

**Revised 12/07**

**AMERICAN COLLEGE OF VETERINARY RADIOLOGY  
RECOGNIZED VETERINARY SPECIALTY OF RADIATION ONCOLOGY(ACVR-RO)  
RESIDENCY TRAINING PROGRAM APPLICATION**

NOTE: Some questions in this form are included for data collection purposes. The inclusion of an item does not necessarily imply that the item is a program requirement for ACVR-RO residency program. Please refer to the current Radiation Oncology Training Program Guidelines for comprehensive residency training requirements. This document may be downloaded from Members Only Downloads section of the ACVR website at <http://www.acvr.org>.

**APPLICATION INSTRUCTIONS:**

Training program directors wishing to have their programs evaluated should submit 4 copies of this form to the Assistant Executive Director of the ACVR. The application must be received at least 60 days before the meeting of Executive Council at which the program will be evaluated. There are two meetings of Executive Council each year; a midyear meeting in April, and the Annual Meeting held in conjunction with the Annual meeting of the ACVR. Exact dates of Executive Council meetings are available on the ACVR Calendar which can be viewed on the ACVR Web site, and which is also printed in each issue of Veterinary Radiology & Ultrasound. There will be no exceptions to the 60 day lead time requirement. The Executive Director will forward copies to the Residency Standards Committee of the Recognized Veterinary Specialty for evaluation. The committee will evaluate the application, a vote will be taken, and the results of the vote and the majority recommendation of the committee forwarded to the President of the Recognized Veterinary Specialty for consideration at Executive Council at one of the two annual meetings.

For the required ACVR and ACVIM Diplomates providing consultation in medical oncology and imaging, please provide a brief 2-page curriculum vitae and specify the number of weeks each year that the individual will be available to actively support the radiation oncology trainee.

## ACVR-RO RESIDENCY TRAINING PROGRAM APPLICATION

1. Date of Application

5.31.10

2. Program Director(s):(Must be a Diplomate of ACVR Recognized Veterinary Specialty of Radiation Oncology)

Tracy Gieger, Keijiro Shiomitsu

Number of weeks per year faculty member is available to resident on a daily basis.

50

Program Director's Contact Information:

Work Phone:	<a href="tel:(225)578-9600">(225) 578-9600</a>
Fax:	<a href="tel:(225)578-0616">(225) 578-0616</a>
E-mail:	<a href="mailto:tgieger@vetmed.lsu.edu">tgieger@vetmed.lsu.edu</a>

3. Application is made for check one (see below):

Standard Program	Alternative Program
<input checked="" type="checkbox"/>	<input type="checkbox"/>

The following conditions define an Alternative Program:

- a. If the program is not at least a minimum two-year continuous radiation oncology training program which fulfills all of the trainee requirements of the training program guidelines, it will be defined as an Alternative Program.
- b. If exemption from any other requirement for a Standard program is requested in the application, the program must be submitted as an Alternative Program.

4. Location of Primary Institution

Primary Site:

Louisiana State University School of Veterinary Medicine

Department

Veterinary Clinical Sciences

Hospital/University

Skip Bertman Drive

Address

Baton Rouge, LA 70803

City, State Zip Country

5. Cooperating Institution(s) (If applicable):

Department

Hospital/University

Address

City, State Zip Country

For cooperating institutions, attach letters of agreement signed on behalf of the institution(s) by appropriate individual(s).

6. Length of Training Program (months):

24

If greater than 2 years, will this period include 24 months of continuous training in radiation oncology?

7. Number of months dedicated solely to radiation oncology training (excluding time on Medical Oncology service, Radiology/Imaging, etc.)

18

8. Advanced Degree:

	Yes	No	Optional
Masters:		x	
PhD:		x	

9. Essential Program Faculty: individual faculty member may serve in only one capacity

**Please list all qualified faculty in support of program**

a. Diagnostic Radiologist(s): (Must be Diplomate(s) of the ACVR)

Daniel Rodriguez
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Number of weeks per year faculty member(s) is/are available to resident on a daily basis.  
Please list for each faculty member.

50
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Faculty member on site?

Yes	No
x	

If off site, please explain relationship.

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b. Medical Oncologist(s): (must be Diplomate(s) of ACVIM, Specialty of Oncology)

Tracy Gieger

Number of weeks per year faculty member(s) is/are available to resident on a daily basis.  
Please list for each faculty member.

50

Faculty member on site?

Yes	No
x	

If off site, please explain relationship

c. Surgeon(s): (must be Diplomate(s) of the ACVS)

Suzanne Lauer

Number of weeks per year faculty member(s) is/are available to resident on a daily basis.  
Please list for each faculty member.

30

Faculty member on site?

Yes	No
x	

If off site, please explain relationship.

d. Pathologist(s): (must be Diplomate(s) of the ACVP)

Dan Paulsen
Do Y. Cho
Timothy Morgan
Steven Gaunt
Angela Royal
Nobuko Wakamatsu
Dawn Evans

Number of weeks per year faculty member(s) is/are available to resident on a daily basis.  
Please list for each faculty member.

50
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Faculty member on site?

Yes	No
x	

If off site, please explain relationship.

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10. Please list all additional board certified specialists in direct support of the program. If offsite, please explain relationship.

Name	Certifying College / Board
Lorrie Gaschen	ECVDI
Nathalie Rademacher	ECVDI
Amy Grooters	ACVIM
Mark Acierno	ACVIM
Frederic Gaschen	ACVIM

11. How will resident receive training in Medical Oncology? What is time allotted for this training. Please provide description of formal and informal training experiences?

The oncology service at LSU includes both medical and radiation oncology. Both med onc and rad onc patients are received through the service and rounds topics include both specialties. Dr. Gieger is a medical and radiation oncologist; Dr. Shiomitsu is a radiation oncologist; and Dr. Brugmann (board eligible in medical oncology) is a medical oncologist. At least 2 months of the residency will be spent solely on medical oncology. The medical oncology training will consist of twice weekly journal club meetings; receiving cases through the clinical oncology service; and daily topic rounds and board rounds about cases.

12. How will resident be trained in diagnostic imaging? What is time allotted for this training. Please provide description of formal and informal training experiences?

The resident will spend at least 4 weeks of the residency in the radiology department. This time will be spent primarily on film interpretation as well as the study of cross-sectional imaging. On a daily basis, the resident will be involved with image interpretation, setting up patients for CT scans for radiation treatment planning, and will be consulting with radiologists about cases. Once weekly, the resident will attend neuroimaging rounds offered by the radiology department.

13. How will resident be trained in radiation biology?

As part of the residency program, the resident will read the Hall Radiation Biology

textbook; the 2 radiation oncology faculty will discuss this book with them on a chapter-by-chapter basis. The resident will attend a Radiobiology course (LSU MEDP 7121) through Louisiana State University.

14. How will resident be trained in cancer biology?

The resident will be trained in cancer biology through reading the Tannock & Hill *Basic Science of Oncology* textbook. This book will be reviewed by the resident along with faculty members. In addition, weekly journal clubs will focus on topics including cancer biology. The resident will also be encouraged to attend related seminars available through the LSU system.

15. How will residents be trained in radiation oncology physics?

We have an on-site medical physicist 1/2 day per week who will mentor the resident. The Khan physics text will serve as the primary reference, and the resident will review the text with the physicist and/or faculty mentors. In addition, the resident will attend a course, Radiation Therapy Physics (LSU MEDP 7331). The resident will also have access to 10+ years of RAPHEX examinations and will be strongly encouraged to work through the radiation oncology and general sections.

16. Please list any formal courses and their instructors included in the residency training curriculum. Please attach syllabi and instructor credentials for each listed course.

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17. Will the resident participate in clinical rounds on a daily basis while on clinical rotations? Is a supervising Diplomate available for the majority of rounds? If no, please describe how rounds are attended and supervised.

Yes	No
x	

Comments:	One of two radiation oncologists are always on clinic duty and have twice daily rounds with the resident. During rounds, all of the cases seen in clinics that day are discussed.
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18. Are formal conferences, such as clinicopathologic conferences, journal clubs, or seminars held on a weekly basis?

Yes	No
x	

Comments:	See below
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19. Please provide a description of the conferences, etc., that are provided and the typical schedule.

Journal club is held twice weekly (one focused only on oncology topics and one on general medicine topics); radiology neuroimaging rounds are held once weekly; there are weekly seminars on rotating small and large animal topics; biweekly clinical pathology rounds; monthly oncology-pathology rounds
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20. Is the resident required to give one or more formal presentations at a conference or in an educational setting on a yearly basis?

Yes	No
x	

Comments:	At LSU, there is a weekly seminar program that consists of house officers giving seminars about all types of research topics; the radiation oncology resident will be required to present one 1 hour seminar and one ½ hour case-based seminar each year of the residency program.
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22. How many major veterinary medical or medical meetings is each resident able to or expected to attend during his/her training program?

