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Weill Cornell Medical College Edition

# RARC NEWS

Research Animal Resource Center

### Special Interest Articles:

**NEW Bimonthly Newsletter**

**Biosecurity update**

**What Veterinary Services can do for you**

**Who's who in the vivarium**

**Inside:**

**Lab update**

**Training calendar**

**The vivarium under construction**

## A message from the Director

This first of our bimonthly newsletters serves to provide the WCMC research community with relevant and topical information pertaining to the Medical College's animal care and use program. As we end '07 we look back on our achievements and shortcomings.

We continue to be hampered by space limitations as the renovations of WCMC's animal facilities undergo extensive

renovation. We recognize the impact on RARC users, not only because of the limited space for colony expansion, but the added complexity of maintaining animals at multiple sites as well as the impact of construction noise and vibration on the animals and the research in which they are utilized. Although there is considerable housing space on the horizon with the completion of the renovations, space

Cont. on pg. 4

## RARC Offers a Bimonthly Newsletter

The purpose of this newsletter is to provide updated and specialized information to investigative staff. We hope in this way to better serve our program users.

In this first issue, *RARC NEWS* will provide reports from each RARC service section: Administration and Information Services, Biosecurity, Education &

Quality Assurance, Husbandry & Operations, and the Laboratory for Comparative Pathology, as well as technical information and service updates to facilitate your successful use of the animal facilities.

We look forward to your feedback and suggestions for future issues researchers.

Send comments to:  
rarceqa@med.cornell.edu

## Biosecurity

Biosecurity in the vivarium is defined as all measures taken to prevent, detect, contain and eradicate adventitious infections in rodent colonies. It is well documented that infectious diseases in rodents can significantly alter research data obtained from infected colonies. This is not only the case for infections that cause overt clinical disease, but also to a great extent for subclinical infections. In short- healthy rodents produce better data resulting in better research.

The biosecurity program at WCMC consists of the following components:

**Rodent Quarantine:** All rodents imported from non-approved sources need to undergo an 8-10 week quarantine where they are extensively tested for a variety of infectious agents and receive prophylactic treatment for parasitic infections.

**Vendor Surveillance:** Health reports from approved vendors\* are reviewed regularly to assure that we only receive animals of the highest microbiological quality.

**Pest Control Program:** All animal facilities are continuously monitored for rodent and

insect pests using appropriated traps.

**Testing of Biologicals:** All biologicals, that is whole blood or serum, tumor cells, growth factors, etc., of rodent origin or materials that have been passaged through rodents are tested for contamination with rodent pathogens by PCR.

**Sentinel Program:** A health monitoring program using naive sentinel animals is used to regularly surveil the existing colonies in order to detect the inadvertent introduction of pathogens in a timely fashion to allow for immediate countermeasures in order to isolate and eradicate the organism before it can cause any significant damage.

**\*What is an "Approved Vendor"?** An approved vendor is any authorized, licensed vendor or specified areas within the vendor's facility, certified by RARC's veterinary staff, to be of acceptable health status to directly enter our existing colonies. This list is determined and continually updated by RARC's veterinary staff and provides essential quality control, protects the health of resident animals and staff, and insures that the animals are acquired legally. To obtain a copy of the "Approved Vendors" list please visit our website on the WCMC intranet.





## Laboratory of Comparative Pathology

The **Laboratory of Comparative Pathology** and the **Genetically Engineered Mouse Phenotyping Service** invite you to use the full range of pathology services offered to the WCMC research community utilizing laboratory animals.



**Clinical Pathology** services include: hematology; parasitology; microbiology; analysis of urine and other body fluids; serology for numerous infectious agents; and, environmental monitoring. All tests are performed by qualified laboratory professionals trained in veterinary laboratory techniques.

**Complete gross and histopathologic analyses** of all laboratory animal species and mouse phenotyping are performed by board certified Veterinary Pathologists that have expertise in normal anatomy, histology and physiology, as well as age- and breed-/strain-related background lesions. Examination of tissue biopsies,

slide evaluations, and digital photography of macroscopic and microscopic lesions are also available.

