Dear Colleagues,

I am very pleased to present you with our Fall/Winter rDVM and alumni newsletter for 2017. In this edition, we are highlighting two really special things that are happening at AMC: one is the addition of some amazing new staff and the other surrounds some of the cutting edge clinical advances that are in progress.

One of the clinical innovations we chose to highlight is what’s happening in our Neurology/Neurosurgery Service. Our three board certified neurologists, Drs. Chad West, John McCue and Abbie Leibowitz, have been very busy over the past several months gearing up for a new age in veterinary neurosurgery. Through the use of modern technology and in-depth training from human facilities, they have started to apply a minimally-invasive approach to certain neurosurgical procedures. JP discusses how the use of our new VITOM exoscope enabled a much better approach to treatment of spinal nephro-blastoma. There’s much more to come in this area in 2018, which is very exciting and will lead to a whole new level of care for many neurosurgical patients.

Our staff updates are equally exciting! We have been very busy recruiting over the summer, and it is amazingly gratifying to see wonderful new staff members joining the AMC family. Dr. Katie Kennedy has joined us to start a brand new Surgical Oncology practice. She is a board certified surgeon who is also a graduate of the Colorado State University surgical oncology fellowship. She is currently getting her service up and running and will be available for appointments in January. We also welcomed two new emergency and critical care specialists this fall – Dr. Joel Weltman, an AMC alumnus, and Dr. Lisa Bazzle. Their hiring, as well as others in this department, is an effort to increase our coverage in the emergency room by ECC boarded specialists, in addition to our current knowledge of, tumor biology and are experienced in the management of both rare and common tumors. As a single modality, surgery cures more animals with cancer than any other treatment; surgical oncologists understand how to integrate surgery with other treatment modalities, such as radiation therapy, chemotherapy, and immunotherapy, to reduce morbidity and improve outcomes.

Our Emergency & Critical Care team has grown with the addition of Dr. Joel Weltman and Lisa Bazzle. Dr. Weltman recently joined The Cancer Institute as staff surgical oncologist. She is one of only a few veterinary surgical oncologists practicing today and is the only trained veterinary surgical oncologist practicing in New York City’s five boroughs. Surgical oncologists play a vital role in the diagnosis, treatment, and palliation of tumors. They have specialized training in, and current knowledge of, tumor biology and are experienced in the management of both rare and common tumors. As a single modality, surgery cures more animals with cancer than any other treatment; surgical oncologists understand how to integrate surgery with other treatment modalities, such as radiation therapy, chemotherapy, and immunotherapy, to reduce morbidity and improve outcomes.

To Our Valued Partners In Care,

I am very excited to share all of the news coming out of AMC over the past few months. In late summer, AMC launched its Usdan Institute for Animal Health Education, which is designed to inform and empower pet owners and to educate the public. To oversee the Institute, AMC has appointed Jaclyn Skidmore, an infectious disease epidemiologist with broad experience in the field of public health, as Director. We have held several events under the auspices of the Usdan Institute, including two evening lectures as well as Global One Health Day at AMC. Usdan Institute events are free and open to the public and will be held regularly at AMC.

As part of the Institute’s mission to provide pet owners everywhere with important health information, we are thrilled to have recently launched two new monthly discussion forums. Ask the Vet, a live, one-hour talk show airing on SiriusXM Stars 109, hosted by Dr. Richard Goldstein, and “Ask AMC Live,” which airs on Facebook Live on the third Thursday of each month. This broadcast allows Dr. Goldstein and a guest expert to discuss a topic and take questions from viewers.

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Our Emergency & Critical Care team has grown with the addition of Dr. Joel Weltman and Lisa Bazzle, both board certified specialists. Dr. Weltman is a former AMC intern who returns to us from Wisconsin Veterinary Referral Center, where he has been working as a Critical Care Clinician, while working on his PhD in Comparative Biomedical Sciences at the University of Wisconsin. Dr. Bazzle joins us from Veterinary Specialty Hospital – Sorrento Valley in California, where she has served as a Criticalist since 2016.