None	One	Two	> Two
		x	

Comments:	The resident will attend either/or the ACVR or Veterinary Cancer Society meeting(s) annually as part of their program.
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23. Does the training program require a research project? Please indicate the number of research projects required.

Yes	No	Optional	Number
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x			1
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Comments:	
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24. Are one or more publications required as part of the training program?

Yes	No	Number
x		

Comments:	A manuscript must be submitted to a refereed journal by June 1 of the 2 <sup>nd</sup> year of the residency program.
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25. Please indicate the availability of the following facilities or equipment. Indicate if these are available at the primary training site, or at a different location. For facilities that are not on-site, please describe the situation and availability in the space at the end of this section.

Equipment / Service	Available?		On-Site?	
	Yes	No	Yes	No
Megavoltage Teletherapy Machine Please specify manufacturer and model: Varian Clinac 600 c with 52-leaf multileaf collimator	x		x	
3D - Computer based treatment planning system Please specify manufacturer and model: Varian Eclipse version 8.1	x		x	
2D/2½ D - Computer based treatment planning system Please specify manufacturer and model:		x		x
LDR Brachytherapy treatment and planning		x		x

HDR Brachytherapy treatment and planning		X		X
Diagnostic Radiology / Imaging Services		X		X
Conventional Radiography		X		X
Fluoroscopy		X		X
Ultrasound		X		X
Nuclear Medicine		X		X
Computed Tomography		X		X
Magnetic Resonance Imaging		X		X
Positron Emission Tomography			X	
Intensive Care Facility - 24 hours		X		X
Clinical Pathology capabilities: (includes CBC, serum chemistries, blood gases, urinalysis, cytology, parasitology, microbiology, and endocrinology)		X		X
Veterinary Library w/Literature Searching Capabilities		X		X
Medical Library w/Literature Searching Capabilities		X		X
Computerized Medical Records w/Searching Capabilities		X		X
Hospital medical records are not computerized but a searchable data base is in place. Radiation records are kept in a searchable computerized data base (file maker pro).				

We do have a Strontium-90 ophthalmic applicator on-site.

26. If any of the above equipment or facilities are available off-site, please explain how the resident can access them for case management, research, or study.

27. Please list numbers of patients treated in the last 12 months using the listed radiation treatment modalities.

Modality	Number Treated
Megavoltage Gamma / X-ray Teletherapy	100
LDR Brachytherapy	0
HDR Brachytherapy	0
Injectable Radionuclide therapy	
Radioiodine	25
Other (please specify) Samarium	0
<sup>90</sup> Strontium Pleiotherapy	10
Other - please specify	n/a

28. Describe procedures for resident record recording of radiation treatment details of all patients.

We have developed a detailed paper folder that is completed for each patient. The folder has several pages that allow for photos and drawings of the radiation field to be included. There is a sheet for hand calculations for manual plans. There is also a sheet where details about computer-based plans are to be recorded (field sizes, use of MLC, wedges, etc.). There are also columns for each field that are used for daily treatments- this allows the therapist or resident to check off each part of the treatment (to confirm that bolus/wedges were used, monitor units/tx, total cumulative RT dose, etc.). Photos of each patient set up are obtained. Each patient is examined daily during their treatment regimen and photos of side effects are obtained for documentation purposes.

29. What procedures are in place to facilitate collection of follow up information of patients treated?

The file maker pro data base provides e-reminders about when patient follow-ups are due; this prompts the oncology technicians to contact owners. Also, for every patient that we treat, we recommend recheck examinations at our hospital at 2 weeks and 1, 2, 3, 5, 7, 9, and 12 months post therapy and then every 3-6 months, depending on tumor type. If follow-up at LSU is not possible, we recommend follow-up at the local DVM.

30. By what mechanisms and how often will trainees be evaluated? Please attach form used

in this evaluation (required).

LSU policy for house officers states that residents must be evaluated at the completion of every 4-week block. Also, the resident advisor meets with the residents every 6 months for an informal assessment of their progress and plans for the future.

31. If applicable, please list the residents who have completed the training program within the last five years, including the year that each individual's training program ended. If at all possible, please provide an address, and any information you have on the status of each individual with respect to the board certification process.

None

32. Please list any additional information of interest in support of this residency application.

**Attachments:**

Please attach the following documents to the application if applicable. Please mark box to indicate which documents are included. Please list any addition documents attached in support of this application.

<b>Attached?</b>	<b>Documents</b>
Yes	Twenty-four (24) month calendar of resident's activities - <b>Required</b>
Yes; gieger	CV - ACVR-RO Diplomate - Program Director(s) - <b>Required</b>
Yes; shiomitsu	CV - ACVR-R Diplomate(s) - <b>Required</b>
Yes; gieger	CV - ACVIM-O Diplomate(s) - <b>Required</b>
Yes; 2 courses	Syllabi of formal course work included in the training program – <b>Required</b>
	Credentials of instructors providing formal course work - <b>Required</b>
yes	Forms used in resident evaluation - <b>Required</b>
n/a	Letters of agreement from cooperating institutions - <b>Required</b>

Radiation Oncology Residency Calendar

July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
RO	RO	RO	RO	Rad*	RO	RO	MO	RO	RO	RO	RO
RO	Rad*	RO	RO	Anes*	RO	RO	RO	RO	RO	MO	study

MO – medical oncology (2 months total): Responsible for receiving both medical and radiation oncology patients that present for evaluation (diagnostics to include blood work, imaging, biopsy, etc.) and therapy, and to see recheck appointments with an emphasis on the radiation oncology patients that present for rechecks. Participate in twice daily ward rounds to discuss current patients. Attend and also routinely responsible for morning teaching rounds with 3<sup>rd</sup> and 4<sup>th</sup> year veterinary students that are rotating through the oncology service.

RO – radiation oncology (18 months total): To consult on all potential radiation therapy patients that present to oncology or present to other services in the hospital. Develop a diagnostic and therapeutic plan. Review all imaging studies and the medical record for radiation patients. Perform a physical examination on all radiation patients prior to initiation of a course of radiation therapy. Position patients (vac-lok) for CT imaging for radiation treatment planning. Radiation treatment planning both CT based computer assisted 3D radiation treatment planning and manual planning. Involved in the daily treatment of radiation patients including assisting with anesthesia, patient positioning and delivery of radiation therapy. Telephone consultations with referring veterinarians on potential radiation patients.

Rad – radiology (1 month total): To attend daily radiology rounds, observe image acquisition, and image interpretation under the guidance of the radiology residents and faculty. To generate imaging reports to be reviewed by the radiology faculty.

Anes – anesthesia (2 weeks total): Anesthetize small animal patients under the direction of the anesthesia service. Participate in the daily anesthesia rounds while on the anesthesia service. Also, to attend anesthesia lecture series when possible and for relevant topics on anesthetics and management of patients under anesthesia.

Study – (1 month total): To be spent preparing for the radiation oncology certifying examination.

\* For each of these one month blocks half of the time is to be spent on the designated service and the other two weeks are for vacation (10 days total each year) and two weeks optional for work on a project or time on another service such as pathology or clinical pathology.

## **RADIATION BIOLOGY**

### **Topics to be covered in rounds during the residency**

Radiation chemistry

Cellular responses to DNA damage

Survival curves

Sublethal damage repair, potentially lethal damage repair

Linear energy transfer

Relative biological effectiveness

Radiation-induced cell cycle effects and age response through the cell cycle

Mutagenesis, transformation and carcinogenesis

The oxygen effect and reoxygenation

Radiosensitizers, and radioprotectors

Normal and tumor cell kinetics

Early and late effects

4 R's of radiotherapy

Radiation and chemotherapy interactions

Dose rate and dose fractionation effects

Hyperthermia

## **RADIATION PHYSICS**

### **Topics to be covered during rounds during the residency**

Atomic and nuclear structure

Radioactive decay

Properties and production of particulate and electromagnetic radiation

Interactions of electromagnetic radiation with matter

Interactions of particulate radiation with matter

Quantification and measurement of dose

Characteristics of photon beams

Dosimetry of photon beams in a homogenous water phantom

Dosimetry of photon beams in a patient

Dosimetry of electron beams

Brachytherapy

Radiation protection

Other topics

House Officer  
Block  
Block Mentor

Name  
Block

Mentor

**Professional Ability**

1. Theoretical Knowledge
2. Knowledge Application
3. Diagnostic/Surgical Skills
4. Patient Care
5. Thoroughness

Select Rating

Select Rating

Select Rating

Select Rating

Select Rating

**Personal Characteristics**

1. Clinician Communication
2. Student Communication
3. Staff Communication
4. Independent Study & Initiative
5. Awareness of Current Literature
6. Contribution to Student Education
7. Performance Under Stress
8. Ability to Accept Criticism
9. Organizational Skills
10. Ability to Work in a Team
11. Reliability
12. Motivation
13. Attendance at Seminars & Rounds
14. Presentation at Seminars & Rounds
15. Ability to Make Independent Decisions

