FHS NEWS - March 2023

Fish Health Section website: https://units.fisheries.org/fhs/

Fish Health Section Facebook Site: https://facebook.com/FishHealthSectionAFS

Fish Health Section Twitter feed: @AFSFishHealth

Would you like your recent open-access publication featured on our Twitter feed? We would like to share one publication per week. Just fill out the form at: https://forms.gle/NWVXEFoGcdYME6gh8.

<u>Membership notice</u>: Starting in March 2023, only paid FHS members will receive newsletters and communications from the section. Thank you to all the renewing members! You are what makes this section successful! Make sure to add fhs@afsmembers.simplelists.com to your safe list to continue to receive communications from the section!

AFS-FHS Call for Nominations: Due by April 15th

Do you know someone who can help contribute to the Fish Health Section? Are you looking to be more involved in your professional community?



Those that volunteer their time to serve on FHS committees gain valuable experience, advance their priorities, build relationships, and make a big difference for the profession. It really is a win-win!

The Nominating and Balloting Committee is seeking nominees for the following positions:

- Vice-President (4 year term)
- Technical Standards Committee (3 year term)
- Professional Standards Committee (3 year term)
- Policy/Position Development Committee (3 year term)
- Nominating and Balloting Committee (3 year term)

More information on these positions can be found on the FHS website. https://units.fisheries.org/fhs/about/by-laws/

All nominees must be Fish Health Section members in good standing. Nominees for the Professional Standards Committee must be a Certified Fish Health Inspector, a Certified Fish Pathologist, or a Doctor of Veterinary Medicine.

The nomination period is open until April 15th, 2023. Please send all nominations to Nick Phelps, phelp083@umn.edu. Self nominations are ok!

Don't miss out on this chance to serve our important fish health organization!

Snieszko Student Travel Award Announcement



AFS-FHS is soliciting applications for the Snieszko Student Travel Awards, which will award a sum of up to \$2000 to students to defray costs of travel to a professional meeting to present a talk in the aquatic animal health field (e.g. FHS Annual Meeting, Western Fish Disease Workshop, etc.)

To apply students must submit the following items by the **deadline of May 8th, 2023**:

- 1. Letter of application and statement of any special financial circumstances (i.e., not supported by a stipend, etc.)
- 2. Curriculum vitae
- 3. Three letters of recommendation
- 4. Itemized budget on how money is to be spent, i.e., travel, meals, lodging and registration
- 5. Copy of abstract of paper to be presented
- 6. The student must be a member of FHS. As long as they have an active AFS-FHS student membership for the year, they are eligible for student awards through the end of the year, even if the conference is happening after graduation.

Applications will be judged on:

- 1. Quality of abstract
- 2. Significance of the research
- 3. Academic achievement
- 4. Professional achievement
- 5. Financial need

Email application material to the Awards Committee Chair (Isaac Standish, sirisaac standish@fws.gov)

Feel free to contact members of the Awards Committee with guestions.

Awards Committee

Isaac Standish, chair (<u>sirisaac standish@fws.gov</u>)

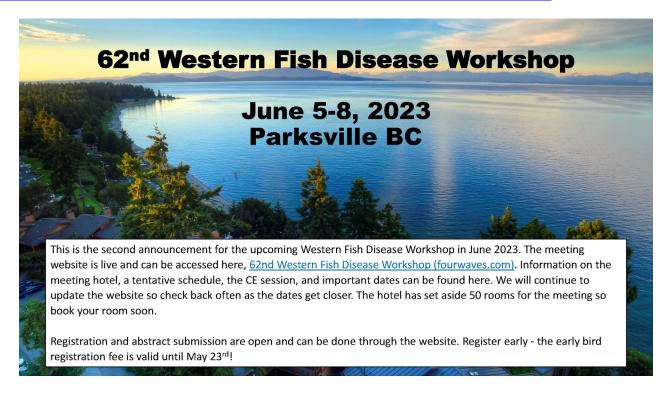
Nicole Nietlisbach (<u>nicole.nietlisbach@wisconsin.gov</u>)

