

Fish Health Section



The official link to the FHS website is: <https://units.fisheries.org/fhs/>

FHS NEWS

Scientific Art Competition during the ISAAH!

See the attached flyer!

Submit your entries EITHER at the meeting when you pick up your registration packet, OR you may mail them in advance (need to be received by Monday August 27) to: David Groman, Atlantic Veterinary College, 550 University Ave., Charlottetown, PE, Canada C1A 4P3 There

There will be dedicated poster boards for the art competition and entries will be on display throughout the Symposium. There will be one prize of \$50 for each category, decided by popular vote and announced during the Banquet on Wednesday, September 5.

STUDENTS AND EARLY CAREER MEMBERS

Student and Early professional event at ISAAH 2018
Charlottetown, PEI, Canada

Students and Early Professionals!

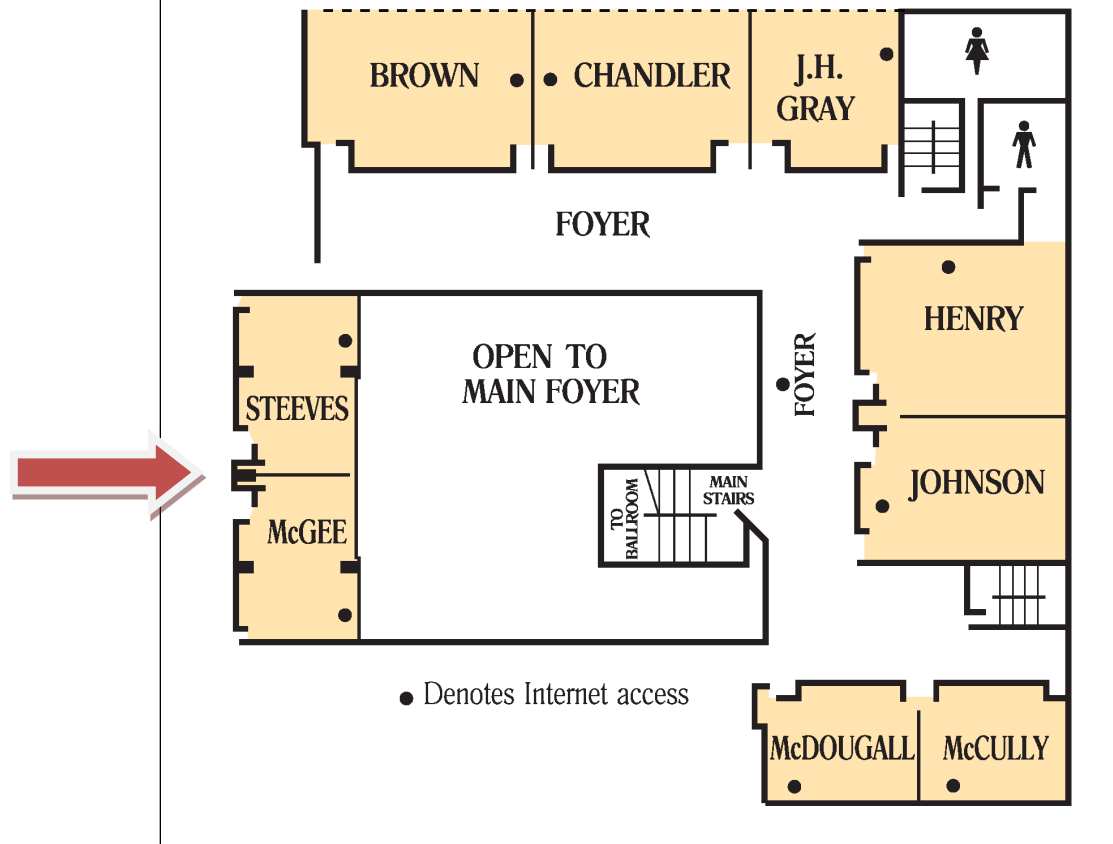
Please join us on Sunday, September 2nd, for a Student and Early Professional social. The reception will be held in the Steeves-McGee Host Suite on the Mezzanine Level above the Lobby of the Delta Hotel and will run from 5 - 7 p.m.

This will be an opportunity to network with other students and young professionals prior to the start of the conference.

Refreshments will be served.

If you would like to attend, please RSVP to Rose FitzPatrick (rose@peibioalliance.com) by August 29th. See the flyer attached to the newsletter email.