Select Rating

Select Rating

Select Rating

Select Rating

Select Rating

Select Rating

Select Rating

Select Rating

Select Rating

Select Rating

Select Rating

Select Rating

Select Rating

Select Rating

Select Rating

**Hospital Service**

1. Completion of Duties
2. Quality of Work

Select Rating

Select Rating

- 3. Emergency Services Duties Select Rating
- 4. Communication with Veterinarians Select Rating
- 5. Client Communication Select Rating
- 6. Referral Letters & Record Keeping Select Rating
- 7. Acceptance of Service & Case Responsibility Select Rating
- 8. Adherence to VTH&C Protocol Select Rating

Strengths

Show custom editor options | Refresh Editor

Improvements

## Daniel Rodriguez, MVZ, Esp, DACVR

11959 Nicholson Dr. Apt. 9102 , Baton Rouge , LA 70810  
 Phone: 225-5789874 Fax: 225-578-9773

### Experience

**Assistant Professor of Diagnostic Imaging (LSU School of Veterinary Medicine) 8/15/2008- to date**

Clinical Instructor

Sharing teaching responsibilities with radiology faculty regarding basic concepts of veterinary radiology to veterinary students.

**Instructor of Small Animal abdominal and Cardiac ultrasound at Universidad Nacional Autonoma de Mexico (UNAM) Veterinary Teaching Hospital. 7/ 01/ 2003-7/01/2004**

Daily abdominal and cardiac case review with rotating small animal internal medicine interns and residents.

Performing daily small animal abdominal and cardiac ultrasounds referred to the Veterinary teaching Hospital at UNAM

### Education

**Veterinary Radiology Residency at University of Wisconsin in Madison 7/15/2004-7/15-2008**

**Small Animal medicine Residency at UNAM Veterinary Teaching Hospital 9/01/1998-9/01/2000**

**Small Animal medicine rotating Internship at UNAM Veterinary Teaching Hospital 9/01/1997-9/01/1998**

**DVM Degree (MVZ) at Universidad Autonoma de Queretaro, Mexico 9/01/1988-9/01/1993**

### Publications

**Daniel Rodriguez, Helena Rylander, Chess W. Adams, Karl Vigen.** Influence of field strength intracranial vessel conspicuity in canine magnetic resonance angiography. *Veterinary Radiology & Ultrasound* 50,

467 – 566, 2009

Gabriela Seiler, Tobias Schwarz, Massimo Vignioli, **Daniel Rodriguez**: Computed Tomographic features of Lung Lobe Torsion. *Veterinary Radiology & Ultrasound*. 49, 504-508, 2008

Sean M. Murphy, **Julian D. Rodriguez**, Jonathan F. McAnulty: Minimally invasive Cholecystostomy in the Dog: Evaluation of Placement Techniques and Use in extra-hepatic Biliary Obstruction. *Vet.Surg.* 36, 675-683, 2007

Beaufrère H, Pariaut R, **Rodriguez D**, Tully Thomas N., Avian Vascular Imaging: A Review. *Journal of Avian Medicine and Surgery* (accepted for publication on Jan 15 2010) not published yet.

Beaufrère H, **Rodriguez D**, Pariaut R, Gaschen L, Schnellbacher R, Nevarez Javier G., Tully Jr Thomas N. Estimating Intrathoracic Arterial Diameter Using CT Angiography in Hispaniolan Amazon Parrots (*Amazona ventralis*). *American Journal of Veterinary Research*. In revision process.

What is your diagnosis? A chronic cough caused my myonecrosis of the soft palate in a cat. *JAVMA* In revision process

## **Continuing Education Participations**

### **Computed Tomography in Small Animals**

Annual Medicine and Surgery Conference at UNAM Veterinary Teaching Hospital , Mexico

### **Thoracic Radiology (Lung and Heart)**

Acadian Veterinary Medicine Association. Monthly meeting Dec 8 th , 2009

### **Magnetic Resonance Imaging (Small Animal Neuroimaging)**

LSU School of Veterinary Medicine MRI Course , April 3-4, 2009

### **Thoracic Emergencies.**

BRAVMA (Baton Rouge Veterinary Medicine Association) April 2008

## **Major Areas of Interest**

**Cross sectional Imaging**

**MRI Angiography**

**CT Angiography**

Keijiro Shiomitsu ,B.V.Sc,  
Diplomate of American College of Veterinary Radiology (Radiation Oncology)  
Assistant Professor of Veterinary Medicine, Radiation Oncology  
Louisiana State University  
School of Veterinary Medicine  
Baton Rouge, LA 70803

(225)578-9600

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**Current Mailing Address:**

Louisiana State University  
School of Veterinary Medicine  
Skip Bertman Drive  
Baton Rouge, LA 70803  
(225)578-9600

**Education:**

**Radiation Oncology Residency program,** August 2006- July 2008

North Carolina State University  
College of Veterinary Medicine  
Supervisor: Donald Thrall, DVM and Amy Pruitt, DVM

**Graduate Student,** August 2005

Louisiana State University, School of Veterinary Medicine  
Baton Rouge, Louisiana  
Supervisor: Guy Neal Mauldin, DVM

**English Learning Program,** January 2001 –July 2001

Kansas State University  
Manhattan, Kansas

**Attended Bi-yearly Educational Conference,** January 2000 – 2003

Japan Veterinary Cancer Society,

**Bachelor of Veterinary Science (B.V.Sc),** April 1991 – March 1997

Azabu University, School of Veterinary Medicine  
Kanagawa, Japan

## **Positions Held**

**Assistant Professor of Radiation Oncology**, August 2008- Present  
Louisiana State University, School of Veterinary Medicine  
Baton Rouge, Louisiana

**Radiation Oncology Residency program**, August 2006- July 2008  
North Carolina State University  
College of Veterinary Medicine  
Supervisor: Donald Thrall, DVM and Amy Pruitt, DVM

**Radiation Oncology Clinical Instructor**, January 2006 – July 2006  
Louisiana State University, School of Veterinary Medicine  
Baton Rouge, Louisiana

**Research associate**, September 2003 – December 2005  
Louisiana State University, School of Veterinary Medicine  
Baton Rouge, Louisiana  
Supervisor: Guy Neal Mauldin, DVM

**Visiting Veterinarian**, Medical Oncology and Radiation Oncology,  
September 2001 – December 2005  
Louisiana State University, School of Veterinary Medicine  
Baton Rouge, Louisiana  
Supervisor: Guy Neal Mauldin, DVM  
Responsibilities: radiation therapy patient positioning, setup, and anesthesia;  
rounding with senior veterinary students on the topic of radiation oncology; training of  
medical oncology residents in the field of radiation oncology; developing computer-  
based and hand plans for radiation patients

**Small Animal Veterinarian**, October 2000 –2002  
Neo Vets Animal Hospital Group  
Sakai, Osaka Japan  
Supervisor: Toshihiro Yoshikawa, B.V.Sc

**Small Animal Veterinarian**, April 1997-September 2000  
South Osaka Animal Medical Center,  
Osaka Japan  
Supervisor: Ryusaku Yoshiuchi, B.V.Sc

## **Teaching Activities**

**Professional courses taught (LSU)**

**VMED5272(Oncology), 3 hr, Spring 10**

**VMED7210, 1 hr., The review of radiation side effects, Spring 09**  
**VMED5272(Oncology), 3 hr, Spring 09**

**VMED7210, 1 hr., The review of radionuclide, Fall 08**  
**VMED7210, 1 hr., A review of radionuclide, Fall 08**

**VMED 5272, 1 hr, Veterinary Clinical Oncology, Spring 06**  
Lecture- Fundamental Radiation Oncology

### Publications

### **Refereed Articles**

Hunley DW, Mauldin GN, *Shiomitsu K.*, Mauldin GE, Clinical outcome in dogs with nasal tumors treated with intensity-modulated radiation therapy, Can Vet J 2010; 51: 301-304

Reed SD, Flmer A, Buckholz J, Zhang B, Cutrera J, *Shiomitsu K.*, Li S, Bleomycin/interleukin-12 electrochemogene therapy for treating naturally occurring spontaneous neoplasm in dogs. Cancer Gene Ther; 2010, Apr 23

*Shiomitsu K.*, C.L. Johnson, D.E. Malarkey, A.F. Pruitt and D.E. Thrall. Expression of Epidermal Growth Factor(EGFR) and Vascular Endothelial Growth Factor in Malignant Canine Epithelial Nasal Tumors. Veterinary and Comparative Oncology, In press