Our Third Annual One Health Conference, which focused on Cardiology this year, was extremely insightful and I want to thank everyone who was able to attend. It is always amazing when veterinary and human doctors can collaborate for the betterment of all creatures and we are happy to contribute to this initiative. Thank you, as always, for your continued collaboration with and support of AMC. We appreciate your partnership and look forward to a bright 2018. Happy Holidays!

Sincerely,

Kate W. Coyne
CEO
kathryn.coyne@amcny.org
212-329-8601
AMC Welcomes Liana Everaert, Executive Director of Client Relations

Interview by Dr. Richard Goldstein

Dr. Goldstein: Can you tell us more about your background in client relations and customer service management?

Liana: Over the last 15 years, I have held various positions that focused on optimizing both client services and referring doctor relations in different hospital systems and outpatient practices. From managing sales teams, to business development and leading patient satisfaction committees, my emphasis has always been on providing exceptional customer service to both clients and referring practices. I previously served as Sales and Marketing Director at Montclair Radiology, as Manager of the Physician Liaison team at NYU Langone Medical Center, and as Physician Liaison for Barnabas Health Care System in New Jersey. I have also been a customer service consultant for hospitals nationwide during my tenure with Ivy Ventures in Virginia.

RG: Now that you have been part of the AMC team for a few months, what are some of your initial impressions and differences you have observed in veterinary medicine vs. human medicine?

LE: Every day I have witnessed and have been taken aback by the remarkable medical care, knowledge, compassion, and dedication the AMC staff and the rDVM practices have towards their patients, clients and colleagues. The veterinary community has a unique doctor-patient relationship that is unencumbered by insurance company approvals, government regulations, billing, coding, or the number of patients to be seen in a certain time frame. Diagnostic tests are not done just for the sake of testing or because a printed standard said they should be. There is no template medicine dictated by any outside organization and there is full transparency regarding what each test and procedure would cost. The sole focus is the health and welfare of our animal companions. This creates the perfect platform to provide excellent customer service at each and every interaction with our customers.

RG: What would you like the rDVM practices to know about your role at AMC?

LE: Simply that I am here to serve as the dedicated liaison between the rDVM practices and the AMC. I will visit the referring community in their offices with the goal of getting to know their staff, build rapport, and understand their individual practice needs. My role is to listen to all feedback and then bring responses and suggestions to AMC senior leadership.

RG: What are some of your management goals here at AMC?

LE: Being a part of the world-renowned AMC team has truly been an honor. I look forward to directing and building a team of successful client service representatives that provide 24/7 extraordinary customer service to the referring veterinary community and their clients. Through service enhancements and additional support roles, my goal is to make the process of accessing all specialty services at AMC as streamlined as possible. I will work closely with the rDVM practices to help identify and break down any service barriers and further align AMC as a partner in the veterinary community.

Canine Spinal Nephroblastoma

Athena is a 1-2-year-old spayed female Pit bull mix, adopted as a stray rescue just two months prior to her first visit to AMC. At the time, her owners felt she was a little lame, but as the weeks went on she developed a worse hind limb gait. By the time Athena was referred to the Neurology Service, she had been unable to support herself for a week. Her owners had been transporting her in a cart and she was wheeled into AMC the day of her appointment. Based on her examination findings, she was diagnosed with a severe spinal lesion in the region of the third thoracic to third lumbar vertebral segments. A neoplastic process was prioritized considering her exam findings and history. MRI was advised to diagnose Athena’s problem and devise a treatment plan.

Athena was placed under general anesthesia for MRI that afternoon. The MRI revealed a large tumor compressing the spine at the level of the 13th thoracic and 1st lumbar vertebrae. From the MRI, it was deduced the tumor was located within the meninges of the spine but outside of the tissues; an intradural-extradural location. At the largest point, it was noted to compress approximately 80% of the spinal cord. Based on the location and imaging characteristics, a presumptive diagnosis of a spinal nephroblastoma was made.

