

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

Home | 5778 Indian Cedar Court, Frederick, MD 21703 | Cell | (805) 441-4737 | annika@mckilloppoultry.com

## EDUCATION

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

## 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	<b>2016</b>
NPIP Mycoplasma Workshop	<b>2013</b>
NPIP Salmonella Workshop	<b>2013</b>
FEMA Disaster Response IS-00010	<b>2009</b>

## PROFESSIONAL MEMBERSHIPS

American Veterinary Medical Association  
American College of Poultry Veterinarians  
American Association of Avian Pathologists  
Association of Veterinarians in Egg Production  
World's Poultry Science Association  
Poultry Science Association

## EMPLOYMENT

<b>Owner- McKillop Poultry Medicine, LLC</b>	<b>June 2014- Present</b>
<b>Frederick, MD</b>	
<ul style="list-style-type: none"><li>• 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</li><li>• Maintain inventory and order pharmaceuticals, materials, and schedule appointments</li><li>• 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</li><li>• Promote and assist owners in achieving optimal health, production, and best management practices for their flocks</li><li>• Author and provide educational material for common poultry diseases and syndromes</li><li>• Mentor, teach, and host externships for veterinary students to learn about commercial poultry and backyard poultry medicine</li><li>• Educate veterinary practitioners at veterinary conferences and poultry medicine workshops about backyard poultry medicine</li><li>• Manage business budget, website, and social media pages</li><li>• National Poultry Improvement Plan testing agent in MD and PA.</li><li>• Consultant with VIP Pet Care and Vet IQ Petcare performing wellness examinations, diagnosing and treating common skin, ear, eye and upper respiratory ailments, administering vaccinations and preventative medications, and microchipping for dogs and cats</li></ul>	

**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**

July 2010- June 2012

**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**

September 2008 – March 2009

**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**

May 2008 – August 2008

**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

- Student Research Intern- Avian Disease Investigation** **May 2007 – September 2007**  
**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** **May 2007 – September 2007**  
**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,** **July 2005 – December 2005**  
**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** **July 2003 – January 2005**  
**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** **March 2003 – June 2004**  
**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** **October 2000 – September 2006**  
**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 **November 4, 2018**  
*Biosecurity, Medications and Laws, Anatomy and Physiology, and Physical Exam of Poultry*  
**3 Rivers Veterinary Symposium, Pittsburgh, PA (invited)**
- A.L. McKillop **November 4, 2018**  
*Poultry Diseases by Clinical Presentation, Diagnosis, and Treatment*  
**3 Rivers Veterinary Symposium, Pittsburgh, PA (invited)**

