

Kim C. Pinkerton, M.S.

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EDUCATION

Kent State University, Kent, Ohio

May 2003

M.S. Environmental Physiology

Taylor University, Upland, Indiana

May 1998

B.S. Environmental Biology

EXPERIENCE

ChemaTox Laboratory, Inc.

January 2012 - Present

- Manage a team of 10+ people, coordinating all laboratory procedures and the testing of 2000+ samples a week
- Analyze GCMS results from four machines running 24/7
- Developed and maintain weekly and monthly QA/QC records for CLIA monitoring
- Perform daily laboratory testing, including drug extractions, ELISA, and GCMS
- Completed the validation of new drug testing procedures and wrote corresponding SOPs
- Proficient with laboratory equipment including robotics and GCMS Chemstation programs
- Daily handling of human specimens including urine, blood, and other coroner samples

Oceanic Institute

January 2007 - February 2011

Research Associate

- Managed the Live Feeds department, including algae, copepods, and rotifer cultures
- Grew algae cultures from purified starter cultures to large-scale batch and continuous production levels
- Studied the microbial profile of algae cultures
- Developed and performed trouble shooting methods for increasing algal densities
- Worked with multiple groups to provide algae for their trial and research needs
- Studied the effects of lighting spectra on algal growth
- Experience with both indoor and outdoor photobioreactors
- Proficient in plumbing and systems design
- Led in the redesign, remodel and set-up of a new algae laboratory
- Designed a multi-departmental use laboratory building; worked with architects, engineers and electricians for the design and layout of the building spaces
- Designed and completed set-up of a functional microbiology and molecular laboratory
- Laboratory manager - responsible for the upkeep and organization of a general use laboratory used by the entire department
- Maintained relationships with State officials, veterinarians, university contacts, industry contacts, and departmental divisions

- Water quality, using both hand-held field units and specialized sensitive bench top units
- All microbial processes, from making agar plates to CFU counts and analyzation
- Microbial identification, using gram-stains, acid-fast stains, morphology, microscopic identification, biochemical tests and API strips
- Necropsies
- Animal care-medicating, quarantine, water quality, pit tagging, weighing, measuring, sex determination, fin clips, feeding, and routine movement between tanks and maintenance
- Biosecurity Leader for the department - attended company-wide meetings, research, installed of biosecurity measures including quarantine facilities, footbaths and hand washing stations, specialized footwear, and disinfection techniques
- Developed Standard Operating Procedures (SOPs) for the department
- Chemical safety - ordering, organization, disposal, record keeping, MSDS files
- Rearranged the filtration systems for improved microbial levels and hatchery survival
- Assisted in the construction of water systems, quarantine system, and various structures
- Worked with graduate students and undergraduate interns
- Designed publications, Literature research & Grant writing
- Redesigned the existing general use laboratory for enhanced functionality for the department

Ohio Department Of Agriculture

March 2005 - July 2006

Microbiologist I

- PCR surveillance programs for Avian Influenza/Exotic Newcastle Disease
- PCR diagnostic tests for Johne's Disease
- PCR testing for various viral and bacterial diseases, including E.coli, M.bovis and general
- Mycoplasma, Clostridium perfringens, BLV, IBR, IBV, BVD, PRRS, EHD, EHV, etc.
- ELISA tests for TSE, Pseudorabies virus (PRV), Bovine diarrheal virus (BVD), IBR, Porcine respiratory virus (PRRS), Neospora
- Daily use of conventional and Real Time PCR
- RNA and DNA extractions
- Gel Electrophoresis
- Experience using Biorobotics
- Handling and testing of animal samples including tissue, blood, serum, semen, milk, and tracheal swabs
- Rewriting and editing of departmental SOP's
- Chemical Representative for department
- Daily use of large and small autoclave
- Handling and disposal of Biohazard materials National Veterinary Service Laboratory
- Certified for:
 - Avian Influenza (molecular)
 - Exotic Newcastle Disease (molecular)
 - Classical Swine Fever (molecular)
 - Foot and Mouth Disease (molecular)
 - TSE (micro)
 - AGID for Avian Influenza
 - General ELISA essays

Woods Hole Oceanographic Institute & Ocean Alliance*April - October 2004*

Guest Researcher

- Involved in on-going research on CYP1A and CYP1B genes in specific cetacean species
- Conducted various molecular biology procedures, including RT-PCR, PCR, Real Time PCR, Gene Clean, TAE gels, Ligation, Transformation, microbial plating, Sequencing, Primer design, sequence alignment with Sequencer and BLAST programs. Immunohistochemistry projects on cetacean blubber, skin and tooth samples
- Responsible for the training of new interns and summer help
- Responsible for the organization and ordering of supplies
- Organization of mammalian and miscellaneous samples in both storage and in computer files

Battelle Memorial Institute*July - November 2002*

Research Assistant

- Created toxicology standards based on previous studies for the EPA
- Worked on toxic compound studies for the EPA and Department of Health
- Assisted in the preparation of EPA materials and reports
- Participated in the formation of the EPA body burden database
- Collaborated with other scientists for writing scientific assessment paper