Luke Iwanowicz (liwanowicz@usgs.gov)

MEETINGS, WORKSHOPS AND COURSES

Western Fish Disease Workshop June 6-8, 2023 Parksville, B.C.

https://event.fourwaves.com/cbd19bf6-2dec-4ea7-bfd4-6762a939ace5/pages



JOBS/GRADUATE ASSISTANTSHIPS

Chief Executive Officer Health & Nutrition Center for Aquaculture Technologies Canada Victoria, Prince Edward Island

Reporting to the Board, the CEO provides the leadership and vision to achieve CATC's long-term goals and objectives. The CEO is accountable for working closely with the Board, staff and key stakeholders in articulating a vision, setting priorities and delivering on the strategy that delivers top and bottom-line objectives, championing a corporate culture that has quality, service, innovation, collaboration and empowerment as its pillars. They are responsible for building capacity for growth and ensuring strong commercial relationships with clients and suppliers and leading the organization internally through good corporate governance, regulatory compliance and operational excellence. The CEO will build effective and productive external relationships with a wide range of stakeholders

See attached .pdf for details.

Zebrafish Related Job Announcements

https://wiki.zfin.org/display/jobs/Zebrafish-Related+Job+Announcements

including industry, government regulators and academics.

RESOURCES/NEWS



Please join us for the 4th annual AFS-FHS Summer Seminar Series! Initially started as a way for students and early career professionals to present their work during the global COVID-19 pandemic, this seminar series continues to be a low-stress platform for young scientists to showcase their research, get their name out there, and stay connected with the aquatic animal health field.

The seminar series will be held via Zoom on Thursdays (12:00pm CST/1:00pm EST) from May through August. As in previous years, travel funds will be awarded at the end of the summer for the best presentations (must be an AFS Fish Health Section member to win - so update your membership!!). More details will be coming soon about the schedule, how to sign up as a presenter, and how to join the audience each week!

An updated schedule as well as archived presentations and abstracts from the past 3 years can be found on the seminar's website:

AFS-FHS Summer Seminar Series website

If you'd like to continue to receive updates about the seminar, please sign up for our listserv:

AFS FHS Summer Seminar Series Listserv

If you have any additional questions, please feel free to reach out to one of the seminar organizers. Stay tuned for more details on scheduling and sign-up! Looking forward to another summer of exciting scientific presentations!

Matt Griffin (<u>matt.griffin@msstate.edu</u>) Megan Shavalier (<u>shavali1@msu.edu</u>) Nick Phelps (phelp083@umn.edu)

Aquatic Animal Drug Approval Partnership (AADAP) Updates are now available online (new link): https://www.fws.gov/library/collections/aquatic-animal-drug-approval-partnership-update

Member Publication

I am very pleased to announce the first description of thiamine deficiency in steelhead in Oregon! See attached .pdf for manuscript in Veterinary Sciences and here is a link to the journal. https://www.mdpi.com/2306-7381/10/2/156

Thank you to my co-authors, my staff, the staff at OHRC and Alsea Hatchery for the hard work put into this important contribution.

Aimee Reed DVM PhD CertAqV DACVM Fish Health Manager ODFW Fish Health Services

OSU Nash Hall Corvallis, OR 97331 Office 541-737-1857 aimee.n.reed@odfw.oregon.gov

Simple Summary: Steelhead fry reared in hatcheries in Oregon have a high mortality rate while exhibiting some signs of a vitamin B1 (thiamine) deficiency. This study investigates if thiamine supplementation could improve the health and survival of the fry. To do this, adult, female steelhead were injected with thiamine three weeks before spawning; some of the eggs were alternatively treated with a thiamine bath at the time of spawn, and some were treated both ways. The survival and growth efficiency of the thiamine-treated fry were significantly improved compared to fry that were not supplemented with any thiamine. Fry that came from females that were injected with thiamine had greater growth and survival rates than eggs that received thiamine as a bath only; however, any thiamine supplementation improved survival compared to no thiamine supplementation. This is the first description of thiamine deficiency in Oregon's steelhead.

