Rumbaugh Goodwin Institute of Cancer Research

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Accomplishments
Rumbaugh Goodwin Institute, or RGI, has two drugs that are currently patented in eight countries including the US. RGI has contributed many publications to the scientific community.

Focus
RGI focuses on the oncogene MDM2. This gene is known have multiple epigenetic effects, one of the most well known effects is the down regulation of P53 and P21.
Director of RGI

RGI is lead by Appu Rathinavelu Ph.D., he began the study of the MDM2 gene in 2006. Initially, MDM2 was not considered an oncogene. Since then he has discovered many prominent roles of MDM2 with regards to cancer. This has helped to change MDM2’s classification to a cancer promoting gene.
Before any experiments are conducted, Dr. Rathinavelu holds a meeting where Ph.d’s and students present possible studies to pursue. All ideas are discussed in detail, thoroughly planned out. This entails everything from what is the end goal, to what cell line will be tested. Cost effectiveness is also discussed.
Cell lines are incubated for several days (depending on the specific line). The incubator is set to ~37°C. The cell lines are very sensitive, just breathing into the incubator may contaminate the samples.

Once cells have been incubated it is important to check for confluency. That is the cell growth, the desire confluency is ~80%. This is so when testing the cells may continue to grow, and allow for compound's inhibitory ability to be tested for.
Once cells are incubated and to the proper confluency, they are extracted and centrifuged to allow for protein extraction.

Gels are then made, samples loaded, and experiment ran. This is the western blotting, which allows to check for protein expression.
Once all testing has been done, the western blotting membranes are imaged, allowing for a visual of results. It is at this point when you find out whether the experiment was conducted properly or not.