Columbus Zoo & Aquarium*July - November 2002*

Aquarist

- Participated in on-going research within the aquarium
- Responsible for monitoring and upkeep of aquarium, penguin, reptile, and flamingo exhibits
- Held daily interactions to educate the public on the animals and related conservation issues
- Monitored and performed water quality tests
- Fed reef, invertebrate, and freshwater exhibits
- Handled the shipment, water changes, and feeding of brine and mycies
- Participated in training procedures for rays, sharks, and green sea turtles

The American Chemical Society/Chemical Abstracts*January - July 2002*

Editor

- Proofread scientific articles for grammar and stylistic features
- Corrected chemical formulas, equations, and research figures
- Ensured scientific chemical and biological research was clearly and accurately expressed
- Interacted with editors and authors regarding corrections and clarifications
- Completed articles in a timely fashion to meet journal deadlines

The Living Seas At Walt Disney World*June 1998 - January 1999*

Conservation Intern

- Participated in veterinary procedures for Green sea turtles, manatees and bottlenose dolphins
- Trained and utilized in all areas of animal care (Marine Mammal and Aquarium Teams)
- Led daily tours and presentations for guest education experiences
- Interpreted interactive exhibits and on-going research for guests
- Facilitated educational programs to students (K-12) and adults
- Dove for daily SCUBA diving demonstrations
- Assisted in developing an Historian position for The Living Seas
- Developed a program involving the articulation of an adult manatee skeleton
- Assisted in the revision and rewriting of a youth education program for students (K-12)

- Organized the participation of WDW employees in the National Beach Clean-up
- Participated in the chemical treatment of the aquarium
- Designed and published the monthly newsletter for The Living Seas Animal Care Staff

NASA/Dynamac

January 1997

Intern

- Assisted Jane Provancha, head scientist in the Aquatic and Biological Life Sciences Department
- Participated in gathering field data (netting, blood samples, measuring, weighing, PIT tagging) of endangered species of sea turtles (*Chelonia mydas* and *Caretta caretta*)
- Formulated tables and page layouts for the collected data on *C.mydas* and the impacts from NASA operations on the surrounding habitats
- Participated in gathering species for necropsy, including dolphin, sea turtles, deer and birds
- Performed weekly beach surveys of the Kennedy Space Center and Air Force beaches for marine life washed ashore
- Proofread previously collected data on beach mice
- Conducted water quality measurements on collected samples
- Performed measurement and species identification on sea

PRESENTATIONS

In utero and lactational exposure of Sprague-Dawley rats to 2,3,7,8-tetrachlorodibenzo-p-dioxin and polychlorinated dibenzo-p-furans: A histological analysis of the liver.

*July 27th 2004 -
August 1st 2004*

International Congress of Vertebrate Morphology

In utero and lactational exposure of Sprague-Dawley rats to 2,3,7,8-tetrachlorodibenzo-p-dioxin and polychlorinated dibenzo-p-furans: A histological analysis of the kidney.

January 17th 2000

Society of Integrative and Comparative Biology

PUBLICATIONS

Pacific Ocean-Wide Profile of CYP1S1 Expression, Stable Carbon and Nitrogen Isotope Ratios, and Organic Contaminant Burden in Sperm whale Skin Biopsies.

March 2011

Environmental Health Perspectives

Biomarker and Contaminant Burden Analyses of Sperm Whale Skin Biopsies Indicate Geographical Trends in Pacific Ocean-wide Pollution Profile (09-01809-ART)

December 11th 2009

Environmental Health Perspectives

In utero and lactational exposure of Sprague-Dawley rats to 2,3,7,8-tetrachlorodibenzo-p-dioxin and polychlorinated dibenzo-p-furans: A histological analysis of the liver.

Journal of Morphology 260.3: 288-289

In utero and lactational exposure of Sprague-Dawley rats to 2,3,7,8-tetrachlorodibenzo-p-dioxin and polychlorinated dibenzo-p-furans: A histological analysis of the kidney.

American Zoologist 39.5: 123A

CYP1A1 and CYP1B1 expression in tissues of male and female white-sided dolphins (*Lagenorhynchus acutus*). 2004

Society of Environmental Toxicology and Chemistry

CONTINUING EDUCATION

Hawaii Aquaculture Association 2007

Kapiolani Community College

International Congress of Vertebrate Morphology July 2004

Boca Raton, Florida

Society of Comparative and Integrative Biology January 2000

Atlanta, Georgia

National Marine Educators Association August 1997

Chicago, Illinois

PROJECTS

Master's Research Project

- In utero and lactational exposure of Sprague-Dawley rats to 2,3,7,8-tetrachlorodibenzo-p-dioxin and 2,3,4,7,8-polychlorinated-p-dibenzofurans: A histological analysis of the kidney, liver, and small intestine.
 - Animal care & Sacrificing
 - Histological preparation & Slide staining
 - Research and analysis using microscope
 - Fixation and dehydration
 - Dissection/Removal of test organs
 - Photography of sections
 - Sectioning of organs

AFFILIATIONS

Hawaii Aquaculture Association Member

National Marine Educators Association Member

ADDITIONAL SKILLS

- Proficient with Microsoft Word, Excel, PhotoShop, PowerPoint, Framemaker, Sequencer, MacVector, VetLims, and EndNote
- Proficient with both Macintosh and PC systems
- Extensive experience in histological preparation, including dehydration, fixation, staining, and microtome techniques
- SCUBA Certified