Editor's Random Pics



Gill epithelial lifting in a juvenile rainbow trout. Oak Springs Hatchery, Oregon. March 2023.

boyden



Executive Brief

Chief Executive Officer Health & Nutrition Center for Aquaculture Technologies Canada

March 2023

Essence of the Opportunity

The Center for Aquaculture Technologies Canada (CATC) is an R&D and contract research organization (CRO) focused on the application of biotechnologies to improve productivity, efficiency and sustainability in aquaculture and related industries. The Canadian operations are located in Victoria, and Souris, Prince Edward Island. Their aquacultural expertise and experience, combined with a solid background in cellular and molecular technologies and *in vivo* testing gives CATC, a vertically integrated service provider with a unique advantage in delivering research-based solutions.

The sister company to CATC is CAT USA, an organization with facilities in San Diego, California. CAT USA provides client-focused solutions and specializes in developing custom tools to accelerate genetic improvement in aquatic species. Their tools support a wide range of applications, from understanding population genetics to selecting for commercially important traits.

Established in 2012, CATC works with clients worldwide to develop customized solutions to improve productivity, efficiency, and sustainability in the aquaculture industry. Their world-class research teams and state-of-art GLP & GMP-certified facilities are equipped to support a diverse range of projects from discovery through to final product development and testing/clinical trials. Unique to CATC is the ability to work with issues facing a wide range of cold and warm water species. Salmon, trout, tilapia, catfish, shrimp and oysters are some of the key species the center is working with.

CATC has the ability to control all aspects of testing from water condition to novel treatment applications and producing custom feed on-site - controlling the quality and delivery of feed for projects - saving the client time and cost, all the while producing reliable results.

Over the last couple of years, the organization has gone through some leadership transitions that have hindered the growth plan for the company. To put the company on a strong foundation, the Chair asked one of the Board Members (who is also a Member of the Cuna del Mar Management Committee) to step into the CEO role while the Board launches a search for a CEO, Health & Nutrition ("CEO") who is a strong leader with deep operational expertise to build on the great work of the interim leader.

Reporting to the Board, the CEO will provide the leadership and vision required to achieve CATC's long-term goals and objectives. The CEO is accountable for working closely with the Board, staff and key stakeholders in articulating a vision, setting priorities and delivering on the strategy that delivers top and bottom-line objectives, championing a corporate culture that has quality, service, innovation, collaboration and empowerment as its pillars. They are responsible for building capacity for growth, ensuring strong commercial relationships with clients and suppliers and leading the organization internally through good corporate governance, regulatory compliance and operational excellence. The CEO will build effective and productive external relationships with a wide range of stakeholders including industry, government regulators and academics.

The successful candidate is an experienced operational leader who has ideally worked in a regulated business/unit within biotech, pharma, life sciences, or feed/food manufacturing. They can demonstrate an understanding of how to drive resource optimization in an environment where the business model and planning, contract negotiations, pricing and staffing are all major factors in operational and financial success.

The operations are located in Victoria, Prince Edward Island. The preference is for the CEO to reside on Prince Edward Island.



Key Opportunities & Challenges

After consulting with key stakeholders at the Center for Aquaculture Technologies Canada, the following opportunities and challenges were identified for the new Chief Executive Officer Health & Nutrition:

The Commitment of the Parent Company

Cuna del Mar LP ("CdM") is an impact investment fund company committed to investing in companies that are making the oceans healthier and contributing to global food accessibility through sustainable aquaculture. They invested in CATC because the center's scientific work enables breakthroughs which will in turn drive the growth of the sustainable aquaculture industry.

World Class Reputation

CATC has worked with clients locally and worldwide in every sector of the industry. They have developed a reputation for being innovative and flexible. CATC can offer clients tailor-made testing solutions/clinical trials that support operational needs.