Spinal nephroblastomas (also called spinal cord tumors of young dogs) are congenital tumors that arise secondary to neoplastic transformation of the primordial cells that develop into the kidney of the mature neonate. Overall, these tumors are considered rare but constitute an important type of primary kidney tumors in dogs. Although these are tumors of embryonic kidney cells, they are most commonly found adjacent to the spinal cord in dogs. The location of these tumors correlates with that of the developing embryonic kidney. The location of the tumor – adjacent to, but not within, the spinal tissues – makes surgery an attractive treatment choice, however radiation therapy is often used for the treatment of spinal tumors as well. In this case, considering that Athena was not able to support herself, it was decided that surgical resection offered the best chance to remove spinal compression, achieve local tumor control, and get her walking again. Athena recovered uneventfully from general anesthesia for her MRI and was discharged with an anti-inflammatory dose of a corticosteroid to address spinal edema while plans were made for surgery.

Athena came back to AMC 10 days later for surgery. At the time, she was able to move her legs a little better from the positive effects of the steroids, but was still not walking. Surgery of spinal tumors involves careful dissection of the abnormal tumor tissues away from the delicate structure of the spinal cord. Unlike more commonly performed surgeries to remove herniated intervertebral disc material from the spinal canal, Athena’s surgery required opening the protective dural tissues covering the spinal cord and removal of tumor from the spinal tissues themselves. This is best accomplished with ample illumination and magnification of these small tissues. Surgical microscopes are often utilized for this purpose. Recently, AMC has incorporated the use of the VITOM Exoscope to perform these types of procedures. The VITOM is a high definition camera system that allows for the lens system to be located up...
Gross Pathology: What’s Your Morphologic Diagnosis?

**Signalment:** 9 year old, female spayed, Domestic Shorthair cat.

**History:** Progressive dyspnea with mineralized pulmonary tumor of left lung lobe, left sided pleural effusion, and periosteal reaction of ribs 1-6 on left side.

**Necropsy findings:** In the abdomen, floating freely, but surrounded by omentum, there is a 5.3 x 3.5 x 3.1 cm, 38 g kidney bean shaped, smooth, yellow to light brown, firm to hard mass (Figures 1 and 2). Adhered to the omentum, there is a 1.6 x 1.4 x 1.5 cm hard tan to yellow mass. When sectioned, the center is hard and irregular (mineral).

In the thorax, effusion is present on the left and right sides. Two firm, smooth masses are present over the thoracic body wall from ribs 1-6, measuring 7.5 x 4.6 x 3.2 cm and 2 x 2.5 x 0.6 cm.

The left lungs are diffusely collapsed, light pink to red and sink in formalin (atelectasis). A large, smooth, pale tan, firm mass effaces the left cranial lung lobe and measures 4 x 3 x 1.5 cm. When sectioned, the mass contains an irregular, pale tan to white, firm to hard central region (necrosis and mineralization, presumptive). The right cranial lung lobe contains a 1.2 cm diameter, pale tan, nodular, focal firm mass, the center of which is unbilicitated. (Figure 1)

Please formulate differential diagnoses for the abdominal mass based upon the history, clinical findings and images before turning the page.
**Gross Description:** When sectioned longitudinally, the mass contains a well-developed mummified fetus, surrounded by a thin, hard wall (mineral) (Figure 3).

**Histology:** Histologic evaluation of the mummified fetus revealed scant placental remnants, surrounded by a fibrous capsule which underwent mineralization. Visceral organs were well developed, and the bones were ossified. The left and right cranial lung lobe masses and an additional left caudal lung lobe mass were consistent with pulmonary adenocarcinoma with abundant desmoplasia, necrosis, mineralization and osseous metaplasia, intravascular metastasis, with regional atelectasis. The body wall masses were consistent with metastatic adenocarcinoma.

