CURRICULUM VITAE

Nicola Maria Anne Parry

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Educational Background:

2013	Currently enrolled in the <i>Online Graduate Certificate in Veterinary Forensic Sciences</i> , College of Veterinary Medicine, University of Florida
2004	Diplomate, American College of Veterinary Pathologists (Anatomic Pathology)
2000-2003	Anatomic Pathology, Residency Training Program, School of Veterinary Medicine, University of Pennsylvania
1992 – 1997	BVSc (with Commendation) Veterinary Science , School of Veterinary Science, University of Liverpool, England
1991 – 1992	MSc Animal Nutrition; University of Aberdeen / Rowett Research Institute, Scotland Thesis: Trace-Element Induced Changes in Longitudinal Bone Growth
1987 – 1990	BSc (Hons) 2:1 Animal Physiology and Nutrition; University of Leeds, England, UK; Honors Project: The Effect of a Molybdenum Glass Bolus on Copper Metabolism in Sheep

Professional Employment:

1/1/09 – To date:	Chief of Comparative Pathology, Division of Comparative Medicine, Massachusetts Institute of Technology Adjunct position at Tufts University, Cummings School of Veterinary Medicine
2009	Contract histopathologist for AniPath (Miami Beach, Florida)
9/6/05 - 12/31/08	Tufts University, Cummings School of Veterinary Medicine: Assistant Professor of Pathology, Head, Residency Training Program (Anatomic Pathology)
2/14/05 - 8/19/05	Pathologist, Preclinical Toxicology, Charles River Laboratories (Edinburgh, Scotland, UK) (Temporary position)
10/11/04 - 2/11/05	Diagnostic Pathologist, Scottish Agricultural Colleges (Edinburgh, Scotland, UK) (Temporary position)
6/30/03 - 10/4/04	Lecturer in Pathology, School of Veterinary Medicine, New Bolton Center, University of Pennsylvania
9/16/00 - 6/29/03	Resident in Anatomic Pathology, School of Veterinary Medicine, University of Pennsylvania
Aug 1997 – Sept 2000	Mixed Animal Practitioner (England and Scotland, UK)

Professional Academic Responsibilities:

Massachusetts Institute of Technology:

Chief of Pathology within the Division of Comparative Medicine:
Management of the Comparative Pathology Laboratory (11 staff members)
Provision of pathology support for in-house and outside research groups
Provision of diagnostic pathology services for the research animal facilities
Founded the division's first Anatomic Pathology Fellowship position (2010)
Mentoring of our pathology resident for ACVP boards preparation
Weekly pathology training for laboratory animal residents

Postdoctoral Mentor/Committee Member: Postdoctoral fellows, DCM, MIT.

PhD Supervisory Committee Member: PhD students, Dr Tzipori's Laboratory, TCSVM

Tufts University, School of Veterinary Medicine:

Service responsibilities:

Necropsy Service (Large and small animals)
Surgical Biopsy Service (Large and small animals)
Co-coordinator of neurohistopathology rounds
Co-coordinator of ophthalmic histopathology rounds

Resident Mentoring:

Histopathology (Weekly AFIP WSC review sessions)
Gross pathology (Preparation of a weekly ACVP board exam-style test)
General Pathology Journal Club host (Bimonthly)
Preparation of a twice yearly mock ACVP board examination
Supervision of pathology residents and students on necropsy rotation
Weekly gross pathology rounds demonstrations

DVM Student Teaching:

Gastrointestinal Pathophysiology: Course director and lecturer
Histology: Course director and lecturer
Reproductive and Endocrine Pathophysiology: Course lecturer
General Pathology: Course lecturer
Virtual Microscopy Practical class instructor (General Pathology: Histology)

Problem-Based Learning facilitator Elective histopathology review sessions

Other responsibilities:

Participation in weekly *Pathophysiology Rounds* sessions for hospital interns and residents

Faculty member of the *Junior Pathology Explorers Club*:

Monthly oral case presentations for the student club
Hosted weekend elective gross pathology wet-labs

University of Pennsylvania:

Large Animal Block: Equine Gross Pathology weekly lecture sessions

Small and large animal necropsy rotations Gross and microscopic pathology classes

Weekly gross pathology rounds demonstrations (large animal pathology)

