AQUAVET®

Background Information

- **Need for trained veterinary professionals**
  - Contribute to the health/welfare of aquatic animals and their environment
  - Began in the spring of 1977

- **Historically sponsored by**
  - University of Pennsylvania
  - Cornell University
AQUAVET®
Course Information

❖ **Four opportunities**
  
  ❖ **AQUAVET® I**
    ❖ Introduction to Aquatic Veterinary Medicine
    ❖ 4 week course
  
  ❖ **AQUAVET® II**
    ❖ Comparative Pathology of Aquatic Animals
    ❖ 2 week course
  
  ❖ **AQUAVET® III**
    ❖ Clinical Aspects of Captive Aquatic Animal Medicine
    ❖ 5 week course
  
  ❖ **AQUAVET® Summer fellowship**
    ❖ Usual Location: Fish Diagnostics Lab at Cornell
    ❖ Usual Topic: a selected fish viral disease
    ❖ Duration: 8 weeks
Logistics – AQUAVET® I & II

- **Roger Williams University - Bristol, RI**
  - Classrooms and labs
  - Library

- **Tuition** covers course work, housing and most meals

- **Housing** – suites with kitchen and 2 bedrooms
  - 4 students per suite
  - roommate
  - no pets

- **Meals** – cafeteria meal plan
  - Breakfast, lunch, dinner
  - 5-10 stations
Location   Bristol, R.I.

20 min to Newport
20 min to Providence
COURSES at RWU

AQUAVET® I:
An Introduction to Aquatic Veterinary Medicine

4 weeks: total immersion course
24 May to 20 June 2020
22-24 Students
Approx. 46 invited faculty

AQUAVET® II:
Comparative Pathology of Aquatic Animals

2 weeks: total immersion course
24 May to 6 June 2020
12-18 students
Approx. 15 invited faculty
Typical Dorm Room
AQUAVET®I 2019 Class in Woods Hole
AQUAVET® I
Introduction to Aquatic Veterinary Medicine

- Four weeks – begins May 24 and ends June 20
- Classes routinely five and one half days a week (and most evenings)

- Water Quality
- Invertebrates to marine mammals
- Lectures and laboratory sessions
- Student seminars
- Field trips
AQUAVET® I
Introduction to Aquatic Veterinary Medicine

Invertebrates to marine mammals

- Aquatic invertebrates
- Fish
- Amphibians and Reptiles
- Sea Turtles
- Aquatic Birds
- Marine Mammals
Field trips

- Intertidal Invertebrate Collecting
- Mystic Aquarium
- New England Aquarium
- Atlantis Marine World
- Riverhead Foundation for Marine Research and Preservation
- WHOI (Woods Hole Oceanographic Institute)
AQUAVET® I

- **Tuition for Students** - $2,450
  - Less $200 from anonymous donor = $2,250
  - **Includes**
    - Tuition
    - Room and board (almost all meals) - 4 weeks

- **Required to attend class**
  - Foundation covering 2/3 of cost

- **Credit Available** – depending on school
  - Evaluation based on
    - Participation in all aspects of the course
    - Especially student seminars
AQUAVET® I Cost Comparisons

- **Tuition** - $2,450 - $200 = $2,250
  
  - Compare:
    - **AQUAVET® I** – 4 weeks
      - about $600/week - Includes
        - Tuition
        - Room and board (practically all meals)
    - **MarVet** – 2 weeks for about $2,000
      - About $1,000/week
      - Includes only some meals
    - **SeaVet** – about $490 for 10 days
      - About $345/week
      - Includes only some meals
      - Doesn’t include housing
Not All Fun and Games
Classes

- routinely five and one half days a week
- (and most evenings)
- Required to Attend Class

- 8 am to noon
- 1 pm to 5 pm
- 6:30 pm to 8:30 pm or later
Student seminars

- 25-30 minute
- PowerPoint

Topics

- Invertebrates to marine mammals
- Marine plants
- Ecology

prepare early
AQUAVET II 2019 Concludes in Bristol, RI
AQUAVET® II
Comparative Pathology of Aquatic Animals

FOCUS

Pathology and Pathogenesis of diseases
• of important
  aquatic invertebrates and fish
• biomedical research models
• cultured species
AQUAVET® II
Comparative Pathology of Aquatic Animals

- **Prerequisites:** AQUAVET® I or equivalent
- **Two Weeks – May 24 to June 6**
- **Classes 5.5 days a week and most evenings**

- Lectures, slide review, and occasional wet labs
  - Primarily Fish and Invertebrates
  - Comparative Anatomy
  - Parasites
  - Bacterial, Viral and Fungal Diseases
  - Toxicology
  - Histopathology
AQUAVET® II

- **Student Tuition - $1,475**
  - Includes course instruction and room and board

- **Required to Attend Classes**
  - Foundation covering 2/3 of cost

- **Course Credit possible**
  - Depends on school requirements

- **Evaluation**
  - Based on class participation
Scenes from AQUAVET® II
AQUAVET® II - Lots of Microscope Work
Free Time
AQUAVET® Summer Fellowship

- Research project under guidance of AQUAVET® faculty
- 8 week duration (July and August)
- Aquaculture Based Project (funding requirement)
- Limited positions – usually 1
- Pays stipend of $3,800 after finishing all 8 weeks
- Publication often generated at the end of project
AQUAVET III 2019 finishes the 5 weeks with 2 weeks of dolphin medicine at Dolphinaris - Cancún y Cozumel, México
AQUAVET® III