**Comments and Discussion:** The free-floating abdominal mass was consistent with a mummified fetus (radiographs and CT images Figures 4 and 5, provided by Dr. Anthony Fischetti). This patient was spayed, however, the details of the ovariohysterectomy are unknown. The fetus may have escaped due to uterine rupture (prior to or during the spay procedure), with subsequent death in the abdomen and formation of a peripheral fibrous capsule. The fetus is interpreted to be close to full term, as most organs were fully developed and bones were ossified. Ectopic (extrauterine) pregnancy has been previously reported in cats. The two major types of ectopic pregnancy are primary and secondary. Primary ectopic pregnancy occurs when a fertilized oocyte escapes into the abdominal cavity and attaches to the peritoneum, mesentery or an abdominal organ with subsequent fetal growth. Secondary ectopic pregnancy is characterized by initial development of the embryo or fetus in the uterus, with entry into the abdominal cavity due to rupture of the uterine wall, typically caused by trauma.

Primary ectopic pregnancy in cats is considered rare, because placental sites would have to be established within abdominal ectopic endometrial tissue in order for this to take place. Most cases of reported ectopic pregnancy in cats have been attributed to iatrogenic or traumatic uterine rupture. The ectopic fetus without placental attachment will die and undergo mummification in the abdominal cavity. In humans, the invasiveness of placental tissues along with development of ectopic endometrial tissue (endometriosis) explains the possibility of true ectopic pregnancies. In cats, an ectopic fetus is often incidental, and may be present for months to years before it is diagnosed. In some cases, associated clinical signs are present including fever, lethargy, anorexia, and intermittent vomiting.

The smaller mass adhered to the omentum was histologically consistent with fat necrosis, peripheral fibrosis and mineralization (Bates body).

Histologic evaluation of the lung masses revealed primary pulmonary carcinoma, likely originating from the left cranial lung lobe with intrapulmonary metastasis and extrapulmonary metastasis to the thoracic body wall. Necrosis and mineralization within the neoplasm accounts for the radiographic and gross appearance of the left cranial lung lobe mass. In the metastatic foci within the wall of the thorax, extensive desmoplasia (fibrous tissue reaction secondary to the presence of a neoplasm, typically carcinoma) underwent chondro-osseous metaplasia, also likely contributing to the radiographic appearance.

References:
What’s your diagnosis?

Anthony Fischetti, DVM, MS, DACVR
Head of Diagnostic Imaging

Longitudinal ultrasound image of the small intestine in a 3-year-old Yorkie presenting to AMC’s Emergency Service for anorexia and projectile vomiting.

Name the layers in this loop of small intestine.

What’s your ultrasound diagnosis?

Turn to page 12 for the diagnosis and case discussion.

### Staff Updates

We are pleased to welcome the following new doctors to AMC:

Dr. Katie Kennedy joins The Cancer Institute as staff surgical oncologist. She completed a fellowship in surgical oncology at Colorado State University, and became board certified in small animal general surgery by the American College of Veterinary Surgeons in 2015.

Dr. Joel Weltman, a former AMC intern, returns to AMC as a staff doctor. She became board certified by the American College of Veterinary Emergency & Critical Care in 2013.

Dr. Lisa Bazzle joins the Emergency & Critical Care team as staff doctor. She became board certified by the American College of Veterinary Emergency & Critical Care in 2013.

Dr. Weltman became board certified by the American College of Veterinary Emergency & Critical Care in 2013.

### Clinical Trials/Current Studies

#### Cardiology

- Assessment of safety and effectiveness of Lasix administered by IV bolus compared with constant rate infusion to treat dogs with first-time congestive heart failure

#### Internal Medicine

- Assessment of symmetric dimethylarginine (SDMA) and creatinine concentrations in cats with post-renal obstructions before and after decompression of the obstruction
- Comparison of constant rate intravenous infusion and intermittent intramuscular administration of regular insulin in cats with diabetic ketoacidosis

### Interventional Radiology & Interventional Endoscopy

- Allogeneic stem cell delivery for cats with chronic kidney disease. Phase I: Safety
- Autogeneous stem cell delivery for chronic kidney disease. Phase II: Efficacy
- Treatment of Extrahepatic Biliary Duct Obstruction (EHBDO) in dogs and cats by Endoscopic Retrograde Cholangiopancreatography (ERCP) with biliary stent placement or the use of a rescue Subcutaneous Intestinal Biliary Bypass Device (SIBB)
- Drug-eluting bead chemoembolization for non-resectable Hepatocellular Carcinoma (HCC) in dogs