Elective histopathology review sessions

NAVLE review lectures:

Gross pathology weekend wet-labs for the Equine Club

Professional Organizations:

American College of Veterinary Pathologists, Examination Committee (2007-2012)

American College of Veterinary Pathologists, Education Committee (2006-2008)

Student Admissions Committee (2006-2008) (TCSVM) Student Ethics and Grievance Committee (2006-07) (TCSVM) Animal Welfare Committee (2006-07) (TCSVM)

Miscellaneous:

<u>AVMA/ECFVG Item Writing Workshop Member</u> (2006 – To date)

CL Davis Foundation CE events organized at TCSVM:

Diagnostic cytology for anatomic pathologists & high-speed practitioners (June 23, 2007) Bridging the gap in academic-industrial biomedical research (May 11th 2007)

Faculty participant in the Tufts "Veterinary Leadership Experience" workshop (February 2007)

ECFVG TCSVM Student Mentor (Kiril Ivanov) (2006-07)

Chairperson, Tufts Veterinary Student Research Day (October 18th 2006)

Faculty participant in a Leadership/Team-Building Day for the incoming V10 class (Sept 2006)

Journal Reviewer: Clinical Medicine: Oncology

Journal of Veterinary Diagnostic Investigation

New Zealand Veterinary Journal Small Ruminant Research Toxicologic Pathology

Transboundary and Emerging Diseases

UK Vet

Veterinary Pathology

Publications:

Enteropathogenic Escherichia coli prevalence in laboratory rabbits. (2013) Veterinary Microbiology. Jan 23 [Epub ahead of print] Swennes AG, Buckley EM, Madden CM, Byrd CP, Donocoff RS, Rodriguez L, **Parry NMA**, Fox JG.

Diagnosis of hypoadrenocorticism in dogs. (2013) UK Vet; Volume 18, No 1, January/February: 42-46. **Parry NMA**

Online Case Study: Canine medicine. Calcinosis circumscripta. (2013) UK Vet; Volume 18, No 1, January/February: 25. Parry NMA, Lohr BR.

Antibody against TcdB, but not TcdA, prevents development of gastrointestinal and systemic Clostridium difficiledDisease. (2013) J Infect Dis. Jan;207(2):323-330. Steele J, Mukherjee J, Parry N, Tzipori S.

Resistance of Sprague-Dawley rats toiInfection with Helicobacter pullorum. (2012) J Am Assoc Lab Anim Sci. 51(6):803-807. Cacioppo LD, Shen Z, **Parry NM**, Fox JG.

Improved healing of large segmental defects in the rat femur by reverse dynamization in the presence of bone morphogenetic protein-2. (2012) J Bone Joint Surg Am. Nov 21;94(22):2063-2073. Glatt V, Miller M, Ivkovic A, Liu F, **Parry N**, Griffin D, Vrahas M, Evans C.

Natural and experimental Helicobacter pullorum infection in Brown Norway rats. (2012) J Med Microbiol. Sept;61(Pt 9):1319-1323. Cacioppo LD, Turk ML, Shen Z, Ge Z, **Parry N**, Whary MT, Boutin SR, Klein HJ, Fox JG.

Enzootic enteropathogenic Escherichia coli infection in laboratory rabbits. (2012) J Clin Microbiol. Jul;50(7):2353-2358. Swennes AG, Buckley EM, Parry NM, Madden CM, Garcia A, Morgan PB, Astrofsky KM, Fox JG.

Infection-induced colitis in mice causes dynamic and tissue-specific changes in stress response and DNA damage leading to colon cancer. (2012) Proc Natl Acad Sci USA. Jul 3;109(27):E1820-1829. Mangerich A, Knutson CG, **Parry NM**, Muthupalani S, Ye W, Prestwich E, Cui L, McFaline JL, Mobley M, Ge Z, Taghizadeh K, Wishnok JS, Wogan GN, Fox JG, Tannenbaum SR, Dedon PC.

Online Case Study: Feline medicine. Mycoplasma haemofelis. (2012) UK Vet; Volume 17, May 22. **Parry NMA.**

Diagnosis of hyperadrenocorticism in dogs. (2012) UK Vet; Volume 17, March 14-18. Parry NMA.