A.L. McKillop <i>One Health in Veterinary Practice</i> <b>Western Maryland Veterinary Medical Association, Braddock Heights, MD (invited)</b>	<b>October 17, 2018</b>
A.L. McKillop <i>Common Diseases in Noncommercial Poultry</i> <b>Iowa State University Veterinary Extension, Poultry Medicine Workshops South Sioux City NE, Ames IA, and Central City IA (invited)</b>	<b>October 2-4 2018</b>
A.L. McKillop <i>Common Poultry Diseases</i> <b>Maryland Veterinary Medical Association Conference, Ocean City, MD (invited)</b>	<b>June 24, 2018</b>
A.L. McKillop <i>Common Diseases in Noncommercial Backyard Poultry</i> <b>Ohio State University Veterinary Extension, Poultry Medicine Workshops Wooster OH, Reynoldsburg OH, and Dayton OH (invited)</b>	<b>October 3-5 2017</b>
A.L. McKillop <i>Considerations when treating poultry: Biosecurity, Medications and Laws, Anatomy and Physiology, And Physical Exam</i> <b>Kentucky Veterinary Medical Association Conference, Louisville, KY (invited)</b>	<b>September 29, 2017</b>
A.L. McKillop <i>Poultry Management and Diagnosis of Common Backyard Poultry Diseases by Symptom</i> <b>Kentucky Veterinary Medical Association Conference, Louisville, KY (invited)</b>	<b>September 29, 2017</b>
A.L. McKillop <i>Common Diseases in Noncommercial Backyard Poultry</i> <b>Ohio State University Veterinary Extension, Poultry Medicine Workshops Wooster OH, Reynoldsburg OH, and Cincinnati OH (invited)</b>	<b>October 4-6, 2016</b>
A.L. McKillop <i>Considerations when treating poultry patients</i> <b>Maryland Veterinary Medical Association Conference, Ocean City, MD (invited)</b>	<b>June 28, 2016</b>
A.L. McKillop Poultry Diseases by Clinical Presentation: Diagnosis, and Treatment <b>Maryland Veterinary Medical Association Conference, Ocean City, MD (invited)</b>	<b>June 28, 2016</b>
A.L. McKillop, K.S.Mormino <i>Intestinal Parasites</i> <b>Coop Dreams Coop Camp, Waynesboro, VA (invited)</b>	<b>February 27, 2016</b>
A.L. McKillop <i>Mycoplasma in backyard flocks</i> <b>2015 NPIP Mycoplasma Workshop, Keynote Speaker, Athens, GA (invited)</b>	<b>March 4, 2015</b>
A.L Hoffman, M.R. Slater, D. Rives, M.P. Martin, and H. John Barnes <i>Turkey osteomyelitis complex</i> <b>The Poultry Federation Turkey Meeting in Branson, Missouri</b>	<b>September 15, 2012</b>
A.L Hoffman, M.R. Slater, D. Rives, M.P. Martin, and H. John Barnes <i>Incidence of tibial dyschondroplasia in 20 week-old commercial toms</i> <b>NCSU House Officers Presentation Series.</b>	<b>February 2, 2012</b>
A. L. Hoffman <i>Incidence of tibial dyschondroplasia in 20 week-old commercial toms</i> <b>NCSU Poultry Health Management Seminar Series</b>	<b>November 21, 2011</b>

- A.L Hoffman, MR. Slater, O. Brinker, S. Tilley, D. Rives, D. K. Carver, M.P. Martin, H. J Barnes  
*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)** **November 4, 2011**
- A.L Hoffman  
*Biology of Avian Influenza*  
**USDA Live Bird Marketing System Continuing Education Training in Raleigh, North Carolina (Invited)** **August 16, 2011**
- A.L Hoffman, M.R. Slater, D. Rives, D. Carver, M.P. Martin, and H. John Barnes  
*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** **July 18, 2011**
- A.L Hoffman, M.R. Slater, D. Rives, D. Carver, M.P. Martin, and H. John Barnes  
*Green livers and osteomyelitis in heavy toms*  
**NCSU House Officers Presentation Series.** **June 2, 2011**
- A. L. Hoffman  
*Production and management of the 2011 TAU broiler flock*  
**NCSU Poultry Health Management Seminar Series** **April 25, 2011**
- A.L Hoffman, Michael P. Martin, H. John Barnes, Oscar J. Fletcher, David H. Ley, Kabel Robbins, Rosemary Marusak  
*Cloacitis in breeder flocks*  
**Virginia Poultry Health and Management Seminar (Invited)** **April 12, 2011**
- A.L Hoffman, Michael P. Martin, H. John Barnes Kabel Robbins  
*Current broiler breeder research at NC State*  
**Virginia Poultry Health and Management Seminar (Invited)** **April 12, 2011**
- A. L. Hoffman  
*TAU flock overview Fall 2010*  
**NCSU Poultry Health Management Seminar Series** **November 22, 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)** **November 5, 2010**
- A. L. Hoffman  
*Effects of increased light intensity on tendon rupture in eight-pound broilers*  
**NCSU Poultry Health Management Seminar Series** **October 11, 2010**
- A. L. Hoffman  
*TAU flock update*  
**NCSU Poultry Health Management Seminar Series** **September 13, 2010**
- A. L. Hoffman  
*TAU flock week 1 performance*  
**NCSU Poultry Health Management Seminar Series** **August 16, 2010**
- A.L Hoffman, Philip A. Stayer  
*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** **July 14, 2009**

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 2014  
*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.) 2007  
*College of Veterinary Medicine Memory Book the "Paradigm"*  
 Western University of Health Sciences, Pomona CA

## TEACHING

**Adjunct Faculty Member- Frederick Community College** August 2014- December 2016  
**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

**Co-Instructor** 2010-2012

*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 1<sup>st</sup>-3<sup>rd</sup> 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.