Certified Facilities

The facilities in PEI have achieved GMP and GLP certifications. This is a tremendous milestone in the company's evolution as it provides clients with the confidence of knowing that their studies and clinical trials are being carried out under the highest levels of quality control. Their world-class facilities support world-class testing and clinical trials.

Depth of Technical Expertise

Unlike many of its competitors, CATC has the ability to run over 200 pre-existing molecular tests and established challenge models in aquatic animals. Additional fit-for-purpose diagnostics and aquatic studies are developed as needed based on the client's goals. This depth of expertise has not been effectively marketed to the industry and as a result, CATC is currently operating below optimal capacity. Utilization is core to success.

Commitment to Quality

CATC is committed to delivering on its commitments to clients and will ensure studies are conducted with the highest level of quality to meet clients' and regulatory expectations.

Develop a Well-Defined Strategic Vision

To ensure CATC reaches its full potential, the Board and leadership team believe that the company has reached a stage where it is imperative that time and effort be spent in the development of a strategic plan that sets out a brand and culture strategy, identifies aspirational goals and establishes a roadmap and milestones for achieving these objectives and key results. Driving towards a long-term objective will ensure effective and measurable decision making.

Drive Performance

Driving revenue and profitability while ensuring a commitment to quality and compliance with all regulatory requirements is at the core of the CEO's mandate. The successful candidate must be able to set a strategy, inspire the team and develop an operational plan that delivers results. Creating a performance culture with collaboration, empowerment and quality as the key pillars will be critical to delivering on the growth mandate.



Chief Executive Officer Health & Nutrition, CATC

Regulatory Environment

As a CRO working with fish that enter the food chain, CATC operates under a number of regulatory frameworks. As the CEO, the successful candidate will be a signatory to documents that verify the level of QC and QA related to regulatory requirements including the welfare of animals. This is critical to the long-term viability of the business.

Build Scalable Operational Infrastructure

The operational infrastructure has supported the company to this stage, but growth will require the business to continually advance systems, processes, planning, pricing forecasting, operational efficiency and financial performance. Enhancing internal communications, interdepartmental collaboration, discipline, and decision making based on operational metrics, and market conditions will be fundamental to driving top and bottom-line performance as the business grows.

Top-Line Growth Ambition

The Board and Leadership Team feel the organization requires a clear vision for delivering top-line revenue objectives. To deliver on this growth objective, the company needs to develop strategies that enhance brand awareness, and build the reputation of CATC with the global feed producer and vaccine companies.

Feed Production

Unique to CATC is its ability to produce high-quality specialty feeds for clients who have tested their formulas in the CATC testing/clinical trial facilities and now need to produce limited production runs. This is an underdeveloped business line that has growth potential.



Organizational Profile

Cuna Del Mar

Cuna del Mar is a mission-driven impact investment fund that intends to help reverse the degradation of the oceans by shifting the demand for seafood from wild fisheries and conventional fisheries farming/production methods to new industries in open ocean aquaculture. Cuna del Mar explores, supports and develops open ocean aquaculture methods that are economically viable as well as environmentally and socially responsible. They invest in businesses that have the potential to create disruption in the industry by incorporating positive change agents to produce a diverse supply of healthy, wholesome seafood. Cuna Del Mar is committed to being ocean stewards that conduct business with integrity and respect. They seek excellence in people and systems in the spirit of continuous improvement. Personal growth, innovation, initiative and enrichment are at the center of the culture they espouse. They support their companies in the achievement of goals and objectives. Cuna Del Mar acquired the Center for Aquaculture Technologies because of the quality of the team and GMP-certified facilities that support testing and trials for global aquaculture producers, and feed and health science companies.

About the Center for Aquaculture Technologies

Innovative, Tailor-Made Solutions for Organizations in the Industry

The Center for Aquaculture Technologies Canada (CATC) is an R&D and contract research organization (CRO) focused on improving the level of productivity, efficiency and sustainability in aquaculture and related industries through expertise in molecular biology, pathobiology and animal health and nutrition.