Persistent Helicobacter pullorum colonization in C57BL/6NTac mice: A new mouse model for an emerging zoonosis. (2012) J Med Microbiol. May;61(Pt 5):720-728. Turk ML, Cacioppo LD, Ge Z, Shen Z, Whary MT, **Parry N**, Boutin SR, Klein HJ, Fox JG.

17β-estradiol and Tamoxifen prevent gastric cancer by modulating leukocyte recruitment and oncogenic pathways in Helicobacter pylori-infected INS-GAS male mice. (2011). Cancer Prev Res (Phila). Sept;4(9):1426-1435. Sheh A, Ge Z, **Parry NM**, Muthupalani S, Rager JE, Raczynski AR, Mobley MW, McCabe AF, Fry RC, Wang T, Fox JG.

Helicobacter marmotae, Novel Helicobacter sp. and Campylobacter sp. Isolated from Livers and Intestines of Prairie Dogs. (2011). J Med Microbiol. 2011 Sept 60;(Pt 9):1366-1374. Beisele M, Shen Z, Parry N, Mobley M, Taylor NS, Buckley E, Abedin MZ, Dewhirst FE, Fox JG.

Long-term clinicopathological characteristics of alpacas naturally infected with bovine viral diarrhea virus type Ib. (2011) J Vet Intern Med. May;25(3):605-612. Bedenice D, Dubovi E, Kelling CL, Henningson JN, Topliff CL, **Parry N**.

Multivariate modeling identifies neutrophil- and Th17-related factors as differential serum biomarkers of chronic murine colitis. (2010). PLoS One. 2010 Oct 19;5(10):e13277. McBee ME, Zeng Y, Parry N, Nagler CR, Tannenbaum SR, Schauer DB.

Urinary bladder agenesis in an alpaca (Vicugna pacos) cria. (2010). J Vet Diagn Invest. May;22(3):473-475. Melidone R, **Parry NM**, Gruntman A.

Disseminated, histologically confirmed Cryptococcus spp infection in a domestic ferret. (2010) J Am <u>Vet Med Assoc, Apr 1;236(7):770-774</u>. Eshar D, Mayer J, **Parry NM**, Williams-Fritze MJ, Bradway DS.

Stressor exposure disrupts commensal microbial populations in the intestines and leads to increased colonization by Citrobacter rodentium. (2010). Infect Immun,78(4):1509-1519. Bailey MT, Dowd SE, **Parry NM**, Galley JD, Schauer DB, Lyte M.

Ischemic postconditioning does not attenuate ischemia-reperfusion injury of rabbit small intestine. (2010). Vet Surg, 39(2):216-223. Bretz B, Blaze C, **Parry N**, Kudej RK.

Piglet models of acute or chronic Clostridium difficile illness. (2010). J Infect Dis, Feb 1;201(3):428-434. Steele J, Feng H, **Parry N**, Tzipori S.

Adenomatous polyp with intestinal metaplasia of the esophagus (Barrett esophagus) in a dog. (2010). <u>Vet Pathol, 47(1):116-119</u>. Gibson CJ, **Parry NM**, Jakowski RM, Cooper J.

Ability of recombinant human bone morphogenetic protein 2 to enhance bone healing in the presence of tobramycin: evaluation in a rat segmental defect model. (2009). J Orthop Trauma. Nov-Dec;23(10):693-701. Glatt V, Kwong FN, Park K, **Parry N**, Griffin D, Vrahas M, Evans CH, Harris M.

Abomasal Parasite Syndrome in North American Elk (Cervus elaphus canadensis). (2009) New Zealand Veterinary Journal 57(4):235-240. Woodbury MR and **Parry NMA**.

Presumptive Albendazole Toxicosis in 12 Alpacas. (2009) Journal of Veterinary Internal Medicine; 23(4):945-949. Gruntman A, Nolen-Walston R, **Parry N**, Wilborn R, Maxwell H.

Gnotobiotic piglet infection model for evaluating the safe use of antibiotics against Escherichia coli 0157:H7 infection. (2009) Journal of Infectious Diseases. February 15: 199(4):486-493. Zhang Q, Donohue-Rolfe A, Krautz-Peterson G, Sevo M, **Parry N**, Abeijon C, Tzipori S.