DELTA PRINCE EDWARD - MEZZANINE LEVEL



Additionally, a room share document has been set up for students and early professionals interested in sharing a room to help defray the costs of the meeting.

https://docs.google.com/spreadsheets/d/1cpz88yuG0LYrsfR5AsyK_eCgjzDZd4F4YO9AasBpXmM/edit?usp=sharing

MEETINGS, WORKSHOPS AND COURSES

Health and Colony Management of Laboratory Fish short course
Salisbury Cove, Maine
August 12-17, 2018

The MDI Biological Laboratory is pleased to present the short course Health and Colony Management of Laboratory Fish in our state-of-the-art training laboratory, the Maine Center for Biomedical Innovation.

This one-week short course is intended to help colony managers, researchers, and veterinarians monitor and maintain the health of a colony of aquatic organisms. The course consists of lectures, laboratory exercises with a high faculty to student ratio, and discussions. During the course, there are ample opportunities for students to discuss unusual and/or unsolved diagnostic case experiences from their home laboratories as problem-solving exercises.

This course is approved by the AAVSB RACE (American Association of Veterinary State Boards Registry of Approved Continuing Education) to offer a total of 35 CE (Continuing Education) Credits to veterinarians and veterinary technicians.

More information can be found in the attached course listing and online at the course webpage: <https://mdibl.org/course/health-and-colony-management-of-laboratory-fish-2018/>

8th International Symposium on Aquatic Animal Health
Charlottetown, Prince Edward Island, Canada
September 2-6, 2018



“Integrating Biotechnology in the Advancement of Aquatic Animal Health”

SEPTEMBER 2 - 7, 2018

Check out the ISAAH 2018 [program](#) and [keynote speakers](#) here.

ISAAH 2018 PARTNERING

The ISAAH 2018 online Partnering site will go live tomorrow, August 7th. For those who have already signed up during registration, you will receive a welcome letter along with your log-in details which will enable you to log into the system, complete your profile, view other delegates profiles and begin booking meetings!

If you haven't already signed up for partnering, now is the time!

The ISAAH 2018 One-to-One Partnering Program provides delegates the opportunity to maximize your business and academic connections at the conference. Don't leave your networking to chance - make sure you connect with key delegates to move your plans forward and increase your collaborations. The Partnering Program gives you the opportunity to pre-schedule 20-minute meetings. You can sign up by contacting the ISAAH 2018 Partnering Manager, at vivian@peibioalliance.com.

ISAAH 2018 INDUSTRY SESSIONS

ISAAH 2018 organizers are pleased to offer delegates an exciting opportunity to participate in **special industry sessions** as part of the 2018 program. From **Monday – Wednesday, September 3-5th**, delegates will have the opportunity to participate in the concurrent industry-led sessions following the morning keynote presentations.

On **Monday, September 3rd**, participate in lively discussions about challenges facing aquatic animal health companies and the important role of collaborative innovation. On **Tuesday & Wednesday, September 4th and 5th**, hear about the future of **Canada's Ocean Supercluster** – the opportunities and breakthrough technologies in fish health and nutrition for the Global Aquaculture Industry. More details [here](#).

Full conference registrations and tickets to [ISAAH social events](#) and [post-conference field tours](#) may still be available.

Important deadlines:

Oral PowerPoint Submission Deadline: 1 Day Prior to Session

On behalf of Dave, Esteban and the rest of the organizing committee, we look forward to seeing you in PEI in September!

Gill Health Symposium for Marine Fish

Zhongshan Park, Singapore

November 21-23, 2018

We are proud to announce the first international **Gill Health Symposium for Marine Fish** hosted by the Universities of Sydney, Auckland and Bergen. This 3-day symposium will focus on the function and form of fish gills in the face of a changing ocean environment with emphasis on ocean warming and acidification. The symposium will bring together scientists with expertise in a variety of disciplines such as marine biology, ecology, ecophysiology, environmental chemistry, aquaculture and fisheries.

The target audience for the symposium are scientists from university, government and private sectors and managers from aquaculture and fisheries industries.

Applications will be reviewed from **1 May 2018**. Priority will be given to early and mid career researchers (<10 years from PhD award) and those residing in developing countries. Maximum capacity is 30 people.

The **goal** of the symposium is to create small teams of discipline experts to co-author topic reviews to be submitted as part of a special research topic in ***Frontiers of Marine Science***.