The Canadian operation has facilities located in Victoria and Souris, Prince Edward Island, Canada. CATC's aquaculture expertise and experience combined with a solid background in cellular and molecular technologies and tank-based studies gives them a unique advantage in delivering research-based solutions. CATC has received GMP certification for quality control batch release testing of veterinary medicinal products and is finalizing its GLP certification.

CATC is a full-service organization that can integrate and customize all of their services to maximize project value. Learn more about CATC: www.aquatechcenter.com

Differentiators

Service Integration: CATC offers fully integrated services in <u>Health</u> and <u>Nutrition</u> to add value to clients' projects and optimize timelines by eliminating the need to work with multiple companies or laboratories.

World-Class Expertise: CATC brings decades of expertise working with aquatic animals. They provide continuous guidance and support throughout the project.

Quality Management: Their in-house quality system and <u>world-class certification</u> allow them to conduct *in vivo* and *in vitro* studies with imported as well as domestic aquatic animal pathogens.

State-of-the-art Facilities: Facilities are equipped to support a diverse range of projects from discovery through final product development and testing.

Maximized Project Value: They help measure Return on Investment and customize services to maximize project value.

Custom Solutions: They offer client-focused solutions and specialize in developing custom tools to deliver results.

Free Initial Consultation with Clients: CATC is committed to providing a high-quality product and client support – consulting is one of their adjacent services.



Services

Health

The CATC Health team works with clients in aquatic animal health to develop innovative solutions for the prevention and treatment of disease.

- Custom pathogen and disease challenge model development
- Evaluation of vaccines, functional feeds, and other fish health products
- Assess novel methods of treatment administration
- GMP and non-GMP batch release testing for products
- In vitro product screening
- Family studies for broodstock selection
- Benchmark the performance of competing products
- Evaluation of environmental and handling stressors on animal health

Health - Disease Models

World-class facilities and containment certification allow their expert health team to work with disease-causing organisms from anywhere in the world.

The health team are expert at developing tank-based models that mimic chronic and acute conditions for aquatic species.

Health - LabTech

The CATC molecular and support laboratories add value for clients because they provide a one-stop service to assess the safety and functionality of novel compounds in an efficient and cost-effective manner before moving into tank-based studies. In-house diagnostic, prognostics, and health monitoring services used to validate and increase the value of tank-based studies by providing timely and high-quality sample analytics. Additionally, LabTech offers services that improve the resolution of tank-based studies.

Nutrition

The Nutrition Department specializes in providing innovative solutions to improve the performance, cost-effectiveness, and sustainability of aquafeeds. Experts at CATC facilitate the development of products that meet or go beyond the basic nutritional requirements of aquatic species and help bring them to market faster. Services include:

- · Evaluation of novel feed ingredients and feed additives
- Fish meal and fish oil replacement trials
- Digestibility determination
- Palatability assessment
- Shadow pricing for novel feed ingredients
- Mathematical modelling of growth
- Feed formulation
- Pilot-scale feed extrusion and steam pelleting
- Pellet quality assessment
- Nutrigenomics and Gut Microbiome Analysis

FeedTech

The CATC FeedTech center is the first of its kind pilot-scale extrusion line in North America. Located in Souris, Prince Edward Island, Canada, the FeedTech production facility provides a fully integrated service from feed formulation and optimization of extrusion conditions, to tank-based evaluation and analytical quality assessments of ingredients and finished feeds. FeedTech innovative solutions are ideal for fish farmers, feed companies, aquafeed researchers, and raw material suppliers.

Research & Development

CATC is an expert in evaluating and testing biotechnology, as well as in adapting it to the needs of the aquaculture industry. They actively seek collaborative partners for the development and commercialization of novel technologies.