Anaplastic Astrocytoma in the Spinal Cord of an African Pygmy Hedgehog (Atelerix albiventris). (2008) Veterinary Pathology; 45(6):934-938. Gibson CG, **Parry NM**, Jakowski RM & Eshar D.

Clinical Exposures: Preovulatory Stasis and Dystocia in Oviparous Lizards: (2008) Veterinary Medicine; November. Raffaele Melidone, Joyce Knoll and **Nicola Parry**

Sudden and Unexpected Death in Small Animal Patients: Part 2. (2008) UK Vet; Volume 13, No 9, November/December: 31-37. Parry NMA.

Sudden and Unexpected Death in Small Animal Patients: Part 1. (2008) UK Vet; Volume 13, No 8, October: 23-31. Parry NMA.

Gastric Helicobacter species as a cause of feline gastric lymphoma: A viable hypothesis. (2008) <u>Veterinary Immunology and Immunopathology. May 15;123(1-2):106-113</u>. Bridgeford EC, Marini RP, Feng Y, **Parry NM**, Rickman B, Fox JG.

Corneal epithelial inclusion cyst in a Llama. (2008) Veterinary Ophthalmology. Mar-Apr;11(2):111-113. Pirie CG, Pizzirani S, **Parry NM.**

Clinical Exposures: Feline infectious peritonitis: Typical findings and a new PCR test. (2007) Veterinary Medicine; June 1. Christopher Gibson, **Nicola Parry**.

The Canine Prostate Gland: Part 2, Inflammatory Diseases. (2007) UK Vet; Volume 12, No 2, March: 37-41. Parry NMA.

The Canine Prostate Gland: Part 1, Non-inflammatory Diseases. (2007) UK Vet; Volume 12, No 1, January/February: 37-40. Parry NMA.

Uveitis in Cats. (2007) UK Vet; Volume 12, No 3, April: 70-78. Parry NMA and Maggio F.

Uveitis in Dogs. (2007) UK Vet; Volume 12, No 2, March: 81-87. Maggio F and Parry NMA.

Anal Sac Gland Carcinoma in a Cat. (2006) Veterinary Pathology; 43(6):1008-1009. Parry NMA.

Spontaneous Pathology of the Cardiovascular System in Purpose-Bred Laboratory Nonhuman Primates. (2006) Toxicologic Pathology 34(4):357-363. Chamanza R, **Parry NMA**, Rogerson P, Nicol JR and Bradley AE. (Toxicologic Pathology).

Overo Lethal White Foal Syndrome. (2005) Compendium on Continuing Education for the Practicing Veterinarian, December, p945-950. **Parry NMA.**

Pyelonephritis in Small Animals. (2005) UK Vet; Volume 10, N°6, July. Parry NMA.

Metal Accumulation and Retention in Brain, Pituitary and Other Organs of Ammonium Tetrathiomolybdate-Treated Sheep. (1998) British Journal of Nutrition; 79: 329-331. Haywood S, Dincer Z, Holding J & Parry NMA.

Molybdenum-Induced Changes in the Epiphyseal Growth Plate. (1993) Calcified Tissue International: September 53(3): 180-186. Parry NMA, Phillippo M, Reid MD, McGaw BA, Flint DJ & Loveridge N.

Metal Redistribution (Copper, Zinc, Molybdenum) in Sheep after Ammonium-Tetrathiomolybdate (TTM) Administration. (1994) Proceedings of the 5th Nordic Symposium on Trace Elements in Human Health and Disease; June 19-22, Loen, Norway, (pages 0-36). Haywood S, Dincer Z, Holding J & **Parry NMA**.

Longitudinal Bone Growth and Hormonal Changes with Varying Molybdenum and Copper Status in Rats. (1993) Journal of Endocrinology; Volume 137, Supplement p39. Parry NMA, Phillippo M, Reid MD, McGaw BA, Flint DJ & Loveridge N.

Presentations:

Spontaneous pathologic findings in year-old male Mongolian gerbils. (2012) American Association For Laboratory Animal Science 62rd National Meeting, Minneapolis, November 4-8. Swennes AG, Borjeson TM, Fox JG, & **Parry NMA**.

Enteropathogenic Escherichia coli Prevalence in Laboratory Rabbits. (2012) American Association For Laboratory Animal Science 62rd National Meeting, Minneapolis, November 4-8. Swennes AG, Buckley EM, Madden CM, Donocoff RS, Rodriguez L, **Parry NMA**, Fox JG.