Applications open 1 April 2018. To apply, go to: <http://sydney.edu.au/science/life-environment/research/gill-health-symposium.shtml>

Applications should include:

- short cv (4 pages max.)
- letter of support from your Department Head, Director or relevant supervisor
- statement addressing (1 page max.) current research program and career interests
- statement addressing (1 page max.) your willingness to contribute and support the goals of the Gill Health Symposium

For more information, please see the attached flyer and/or email: Associate Professor Joy Becker, joy.becker@sydney.edu.au

JOBS/GRADUATE ASSISTANTSHIPS

Project Leader, Aquaculture Vaccines Merck & Co., Inc. Elkhorn Nebraska

(Junior) Project leader vaccine development for aquaculture based in Elkhorn Nebraska.

The person will lead the Aquaculture vaccine development activities for the US aquaculture industry and will handle several vaccine development projects.

Job Purpose:

- Autonomously organize, conduct, co-ordinate and lead research project(s) and to perform all necessary experiments in order to design, develop or improve vaccines, vaccination strategies and veterinary products for aquatic animals.
- To ensure the fastest possible development of products whilst ensuring the quality standards and a high level of performance and confidence of the product developed.
- To determine, in conjunction to research management, the lines and approaches for product development in his/her own field of expertise.
- To initiate new projects.
- To coordinate/transfer to production

Project related activities:

- Functions as research leader for (multiple) projects.
- Plans, organizes, and leads activities of project teams for his/her projects.
- Functions as a subject matter expert in his/her field.
- Controls and is the main responsible for the progress of his/her projects.
- Is or strives to become the company expert for the diseases and products he/she works on.
- Ensures project reporting through Milestone reporting, Deviation reporting,, and Update reporting.
- Is and maintains up-to-date with the scientific developments and literature within his/her expertise fields.
- Performs experiments according to regulatory guidelines (9CFR or GLP) guidelines.
- Is up-to-date with regulatory guidelines for the products and geographical areas he/she is developing products for and maintains a direct contact with the Scientific editors (RA) to ensure that experiments are conducted and reported to allow registration.
- Plans, coordinates, and prioritizes activities of his/her team in view of priorities, available resources, and overall site efficiency.
- Writes project proposals (feasibility and development proposals_ and timely suggests amendments to running projects to R&D management.
- Presents research results both internally and externally.
- Is responsible for the operation of the wet-lab facilities and the organization of fish trials.
- Identifies potential intellectual property and takes steps to initiate evaluation of the potential.
- Thinks conceptual, explores, and evaluates new approaches within regulatory and ethical boundaries.
- Performs all tasks required to transfer a production process to GSC and Q and is responsible for the transfer.
- Explores cross-discipline developments for application in his/her projects.

Developmental Activities:

- Is co-responsible for the development and maintenance of USDA appropriate systems and procedures.
- Ensures compliance with Company, SHE, Quality, and Regulatory guidelines.
- Proposes where possible improvements to facilitate or expedite the activities within the R&D group.
- Contributes to project discussions with the R&D site and within AAHR&D world-wide.
- Is responsible for the communication between sections and between sites both nationally and internationally.
- Ensures adequate transfer of products and processes from his/her team to production, quality control, and registration departments.
- Ensure compliance with Merck EHS and compliance standards.

- Takes site related responsibilities outside the cor R&D activities on e.g.: SHE, Animal Welfare.

Qualifications

A Doctor of Veterinarian Medicine (DVM) with a proven track record in research, OR a Ph.D. in bacteriology, virology or immunology preferably involving the study of fish diseases.

- A minimum of three (3) years of post-doctoral experience, OR a minimum of three (3) years of relevant research experience.
- Practical knowledge of bacteriology, virology, immunology, or vaccine development.

Preferred Experience and Skills:

Thorough knowledge of fish, fish immunology and fish pathogens.

- Ability to multitask and to work within a multicultural team is essential.
- Excellent interpersonal skills. Incumbent should be able to interact effectively with the team.

If you need assistance and/or a reasonable accommodation due to a disability during the application or the recruiting process, please send a request to staffingaadar@merck.com.

See this link for more details:

https://merck.taleo.net/careersection/merck_external_career_section/jobdetail.ftl?job=RES002178&lang=en#.W3yVtqrJSvY.email

Fish Veterinarian Pacific Seafood Nespelem, Washington

Summary

Work in conjunction with site Operation Managers and Fish Health Team to manage, maintain and execute all aspects of the Fish Health Plan at our Aquaculture hatcheries and farm.