Facilities

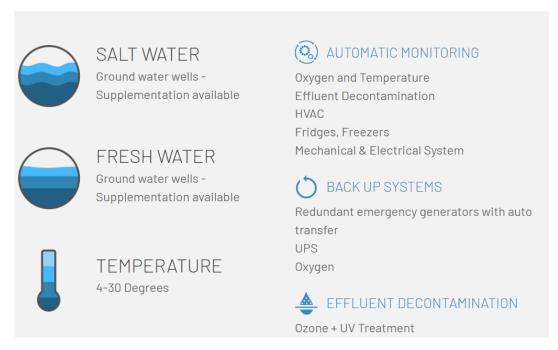
CATC's state-of-art facilities are equipped to support a diverse range of projects from discovery through final product development and testing.

Victoria, Prince Edward Island, Canada

The 46,000 square-foot aquatic animal research facility in Victoria, Prince Edward Island includes expansive, purpose-built, wet and dry lab space. Housing eight aquarium lab spaces and one dry lab with 20 discrete rooms, this facility is primarily dedicated to Health trials conducted within AQC3.

The dedicated GMP quality control labs are also located in this facility. These labs allow for rearing and stockholding of the study animals, dedicated spaces for water *in-vivo* non-pathogenetic batch release testing and AQC3-approved laboratories for pathogenic batch release testing.

Details



Airflow: Inward directional airflow throughout the facility; monitored daily HEPA-filtered exhaust in AQC3. Supply and exhaust interlocked in AQC3 AQC2 supply laboratories.

Oxygen Supply: Main oxygen supply is from an oxygen generator or backup is provided by additional oxygen generators and cylinders.

Controlled Access: Controlled access to the facility, controlled access to the wet labs and AQC3, entrance to the AQC3 area by interlocked doors, and visitor access is controlled.

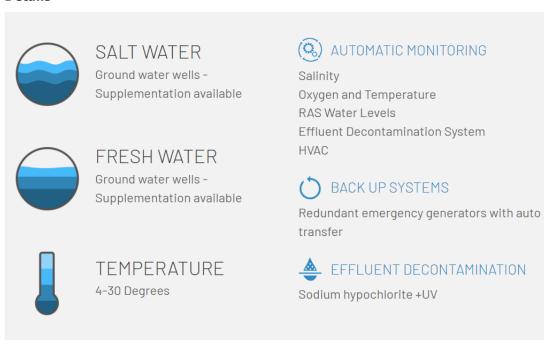


Souris, Prince Edward Island, Canada

The 21,000 square feet aquaculture research facility was constructed in 2015, CATC expanded operations as a formal, independent CRO for aquaculture and related industries providing services in the areas of genomics, drug approvals, vaccine testing, and evaluation of novel feed ingredients.

CATC facilities include a quarantine unit for the purpose of isolating animals. Source animals are tested for common, disease-causing organisms before they arrive or while they are in quarantine at the facilities.

Details



Airflow: Inward directional airflow throughout the facility; monitored daily HEPA filtered exhausted in AQC3. Supply and exhaust interlocked in AQC3 AQC2 supply laboratories.

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Leadership Team

Roly Morris CEO Health & Nutrition (interim)

TBD Vice President of Business Development

Meaghan McCormack Director of Finance

Ivan Tankovski Director of Nutrition

Shaun Macleod Director of Operations

Fabio Zanuzzo Manager of Fish Health

Catherine Albert Director of Quality

Jordan Poley Manager of Lab Technologies
Nayara Moraes Lima Manager of Human Resources

Learn more about CAT - Click the link below



Position Description

Chief Executive Officer



General

Reporting to the Board, the CEO provides the leadership and vision to achieve CATC's long-term goals and objectives. The CEO is accountable for working closely with the Board, staff and key stakeholders in articulating a vision, setting priorities and delivering on the strategy that delivers top and bottom-line objectives, championing a corporate culture that has quality, service, innovation, collaboration and empowerment as its pillars. They are responsible for building capacity for growth and ensuring strong commercial relationships with clients and suppliers and leading the organization internally through good corporate governance, regulatory compliance and operational excellence. The CEO will build effective and productive external relationships with a wide range of stakeholders including industry, government regulators and academics.

