 5. Screw Cap Eppendorf Tubers
USA Scientific, Cat# 1450-9100, \$190/pack of 500
 6. Screw Cap Centrifuge Tubes
15ml tube: Fisher, Cat# 05-539-12, \$168.6/case of 500
50ml tube: Fisher, Cat# 06-443-18, \$199.05/case of 500
 7. Fisherbrand 1.5ml Microcentrifuge Tubes
Fisher, Cat# 05-669-32, \$52.75/pack
 8. Pop-up Slide Holder
Electron Microscopy Science (Tel# 1-215-646-1566), Cat# 71521, \$80/10/lot
 9. Slide Boxes
EMS, Cat# 71471, \$128/10/lot
 10. pH Standard Solutions for pH 4, 7, and 10
 11. pH electrode storage solution
 12. Shur/Mark TM Black
EMS, Cat# 72100-12, \$57.5/pack of 10
 13. Marker
EMS, Cat# 72105-10, \$32/pack of 10
 14. Fine Point Forceps
Ted Pella, Inc. Cat# 5443, \$31/each
 15. Fine-tipped paint brushes 2/0 size sable hair from Ted Pella
 16. Razor Blades
 17. 1cc syringes with 30g needle
 18. Dry Ice
 19. Medium sized disposable weighing dishes for chemicals
 20. Zamboni Fixative, Newcomer Supply (608-831-7888) Cat#1459
 21. Powder-free Gloves
 22. Transfer Pipett
 23. Parafilm
Fisher, Cat# 13-711-7, \$34.95/500
 24. Fisherbrand Finnpiette Multichannel Pipetter (12 channels, 50-300 ml)
Fisher, Cat# 21-377-249, \$688.5
 25. Fisherbrand Polystyrene Disposable Serological Pipets
Fisher, 50 ml: Cat# 13-678-11F, \$184.8/case
25 ml: Cat# 13-678-11, \$146.7/case
10 ml: Cat# 13-678-11E, \$64.2/case
 26. Eppendorf Easypet Motorized Filler/Dispensers
Fisher, Cat# 13-688-177, \$309
 27. Slide Blinding Tape or 1" Masking Tape
 28. Pipettes
From Rainin (www.rainin.com)
Cat# P20, \$254.50
Cat# P200, \$254.50
Cat# P1000, \$254.50

29. 5ml biopsy tubes USA Scientific cat #1505-1000 \$52/1000
30. 500 ml squirt bottles for phosphate rinse and cryoprotectant – Fisher 03-409-22C
31. Small spatula for weighing out chemicals.
32. Small funnels for filling jars

Chemical Supplies:

1. PGP 9.5 Polyclonal Antibody
Chemicon (Tel: 1-800-437-7500), Cat# AB1761, \$150/50ml. or currently using **ABD Serotec PGP9.5** at 1:5000 7863-0504 www.ab-direct.com
2. Biotinylated Goat-Anti-Rabbit Secondary Antibody
Vector (1-800-227-6666), Cat# BA-1000, \$80/1.5 mg.
3. SG peroxidase Substrate Kit
Vector, Cat# SK-4700, \$75/1 kit.
4. ABC Elite Kit
Vector, Cat# PK-6100, \$165/1 kit.
5. Normal Goat Serum
Vector, Cat# S-1000, \$50/20 ml
6. Anhydrous Glycerol
J.T. Baker (Tel: 1-800-582-2537), Cat# 2136-03
7. Methanol
J.T. Baker, Cat# 9070-03
8. 30% H₂O₂
Fisher, Cat# H325-500, \$82.64/each
9. Sodium Chloride
Fisher, Cat# S642-500, \$31.25/each
10. Ethylene Glycol
Fisher, Cat# E178-1, \$67.69/Liter
11. Concentrated HCl
Fisher, Cat#
12. 50% w/w Sodium hydroxide
Fisher, Cat# SS254-500, \$51.21/each
13. 10N Sodium Hydroxide
Fisher, Cat# LC24500-1, \$12.4/each
14. Potassium Permanganate
Sigma, Cat# P2097, \$59/500 g
15. Oxalic Acid
Sigma, Cat# 0-0376, \$35.85/500 g
16. Sodium Phosphate Monobasic Anhydrous
Sigma, Cat# S0751, \$30.80/500 g
17. Sodium Phosphate Dibasic Anhydrous
Sigma, Cat# S0876, \$33.75/500g

18. 100 % Ethanol
Fisher, Cat# E7023, \$29.35/500 ml
19. EDTA
Sigma, Cat# E5513, \$29.20/100g
20. Xylenes
Fisher, Cat# X5-4, \$97.7/4 liters
21. Permout
Sigma, Cat#
22. Eosin Dye Cole-Parmer Cat#EW-48803-50
23. Powdered Milk, non-fat dry - Carnation
24. Immersion Oil
EMS, Cat# 16916-01, \$7/1 oz
25. 10X Dulbecco's Phosphate-buffered Saline
GibcoBRL, Cat# 14200-075,
26. Deionized Water supply
27. Sodium Hydroxide pellets (NaOH) JT Baker 3722-01
28. Sodium Phosphate Monobasic S0751 Sigma
29. Gelatin Powder CAS#900-70-8, 175 bloom Electron Microscopy Sciences Cat # 16562
30. Chromium potassium sulfate dodecahydrate – Sigma 243361-100g
31. Triton X-100 – Fisher BP151-500 or Electron Microscopy Sciences 22142
32. Tris Base - JT Baker 4109-02
33. Sucrose – JT Baker 4072-05

Skin Biopsy Supplies

1. An examination room with an examination table, a computer, and a printer
2. 3mm skin punch
Accuderm (Tel: 1-800-327-0015), Cat# P350, \$64.95/box X 2.
3. Disposable Forceps
Accuderm, Cat# FOR50, \$36.5/box X 2.
4. Disposable Scapels
Accuderm, Cat# S100, \$89/box
5. Sterile Gauze Pads (Hospital Supply)
6. 2% Lidocaine with Epinephrine (Hospital Supply)
7. 1 inch Band Aids (Hospital Supply)
8. 1cc Syringes 30g needle (Hospital Supply)
9. Paper Tape (Hospital Supply)
10. Alcohol swabs