Essential Duties and Responsibilities

Duties include but not limited to:

- Be a role model in projecting and applying The Pacific Group Diamond Philosophy (Productivity, Quality, Excellence and Teamwork) and promote teamwork at all times.
- Oversee the administration of antibiotics in large net pen facility and hatcheries with a herd management mentality.

- Be up to date on all USDA VFD regulations and policies needed for aquaculture farm management.
- Assist with research projects in conjunction with National Center for Cool & Cold Water Aquaculture (NCCCWA), Western Fisheries Research Center (WFRC) and others. Has to keep accurate records as results will be published.
- Assist in developing a database or other effective record keeping system.
- Assist with data collection and recording.
- Assist with vaccine research and perform bacterial culture when necessary.
- Categorize mortality to identify diseases based upon external clinical symptoms. This is imperative to develop vaccines that work.
- Possess basic microscopic skills to make and stain slides and identify bacterial and parasite agents.
- Collaborate with partners on research projects.
- Perform regular cleaning and standardization of all lab equipment and lab facilities.
- Maintain a presence in fish health related meetings by continuing to develop outside partnerships and contacts with groups and agencies.
- Assist in establishing a feed monitoring program and ensure that feeds meet established standards.
- Assist in establishing a flesh quality monitoring program.
- Become a point of contact for hatchery related fish health questions regarding treatments and questions that may arise.
- Manage good aquaculture practices as part of the effort to prevent aquaculture related fish disease.
- Be observant of problems that may contribute to fish mortality, of rough handling density, and feeding practices to avoid contribution to fish mortality.
- Assist in creating a biosecurity plan for the farm including a check-in and check-out procedures for guests visiting the farm, and once created adherence to the policy must be audited to effectively evaluate compliance.
- Track and monitor the health of eggs, fingerlings and adult steelhead with the Fish Health Plan.
- Observe fish behavior as an indicator of stressors and pre-empt disease outbreaks.
- Maintain precise records on fish production, and educate other team members on fish health biology.
- Play a key role in reviewing and improving fish husbandry and production with a key focus on survival of stocks. Reduce stresses present not only from biological elements but also environmental conditions.
- Perform other duties, as assigned.

See this link for more details:

<https://recruiting2.ultipro.com/PAC1001/JobBoard/3d1f315c-b302-5e3c-ab32-f9b155cb2fba/OpportunityDetail?opportunityId=16d0c4fd-8486-4cc2-ad8b-a6bba8a666d8>

Microbiologist
Pacific Seafood
Nespelem, Washington

Summary

Under the direction of the veterinarian and the site operations manager, perform projects and assist in research related to fish health and mortality. Work closely with site management to identify and remedy the challenges to fish health that are present. Duties support the maintenance and operation of the disease laboratory.

Essential Duties and Responsibilities

Duties include but not limited to:

- Be a role model in projecting and applying The Pacific Group Diamond Philosophy (Productivity, Quality, Excellence and Teamwork) and promote teamwork at all times.
- Assist in developing an effective record keeping system.
- Collaborate in the team structure as well as work independently.
- Assist with vaccine research and perform bacterial culture.
- Appropriately categorize mortality to evaluate what is causing loss.
- Evaluate what percentage of pathogens contribute to the total loss.
- Identify diseases based upon external clinical symptoms.
- Track and monitor the health of steelhead fingerlings in accordance with the Fish Health Plan.
- Classify mortality, health sampling for disease identification, monitoring mortality levels, causes and factors affecting fish health.
- Observe fish behavior as an indicator of stressors and pre-empt disease outbreaks, including a degree of water quality e.g. O2 and TDG levels.
- Maintain a presence in fish health related meetings by continuing to develop outside partnerships and contacts with groups and agencies.
- Manage good aquaculture practices as part of the effort to prevent aquaculture related fish disease.
- Be the point of contact for hatchery related fish health questions regarding treatments and questions that may arise.
- Make and stain slides and identify bacterial and parasite agents.
- Regularly test for antimicrobial resistance.
- Assist in establishing a flesh quality monitoring program.
- Assist with various aspects of vaccine research by performing a variety of technical duties, including daily monitoring of challenge experiments, recording data, and performing microbiological analysis of infected tissue.
- Maintain, calibrate and modify complex/specialized equipment and automated systems used for test and evaluation procedures to achieve desired results.
- Maintain inventory of chemicals, prepares solutions and reagents for use in the laboratory, and safely disposes of chemical and biological waste material.