### Oncology

- Multicenter, Randomized, Sham-controlled, Investigator- and Owner masked pivotal safety and efficacy study of intratumoral EBC-46 to treat canine cutaneous and subcutaneous mast cell tumors
- Trial of Her2-expressing vaccine in dogs with appendicular osteosarcoma
- Evaluation of efficacy and safety of feline interleukin-2 immunomodulator following surgical excision of feline fibrosarcoma
- Leukocytes infiltrating canine solid tumors may harbor oncogenic mutations
- Combination chemotherapy and immunotherapy for dogs with splenic hemangiosarcoma

For additional details and contact information for these studies, please visit amcny.org/clinicaltrials.

### Continuing Education Lecture Series

**PIP Comprehensive Clinical Conferences**

Partners In Practice Comprehensive Clinical Conferences are intended to provide several hours of comprehensive review and updates of important and contemporary topics in veterinary medicine. Upon completion, participants should gain enhanced knowledge of the selected topic. Conferences are held at AMC on Sundays from 9:00 am – 3:00 pm and are both RACE and NYSED approved.

Sunday, March 11, 2018

Vaccines and Preventive Health

**PIP Practical Clinical Workshops**

Partners In Practice Practical Clinical Workshops are designed to promote sound diagnosis and effective therapies. Bring and share case materials if you wish! Participate in our time-honored teaching rounds and small group, interactive workshops. Space is limited to 15 participants, so register today! These PIP Workshops are held at AMC on Tuesday evenings from 7:00-8:30 pm and are NYSED approved.

December 12

Exotic Medicine

All Partners In Practice lectures are free and CE accredited, but require registration at www.amcny.org/pipeminars.

In addition to the events listed above, our 1-hour 8:00 am Continuing Education Lecture Series can be found at www.amcny.org/celectures. These events require no advance registration and are free and open to all area veterinary professionals.
VETERINARY COMMUNITY NEWS FROM AMC | FALL/WINTER 2017

The Animal Medical Center’s doctors contributed to a number of research publications during late Summer and Fall (AMC doctors are listed in bold font below). These included reports that evaluated radiographic screening tests to detect noncardiopulmonary disease, results from laparoscopic resection of pancreatic cancer, the first report of a new type of cardiomyopathy in the cat, pathologic description of eosinophilic esophagitis in a kitten, a useful technique to assess the urinary tract in male dogs, and a new method to treat esophageal foreign body stricture in ferrets.

In addition, two new clinical trials are soon to be offered by Oncology to treat post amputation osteosarcoma in the dog, and the other to treat mast cell tumors. Another ongoing clinical trial continues to recruit dogs affected with hemangiosarcoma to assess the benefit of immunotherapy combined with chemotherapy.

AMC specialists continue to be invited to lend expertise and support to local, state, and federal health agencies. Recently, Dr. Richard Goldstein, AMCs Chief Medical Officer, worked with both local veterinary societies and state health department officials in Hawaii, Washington, and California. These efforts contributed to plans intended to improve the prevention of Leptospirosis.

The Animal Medical Center is also proud to announce that all of its veterinarians in certified residency specialty training programs who took their qualifying or certifying examinations, passed. These areas of specialization included training programs in Cardiology, Internal Medicine, Neurology, Oncology, Radiology, and Surgery.

SCIENTIFIC PUBLICATIONS


ABOUT THIS NEWSLETTER

This newsletter is distributed quarterly to AMC’s network of referring veterinarians, alumni and others who opt-in to receive this publication. To view past issues or to join our mailing list, please visit amcny.org/rdvm-quarterly. If you are an AMC alumnus who would like to sign up to receive periodic updates, please visit amcny.org/amc-alumni-registration.

To receive our current staff directory or if you have questions, email info@amcny.org.

