

SUMMARY OF PETCURE ONCOLOGY RESEARCH AND PUBLICATION ACTIVITY

AS OF AUGUST 2020

PetCure Oncology is deeply committed to clinical research and these efforts are a central part of our mission. Our efforts in this area include prospective clinical research trials, as well as large scale retrospective studies for various tumor types. Our main research goals are to help define and advance standard of care therapy for animals with malignant disease, and to promote new discoveries that will assist in the optimal future management of both pets and people with cancer.

CURRENTLY ONGOING CLINICAL STUDIES

Prospective Work:

- ▶ Evaluation of T regulatory and T effector cell populations following SRS for the treatment of spontaneous canine tumors
 - ▶ in collaboration with Varian Medical Systems
 - ▶ 39 of target 50 dogs have been entered into this trial

Retrospective Work:

The PetCure Clinical Research Team is in the process of retrospectively evaluating clinical outcome for the following tumors after radiation therapy:

- ▶ Apocrine gland adenocarcinoma of the canine anal sac
- ▶ Canine malignant melanoma
- ▶ Transitional cell carcinoma of the canine lower urinary tract (bladder, prostate and urethra)
- ▶ Canine thyroid carcinoma
- ▶ Canine primary bone tumors

COMPLETED CLINICAL STUDIES

- ▶ Stereotactic radiosurgery (SRS) for the treatment of primary lung tumors in dogs
 - ▶ 25 dogs were entered into this trial, completed July 2020
- ▶ Evaluation of a liquid fiducial marker for the creation of a planning target volume in dogs with post-resection soft tissue sarcomas
 - ▶ in collaboration with Nanovi A/S
 - ▶ 173 dogs were entered into this trial
 - ▶ manuscript in preparation

PUBLICATIONS IN REFEREED SCIENTIFIC JOURNALS

- ▶ De Ridder TR, Campbell JE, Burke-Schwarz C, Clegg D, Elliot EL, Geller S, Kozak W, Pittenger ST, Pruitt JB, Riehl J, White J, Wiest ML, Johannes CM, Morton J, **Jones PD**, Schmidt PF, Gordon V, and Reddell P. *Randomized controlled clinical study evaluating the efficacy and safety of intratumoral treatment of canine mast cell tumors with tigilanol tiglate* (EBC -46). *Journal of Veterinary Internal Medicine*, 2020; Epub ahead of print. DOI: 10.1111/jvim.15806.

PUBLICATIONS IN REFEREED SCIENTIFIC JOURNALS (Continued)

- ▶ Turek M, **LaDue T**, Looper J, et al. *Multimodality treatment including ONCEPT for canine oral melanoma: A retrospective analysis of 131 dogs*. *Veterinary Radiology and Ultrasound*, 2020;61(4):471-480. DOI: 10.1111/vru.12860.
- ▶ MaloneyHuss MA, **Mauldin GE**, Brown DC, Veluvolu SM and Krick EL. *Efficacy and toxicity of mustargen, vincristine, procarbazine, and prednisone chemotherapy (MOPP) for the treatment of relapsed or resistant lymphoma in cats*. *Journal of Feline Medicine and Surgery*, 2020;22(4):299-304. DOI: 10.1177/1098612X19841916.
- ▶ Cawley JR, Wright ZM, **Meleo K**, et al. *Concurrent use of rabacfosadine and L-asparaginase for relapsed or refractory multicentric lymphoma in dogs*. *Journal of Veterinary Internal Medicine*, 2020;34(2):882-889. DOI: 10.1111/jvim.15723.
- ▶ Gagnon J, Mayer MN, Belosowsky T, **Mauldin GN** and Cheryl L Waldner CL. *Stereotactic body radiation therapy for treatment of soft tissue sarcomas in 35 dogs*. *Journal of the American Veterinary Medical Association*, 2020;256(1):102-110. DOI: 10.2460/javma.256.1.102.
- ▶ Thamm DH, Avery AC, Berlato D, Bulman-Fleming J, Clifford CA, Hershey AE, Intile JL, **Jones PD**, Kamstock DA, Liptak JM, Pavuk A, Peauroi J, Powell R, Kerry Risetto K, Valli VEO, and Joshua D. Webster. *Prognostic and predictive significance of KIT protein expression and c-kit gene mutation in canine cutaneous mast cell tumours: A consensus of the Oncology-Pathology Working Group*. *Veterinary and Comparative Oncology*, 2020;17(4):451-455. DOI: 10.1111/vco.12518.
- ▶ Pushpavanam K, Inamdar S, Dutta S, Bista T, Sokolowski T, **Boshoven E**, Sapareto S, and Rege K. *Determination of topographical radiation dose profiles using gel nanosensors*. *Science Advances*, 2019; 5(11):eaaw8704. DOI: 10.1126/sciadv.aaw8704.
- ▶ **Wilcox CL**, Hansen KS, Kent MS, et al. *Outcome of metastatic and recurrent ovarian dysgerminoma using radiation therapy and chemotherapy in a dog*. *Journal of the American Animal Hospital Association*, 2019;55(4):e55402. DOI: 10.5326/JAAHA-MS-6893.
- ▶ Mayer MN, DeWalt JO, Sidhu N, **Mauldin GN** and Cheryl L Waldner. *Outcomes and adverse effects associated with stereotactic body radiation therapy in dogs with nasal tumors: 28 cases (2011-2016)*. *Journal of the American Veterinary Medical Association*, 2019;254(5):602-612. DOI: 10.2460/javma.254.5.602.
- ▶ Fan VC, Mayer MN, Sukut SL, Gustafson NR, **Mauldin GN** and Waldner CL. *Retrospective survey of owners' experiences with palliative radiation therapy for pets*. *Journal of the American Veterinary Medical Association*, 2018;253(3):307-314. DOI: 10.2460/javma.253.3.307.
- ▶ B A Marker BA, Barber LG, Clifford CA, Correa SS, Thalhofer PL, **LaDue TA**, Mullin CM, Sauerbrey ML, and Wood CC. *Extravasation reactions associated with the administration of pamidronate: 11 cases (2008-2013)*. *Veterinary and Comparative Oncology*, 2017;15(2):470-480. DOI: 10.1111/vco.12191.

REFEREED SCIENTIFIC ABSTRACTS

- ▶ **Mauldin GE** and **Mauldin GN**. *Prolonged remission and survival in canine B-cell lymphoma after chemotherapy and low-dose rate half-body radiotherapy*. Thirty-seventh Annual Forum of the American College of Veterinary Internal Medicine, Phoenix, Arizona, June 6 – 8, 2019. DOI: 10.1111/jvim.15593.
- ▶ **Mauldin GN**. *Creation of stereotactic radiosurgery target volumes in patients with marginally resected tumors using liquid fiducial*. Thirty-sixth Annual Forum of the American College of Veterinary Internal Medicine, Seattle, Washington, June 14 - 16, 2018. DOI: 10.1111/jvim.15314.

ACCEPTED FOR PUBLICATION – REFEREED SCIENTIFIC ABSTRACTS

- ▶ **Mauldin GE** and **Mauldin GN**. *Clinical outcome in dogs with apocrine gland adenocarcinoma of the anal sac treated with differing radiotherapy protocols*. Fortieth Annual Conference of the Veterinary Cancer Society, Daytona Beach, Florida, October 15 – 17, 2020.