

## Gel Doc Protocol

1. To visualize a gel, after it is finished running:
  - a. Carefully remove gel from gel box.
    - i. Try to drip excess buffer back into the rig, scraping the bottom of the tray on the edge of the box.
  - b. Open the gel doc tray and wipe it clean using MilliQ water and KimWipes.
    - i. A small volume of water (<10ml) is sufficient.
  - c. Slide the gel onto the gel doc tray.
    - i. Do so slowly to avoid creating bubbles under the gel.
    - ii. If you're unsure if your gel has run long enough, you can leave gel in tray and visualize it. You can then return the gel to the rig and run it for longer if necessary.
  - d. Close the tray.
  - e. Open "Image Lab" application on the computer connected to the gel doc.
    - i. Check that the cord labeled "Gel doc" is plugged into the computer.
  - f. Select *New Protocol*.
  - g. Under "Application", select *Nucleic Acid Gels* and then *GelRed*.
    - i. The default setting is to optimize for most intense bands which prevents the gel from being over exposed but may make very faint samples undetectable.
    - ii. If necessary, under "Image Exposure" you can select exposure to optimize for faintest bands or set a manual exposure time.
    - iii. If you are running a gel with samples of highly variable concentrations, it may be useful to run protocols with each optimization option.
  - h. Select "Position Gel" (yellow button on the left side of the window).
    - i. The program will ask you to check that the filter is set to *Filter 1*.
    - ii. Check that the arm on the upper right side of the gel doc is in the center position labeled *Filter 1*.
  - i. Open door on the front of the gel doc and position your gel.
    - i. You can zoom in and out under image window on the computer screen.
    - ii. You can enable grid lines by checking the box in the bottom corner of the screen.
  - j. Close door and select "Run Protocol" (green button on the left side of the window).
  - k. Wait for the gel image to load.
  - l. Save image or change protocol and run again.
    - i. To save as .jpg image:
      1. Select File>Export>Export for Publication>Select *Export*.

2. Change file type to .jpg.
  3. Name file and save in appropriate folder.
2. **Always clean the gel doc tray after use.**
  3. Dispose of the gel proper waste container.