*Shiomitsu K.*, E. Sajo, X. Xia, D.W. Hunley, G.E. Mauldin, S. LI, and G.N. Mauldin. Radiosensitivity of canine osteosarcoma cells trasfected with wild-type p53 in vitro. Veterinary and Comparative Oncology, In press

Cutrera J, Torrero M, *Shiomitsu K.*, Mauldin G.N, and Li S. Intratumoral Bleomycin and IL-12 Electrochemogenetherapy for Treating Head and Neck Tumor in Dogs. In Electroporation protocols, Methods in Molecular Biology, Vol 423, 319-325

Mauldin GN, *Shiomitsu K.* Principles and Practice of Radiation Therapy in Exotic and Avian Species, Seminars in Avian and Exotic Pet Medicine, Vol 14, Issue 3, July 2005, Pages 168-174

*Shiomitsu K.* Hypoadrenocorticism in a Cat: Provet Inter-Zoo Publications, November 2000

### **Refereed Scientific Abstracts**

*Shiomitsu K.*, Johnson L, Malarkey D, Pruitt A, Thrall D. Expression of epidermal growth factor (EGFR) in malignant canine epithelial nasal tumors. 2007 Annual Scientific Meeting Proceedings of American College of Veterinary Radiology, O'Hare, Chicago; December 1<sup>st</sup>, 2007

**Shiomitsu K**, Li S, Xia X, Mauldin GE, Hunley DW, Mauldin GN. New strategy of angiostatic therapy utilizing TUM5 transfected bone marrow stem cells. 25<sup>th</sup> Annual Conference Proceedings of the Veterinary Cancer Society. Huntington Beach, California; October 20-23, 2005:48

Mauldin GN. **Shiomitsu K**, Sajo E, Xia X, Mauldin GE, Hunley DW, Li S. Evaluation of the in vitro radiosensitivity of canine osteosarcoma cells transfected with wild type P53. 25<sup>th</sup> Annual Conference Proceedings of the Veterinary Cancer Society. Huntington Beach, California; October 20-23, 2005:46

Dibernardi L, **Shiomitsu K**, Martin A, Hunley DW, Mauldin GE, Mauldin GN. Intensity modulated radiation therapy in veterinary medicine: defining the learning curve. American College of Veterinary Radiology Annual Scientific Meeting. Chicago, Illinois, December 2-6, 2003:52

### Presentations

#### **Expression of epidermal growth factor (EGFR) in malignant canine epithelial nasal tumors.**

2007 Annual Scientific Meeting, O'Hare, Chicago; December 1<sup>st</sup>

#### **New strategy of angiostatic therapy utilizing TUM5 transfected bone marrow stem cells**

25<sup>th</sup> Annual Conference Proceedings of the Veterinary Cancer Society. Huntington Beach, California; October 2005

#### **Hyperthyroidism in cats: 5 cases (1997-2000),**

Osaka City Veterinarian Community, Osaka Japan, July 2000

#### **Hyperthyroidism in cats: 5 cases (1997-1999)**

Japan Clinicopathologic Conference, Tokyo Japan, February 2000

#### **Transitional cell carcinoma in dogs: 2 cases**

Osaka City Veterinarian Community, Osaka Japan, December 1999

#### **The Evaluation of Vaginal Urethral Contrast: Transitional cell carcinoma in 2 female dogs**

Neovets Company Conference, Osaka Japan, December 1997

MEDP 7121 Spring 2010 1

## Radiation Biology

Instructors: J Fontenot (jfontenot@marybird.com, 225-215-1337) K Matthews (kipmatth@lsu.edu, 225-578-2740) B Parker (bcparker@marybird.com, 225-215-1132) M Price (mprice@marybird.com, 225-215-1205) M Varnes (mvarnes@lsu.edu, 225-578-1077)

Description: This course covers topics in radiobiology, including: introductory cell biology and cellular organization; effects of ionizing radiation on cellular, molecular, and organ systems; radiosensitivity, repair, and mediation of radiobiological effects; acute vs. late effects; topics specific to radiotherapy applications; effects of alternative radiation and non-radiation therapies.

Textbook: Hall EJ and Giaccia AJ. **Radiobiology for the Radiologist**, 6<sup>th</sup> ed. Lippincott Wilkins & Williams, 2005 (ISBN-13: 978-0781741514)

Class times: Lectures are 4:40 PM – 6:00 PM on Tuesday/Thursday in 435 Nicholson Hall. Lab sessions will usually meet on Wednesdays, with location announced in class.

Office hours: For KLM, Friday 10:00AM – noon; other instructors by arrangement  
Policy: Attendance at all lectures and laboratory sessions is required. Lectures will meet 2-3 hours per week with lab sessions of 0-6 hours per week (for an expected average of 3 credit hours per week). Each student is expected to read the relevant textbook chapter prior to each lecture. An up-to-date course schedule will be posted on the bulletin board across from 458 Nicholson.

Grades: Grades comprise a mid-term exam (20%), a final exam (20%), homework assignments (40%), and lab write-ups (20%). Final letter grades will be determined from the numerical grade distribution, with minimum thresholds of 90%=A, 80%=B, 70%=C, 60%=D, 50%=F.

Exams: Exams are in-class, closed-book exams. Each instructor will provide and grade questions relevant to his/her section of the course.

Homework: Instructors will distribute 1-2 homework assignments per week. Questions will come from lectures, handouts and textbook. Homework assignments must be individually prepared by each student, and must be submitted to Dr. Matthews prior to the start of class on the due date.

Laboratory: Lab activities and analysis will be completed in assigned groups, but each student must individually prepare a laboratory report for each experiment. Reports must be submitted to Dr. Matthews by 5 PM on the due date. Some laboratory experiments require work on consecutive days, so lab sessions will be uneven throughout the semester; pay attention to the posted schedule and in-class announcements!





**MEDP 7331**  
**Radiation Therapy Physics**

**Syllabus, Spring Semester 2010**

Lectures: Monday & Wednesday, 4:40-6:00 pm  
Room: Nicholson 435 (LSU)

Course Objectives

The student will be introduced to the fundamental physics of radiation therapy, with emphasis on external beam photon and electron therapy and on brachytherapy. For these modalities, the basic operation of delivery equipment, treatment planning principles, methods of dose calculations, determination of time of irradiation from dose prescription, dose measurements, and quality assurance will be studied. This knowledge will prepare the student for an introduction to the practice of clinical physics in radiation therapy, for advanced radiation therapy physics, and research in radiation therapy physics.

Course Instructors   Phone #   Location   **John Gibbons, Ph.D. (course director)**   **215-1145**

**Ken Hogstrom, Ph.D.   215-1133   MBPCC**

**578-0590   LSU (437 Nicholson)**

**Brent Parker, Ph.D.   215-1132   MBPCC**

**Mich Price, Ph.D.   215-1205   MBPCC**

Recommended Textbook References

“The Physics of Radiation Therapy (4<sup>th</sup> Edition),” F. M. Khan, Lippincott  
Williams & Wilkins, Philadelphia, 531 pp (2010).

“Monitor Unit Calculations for External Photon & Electron Beams,” J. P. Gibbons (ed.),  
Advanced Medical Physics Publishing, Inc., Madison, 152 pp (2000).



## Basis of Grades

Final grades will be based on the following weighting:

### Homework (40%)

Homework will consist of assigned problems and (to familiarize students with different principles and calculation techniques) and lab reports.