Helicobacter hepaticus infection promotes hepatitis and foci of cellular alteration in Farnesoid X receptor (FXR)-deficient mice. Digestive Disease Week, San Diego, May 19-22. Swennes AG, Garcia A, **Parry NMA**, Lertpiriyapong K, & Fox JG.

Epidemiology of laboratory animal enteropathogenic E. coli infection. (2012) Departmental Seminar, Laboratory Animal Science, Novartis Institutes for Biomedical Research, Cambridge, Massachusetts, May 16. Swennes AG, Buckley EM, **Parry NMA**, Madden CM, Donocoff R, Rodriguez L, Garcia A, Morgan PB, Astrofsky KM, Fox JG.

An Outbreak of Enteropathogenic Escherichia coli(EPEC) in Dutch Belted Rabbits. (2011) American Association For Laboratory Animal Science 62nd National Meeting, San Diego, October 2-6. Swennes AG, Buckley EM, **Parry NMA**, Madden CM, Garcia A, Wafa Y, Astrofsky K, and Fox JG.

Further Characterization of CD1-pcy/pcy Mice: Evidence for Polyuria and Polyglucosuria. (2011) American Association For Laboratory Animal Science 62nd National Meeting, San Diego, October 2-6. Kirby NA, Brown DE, **Parry N**, and Fox JG.

Identification of Campylobacter lanienae from Laboratory Chinchillas, (Chinchilla laniger). (2011) American Association For Laboratory Animal Science 62nd National Meeting, San Diego, October 2-6. Turowski, E, Shen, Z, Ducore, R, **Parry**, N, Fox, JG.

Helicobacter bilis monoassociation in gnotobiotic Swiss mice stimulates B cell hyperplasia and cross-reactive immune responses to Altered Schaedler Flora. (2011) American Association For Laboratory Animal Science 62nd National Meeting, San Diego, October 2-6. MT Whary, C Faber, Y Feng, Z Ge, **N Parry**, S Muthupalani and JG Fox.

Experimental Infection of Helicobacter pullorum in B6.129P2-IL-10^{tm1Cgn} Mice. (2011) American Association For Laboratory Animal Science 62nd National Meeting, San Diego, October 2-6. ML Turk, **N Parry**, MT Whary, Z Shen, JG Fox.

Spinal Cord Astrocytoma in a Hedgehog. (2007) American College of Veterinary Pathologists 58th Annual Conference, Savannah, Georgia, November 10-14. [Poster presentation]. Abstract 63, (2007) <u>Veterinary Pathology; 44(5) 748</u>. Gibson CJ, **Parry NMA**, Jakowski RM and Eshar D.

Spina Bifida with Hydromyelia and Syringomyelia in a Goat. (2007) American College of Veterinary Pathologists 58th Annual Conference, Savannah, Georgia, November 10-14. [Poster presentation]. Abstract 65, (2007) Veterinary Pathology; 44(5) 749. Muthupalani S, McMullen B, **Parry NMA** and Jakowski R.

Premature Closure of the Foramen Ovale in a Newborn Foal. (2007) American College of Veterinary Pathologists 58th Annual Conference, Savannah, Georgia, November 10-14. [Poster presentation]. Abstract 67, (2007) Veterinary Pathology; 44(5) 749. **Parry NMA**, Jakowski RM and Brown DJ.

Intracardiac Metastatic Melanoma in a Horse. (2007) American College of Veterinary Pathologists 58th Annual Conference, Savannah, Georgia, November 10-14. [Poster presentation]. Abstract 69, (2007) <u>Veterinary Pathology; 44(5) 750</u>. Jennings S, <u>Parry NMA</u> and Gibson C.

Pituitary Carcinoma in a Rabbit. (2007) American College of Veterinary Pathologists 58th Annual Conference, Savannah, Georgia, November 10-14. [Poster presentation]. Abstract 82, (2007) Veterinary Pathology; 44(5) 753. Melidone R, **Parry NMA** and Eshar D.

