

# Instrumental

*A Rogel Cancer Center Shared Resources Newsletter*

**FEBRUARY 2021**

[P30 Citation Language](#)

[MiCORES Services](#)

News and information  
about Shared Resources  
for Rogel Cancer Center  
members



## SERVICE SPOTLIGHT

### Experimental Irradiation Shared Resource

The Small Animal Radiation Research Platform is designed for pre-clinical experimentation on animal models. It is a leap forward from fixed angle orthovoltage units that deliver ionizing radiation from one angle without image guidance. The device includes multiple X-ray detectors that allow users to obtain 3-D imaging via cone beam CT as well as 2-D real time imaging. This means users can develop complex treatment plans, targeting tumors or organs from different angles to maximize treatment dose to target while minimizing dose to surrounding tissues.

This is possible because the SARRP's gantry (which holds the X-ray tube) and animal bed can both rotate. The SARRP is also equipped with a bioluminescent imager (Muriglo) and accompanying



software that are designed to find the center of mass of luciferase expressing tumor models. When docked inside the SARRP, the Muriglo detects light emitted from the implanted tumors. The Muriglo is then undocked and a cone beam CT is acquired. These two imaging results are combined to locate the treatment target.

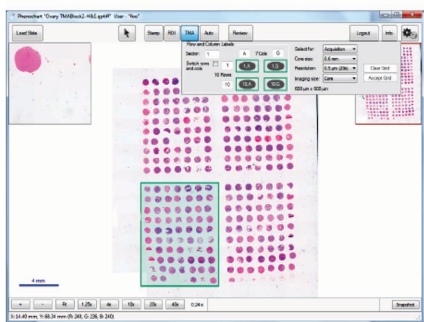
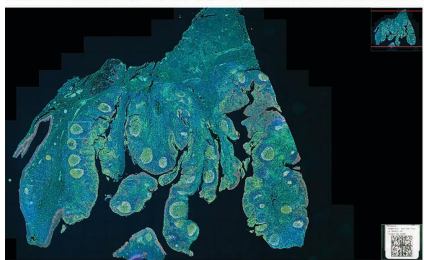
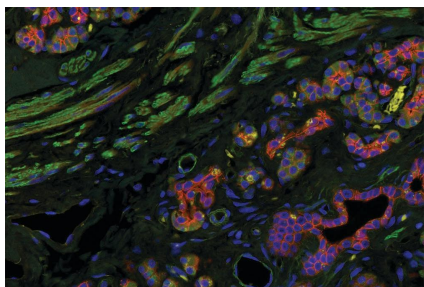
Although this technology is in its early stages of development and refinement, it can be used to locate tumors that would be difficult to image with cone beam CT alone.

Experimental Irradiation Shared Resource also provides:

- Moderate dose rate fixed angle orthovoltage irradiators at 3 locations: Med Sci 1, BSRB, and NCRC.
- Low dose rate irradiator housed inside of a tissue culture incubator.
- Micropoint laser irradiation and fluorescent microscopy to visualize tagged protein movement to sites of DNA damage in real time.

[Contact EISR Managing Director, David Karnak](#), for additional details and free project consultation.

## NEW EQUIPMENT



### Vectra Polaris scanning service available now

The Tissue and Molecular Pathology Shared Resource is pleased to announce our new brightfield and multispectral whole-slide imaging service, made possible by the Rogel Cancer Center.

The Vectra Polaris allows for fluorescent scanning of up to 9 colors, at batches of up to 80 slides.

Ordering is now available through MiCores. Drop-off is at MSRB1 4504, or via NCRC courier. [Read additional details here.](#)

We will also continue to assist with immunofluorescence staining and analysis.

[Please contact the team via email](#) with questions, or to start planning your project.

## OTHER NEWS

### Changes to Transgenic Animal Model Shared Resource Pricing

The Transgenic Core has expanded the discount it offers to cancer center members. All services that formerly received a discount (25%) now receive a 50% discount. Four services that formerly did not receive a discount also now receive a 50% discount:

- Mouse IVF (In Vitro Fertilization) with Fresh or Cryopreserved Mouse Sperm

- Mouse Sperm Cryopreservation
- CRISPR/Cas9 Gene Editing Reagents
- CRISPR/Cas9 Zygote Microinjection Test

Discounts are subject to change as the funds available are limited.

**We want to hear your feedback!**

**[Please submit your thoughts about our new internal emails here.](#)**

**Please forward this message to your fellow cancer center colleagues.**

**[They can subscribe to these messages here.](#)**



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