Photon Beam Dosimetry: 10%  
Electron Beam Dosimetry: 10%

### **Absolute and Relative Dosimetry: 10%**

Brachytherapy: 10%

### *Midterm Exam (30%)*

The midterm exam will examine the student on material covered up to that point, and will be weighted as follows:

Photon Beam Dosimetry: 15%  
Electron Beam Dosimetry: 15%

### *Final Exam (30%)*

The final exam will examine the student on material covered after the mid-term exam, and will be weighted as follows:

Absolute and Relative Dosimetry: 15%  
Brachytherapy: 15%

## Course Schedule

Jan 18	<b>Holiday – Martin Luther King Day</b>	
Jan 20	Introduction to course	Hogstrom
Jan 22 (Fr 5:00pm)	Medical linear accelerator tour (Mary Bird Perkins Cancer Center)	Parker/MBPCC
Jan 25	<b>Photon – Machine design for photon production</b>	Gibbons
Jan 27	Photon – Dosimetry concepts and quantities	Gibbons
Feb 1	Photon – Fundamental characteristics of photon beams	Gibbons
Feb 3	Photon – Point dose calculations	Gibbons
Feb 8	Photon – Dose calculation algorithms	Gibbons
Feb 10	Photon – Treatment planning concepts and methods (2D)	Gibbons
Feb 12 (Fr 1:00pm)	Photon – Photon treatment planning demo (typical plans by site)	Dosimetry/MBPCC
Feb 15-16	<b>Holiday – Mardi Gras</b>	
Feb 17	Photon – Treatment planning concepts and methods (3D)	Gibbons
Feb 22	Dosimetry – Calibration of superficial & orthovoltage X-ray beams	Parker
Feb 24	Dosimetry – Calibration of megavoltage X-ray beams	Parker
Mar 1	Dosimetry – Calibration of megavoltage electron beams	Parker
Mar 3	Dosimetry – Relative dosimetry measurements	Parker
Mar 8	Dosimetry – QA of therapy beams and dosimetry equipment	Parker
Mar 10	<b>Midterm Exam</b>	Gibbons
Mar 15	Electron – Machine design for electron production	Hogstrom
Mar 17	Electron – % depth dose	Hogstrom
Mar 22	Electron – Off-axis ratios & isodose curves	Hogstrom
Mar 24	Electron – Output & calculation of monitor units	Hogstrom
Mar 29	Electron – Dose in heterogeneous materials	Hogstrom
Mar 31	Electron – Treatment planning principles I	Hogstrom

Apr 2-11	Spring Break	
Apr 12	Electron – Treatment planning principles II	Hogstrom
Apr 14	Electron – Pencil beam dose algorithm I	Hogstrom
Apr 16 (Fr 1:00pm)	Electron – Electron treatment planning demo (typical plans by site)	Dosimetry/MBPCC
Apr 19	Electron – Pencil beam dose algorithm I	Hogstrom
Apr 21	Brachytherapy – Introduction, principles, sources/construction	Price
Apr 26	Brachytherapy – Dose calculation algorithms	Price
Apr 28	Brachytherapy – Implant systems, computer planning	Price
May 3	Brachytherapy – Applicators, afterloader, LDR, HDR	Price
May 5	Brachytherapy – Radiation Safety, Federal Regulations	Price
May 7 (Fr 1:00 pm)	Brachytherapy – Brachytherapy treatment planning demo	Dosimetry/MBPCC
May 10-15	Final Exam	Gibbons

**TRACY L. GIEGER**  
**Curriculum Vitae**

**TITLE**

**Assistant Professor of Veterinary Medical and Radiation Oncology**  
Department of Veterinary Clinical Sciences, Louisiana State University

**ADDRESS**

Office: LSU School of Veterinary Medicine, Veterinary Clinical Sciences Department, Skip Bertman Drive, Baton Rouge, LA 70803; room 1603  
E-mail: [tgieger@vetmed.lsu.edu](mailto:tgieger@vetmed.lsu.edu)  
Work phone: (225) 578-9600

Home address: 644 Franklin Street, Baton Rouge, LA 70806  
Home phone: (225) 448-3589

**EDUCATION**

**Doctor of Veterinary Medicine** Louisiana State University School of Veterinary Medicine 1996

**PROFESSIONAL EXPERIENCE**

Assistant Professor of Veterinary Medical and Radiation Oncology **April 2008-**  
**present Louisiana State University School of Veterinary Medicine** Baton Rouge, LA

Staff Oncologist (radiation and medical oncology) **October 2007-**  
**March 2008**

California Veterinary Specialists  
Carlsbad, CA

Resident in Radiation Oncology **June 2005-September**  
**2007Cornell University Hospital for Animals**

Ithaca, NY

Assistant Professor

September 2001-July 2005

University of Georgia College of Veterinary Medicine  
Department of Small Animal Medicine and Surgery  
Athens, Georgia

Resident in Medical Oncology

August 1999-July 2001

University of California  
Veterinary Medical Teaching Hospital  
Davis, California

Resident in Small Animal Internal Medicine

July 1997-June 1999

Louisiana State University  
School of Veterinary Medicine  
Baton Rouge, Louisiana

Intern in Small Animal Medicine and Surgery

June 1996-July 1997

The Animal Medical Center  
New York, New York

Relief Veterinarian

November 1996- July 1997

North Shore Animal League  
Port Washington, New York

**BOARD CERTIFICATION**

American College of Veterinary Radiology, specialty of Radiation Oncology	2007
American College of Veterinary Internal Medicine, Specialty of Oncology	2002
American College of Veterinary Internal Medicine, Specialty of Small Animal Internal Medicine	2000

**LICENSURE**

New York (active license)

1996-present

**1.2 Teaching****1.2.1 Documentation of teaching activities****1.2.1.1 Teaching evaluations**

I have teaching evaluations on file from the 2008-2009 academic year for the clinical oncology course (VMED 5463) and for the small animal oncology lecture course (VMED 5272). These evaluations are above the departmental average for both.

**1.2.1.2 Teaching history****Louisiana State University Professional Curriculum Instruction**

Year 2

VMED 5270, Clinical Pathology/Hematology/Lymphatic Diseases Fall 2008, 2009  
2 hours of lecture

VMED 5272, Veterinary Clinical Oncology, course director 2008-present  
This is a required 30 contact hour course for 75-85 veterinary students that is taught in the Spring of every year. I will give approximately 10 hours of lecture.

VMED 5365, Integumentary System Spring 2009, 2010  
3 hours of lecture

Year 4

Clinical Rotation in Oncology, VMED 5463, course director 2008-present  
I am currently on clinic duty and the service head 75% of the time. This rotation involves teaching veterinary students during topic rounds (1 hour/day) and board rounds (1 hour/day) as well as during case receiving/patient care (approximately 8 hours/day).

**Graduate Courses**

VMED 7210, Advanced Veterinary Internal Medicine Topics 2008-present  
I teach about 2 hours/semester in this course.

VMED 7003, Special Topics in Veterinary Medicine Spring 2009  
I will teach 1 hour in this course

**University of Georgia Professional Curriculum Instruction**

Clinical Rotation in Oncology, course co-director 2001-2005  
Clinical Rotation in Internal Medicine, faculty 2001-2003  
Small Animal Oncology (didactic course for 2<sup>nd</sup> and 3<sup>rd</sup> year students), course co-director 2001-2005  
Problem-based Pathophysiology (elective course), group facilitator 2003  
Physical Diagnosis (core curriculum course), faculty 2001-2005

**1.2.2 Publications concerning instruction**

None to date

**1.2.4 Participation in local instructional activities**

None to date

**1.2.5 Other instructional activities and contributions to the profession re: instruction**

None to date

**1.2.5.3 New teaching methods or instructional material developed****Course notes**

I created a student handbook for students in the clinical oncology rotation (VMED 5463), which includes handouts for clients, chemotherapy safety and dosing information, and other useful oncology-related information. (6/2008)

I am also creating new lectures and handouts for all of the courses listed above.

#### **Year IV board exam reviews**

Provided handouts and 2 hours of lecture specific to oncology for students studying for the NAVLE 11/08, 9/09

#### **Contributions to house officer training programs**

Louisiana State University

We currently have a medical oncology residency that has been approved by the American College of Veterinary Internal Medicine, specialty of oncology. Melissa Parsons-Doherty began this program in 2/09 (to finish in 6/10) and Dr. William Ratterree began in 7/09 (to finish 7/11). A 3-year medical oncology residency program has also been approved by ACVIM.

I am also an active participant in the training of the small animal internal medicine and surgery residents at LSU. I provide consultation with them on clinical cases. I am also an active participant in the weekly medicine journal club and present oncology topics approximately once every 3-4 months. I am also a lecturer in their graduate level course.

University of Georgia

Residency Co-Supervisor for Dr. Michelle Wall, oncology resident 2002-2004

Oncology Internship Co-Supervisor for Dr. Kelly Hume (board certified in oncology in 2008) 2004-2005

\* Both the oncology internship and residency at UGA were novel programs that I developed with one other oncologist at UGA. The residency was approved by the American College of Veterinary Internal Medicine, specialty of oncology. These programs remain active to date.

#### **1.2.6 Awards, lectureships, or prizes that show recognition of teaching achievement**

None to date

#### **1.2.7 Research support/grant activities aimed at advancing ones ability to teach**

Northrup NC, **Gieger T.** Development of a model canine limb for teaching chemotherapy administration. Georgia Instructional Technologies Grant, 2005. \$8400. Money was used to purchase a pre-existing artificial limb to instruct students on catheter placement and venipuncture.

#### **1.3 Research and creative activity**

##### **1.3.1 Listing of research publications**

##### **1.3.1.2 Book chapters**

**Gieger TL.** Bleeding Disorders: Epistaxis and Hemoptysis. In: Ettinger SJ and Feldman EC (eds): Textbook of Veterinary Internal Medicine. Saunders, St. Louis, MO, 7<sup>th</sup> Ed, 2010, pp 290-96.