Spontaneous Barrett Esophagus-like Lesion in a Dog. (2007) American College of Veterinary Pathologists 58th Annual Conference, Savannah, Georgia, November 10-14. [Poster presentation]. Abstract 85, (2007) Veterinary Pathology; 44(5) 754. Gibson CJ, **Parry NMA**, Jakowski RM and Cooper J.

Cutaneous and Metastatic Malignant Melanoma and Melanocytoma in an Alpaca. (2006) American College of Veterinary Pathologists 57th Annual Conference, Tucson, Arizona, December 1-6. [Poster presentation]. Abstract 48. (2006) Veterinary Pathology; 43(5):817. Avakian A and **Parry NMA**.

Trigeminal Nerve Sheath Tumor with Periocular Extension in a Dog. (2006) American College of Veterinary Pathologists 57th Annual Conference, Tucson, Arizona, December 1-6. [Poster presentation]. Abstract 70, (2006) Veterinary Pathology; 43(5):823. Muthupalani S and **Parry NMA.**

Albendazole Toxicity in Camelids. (2006) American College of Veterinary Pathologists 57th Annual Conference, Tucson, Arizona, December 1-6. [Poster presentation]. Abstract 72, (2006) Veterinary Pathology: 43(5):823. **Parry NMA**, Gruntman A.M and Nolen-Walston R.D.

Anal Sac Gland Carcinoma in a Cat. (2006) American College of Veterinary Pathologists 57th Annual Conference, Tucson, Arizona, December 1-6. Abstract 73, [Poster presentation]. Abstract 73. (2006) Veterinary Pathology; 43(5):824. Parry NMA.

Conjunctival Mast Cell Tumor in a Horse. (2006) American College of Veterinary Pathologists 57th Annual Conference, Tucson, Arizona, December 1-6. [Poster presentation]. Abstract 74. (2006) Veterinary Pathology; 43(5):824. **Parry NMA** and Pizzirani S.

Primary Brain Lymphoma in a Cat. (2006) American College of Veterinary Pathologists 57th Annual Conference, Tucson, Arizona, December 1-6. [Poster presentation]. Abstract 75. (2006) Veterinary Pathology; 43(5):824. Parry NMA, Muthupalani S, Faissler D and Keating J.

Local Thrombolytic Infusion for Treatment of a Liver Infarction in a Dog. (2006). (2006) 12th International Veterinary Emergency and Critical Care Symposium, San Antonio, Texas, September 17-21. [Poster presentation]. Rogers CL, O'Toole TE and **Parry NM.**

Amyloid-Producing Odontogenic Tumour in a Cat. (2006) 24th Annual Meeting of the European Society of Veterinary Pathology, Edinburgh, Scotland, August 31-June 2. [Poster presentation]. **Parry NMA**.

Selective Degeneration of the Cerebellar Cortex and Proprioceptive Nuclei in a Five Year Old Cat. (2006) 24th Annual Meeting of the European Society of Veterinary Pathology, Edinburgh, Scotland, August 31-June 2. [Poster presentation]. **Parry NMA**, Pfannl R and Faissler D.

Spontaneous Pathology of the Cardiovascular System in Purpose-Bred Laboratory Nonhuman Primates. (2005) 24th Annual Meeting of the Society of Toxicologic Pathology, Washington DC, June 19-23. [Poster presentation]. Abstract P16. (2006) Toxicologic Pathology; 34(1): 122. Chamanza R, Parry N, Rogerson P, Nicol J and Bradley A.

Hindlimb Paralysis Associated with Lymphosarcoma Resulting in a Pathological Fracture of Thoracic Vertebra Five in a Vietnamese Pot-Bellied Pig. (2004) International Pig Veterinary Society Meeting, Hamburg, Germany, June 27-July 1. [Poster presentation]. Nelson L, Bentz A, Carr J and **Parry N**.

Rabies in a White-Tailed Deer. (2003) American College of Veterinary Pathologists Annual Conference, Banff, Canada. November 15-19. [Oral presentation]. Parry NMA and Del Piero F.

External Research Support:

Histopathology support for Dr Saul Tzipori (Infectious Diseases Research Group, TCSVM): Mechanisms of disease caused by *Shiqella dysenteriae* and Shiga-toxin producing *E. coli*.

Histopathology support for Dr Christopher Evans, Maurice E Müller Professor of Orthopedic Surgery, and Director, Center for Advanced Orthopaedic Studies, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA.