ANNIKA LYNN MCKILLOP (HOFFMAN), DVM, MSPVM, DACPV

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EDUCATION

Diplomat of the American College of Poultry Veterinarians	2013
North Carolina State University, Raleigh, NC	
Masters of Specialized Veterinary Medicine	2012
Poultry Health Management Residency	2012
California Polytechnic State University, San Luis Obispo, CA	
Bachelors of Science, Animal Science	2011
Western University of Health Sciences, Pomona, CA	
Doctor of Veterinary Medicine, Poultry and Food Animal Focus	2010

LICENSURE

Maryland- License # 7223 Pennsylvania- License # BV013912 West Virginia- License # 45-2016

USDA-APHIS Category II Accredited Veterinarian in MD, PA, and WV- NAN # 058308

PROFESSIONAL TRAINING

Poultry Handling and Transportation: Trainer- US Poultry and Egg Association	2016
NPIP Mycoplasma Workshop	2013
NPIP Salmonella Workshop	2013
FEMA Disaster Response IS-00010	2009

PROFESSIONAL MEMBERSHIPS

American Veterinary Medical Association
American College of Poultry Veterinarians
American Association of Avian Pathologists
Small Flock Committee, Founding Member

 Small Flock Committee, Founding Member
 2017-Present

 Small Flock Interest Group, Chair
 2018-Present

 Association of Veterinarians in Egg Production

World's Poultry Science Association

Poultry Science Association

EMPLOYMENT

Owner- McKillop Poultry Medicine, LLC

Frederick, MD

 Founded, own and operate McKillop Poultry Medicine, LLC serving MD, PA, and WV, which is the first veterinary practice in the country to predominantly see backyard poultry

- Maintain inventory and order pharmaceuticals, materials, and schedule appointments
- Provide on-site veterinary care to large and small commercial flocks, niche growers, and backyard flocks including biosecurity, disease prevention, diagnostic testing, necropsy, surgery, vaccination, treatment, health certificates, client education, and hatchery troubleshooting to a diverse clientele
- Promote and assist owners in achieving optimal health, production, and best management practices for their flocks
- Author and provide educational material for common poultry diseases and syndromes
- Mentor, teach, and host externships for veterinary students to learn about commercial poultry and backyard poultry medicine
- Educate veterinary practitioners at veterinary conferences and poultry medicine workshops about backyard poultry medicine
- Manage business budget, website, and social media pages
- National Poultry Improvement Plan testing agent in MD and PA.
- Consultant with VIP Pet Care, Vet IQ Petcare, and Petco performing wellness examinations, diagnosing
 and treating common skin, ear, eye and upper respiratory ailments, administering vaccinations

June 2014- Present

and preventative medications, and microchipping for dogs and cats

Consultant with the Veterinary Information Network in their Avian Folder on poultry related cases.

Staff Veterinarian- Aviagen Turkeys, Inc.

July 2012- November 2013

Lewisburg, WV

- Manage health, biosecurity, animal welfare, and animal health programs for primary breeder flocks and hatcheries located in Lewisburg, WV, including but not limited to: vaccination; disease prevention; diagnostics and disease control; salmonella monitoring, testing, and eradication
- Conduct health inspections and sign health certificates for exportation of day-old-poults/hatching eggs domestically and internationally
- Establish a new diagnostic lab testing for Salmonella, Mycoplasma, bacteriology, and serology
- Supervised diagnostic testing and trained technicians
- Wrote standard operating procedures and laboratory protocols
- Established biosecurity procedures in the laboratory to prevent cross contamination
- Proficient in Salmonella isolation, grouping, and serotyping; can make multiple types of media;
- Perform Mycoplasma plate testing, ELISA assays, and isolation and identification of common poultry bacterial organisms
- Maintained medication inventory, managed budget for diagnostic laboratory and veterinary departments

Poultry Health Management Resident North Carolina State University

College of Veterinary Medicine, Raleigh, NC

- Post-veterinary training in the identification and control of factors impacting poultry health and production
- Field investigations and research related to poultry health management and disease prevention
- Application and interpretation of diagnostic technology
- Didactic and seminar courses on poultry health and epidemiological problem solving
- Teaching veterinary and undergraduate students in poultry production and medicine
- Production of commercial turkey and broiler flocks at the NCSU CVM Teaching Animal Unit

Veterinary Technician- Orange County Emergency Pet Clinics

Garden Grove, CA

- Discussed differentials and possible diagnosis with attending veterinarian and created a treatment plan
- Obtained patient history and communicated treatment plans with client
- Examined animals, collected blood, placed intravenous catheters, obtained radiographs, and ran all in-house diagnostic tests
- Monitored anesthesia
- Assisted with emergencies and surgery

Veterinary Intern- Sanderson Farms

Laurel, MS

- · Graphed and analyzed breeder fertility
- Collected data, analyzed, and presented research findings on the effects of light intensity on ruptured tendons in 8 pound broiler chickens
- Disease investigation of Ornithobacterium rhinotracheale in broilers
- Performed necropsies and collected diagnostic samples for laboratory submission
- Assisted with GI health checks and graded pathologic lesions and Eimeria sp. upon microscopic examination
- Collected blood samples via cardiac venipuncture
- Determined cause of death in-ovo via breakout
- Vaccinated breeder pullets, chicks and broilers
- Learned and performed hatchery and processing plant management practices, including sanitation sampling in the processing plant and hatchery, hatchery vaccination (in ovo), quality assurance audits in the processing plant, chick quality

July 2010- June 2012

September 2008 - March 2009

May 2008 - August 2008

Student Research Intern- Avian Disease Investigation

Western University of Health Sciences, Pomona, CA

- Collected and isolated samples of Campylobacter jejuni from broiler intestines
- Created a budget, ordered supplies, and created research protocols
- Managed and worked as a team with students

Anatomy/Histology Technician

Western University of Health Sciences, Pomona, CA

- Prepared, sectioned, and stained tissues from various species
- Prepared slides used for teaching purposes at Western University of Health Sciences

Wildlife Biologist Intern- U.S. Fish and Wildlife Service,

California Condor Recovery Program, Ventura, CA

- Observed nesting sites, feeding, and general behavior of the California Condor
- Cared for and observed condors in flight pens
- Acquired California Condor handling experience, including holding the head, body, and feet
- Assisted in general health checks and drew blood from condor 277 for lead testing under supervision of the attending veterinarian

Research Assistant, Nutrition and Immunology

California Polytechnic State University, San Luis Obispo, CA

- Maintained research notebook
- Lab and data collection techniques: macrophage isolation in chicken blood, carotenoid
 extraction, calorimetric plasma haptoglobin and plasma uric acid assays; tissue collection;
 cardiac venipuncture; wing vein and jugular blood collection; intra-abdominal/peritoneal
 and intramuscular vaccination

Student Assistant, Poultry Unit

California Polytechnic State University, San Luis Obispo, CA

- Collected, candled and processed eggs for consumption (MOBA)
- Cared for chicks, quail, broilers, layers, and turkeys
- Candled broiler chick eggs and documented the embryonic development
- Participated in live haul
- Harvested chickens and turkeys for consumption
- Observed biosecurity and facility rotation protocols to prevent the spread of disease between the animal populations
- Re-organized filing system and processed egg delivery purchase orders and invoices

Kennel Assistant/Technician- East Lake Animal Clinic

Watsonville, CA (Worked during college breaks when home from college)

- Performed animal care, grooming, hospital maintenance
- Induced and monitored anesthesia under veterinary supervision
- Assisted with exams and emergency patients
- Communicated with clients about medication administration and vaccination reactions
- Observed surgery
- Ran in-house diagnostics and obtained radiographs

PRESENTATIONS

A.L. McKillop

Essential Husbandry and Nutrition for Backyard Chickens

VMX Veterinary Meeting and Expo, Orlando, FL (invited)

A.L. McKillop

Top Diseases and Treatment by System, Episode I

VMX Veterinary Meeting and Expo, Orlando, FL (invited)

May 2007 - September 2007

July 2005 – December 2005

May 2007 - September 2007

July 2003 - January 2005

March 2003 - June 2004

October 2000 - September 2006

January 20, 2020

January 20, 2020

A.L. McKillop January 20, 2020 Top Diseases and Treatment by System, Episode II VMX Veterinary Meeting and Expo, Orlando, FL (invited) A.L. McKillop January 20, 2020 Drug Laws: Everything You Need to Know When Treating Backyard Flocks VMX Veterinary Meeting and Expo, Orlando, FL (invited) A.L. McKillop October 2-4 2019 Common Diseases in Noncommercial Poultry Iowa State University Veterinary Extension, Poultry Medicine Workshops Denisen, IA; Ames, IA; and Central City, IA (invited) A.L. McKillop October 2-4 2019 Individual Avian Medicine and Surgery Iowa State University Veterinary Extension, Poultry Medicine Workshops Denisen, IA; Ames, IA; and Central City, IA (invited) A.L. McKillop October 1, 2019 Laws, Medications, Treatment, Vaccinations, and Best Management Practices for Small Flocks Iowa State University, College of Veterinary Medicine, Poultry Club Ames, IAinvited) A.L. McKillop August. 3, 2019 Gut Health in Small Flocks: Intestinal Parasites American Veterinary Medical Association Conference, Washington, DC A.L. McKillop June 24, 2019 **Best Management Practices** Southeast Veterinary Conference, Myrtle Beach, SC (invited) June 24, 2019 A.L. McKillop Common Poultry Diseases Southeast Veterinary Conference, Myrtle Beach, SC (invited) June 24, 2019 A.L. McKillop Laws, Medications, Treatment and Vaccinations Southeast Veterinary Conference, Myrtle Beach, SC (invited) A.L. McKillop May 28- June 1 2019 Best Management Practices for Small Flocks University of Hawaii Veterinary Extension, Poultry Medicine Workshops Haleiwa, Oahu, HI; Kahului, Maui, HI; Hilo, Hawaii, HI; Lihue, Kauai, HI (invited) May 28- June 1 2019 A.L. McKillop Laws, Medications, Treatment and Vaccinations University of Hawaii Veterinary Extension, Poultry Medicine Workshops Haleiwa, Oahu, HI; Kahului, Maui, HI; Hilo, Hawaii, HI; Lihue, Kauai, HI (invited) November 4, 2018 A.L. McKillop Biosecurity, Medications and Laws, Anatomy and Physiology, and Physical Exam of Poultry 3 Rivers Veterinary Symposium, Pittsburgh, PA (invited) November 4, 2018 Poultry Diseases by Clinical Presentation, Diagnosis, and Treatment 3 Rivers Veterinary Symposium, Pittsburgh, PA (invited) A.L. McKillop October 17, 2018 One Health in Veterinary Practice Western Maryland Veterinary Medical Association, Braddock Heights, MD (invited)

A.L. McKillop October 2-4 2018 Common Diseases in Noncommercial Poultry Iowa State University Veterinary Extension, Poultry Medicine Workshops South Sioux City NE, Ames IA, and Central City IA (invited) A.L. McKillop July 13, 2018 Laws, Medicstions, Treatment and Vaccination American Veterinary Medical Association Conference, Denver, CO June 24, 2018 Common Poultry Diseases Maryland Veterinary Medical Association Conference, Ocean City, MD (invited) October 3-5 2017 Common Diseases in Noncommercial Backyard Poultry Ohio State University Veterinary Extension, Poultry Medicine Workshops Wooster OH, Reynoldsburg OH, and Dayton OH (invited) September 29, 2017 A.L. McKillop Considerations when treating poultry: Biosecurity, Medications and Laws, Anatomy and Physiology, And Physical Exam Kentucky Veterinary Medical Association Conference, Louisville, KY (invited) September 29, 2017 Poultry Management and Diagnosis of Common Backyard Poultry Diseases by Symptom Kentucky Veterinary Medical Association Conference, Louisville, KY (invited) A.L. McKillop July 13, 2017 Small Flock Poultry Workshop-Laws, Medications, Treatment, and Vaccination American Veterinary Medical Association Conference in Denver, Colorado (invited) October 4-6, 2016 A.L. McKillop Common Diseases in Noncommercial Backyard Poultry Ohio State University Veterinary Extension, Poultry Medicine Workshops Wooster OH, Reynoldsburg OH, and Cincinnati OH (invited) A.L. McKillop August 6-9, 2016 Onsite Surgical Procedures for Backyard Poultry American Association of Avian Pathologists meeting at the American Veterinary Medical Association Conference in San Antonio, Texas (Poster) June 28, 2016 A.L. McKillop Considerations when treating poultry patients Maryland Veterinary Medical Association Conference, Ocean City, MD (invited) June 28, 2016 A.L. McKillop Poultry Diseases by Clinical Presentation: Diagnosis, and Treatment Maryland Veterinary Medical Association Conference, Ocean City, MD (invited) A.L. McKillop, K.S.Mormino February 27, 2016 **Intestinal Parasites** Coop Dreams Coop Camp, Waynesboro, VA (invited) A.L. McKillop March 4, 2015 Mycoplasma in backyard flocks 2015 NPIP Mycoplasma Workshop, Keynote Speaker, Athens, GA (invited) A.L Hoffman, M.R. Slater, D. Rives, M.P. Martin, and H. John Barnes September 15, 2012 Turkey osteomyelitis complex

The Poultry Federation Turkey Meeting in Branson, Missouri A.L Hoffman, M.R. Slater, D. Rives, M.P. Martin, and H. John Barnes February 2, 2012 Incidence of tibial dyschondroplasia in 20 week-old commercial toms **NCSU House Officers Presentation Series.** November 21, 2011 A. L. Hoffman Incidence of tibial dyschondroplasia in 20 week-old commercial toms **NCSU Poultry Health Management Seminar Series** A.L Hoffman, MR. Slater, O. Brinker, S. Tilley, D. Rives, D. K. Carver, M.P. Martin, H. J Barnes November 4, 2011 Evaluation of green livers in commercial turkeys and osteomyelitis and condemnation North Carolina Poultry Health meeting at the North Carolina Veterinary Conference in Raleigh, North Carolina (Invited) A.L Hoffman August 16, 2011 Biology of Avian Influenza USDA Live Bird Marketing System Continuing Education Training in Raleigh, North Carolina (Invited) A.L Hoffman, M.R. Slater, D. Rives, D. Carver, M.P. Martin, and H. John Barnes July 18, 2011 Green livers and osteomyelitis in heavy toms American Association of Avian Pathologists/Poultry Science Association combined meetings at the American Veterinary Medical Association Conference in Saint Louis, Missouri A.L Hoffman, M.R. Slater, D. Rives, D. Carver, M.P. Martin, and H. John Barnes June 2, 2011 Green livers and osteomyelitis in heavy toms NCSU House Officers Presentation Series. A. L. Hoffman April 25, 2011 Production and management of the 2011 TAU broiler flock **NCSU Poultry Health Management Seminar Series** A.L Hoffman, Michael P. Martin, H. John Barnes, Oscar J. Fletcher, David H. Ley, Kabel Robbins, April 12, 2011 Rosemary Marusak Cloacitis in breeder flocks Virginia Poultry Health and Management Seminar (Invited) A.L Hoffman, Michael P. Martin, H. John Barnes Kabel Robbins April 12, 2011 Current broiler breeder research at NC State Virginia Poultry Health and Management Seminar (Invited) A. L. Hoffman November 22, 2010 TAU flock overview Fall 2010 **NCSU Poultry Health Management Seminar Series** November 5, 2010 A.L Hoffman, Kabel Robbins, H. John Barnes, Michael P. Martin Evaluation of dewclaw trimming techniques in commercial turkey hens North Carolina Poultry Health meeting at the North Carolina Veterinary Conference in Raleigh, North Carolina (Invited) A. L. Hoffman October 11, 2010 Effects of increased light intensity on tendon rupture in eight-pound broilers **NCSU Poultry Health Management Seminar Series** A. L. Hoffman September 13, 2010

NCSU Poultry Health Management Seminar Series

A. L. Hoffman August 16, 2010

TAU flock week 1 performance
NCSU Poultry Health Management Seminar Series

2007

August 2014- December 2016

A.L Hoffman, Philip A. Stayer July 14, 2009

Effects of increased light intensity on tendon ruptures in eight pound broilers

American Association of Avian Pathologists meeting at the American Veterinary Medical Association Conference in Seattle, Washington

A.L. Hoffman, E.A. Koutsos January 24-25, 2005

Time and dose response for induction of plasma haptoglobin as a measurement of inflammatory responses in broiler chickens

Southern Poultry Science Society, Southern Conference on Avian Diseases.

US Poultry and Egg Association International Poultry Scientific Forum Poster Competition, Atlanta, GA Abstract 166, pp. 40

A.L. Hoffman, E.A. Koutsos February 23-26, 2004

Embryonic development of Cobb x Cobb broiler chickens

Pacific Egg and Poultry Annual Convention, Newport Beach, CA

PUBLICATIONS

A.L. McKillop 2015

Drugs that you can and cannot use in backyard poultry
Maryland Veterinary Medical Association Fall Newsletter

A.L. Hoffman, M.R. Slater, D. Rives, D.K. Carver, M.P. Martin, and H. John Barnes 2014

Osteomyelitis in commercial tom turkeys with green discolored livers

Avian Diseases (In preparation)

A.L. Hoffman, M.R. Slater, D. Rives, D.K. Carver, M.P. Martin, and H. John Barnes

Leg atrophy predicting osteomyelitis in heavy toms with green livers

Avian Diseases (In preparation)

A.L. Hoffman, M.R. Slater, D. Rives, D.K. Carver, M.P. Martin, and H. John Barnes 2014

Incidence of tibial dyschondroplasia in 20 week-old commercial toms

Avian Diseases (In preparation)

A.L. Hoffman (Ed.)

College of Veterinary Medicine Memory Book the "Paradigm"

Western University of Health Sciences, Pomona CA

TEACHING

Adjunct Faculty Member- Frederick Community College

Frederick, MD

- Created course materials such as PowerPoint's, worksheets/study materials, quizzes, and exams.
- Instructed courses: Introduction to Allied Health Lecture (BI-55), Microbiology Lecture and Lab (BI120),
 Study of the Human Body Lecture (BI 117), and Anatomy & Physiology Lecture (BI 103)
- Provided office hours for students for private instruction and mentoring

Co-Instructor 2010-2012

VMP 982:Poultry Health Management I Senior Clinical Rotation

North Carolina State University, Raleigh NC

- Supervised senior students on clinical trips to evaluate commercial broilers and broiler breeders, turkeys and turkey breeders, broiler and turkey hatcheries, broiler and turkey processing plants, and feed mills
- Taught students biosecurity, necropsy, diagnostic sample collection, flock evaluation, bacterial
 plating and interpretation, and food safety

2010-2012 Co-Instructor VMP 974: Food Supply Veterinary Medicine Clinical Rotation, Poultry Section North Carolina State University, Raleigh NC Helped senior students' acquire poultry diagnostic sampling skills Conducted clinical evaluations of a commercial poultry farm with students Led discussions on turkey and broiler production, management, and diseases Co-Instructor/Teaching Assistant 2010-2012 VMP 916, 936, & 956: Poultry Teaching Animal Unit Laboratories North Carolina State University, Raleigh NC Introduced 1st-3rd year veterinary students to small scale turkey and broiler management and production Demonstrated poultry handling, individual and flock examination, vaccination, diagnostic sampling procedures, and perfected students' techniques Led in-depth discussions on poultry diseases, management, serology interpretation, and vaccination. October 19, 2011 **Guest Lecturer** Careers as a Poultry Veterinarian PO 405: Avian Physiology North Carolina State University, Raleigh NC **Teaching Assistant** Spring, 2011 VMP 401: Poultry Diseases North Carolina State University, Raleigh NC Organized, prepared, and taught necropsy sessions to 25 undergraduate students Taught avian anatomy, necropsy, egg break-out, poultry diagnostic sampling techniques, packaging of diagnostic samples for shipment, and how to fill out a diagnostic lab submission form Guided students through various mock disease outbreak investigations, diagnostic testing, treatment, and prevention Wrote 25 disease cases with history, clinical signs, and necropsy findings for students to solve **Guest Lecturer** November 16, 2010 Poultry Careers (Includes lecture notes) PATB 1001: Discovering Careers in Veterinary Medicine Wyoming State University, Laramie WY November 15, 2010 **Guest Lecturer** Poultry Industry and Diseases of Poultry (Includes lecture notes) PATB 4110: Diseases of Food Animals and Horses Wyoming State University, Laramie WY **Laboratory Assistant** November 11, 2010 Poultry Industry and Diseases of Poultry VMB 913: Veterinary Physiology I: Avian Section

North Carolina State University, Raleigh NC

Assisted in reproductive physiology laboratory session with 80 students.

Guest Lecturer

Health and Diseases in the Poultry Industry (Includes lecture notes) Diseases of Food Animals and Horses, PATB 4110

Wyoming State University, Laramie WY

Guest Lecturer

Reintroduction of the California Condor Western University of Health Sciences, Pomona CA Guest Speaker for Veterinary Issues Class for DVM 2010 March 22, 2010

January 18, 2008

Guest Lecturer April, 2006 How to Create an Effective Poster for a Poster Presentation Animal Science Undergraduate Seminar ASCI 463 California Polytechnic State University, San Luis Obispo, CA **PROFESSIONAL EXPERIENCE** Externship-Cobb-Vantress, INC., Monroe, NC March 2012 Observed and critiqued spray vaccination techniques and preparation for breeder flocks in different house set-ups Practiced biosecurity (Shower in-shower out, etc) Externship-Clemson Diagnostic Lab, Columbia, SC March 2012 NPIP testing of backyard flocks for Pullorum/Typoid and Avian Influenza clean status NPIP Hatchery Inspection Attended the South Carolina Confined Animal Manure Managers Training Program for Performed necropsy and collected diagnostic samples from poultry for general health and suspected ILT outbreak Externship- ISE Newberry INC, Newberry, SC February 2012 Observed Safe Quality Food (SQF) Audit of hard boiled and egg breaker plants Evaluated pest control program Vaccinated layers and reviewed vaccination program of various facilities Performed weight, general health, and management evaluation of pullet flocks January 2012 Externship- University of Georgia, Athens, GA Necropsy of broilers and quail Attended MAM courses in microbiology and avian health Performed field necropsies, gut health assessment, and graded gut lesions for Eimeria grossly and microscopically February 2010 Veterinary Externship-Foster Farms, Turlock, CA Visited turkey breeders, breeder candidates, heavy toms and hens, hatchery, and processing plants Milked toms, inseminated hens, and sexed poults Performed field necropsies and egg breakout Evaluated HACCP protocols and quality assurance in both the turkey processing plant and further (cooked) processing plant during plant visits Veterinary Externship - Dr. Mark Bland, Napa, CA February 2010 Visited squab, duck, layer facilities, and live bird markets Avian Influenza swabbing/monitoring Performed environmental swabbing for Salmonella Toured a squab and chicken processing plant Collected blood samples for routine serology Veterinary Externship - Cutler Associate International, Moorpark, CA July 2009-Sept 2009 Visited farms in the California egg, duck, and squab industry Evaluated environmental conditions in relation to flock health, animal welfare, and public health Demonstrated proper restraint and handling of chickens Humanely euthanized birds, collected diagnostics samples for relevant diagnostics tests, and analyzed/interpreted the results

Collected oropharyngeal and cloacal swabs from poultry for Avian Influenza monitoring

Learned about various vaccines, vaccination protocols, and vaccine administration

Performed environmental swabbing for Salmonella

routes and systems

Musicians Federation Scholarship for excellence in music

Simunovich Scholarship for education in agriculture

All Saints Episcopal Church Scholarship

Katherine Wait Memorial Scholarship

Omega Nu, Santa Cruz Chapter Scholarship

2001

2001

2001

2001

2001

Japanese Quail Enterprise Project- California Polytechnic State University, San Luis Obispo, CA June 2004 - September 2004 Raised and harvested quail Bred quail Basic hatchery management and candled quail eggs (Nature Form) **POULTRY COURSEWORK** Turkey Production I &II. SVM610A, SVM615A 2010-2011 Raised and managed a commercial flock of 2,000 light hens (Fall 2010) Supervised incoming resident on similar flock (Fall 2011) Visited commercial grower to compare management and production **Broiler Production I. SVM 610B** Spring 2011 Raised and managed a flock of 5,000 broiler chickens from placement to processing Avian Pathology. CBS 595 Fall 2011 Trained in gross and histological pathology 2010-2012 Avian Histopathology. SVM 602 • Weekly case review sessions Disease Training and Field Investigations. SVM 685A 2010-2012 Clinical cases including broiler breeder hen cloacitis, broiler enterococcal spondylitis, broiler breeder male staphylococcal arthritis, aspergillosis, turkey osteomyelitis and green livers, and tibial dyschondroplasia in turkeys 2010-2012 Poultry Research and Laboratory Procedures. SVM 693A rt-RT PCR, RT-PCR, cell culture, preparing cell culture from embryo livers and kidneys, Immunoflouresence of HVT virus, plating and identification of Mycoplasma by direct immunofluorescence and serum plate agglutination **AWARDS AND SCHOLARSHIPS** Food Animal Proficiency Award, Western University of Health Sciences 2010 AAAP L. Dwight Schwartz Travel Scholarship 2009 Pacific Egg and Poultry Association Scholarship 2008 Food Safety Research and Response Network Summer Internship 2007 Recipient of the International Poultry Scientific Forum Poster Competition 2005 in recognition for best research and poster presentation 2005 Pacific Egg and Poultry Association Scholarship 2004 Pacific Egg and Poultry Association Scholarship Max and Verda Foster Farms Memorial Scholarship 2004 Semper Fidelis Award for outstanding musicianship 2001 John Phillip Sousa Award for most outstanding senior band member 2001 **Graham Fratcher Scholarship** 2001