Northrup NC, **Gieger T.** Tumors of the skin, subcutis, and other soft tissues. In: Henry CJ and Higginbotham ML (eds): Cancer Management in Small Animal Practice. Saunders, St. Louis, MO, 2010, pp. 299-311.

**Gieger T.** Canine mast cell tumors. In: Cote E (ed): Veterinary Clinical Advisor: Instant Diagnosis and Treatment. Mosby/Elsevier, St. Louis, MO, 2007, pp 685-6.

**Gieger T.** Feline mast cell tumors. In: Cote E (ed): Veterinary Clinical Advisor: Instant Diagnosis and Treatment. Mosby/Elsevier, St. Louis, MO, 2007, pp 683-4.

**Gieger T.** Round cell tumors. In: Cote E (ed): Veterinary Clinical Advisor: Instant Diagnosis and Treatment. Mosby/Elsevier, St. Louis, MO, 2007, pp 978-9.

#### **Publications (refereed articles)**

Brown EM, Rademacher N, **Gieger TL**, Gaschen LE, Buchholz J. What is your diagnosis? Tracheal lymphoma in a cat. *J Am Vet Med Assoc* 2010; 236(9): 953-54.

Northrup NC, **Gieger TL**, Kosarek CE, Saba CF, Leroy BE, Wall TM, Hume KR, Childress MO, Keys DA. Mechlorethamine, procarbazine and prednisone for the treatment of resistant lymphoma in dogs. *Vet Comp Oncol* 2009; 7(1): 38-45.

**Gieger T**, Rassnick K, Siegel S, Proulx D, Bergman P, Anderson C, LaDue T, Smith A, Northrup N, Roberts R. Palliation of clinical signs in 48 dogs with nasal carcinomas treated with coarse fraction radiation therapy: 48 cases (1996-2005). *Journal of the American Animal Hospital Association* 2008; 44: 116-123.

Rassnick KM, McEntee MC, Erb H, Burke B, Balkman C, Flory A, Kiselow M, Autio K, **Gieger T**. Comparison of three protocols following induction of remission in dogs with lymphoma. *Journal of Veterinary Internal Medicine* 2007; 21(6): 1364-73.

Rassnick KM, Goldcamp CE, Erb H, Scrivani PV, Njaa BL, **Gieger TL**, et al. Evaluation of factors associated with survival in dogs with untreated nasal carcinomas: 139 cases. *J Am Vet Med Assoc* 2006; 229(3): 401-406.

Northrup NC, Selting KA, Rassnick KM, Kristal O, O'Brien MA, Dhaliwal RS, Dank G, **Gieger TL**. Retrospective study of mandibulectomy for oral tumors in cats. *J Am Anim Hosp Assoc* 2006; 42: 350-60.

Novosad CA, Bergman PJ, O'Brien MG, McKnight JA, Charney SC, Selting KA, Graham JC, Correa SS, Rosenberg MP, Downing S, **Gieger TL**. Retrospective evaluation of adjuvant doxorubicin for the treatment of feline mammary gland adenocarcinoma: 67 cases. *J Am Anim Hosp Assoc* 2006; 42: 110-120.

**Gieger T**, Northrup NC, Wall TM. Clinical Management of Canine Mast Cell Tumors. *Comp Cont Edu Pract Vet* 2005; 27(1): 56-69.

Aragon C, **Gieger T**, Roberts RE, Richey L. What's your diagnosis? Synovial cell sarcoma in a dog. *J Am Vet Med Assoc* 2005; 227 (8): 1241-42.

Sfiligoi G, Rassnick KM, Scarlett JM, Northrup NC, **Gieger TL**. Canine cutaneous mast cell tumors: prognostic significance of inguinal or perineal locations. *J Am Vet Med Assoc* 2005; 226 (8): 1368-74.

Northrup NC, Harmon BG, **Gieger TL**, et al. Variation among pathologists in histologic grading of canine cutaneous mast cell tumors. *J Vet Diagn Invest* 2005; 17: 245-248.

Northrup NC, Howerth EW, Harmon BG, Brown CA, Carmicheal KP, Garcia AP, Latimer KS, Munday JS, Racich PM, Richey LJ, Stedman NL, **Gieger TL**. Variation among pathologists in the histologic grading of canine cutaneous mast cell tumors with uniform use of a single grading reference. *J Vet Diagn Invest* 2005; 17: 561-564

Hanley CS, **Gieger T**, Frank P. What's your diagnosis? Multilobular osteosarcoma in a ferret. *J Am Vet Med Assoc* 2004; 225 (11): 1665-66.

**Gieger TL**, Hanley CS. Clinical Snapshot: Acanthomatous epulis in a rabbit. *Comp Cont Edu Pract Vet* 2004; 26 (11): 863.

**Gieger T**. Clinical Snapshot: Solar-induced squamous cell carcinoma in a dog. *Comp Cont Edu Pract Vet* 2004; 26 (10): 803-819.

Northrup NC, Roberts RE, Harrell TW, Allen K, Howerth EW, **Gieger TL**. Iridium-192 interstitial brachytherapy for canine cutaneous mast cell tumors. *J Am Anim Hosp Assoc* 2004; 40:309-315.

**Gieger TL**, Northrup NC. Clinical approach to the patient with epistaxis. *Comp Cont Edu Pract Vet* 2004; 26 (1): 30-44.

Madewell BR, **Gieger T**, Kent MS. Vaccine-site sarcomas and malignant lymphoma in cats- a report of 6 cases. J Am Anim Hosp Assoc 2004; 40 (1):47-50.

**Gieger TL**, Theon AP, Werner JL, et al. Biologic behavior and prognostic factors of canine muzzle mast cell tumors: 24 cases (1990-2001). J Vet Int Med 2003; 17(5):687-92.

**Gieger TL**, Feldman EC, Wallack S, et al. Lymphoma as a model for chronic illness: effects on adrenocortical function tests. J Vet Intern Med 2003; 17(2):154-7.

Marks SL, **Gieger TL**, Williams J. Presumptive intramural gastric hemorrhage secondary to rodenticide intoxication in a dog. J Vet Emerg Crit Care 2001; 11(1):27-31.

Rassnick KM, **Gieger TL**, Williams LE, et al. Phase I evaluation of CCNU (lomustine) in tumor-bearing cats. J Vet Intern Med 2001; 15:196-199.

**Gieger TL**, Correa SS, Taboada J, et al. Phenol poisoning in three dogs. J Am Anim Hosp Assoc 2000; 36:317-21.

**Gieger TL**, Hosgood G, Taboada J, et al. Thyroid function and serum hepatic enzyme activity in dogs after phenobarbital administration. J Vet Int Med 2000; 14:277-81.

**Gieger TL**, McEntee MC. Soft tissue sarcoma in a cat. What's your diagnosis? J Am Vet Med Assoc 1999; 214: 1155-1156.

**Gieger TL**, Taboada J, Groves M. Cat Scratch Disease and other *Bartonella* infections. Comp Cont Educ Pract Vet 1998; 20:1308-1317.

#### **Other publications**

##### **Non-refereed publications**

**Gieger T**, Northrup N. Carboplatin and doxorubicin dosing in cats: survey results. Veterinary Cancer Society Newsletter, summer 2005.

Gieger TL, **Northrup NC**. **Early detection of cancer in pets. DVM Newsmagazine, October 1, 2005.** Gieger TL. **Canine Cutaneous Mast Cell Tumors: Current Concepts for Patient Management. DVM In Focus, November 2004: 4-9.** **Refereed proceedings** **Research Abstracts Published (\*=also presented)**

Northrup NC, **Gieger TL**, Kosarek CE, Wall TM, Hume KR, Childress MO, Saba CF. Mechlorethamine, procarbazine, and prednisone (MPP) for the treatment of resistant lymphoma in dogs. Presented at the Veterinary Cancer Society 27<sup>th</sup> Annual Conference, Fort Lauderdale, FL, 2007.

Rassnick KM, McEntee MC, Erb HN, Burke BP, Balkman CE, Flory AB, Kiselow MA, Autio K, **Gieger TL**. Half-body radiation therapy versus chemotherapy consolidation following induction chemotherapy for treatment of canine lymphoma. Proceedings 26<sup>th</sup> Annual Meeting of the Veterinary Cancer Society, Pine Mountain, GA, October 2006.

\***Gieger T**, Siegel S, Proulx D, et al. Palliative radiation therapy for nasal tumors in dogs: 77 cases (1996-2004). Proceedings 24<sup>th</sup> Annual Meeting of the Veterinary Cancer Society, Kansas City, MO, November 2004.

Northrup NC, Howerth EW, Harmon BG, Brown CA, Carmicheal KP, Garcia AP, Latimer KS, Patnaik AK, Richey LJ, Stedman NL, Hauptman J, **Gieger TL**. Variation among pathologists in histologic grading of canine

cutaneous mast cell tumors with uniform use of a single grading reference. Proceedings 24<sup>th</sup> Annual Meeting of the Veterinary Cancer Society, Kansas City, MO, November 2004.

\***Gieger TL**, Rassnick KM, Howerth EM, et al. Recurrence of mast cell tumors following incomplete or narrow excision in dogs: a VCOG study of 31 cases (1989-2002). Proceedings 23<sup>rd</sup> Annual Meeting of the Veterinary Cancer Society, Madison, WI, September 2003.

Northrup NC, Howerth EW, Harmon B, **Gieger T**. Variation among pathologists in histopathologic grading of canine cutaneous mast cell tumors. Proceedings 23<sup>rd</sup> Annual Meeting of the Veterinary Cancer Society, Madison, WI, September 2003.

Sfiligoi G, Rassnick KM, Scarlett JM, Northrup NC, **Gieger TL**. Canine cutaneous mast cell tumors: prognostic significance of perineal and inguinal locations. Proceedings 23<sup>rd</sup> Annual Meeting of the Veterinary Cancer Society, Madison, WI, September 2003.

Northrup NC, Selting KA, Rassnick KM, Kristal O, O'Brien MA, Dhaliwal RS, Dank G, **Gieger TL**. VCOG study of oral function, tumor control, and survival in cats following mandibulectomy. Proceedings 22<sup>nd</sup> Annual Meeting of the Veterinary Cancer Society, New York, NY, September 2002.

\***Gieger TL**, Feldman EC, Wallack ST, Dank G. Lymphoma as a model for chronic illness: effects on adrenocortical function tests. Proceedings 20<sup>th</sup> Annual Forum of the American College of Veterinary Internal Medicine, Dallas, TX, May 2002.

\***Gieger TL**, Griffey SM, Madewell BR. Elastosis: A quantitative study of elastin in canine normal and sun-damaged skin (abstract). Proceedings 20<sup>th</sup> Annual Meeting of the Veterinary Cancer Society, Pacific Grove, CA, October 2000.

Marks SL, Hosgood G, **Gieger TL**, et al. Transdermal fentanyl in the cat. Proceedings 18<sup>th</sup> Annual Forum of the American College of Veterinary Internal Medicine, Seattle, WA, May 2000.

\***Gieger TL**, McEntee MC, Kraegel S, et al. Facial cutaneous mast cell tumors in dogs: a retrospective study of 17 cases (1990-1999). Proceedings 2<sup>nd</sup> Mid-Year Conference of the Veterinary Cancer Society, Tucson, AZ, March 2000.

\***Gieger TL**, Taboada J, Hosgood G, et al. Characterization of thyroid testing and hepatic enzyme changes in dogs following discontinuation of phenobarbital administration. Proceedings 17<sup>th</sup> Annual Forum of the American College of Veterinary Internal Medicine, Chicago, IL, June 1999.

#### **Non-refereed proceedings**

None to date

#### **1.3.1.5 Radio and television appearances**

None to date

#### **1.3.1.6 Miscellaneous**

None to date

#### **1.3.2 Accepted for publication but not yet published**

##### **Refereed articles**

None currently

##### **Book chapters**

**Gieger T**. Canine mast cell tumors. In: Cote E (ed): Veterinary Clinical Advisor: Instant Diagnosis and Treatment. Mosby/Elsevier, St. Louis, MO. Updated in 6/09 for 2010 edition.

**Gieger T**. Feline mast cell tumors. In: Cote E (ed): Veterinary Clinical Advisor: Instant Diagnosis and Treatment. Mosby/Elsevier, St. Louis, MO. Updated in 6/09 for 2010 edition.

**Gieger T.** Round cell tumors. In: Cote E (ed): Veterinary Clinical Advisor: Instant Diagnosis and Treatment. Mosby/Elsevier, St. Louis, MO. Updated in 6/09 for 2010 edition.

### **1.3.3 Participation in professional meetings, symposia, workshops, and conferences**

#### **Invited participant**

##### **National Presentations**

Mast cell tumors: Case-Based Discussions. 22<sup>nd</sup> Annual American College of Veterinary Internal Medicine Forum, 6/04

##### **Regional Presentations**

Mast cell tumors. Louisiana State University School of Veterinary Medicine Oncology Conference, 4/10.

Strontium plesiotherapy. Louisiana State University School of Veterinary Medicine Oncology Conference, 4/10.

Updates in oncology. Louisiana State University School of Veterinary Medicine Annual Conference, 11/09.

Cardiac neoplasia. Louisiana State University School of Veterinary Medicine Small Animal Cardiology Symposium, 5/09.

Mammary Tumors in Dogs and Cats. North Georgia Veterinary Medical Association, 5/04

Practical Oncology Topics for Veterinary Technicians. Georgia Veterinary Technician Association, 4/04

Case-based discussion of canine and feline mast cell tumors. Mammary tumors in dogs and cats. 2 hours. University of Georgia Continuing Education Seminar: Treating Cancer in Small Animals, 12/03

Canine lymphoma. Carboplatin. CCNU (Iomustine). Clinical management of the feline lymphoma patient. Canine mast cell tumors. 4 hours. University of Georgia Continuing Education Seminar: Treating Cancer in Small Animals, 12/01

Critical care case presentations: The Dyspneic Cat. Short Topics in Oncology and Critical Care Medicine, Louisiana State University School of Veterinary Medicine, 12/98

##### **Local Presentations**

Review of canine mast cell tumors and new targeted therapies. Student lecture sponsored by Pfizer, 10/09.

Update and review of canine and feline mast cell tumors. Acadiana (Lafayette) Veterinary Medical Association, 7/09.

Introduction to oncology for technicians. Cornell University, 12/06

Radiation Pathology. Pathology/Oncology seminar series, Cornell University, 4/06

Updates from the Veterinary Cancer Society Meeting. Oncology Interest Group, University of Georgia, 12/04

Nasal tumors in dogs. Oncology Interest Group, University of Georgia, 9/04

Bisphosphonates. Oncology Interest Group, University of Georgia, 3/04

Feline cases 2004. Student Chapter of the American Association of Feline Practitioners, University of Georgia College of Veterinary Medicine, 1/04

Evaluation of incompletely resected canine mast cell tumors not treated with adjuvant therapy. Oncology Interest Group, University of Georgia, 7/03

Cat breeds: an introduction and diseases common in certain breeds. American Association of Feline Practitioners Student Chapter, University of Georgia College of Veterinary Medicine, 4/03

Vaccine-associated sarcomas in cats. Student Chapter of the American Animal Hospital Association, University of Georgia College of Veterinary Medicine, 1/03

#### **Lay Presentation**

What is veterinary oncology? University of Georgia Pre-Vet Society, 2/04.

#### **1.3.4 Participation in professional meetings, workshops, and conferences**

Louisiana State University School of Veterinary Medicine Oncology Symposium; program co-coordinator, 4/10

Louisiana State University School of Veterinary Medicine Stakeholder's Summit, 6/09

Veterinary Cancer Society Annual Conference: attended 1997, 1998, 1999, 2001, 2002, 2003, 2004, 2005, 2006, 2008, 2009

American College of Veterinary Radiology Annual Conference: attended 2004

American College of Veterinary Internal Medicine Annual Conference: attended 1999, 2000, 2001, 2002, 2003, 2004

#### **1.3.5 Other scholarly or creative activities or contributions to the profession**

None to date

##### **1.3.5.1 Membership in professional organizations**

American College of Veterinary Radiology  
American College of Veterinary Internal Medicine  
Veterinary Cancer Society  
Phi Zeta Veterinary Honor Society  
American Veterinary Medical Association

##### **1.3.5.2 Administrative duties**

I am the service chief for the Cancer Treatment Unit at LSU-SVM. This position entails managing service funds/donations, personnel issues, faculty and house officer recruiting, overseeing and organizing clinical research and hospital activities as they relate to the service, administrative paperwork, and representing the service to the hospital and SVM administration.

##### **1.3.6 Other awards, lectureships, or prizes**

LSU Flagship Faculty Distinction	2009
Baton Rouge Business Report's "Top 40 Under 40" Honoree	2008
Mark Morris Animal Foundation Fellow	1999
SCAVMA Caring Doctor Award	1996
Hershey Comeaux Memorial ICU Award	1996
American Association of Feline Practitioners Senior Student Award	1996
Edward Lloyd Mitchell Memorial Award	1996
Merck Manual Book Award	1996
Phi Zeta Veterinary Honor Society	1996
Who's Who Among Students in American Universities and Colleges	1995
American Association of Feline Practitioners Scholarship	1995
Baton Rouge Kennel Club Scholarship	1995
LSU School of Veterinary Medicine Dean's List	1993-1996

### 1.3.7 research/grant activities

#### **Funded**

Parsons M, Ratterree W, Pariaut R, **Gieger T**. Study of doxorubicin-induced cardiomyopathy in Labrador retrievers with spontaneously-occurring neoplasia. Labrador Retriever Society of South Louisiana. 6/09, \$1500. Study to begin 7/09.

**Gieger T**, McEntee MC(PI), Steffey M, Thompson M, Intile J. Use of implanted gold fiducial markers to aid in patient re-positioning for radiation therapy in dogs. Dean's Fund for Excellence in Research at Cornell University, 4/2007. \$5600. Study ongoing.

McEntee M, **Gieger T**, et al. *In vitro* characterization of docetaxel as a radiation sensitizer in canine cancer cell lines. 2005 Dean's Fund for Clinical Excellence. \$7,720. Study completed, manuscript in progress.

Wall TM, **Gieger TL**, Howerth EW, Northrup NC. Prognostic significance of mitotic index in feline injection site sarcomas. UGA Clinical Research Committee, 2003. \$3,700. Study abandoned due to lack of useable case material.

Northrup NC, Rassnick KM, **Gieger TL**. Evaluation of a topical anesthetic cream for facilitation of intravenous catheter placement in veterinary cancer patients. Ferndale Laboratories, 2003. Free drug provided for study. Manuscript in preparation.

**Gieger TL**, Rassnick KM, Howerth EH, London CA, Northrup NC. Evaluation of incompletely resected canine mast cell tumors not treated with adjuvant therapy. Funded by the Veterinary Cancer Society, 2002. \$200. Study completed.

Bain PJ, **Gieger TL**, Richey LJ. Immunocytochemical phenotyping of canine lymphoma. Funded by the Veterinary Medical Experimental Station of the University of Georgia, 2002. Study not completed because primary investigator resigned.

Kerwin SC, Marks SL, Hosgood G, **Gieger TL**. Prospective, double-blinded study comparing diphenhydramine to saline for prevention of anaphylactic reactions in dogs receiving blood transfusions. LSU-SVM Veterinary Clinical Sciences Department Organized Research Fund, 1998. \$500. Study not completed.

**Gieger TL**, Taboada J, Hosgood G, Wolfsheimer KJ. Characterization of thyroid testing in dogs treated with phenobarbital. LSU-SVM Veterinary Clinical Sciences Department Organized Research Fund, 1998. \$1986. Study completed.

Marks SL, Smith JA, Kamerling S, Barker S, **Gieger TL**. Evaluation of transdermal fentanyl analgesia in the cat. Morris Animal Foundation, 1997. \$5262. Study completed.

Grants submitted but not funded **Gieger T**, Ratterree W, Pariaut R, Saelinger C, Strickland K, Parsons M. Evaluating echocardiograms as a serial monitoring tool for dogs receiving doxorubicin chemotherapy: a pilot study. Submitted to LSU CORP, 6/09, \$6500.

Other ongoing research Barnard S, **Gieger T**, Ingliss H, Moore AS, McEntee MC. Progression free survival and toxicity in dogs irradiated for anal sac adenocarcinoma. Study completed; poster presentation at the Veterinary Cancer Society meeting in Seattle, WA, October 2008. Manuscript in

progress.

Intile J, Rassnick KM, Kiselow MA, Barnard S, **Gieger T**. Rescue chemotherapy for canine lymphoma using DTIC and mitoxantrone: a prospective, randomized study. Study ongoing.

Keyerleber M, **Gieger T**, Erb H, McEntee M. 3D Conformal Treatment Planning versus Nongraphic Treatment Planning for Treatment of Anal Sac Adenocarcinoma in dogs: 18 Cases (2002-2007). Study complete; manuscript in progress.

Surdyk K, Northrup NC, **Gieger T**, et al. Treatment of canine mast cell tumors with CCNU, vinblastine, and prednisone: 35 cases (2001-2007). Retrospective study; data collection underway.

### **1.3.8 Theses/dissertations directed**

None to date

### **1.3.9 Major areas of research and clinical interest**

Radiation treatment planning and delivery, feline medicine and oncology, canine nasal tumors, canine mast cell tumors

## **1.4 Service**

### **1.4.1 Student organizations advised**

Louisiana State University: none to date

University of Georgia Student Organizations

Student Chapter of the American Animal Hospital Association Faculty Advisor 2001-2005

Student Chapter of the American Association of Feline Practitioners Faculty Advisor 2003-2005

### **1.4.2 Recruitment of students and faculty**

I was the chair of the medical oncology search committee, which was successful in recruiting a second medical oncologist, Dr. Bonnie Brugmann, who began in 8/09. I am also currently on the surgery search committee; this committee is still active and successfully recruited Dr. Dan Ogden, who started in 8/09. I was also part of the clinical pathology faculty search committee, which successfully recruited Dr. Angela Royal, who began at LSU in 10/09.

I am also responsible for recruiting our current medical oncology resident, Melissa Parsons, who began her program in Feb 2009, as well as William Ratterree, who began a medical oncology residency in 7/09 and Melanie Mutz who will begin her program in 7/10.

### **1.4.3 University service**

*Louisiana State University*

Benefits Advisory Committee (alternate) 5/10-present

*Department of Veterinary Clinical Sciences*

Medical Oncology Search Committee Chair	2008-2009
Surgery Search Committee Member	2009-present
Clinical Pathology Search Committee Member	2009

*Veterinary Teaching Hospital and Clinics*

Service chief of medical and radiation oncology	2008-present
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I am currently on clinic duty approximately 75% of the time. This involves seeing clients who bring their animals with cancer to the LSU VTH. A typical appointment includes reviewing the history, examining the animal, discussing treatment options and prognosis for the pet, delivering the treatment, writing a summary of the discussion, and providing ongoing consultation to the owner and the referring veterinarian. Our service typically sees 10-20 patients per day. Students on the clinical rotation also participate in these activities, so this service is concurrent to teaching students.

Provide telephone and e-mail consultation services regarding medical and radiation oncology cases to referring veterinarians while on clinics (currently 75% of the time).

Provide back-up emergency phone consultation to the LSU VTH emergency service and oncology house officers for oncology cases when I am on clinics. Also occasionally involves coming in to the hospital to take emergency transfers or assist with cases.

*College- School of Veterinary Medicine*

LSU-SVM Admissions Committee	1/09-present
Year IV student coordinator	8/09-present
Courses and curriculum Committee	8/09-present
Class agent, class of 1996	6/09-present
Scholastic Standards Committee	8/09-present
SVM House Officer Committee	4/08-present

Faculty senate committees

None to date

**1.4.4 Professional service**

**1.4.4.1 Advisory boards, commissions, or agencies**

*American College of Veterinary Internal Medicine*

Specialty of Oncology Credentials/Resident Training Committee	2008-present
Specialty of Oncology Forum Program Committee (chair, 2004-2005)	2003-2006
Specialty of Small Animal Internal Medicine Forum Program Committee	2002-2005
Specialty of Small Animal Internal Medicine Credentials Committee	2001-2004
Subcommittee chair	2002, 2003
Credentials Committee Appeals Committee, subcommittee chair	2002
ACVIM Forum moderator	2001-2005
ACVIM Forum abstract reviewer	2002-2010

*Veterinary Cooperative Oncology Group*

Secretary	2002-2005
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**Veterinary Cancer Society (VCS) VCS Executive Committee Member/newsletter editor 2004-2006**

**1.4.4.2 Journals edited, manuscripts refereed, books and proposals reviewed**

**Manuscripts**

Communications in Theriogenology	2010
Journal of Veterinary Radiology and Ultrasound (1 manuscript)	2008
Journal of Veterinary Science (1 manuscript)	2007
Journal of Veterinary and Comparative Oncology (2 manuscripts)	2005
Journal of Veterinary Internal Medicine (2 manuscripts)	2004, 2009
Journal of Veterinary and Comparative Oncology (1 manuscript)	2004
Journal of the American Animal Hospital Association (1 manuscript)	2004
Veterinary Medicine Magazine (1 manuscript)	2003

**Textbooks**

Journal of the American Veterinary Medical Association (1 textbook)	2004
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**1.4.5 Other external service**

**Public service**

Volunteer at monthly feline spay/neuter day, LSU-SVM	2008-present
Volunteer on LSU's mobile veterinary clinic	2009-present
Post-Katrina ICU volunteer at LSU-SVM	9/2005
Athens Area Humane Society, Athens, GA; shelter volunteer	2002-2004
UC Davis School of Veterinary Medicine; DVM volunteer for student-run shelter	1999-2001

**REFEREES**

Available on request