- 3 Venues
  - Georgia Aquarium, Atlanta, GA
  - University of Georgia, Athens, GA
  - Dolphinaris Facilities, Cancún, México

- Dates
  - June 21st to July 26th - 5 weeks

- 15 credits

- Evaluation based on
  - Participation in all aspects of the course
  - Also Case Reports
AQUAVET® III

- Prerequisites
  - AQUAVET® I – or equivalent

- Class Size
  - 6-8 students

- Not Included
  - Transportation to and from Atlanta
  - Airfare to Cancún and from Cozumel
  - Some meals
Georgia Aquarium

- 2 Weeks – Mon through Sat
- 2-4 hours lecture per day
- Hands on care with veterinary staff
  - Marine Mammals – Belugas, Pinnipeds, Dolphins, Otters
  - Largest Tank in USA – one of largest in the World
  - Fish including Elasmobranchs – Whale Sharks, Manta Rays
  - Penguins and other birds
  - Sea Turtles, Crocodilians and other reptiles
Morning Rounds
AQUAVET® III

- University of Georgia
  - 3rd week
  - AM lectures
  - PM Endoscopy
    - Turtles
    - Fish
  - Fish Surgery
  - Lectures and Student Case Reports
AQUAVET® III

Student Case Reports

- Aquarium Cases
- 55 minutes
- PowerPoint
- Preparation – first 2 weeks
- Presentation – 3rd week
Dolphinaris

- Dolphin Medicine Only – 3 species
- 2 Weeks – Mon through Sat
- 3 Venues
  - Cancún
  - Playa del Carmen
  - Cozumel
- Days are a mix of lectures and hands-on activities
AQUAVET® III - Cancún
Dolphinaris

Sampling of Lecture Topics
- Dolphin Medicine and Physiology
- Nutrition
- Reproduction
- Importance of Training
- Endoscopy
- Ultrasound
- Hematology and Cytology
AQUAVET® III

- **Dolphinaris**
  - Sampling of Hands On Training
    - Blood Collection and Hematology
    - Chuff Collection and Cytology
    - Semen Collection and Analysis
    - Endoscopy
    - Ultrasound
Dolphinaria

- Sampling of Hands On Training
- Blood Collection and Hematology
- Chuff Collection and Cytology
- Semen Collection and Analysis
- Endoscopy
- Ultrasound
Learning to do dolphin examinations in a beautiful location.
Learning some training techniques.
Learning to process and analyze biological samples.
Learning ultrasound, first in the lab and then in the pool.
3 days in the water doing ultrasound
Learning how to use a flexible endoscope.
Not all Work and No Play
AQUAVET® III

- **Tuition** - $3,800 ($4,900 Non-student)
  - Includes
    - Tuition
    - Room and majority of board - 5 weeks

- **Tuition** - $3,800 ($4,900 Non-student)
  - Additional funds paid by anonymous donors
    - (to help keep tuition and expenses lower)

- **Course Credit Available**
  - Evaluation based on
    - Participation in all aspects of the course
    - Also Case Reports
APPLICATION PROCESS

Application forms  www.aquavet.org

Down-load the application form
MS Word and pdf

Please Submit **Electronically**

APPLICATIONS DUE  15 Jan 2019
APPLICATION PROCESS

What you must submit:

1. The completed application form
2. OFFICIAL Undergraduate transcripts
3. OFFICIAL Veterinary school transcripts
4. Current CV (Curriculum Vitae)

NOTE: “OFFICIAL” means they are sent directly to the director by the university. We cannot accept transcripts sent by the students. Most are done electronically these days.
NOTES:
- If applying for more than one course, need to submit application for each, however, only one set of transcripts
- If applying for a second year (e.g. AQV2 or AQV3), only the updated veterinary school transcript is required (and application)
- Veterinary school transcript must include recent work (fall of the year before application due)
- CV now also required
- Letters of recommendation accepted but NOT required
- Transcripts must be official copies sent directly to the director
  - Transcripts should be sent electronically by the university to the director
  - Paper transcripts are problematic, but IF NECESSARY will be accepted at director’s address
APPLICATION PROCESS

Where to submit:

Should be electronic: aquavetmail@gmail.com

If transcripts must be sent by mail:

Donald W. Stremme, V.M.D.
AQUAVET® Director
Cornell University
College of Veterinary Medicine
Microbiology and Immunology
C5181 Vet Medical Center
Ithaca, NY 14853
APPLICATION PROCESS

- Applications due **Jan 15, 2020**

- Application forms - website
  - Via E-mail as PDF file preferred

- **Essay** - highlight any aquatic experience
  - Can be separate word document
  - This is most important part of your application

- Acceptance to the program
  - Competitive Basis
  - Announced in February
APPLICATION PROCESS

The application process is competitive

What does the admission committee look for?
- An indication that you will use the information in the future
- What have you done in the past in the aquatic sciences
  and/or aquatic animal medicine…..
  and/or even other exotic animal work
- Formal courses
- Other courses
- Paid and volunteer work experience
- Other: e.g. hobbies (keep aquarium fish)
- Membership: IAAAM, WAVMA, AAFV, AAZV, ARAV, etc.

Application form, essay –
Why you think you will benefit from the course.
Probably the most important part of the application.
Follow the instructions regarding length of your essay.
Proof read it.
Further information

- Website  www.aquavet.org

- Contact Information

Donald W. Stremme, VMD
(609) 350-3044
aquavetmail@gmail.com