Experienced histology technicians provide a range of **histology services** including tissue processing, paraffin embedding, and sectioning. Routine stains such as hematoxylin & eosin and an array of special histochemical stains are available. **Immunohistochemistry** for the detection of various markers is also now offered.

Additional services include: **radiography** of rodents and excised tissues; investigator training with regard to necropsy technique and proper submission of specimens; and, assistance with experimental design.

We are located in Z940. Please do not hesitate to contact the laboratory for more information: [lcp@med.cornell.edu](mailto:lcp@med.cornell.edu) or (646) 888-2422.



## Administration and Information Services

Administration and Information Services (AIS) oversees a wide array of activities in support of RARC and WCMC. The responsibilities of the AIS fall within the broad areas of financial and business operations management, computer, network and information management, IACUC management, and oversight and support of departmental personnel issues.

and animals, billing, information systems management, database management, as well as operational audits to ensure the accuracy of RARC's census and billing processes.

The AIS staff at WCMC RARC can be reached at 212-746-1022.

AIS manages the procurement of materials

## Education & Quality Assurance



*Caroline Murray, EQA Specialist, is seen here instructing a new staff member in rodent surgical techniques. This session is required for all staff performing surgery in rodents.*

RARC's Education & Quality Assurance (EQA) section provides orientation and training on all aspects of the humane care and use of animals in research. Didactic and hands-on training is provided to all staff regardless of their previous experience and often is tailored for the individual's needs.

A list of the upcoming scheduled training sessions is in the opposing column. EQA also offers many training sessions that are scheduled *ad hoc* at your convenience.

For scheduling and information please call 212-746-1369, or contact us at [rarceqa@med.cornell.edu](mailto:rarceqa@med.cornell.edu).

### TRAINING SESSIONS: JAN. - FEB. 2008

#### RARC Orientation

Thursday, 1/3/08, 2:00-4:00

Thursday, 1/17/08, 10:00-12:00

Tuesday, 2/5/08, 2:00-4:00

Thursday, 2/21/08, 10:00-12:00

#### Xenograft Training

Tuesday, 1/8/08, 2:30-3:30

Tuesday, 2/19/08, 2:30-3:30

#### Hazardous Materials Training

Wednesday, 1/23/08, 2:45-3:45

Wednesday, 2/27/08, 2:45-3:45

#### Rodent Surgery

Friday, 1/4/08, 10:30-12:00, wet lab

Tuesday, 1/15/08, 10:30-11:30

Friday, 2/1/08, 10:30-12:00, wet lab

Tuesday, 2/19/08, 10:30-11:30

#### Isotope Room - Ad hoc

#### Rodent Breeding

Wednesday, 2/27/08, 10:00-11:30

## Husbandry & Operations

### *Animal Care Technician SPOTLIGHT!*

**Name:** Name: Tito Berrios  
**Title:** Senior Animal Care Technician  
**Start Date:** 3/19/84 (24 Years at WCMC)

Tito began working in the field of laboratory animal care three decades ago! After being recommended by a friend, he was employed at the Memorial Sloan-Kettering vivarium for 6 years. In 1984, Tito joined the WCMC workforce and since then has been an invaluable member of our staff.

The most significant change Tito has

observed over his career is the shift from using large animal species, such as dogs and swine, to rodents- a trend seen world wide in biomedical research. At one point, he cared for over 100 large animals daily, spending 9 hours a day to complete his work. He also previously cared for a non-human primate colony that had been maintained for studying toxic shock syndrome.

Now even though he provides care to lots and lots of mice, his preference is still working with the larger species, they will always be his favorites.

### *Zebrafish are here!*

WCMC faculty has begun to use the zebrafish as a model to support their investigations. Like other species RARC maintains, fish have very specific housing requirements. Water quality is essential having to be maintained at a precise temperature, pH, and conductivity. Buildup of nitrogenous waste, especially ammonia, can be problematic, as it can be toxic at modest levels.

One of the advantages of using zebrafish is the ability to maintain large numbers of animals within a relatively small space while requiring minimal direct hands on care.

A variety of automated aquatic systems are commercially available. In order to select the best system to meet WCMC's needs, 4 different systems from various vendors were evaluated by RARC staff and investigators utilizing the species. We evaluated water quality and system stability, ease of maintenance, operational costs, as well as the ease in which the fish could be observed and tanks removed. The systems were evaluated for months and the Zebtech system manufactured by Techniplast, Inc. was selected.

The fish have been breeding successfully and the larva has been enjoying their Paramecium sp. diet.

## Veterinary Services

Trained veterinary technicians realize the importance of your research and constantly work toward advancing the responsible care of laboratory animals.

Veterinary technicians are available to assist investigators with a variety of technical procedures, including anesthesia, intra-operative monitoring and postoperative patient care.

RARC's veterinary staff are available for consultation on experimental model development and protocol design and are available 24 hours a day to respond to animal health emergencies.

Various supplies and equipment are available on loan or for purchase. For a complete list of these items and details regarding scheduling please contact the VS supervisor. Drug purchases must be accompanied by a VS Drug and Supply Request Form available via the RARC intranet website.

For consultation and complete details of available service please contact:

Dr. Sulli Popilskis, Associate Director at (646) 888-2404 or  
Ms. Rochelle Torrence, Supervisor at (212) 746-1167.

### PARTIAL LIST OF SERVICES

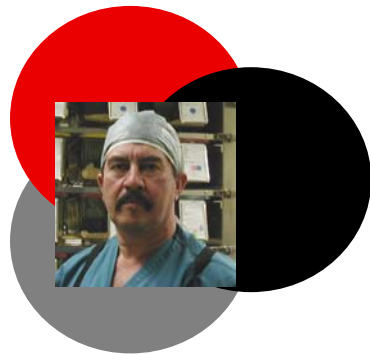
#### & SUPPLIES:

#### VS Technical Services

- Blood collection
- Injections
- Tissue collection
- Gavage
- Animal identification

#### Supplies

- Microscopes
- Clippers
- Restraining devices
- Heating pads/lamps
- Anesthesia carts



## WCMC Under Construction!



*Look for the  
"Hammer"  
for updates*

Construction is nearing completion for the first of the three phases of the A-7, C-7, and S-3 renovation project. This spring we expect to occupy the newly renovated A-7 facility and close C-7 after relocating animals currently housed within to A-7. C-7 renovations should take ~ 6 months followed by the final phase during which S-3 is closed and renovated.

When renovations are complete, WCMC will have expanded state-of-the-art vivaria that

will include a large number of procedure laboratories, a high-level rodent barrier, ABSL-3 facility, rodent behavioral testing suite, expanded rodent housing, and an expanded large animal surgical suite.

Importantly, RARC WCMC's administrative and professional staff will relocate to a central office suite in the soon to be completed E building addition in February. We will keep you posted as to our progress.

### *A Message from the Director, cont. from page 1*

will remain limited. Until then, we must work together to manage this limited resource.

Although we were disappointed to have identified fur mites in a few of our mouse colonies, we remain cautiously optimistic that the treatment program implemented was successful as it has been a year since it was completed and extensive testing has shown both sentinels and colony animals to

remain mite free. Importantly, murine mite infestations are being observed with increasing frequency globally. To address this increased risk, we have implemented a number of procedures, including the treatment of all mice imported from atypical vendors during quarantine.

RARC staff and I wish you a happy, healthy, and productive 2008.

*February's  
Investigator  
Training  
Seminar*

*All are  
welcomed to  
attend!*

***\*UPCOMING SEMINAR\****  
***ESTIMATING ANIMAL NUMBERS:  
STATISTICS & ACCOUNTING***  
Speaker: Daniel Catanzaro, Ph.D.,  
Associate Professor, Department of  
Medicine

Date: Wednesday, February 20  
Time: 2:00 - 3:30 PM  
Place: MSKCC, RRL, Room 101

### About Our Department...

Office of the Director- (646) 888-2400  
Manager's Office: (212) 746-1023

Administration & Information Services: (646) 888-2406  
Biosecurity: (646) 888-2403  
Education & Quality Assurance: (212) 746-1077  
Husbandry & Operations: (646) 888-2413  
Laboratory of Comparative Pathology: (646) 888-2422  
Veterinary Services: (212)746-1167

**EMERGENCY: (212)746-1022**

Please visit us on the WCMC intranet -  
<http://intranet.med.cornell.edu/research/rarc/index.html>