For access to the AMC Patient Referral Form, visit amcny.org/referralform.

Cover photo courtesy of Corey Towers

Designed by Anthony Coombs

What’s your diagnosis?

Arrows point to the hyperechoic (white) lines of the small intestinal walls: the serosa is the outer hypoechoic layer. Next hypoechoic (black) layer is the muscularis, sandwiched between the serosa and the next hypoechoic layer, the submucosa. The next hypoechoic layer is the mucosa. The lumen can be hyper- or hypoechoic depending on what is in it.

The undulating submucosa/mucosa with the straight serosal margin is most consistent with small intestinal corrugation or spasticity, a sign of inflammation. Consider enteritis (toxic, infectious, primary inflammatory) to give this appearance. Corrugation/spasticity should be differentiated from plication, a sign of linear foreign body obstruction (not supported in this case).

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The Animal Medical Center is pleased to announce a 20% discount for all support staff of rDVMs. As a valued partner of Animal Medical Center, we appreciate your contribution to our veterinary community. Licensed Veterinary Technicians and support staff may present a recent paystub. LVTs may also be looked up in the New York State database.
AMC Dedicated Phone Numbers for Referring Veterinarians

**AVIAN & EXOTICS**
Dr. Kathy Quesenberry
Dr. Cyndi Brown
212-329-8888
Sunday – Friday
9 am – 5 pm

**CARDIOLOGY**
Dr. Philip Fox
Dr. Betsy Bond
Dr. Dennis Trafny
212-329-8701
Monday – Sunday
9 am – 5 pm

**DENTISTRY**
Dr. Dan Carmichael
Dr. Stephen Riback
Dr. Django Martel
212-329-8678
Monday – Friday
9 am – 5 pm

**DERMATOLOGY**
Dr. Mark Macina
212-329-8777
Tuesday – Saturday
9 am – 5 pm

**INTERNAL MEDICINE A**
Dr. Beth Appleman
Dr. Carly Bloom
212-329-8619
Monday – Sunday
9 am – 5 pm

**INTERNAL MEDICINE B**
Dr. Douglas Palma
Dr. Dennis Slade
212-329-8675
Monday – Sunday
9 am – 5 pm

**INTERVENTIONAL RADIOLOGY & INTERVENTIONAL ENDOSCOPY**
Dr. Chick Weisse
Dr. Allyson Berent
212-329-8700
Monday – Friday
9 am – 5 pm

**NEUROLOGY**
Dr. Chad West
Dr. John McCue
212-329-8770
Monday – Sunday
9 am – 5 pm

**ONCOLOGY**
Dr. Nicole Leibman
Dr. Ann Hohenhaus
Dr. Maria Camps
212-329-8797
Monday – Saturday
9 am – 5 pm

**OPHTHALMOLOGY**
Dr. Alexandra van der Woerdt
212-329-8813
Monday
10 am – 6 pm
Tuesday
10 am – 5 pm
Thursday
2 pm – 9 pm
Friday
9 am – 3 pm

**RADIATION ONCOLOGY**
Dr. Rachel St-Vincent
212-329-8821
Monday – Friday
9 am – 5 pm

**REHABILITATION & INTEGRATIVE MEDICINE**
Dr. Leilani Alvarez
Dr. Barry Cherno
212-329-8860
Monday – Saturday
9 am – 5 pm

**SURGERY SERVICE 2**
Dr. Dan Spector
212-329-8863
Wednesday – Saturday
9 am – 5 pm

**SURGERY SERVICE 3**
Dr. Pamela Schwartz
212-329-8867
Monday – Friday
9 am – 5 pm

**SURGERY SERVICE 4**
Dr. Rob Hart
212-329-8674
Monday – Friday
9 am – 5 pm

**A.M.C. PORTAL**
amcny.org/referral-portal-login

**DR. RICHARD GOLDSMITH, CMO**
347-733-7338
richard.goldstein@amcny.org

**PRIORITY EMERGENCY/CRITICAL CARE HOTLINE**
212-329-8616 or 646-556-6411 (fax)