**Guest Lecturer****October 19, 2011***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

**Guest Lecturer****November 15, 2010***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****March 22, 2010***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****January 18, 2008***Reintroduction of the California Condor*

Western University of Health Sciences, Pomona CA

- Guest Speaker for Veterinary Issues Class for DVM 2010

**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 poultry
  - 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
- Externship- University of Georgia, Athens, GA** **January 2012**
- 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
- Veterinary Externship- Foster Farms, Turlock, CA** **February 2010**
- 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
  - Performed environmental swabbing for *Salmonella*
  - Learned about various vaccines, vaccination protocols, and vaccine administration routes and systems
- 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**

<b>Turkey Production I &amp; II. SVM610A, SVM615A</b>	<b>2010-2011</b>
<ul style="list-style-type: none"> <li>• Raised and managed a commercial flock of 2,000 light hens (Fall 2010)</li> <li>• Supervised incoming resident on similar flock (Fall 2011)</li> <li>• Visited commercial grower to compare management and production</li> </ul>	
<b>Broiler Production I. SVM 610B</b>	<b>Spring 2011</b>
<ul style="list-style-type: none"> <li>• Raised and managed a flock of 5,000 broiler chickens from placement to processing</li> </ul>	
<b>Avian Pathology. CBS 595</b>	<b>Fall 2011</b>
<ul style="list-style-type: none"> <li>• Trained in gross and histological pathology</li> </ul>	
<b>Avian Histopathology. SVM 602</b>	<b>2010-2012</b>
<ul style="list-style-type: none"> <li>• Weekly case review sessions</li> </ul>	
<b>Disease Training and Field Investigations. SVM 685A</b>	<b>2010-2012</b>
<ul style="list-style-type: none"> <li>• 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</li> </ul>	
<b>Poultry Research and Laboratory Procedures. SVM 693A</b>	<b>2010-2012</b>
<ul style="list-style-type: none"> <li>• rt-RT PCR, RT-PCR, cell culture, preparing cell culture from embryo livers and kidneys,</li> <li>• Immunofluorescence of HVT virus, plating and identification of Mycoplasma by direct immunofluorescence and serum plate agglutination</li> </ul>	

**AWARDS AND SCHOLARSHIPS**

Food Animal Proficiency Award, Western University of Health Sciences	<b>2010</b>
AAAP L. Dwight Schwartz Travel Scholarship	<b>2009</b>
Pacific Egg and Poultry Association Scholarship	<b>2008</b>
Food Safety Research and Response Network Summer Internship	<b>2007</b>
Recipient of the International Poultry Scientific Forum Poster Competition in recognition for best research and poster presentation	<b>2005</b>
Pacific Egg and Poultry Association Scholarship	<b>2005</b>
Pacific Egg and Poultry Association Scholarship	<b>2004</b>
Max and Verda Foster Farms Memorial Scholarship	<b>2004</b>
Semper Fidelis Award for outstanding musicianship	<b>2001</b>
John Phillip Sousa Award for most outstanding senior band member	<b>2001</b>
Graham Fratcher Scholarship	<b>2001</b>
Musicians Federation Scholarship for excellence in music	<b>2001</b>
All Saints Episcopal Church Scholarship	<b>2001</b>
Omega Nu, Santa Cruz Chapter Scholarship	<b>2001</b>
Simunovich Scholarship for education in agriculture	<b>2001</b>
Katherine Wait Memorial Scholarship	<b>2001</b>