- Perform regular cleaning and standardization of all lab equipment.
- Assist in establishing a feed monitoring program.
- Ensure that feeds meet established standards.
- Be observant of problems that may contribute to fish mortality, of rough handling density, and feeding practices to avoid contribution to fish mortality.
- Assist in creating a biosecurity, and audit plan for the farm including a check-in and check-out procedures for farm visitors and effectively evaluate compliance.
- Keep precise records on fish production, and educate other team members on fish health biology.
- Perform other duties, as assigned.

See this link for more details:

<https://recruiting2.ultipro.com/PAC1001/JobBoard/3d1f315c-b302-5e3c-ab32-f9b155cb2fba/OpportunityDetail?opportunityId=0380d5ae-e3aa-4ee3-b4b4-795f6bf63b78>

Extension Specialist – Fish Health

Auburn University

School of Fisheries, Aquaculture and Aquatic Sciences

Greensboro, Alabama

The School of Aquaculture, Fisheries and Aquatic Sciences (SFAAS) at Auburn University invites applications for a position at our Alabama Fish Farming Center (AFFC) in Greensboro. It is a non-tenure-track, 12-month faculty position with the title Extension Specialist; however, responsibilities are 50% extension and 50% research. The position is supported by the Alabama Cooperative Extension System (ACES) and the Alabama Agricultural Experiment Station (AAES). The incumbent will be a member of the ACES Aquatic Resources Program Priority Team and must maintain a current AAES Hatch project.

Responsibilities: The primary extension responsibility will be disease diagnostic services for catfish farmers. The primary research responsibilities will be fish health questions of importance to the Alabama catfish industry. The successful candidate will interact with AFFC staff, members of the Southeastern Cooperative Fish Parasite and Disease Project (located in SFAAS), and other fish health and aquaculture specialists to develop a vibrant diagnostic program and relevant, extramurally funded, research program.

Qualifications: A PhD in an appropriate field or a DVM is required. Research experience with aquatic animals and two years of experience (staff, postdoctoral, or faculty) in diagnosis of fish diseases are also required. Experience in extension or outreach with fish farmers, a publication record in extension, and a publication record in aquatic animal research are desirable. The successful candidate must possess excellent interpersonal skills, communication skills, and organizational skills. They must also meet eligibility requirements for work in the United States at the time the

appointment is scheduled to begin and continue working legally for the term of employment.

Application: Applicants must apply for the position electronically through: <https://aufacultypositions.peopleadmin.com/postings/search> and submit the following: 1) cover letter addressing the candidate's experience pertinent to the responsibilities of the position, 2) Curriculum vitae, 3) Reprints of up to three research publications and 4) Reprints of up to three extension publications. When prompted during the on-line application process, please provide names, phone numbers and email addresses of three professional references. Only complete application materials will be considered. Active review of applications will begin October 1, 2018 and the search will continue until the position is filled. Questions about the position should be directed to:

Dr. Cova Arias
Search Committee Chair
School of Fisheries, Aquaculture and Aquatic Sciences
203 Swingle Hall
Auburn University
Email: ariascr@auburn.edu
Auburn University is an EEO/Vet/Disability Employer

RESOURCES/NEWS

Interesting Article

Welfare of aquatic animals: where things are, where they are going, and what it means for research, aquaculture, recreational angling, and commercial fishing.

<https://academic.oup.com/icesjms/advance-article/doi/10.1093/icesjms/fsy067/5037898>
A pdf file is also attached to this email.

Western Fisheries Science News: June 2018 - Issue 6.6

Fish Health Highlights....

WFRC Scientists at Western Fish Disease Workshop: On June 20-22, 2018, four scientists from the WFRC- Maureen Purcell, Bill Batts, Doug McKenney and Diane Elliott -attended and presented at the Western Fish Disease Workshop held in Bozeman, MT. The workshop provided a forum for dissemination of current information on important topics concerning health and disease of wild and cultured fishes, and featured technical presentations, a round table discussion, and a continuing education session. In the technical session, Bill Batts, Maureen Purcell and Doug McKenney gave presentations on genetic surveillance, virus persistence, and genetic subgroup virulence of infectious hematopoietic necrosis virus (IHNV) of salmonids. In the continuing education session for fish health professionals, emeritus scientist Diane Elliott gave a

presentation on diagnostic tools for *Renibacterium salmoninarum*, the causative agent of salmonid bacterial kidney disease. For more information, contact Diane Elliott, dgelliott@usgs.gov, Seattle, WA.

Read the whole newsletter online at: <http://wfrc.usgs.gov/newsletter/>

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