Specific Accountabilities

Board Accountability

The CEO works closely with the Board of Directors in the determination of organizational vision and strategy and supports the Board in the fulfillment of their governance responsibilities, including formulation of alternatives for consideration by the Board to ensure that the organization's goals and objectives are achieved through effective and realistic strategies.

Reports to the Board on the achievement of operational and financial goals and objectives and keeps the Board apprised of material issues that may affect CATC's ability to achieve the operational and financial objectives set out in the strategic and business plan.

Provides appropriate and timely advice, background information and briefing materials to the Board of Directors prior to all board meetings and as requested.

Prepares a quarterly analysis of the progress made in achieving the objectives established in the plan, sets out the rationale for variances, and recommends modifications to the plan for the remainder of its term. This plan will be updated on an annual basis and will act as the framework in which the business is operated.

Strategic Planning

Works with the Board and leadership team to formulate a strategic plan that sets out a future vision, identifies the critical issues and establishes short, medium and long-term goals and objectives that will drive CATC toward its growth objective with a strong and loyal global customer base based on its ability to execute testing/clinical trials that meet clients needs in a timely and cost-effective manner.

Client Insights

Ensures the company has the research and internal knowledge to fully understand and anticipate the needs of the target clients to evaluate and make decisions on the evolution of its operations, with the ultimate goal of having the testing/clinical trial capabilities, pricing structure and teams to meet client demand.

Annual Operating Plan

Works with the leadership team to formulate and recommend to the Board an annual operating plan based on the Strategic Priorities, Objectives and Key Results identified in the strategic plan.

Performance Management

Responsible for the achievement of Revenue, Gross Margin targets, Operating Expenses, EBITDA and the achievement of operational efficiencies through strong leadership, a culture of accountability and the effective execution of the business plan.

Ensures a disciplined and rigorous approach to revenue forecasting, demand planning, allocation and pricing.

Works with the leadership team in the development of dashboards, metrics and monthly analysis reports that ensures they have visibility of their departments and the progress made in achieving their financial and operational objectives. Takes the appropriate steps to ensure quarterly and annual objectives are achieved in a fiscally responsible manner.

Regulatory & Risk Management

Responsible for ensuring the processes are in place to manage and mitigate regulatory, financial, operational, and reputational risk. Ensures the business complies with all legal and regulatory requirements and that all activities are carried out with the highest level of ethics and integrity.

Ensures the company operates in accordance with all regulatory frameworks. Is the signatory to compliance.

Capital Investment

Develops an in-depth business plan to support the need for capital investment to support growth and innovation.

Resource Acquisition, Allocation and Utilization

Within the parameters of the approved business plan, ensures the effective acquisition, allocation and utilization of resources needed to scale the business in a fiscally responsible and timely manner.

Leadership and People

Provides the inspiration, vision, leadership, mentoring, and coaching needed to lead a high-performance team that delivers on operational, revenue and bottom-line objectives.

Ensures objectives and standards of performance are not only understood but owned by the leadership team and cascaded to their teams.

Responsible for guiding the elements of human resources, including compensation plans and benefits to support CATC in the recruitment and retention of high-performing team members at every level of the organization. Role models team member engagement and empowerment in all aspects of their work.

Resource Acquisition, Allocation and Utilization

Within the parameters of the approved business plan, ensures the effective acquisition, allocation and utilization of resources needed to scale the business in a fiscally responsible and timely manner.

Stakeholder Relations

In conjunction with the leadership team, ensures the development of positive and productive working relationships with a wide variety of key partners and stakeholders.

Develops and implements a strategy to raise the positive profile of CATC within the broader aquaculture, fish science and feed industry.



Chief Executive Officer Health & Nutrition, CATC

Plays an active role within the industry and at international conferences. Develops strong relationships with the leadership within key customers.

Financial and Administrative Management

Ensures effective financial and administrative systems are in place that maximize the effectiveness of resource utilization within the objectives, policies, plans and budgets established by the Board.

Scientific and Industry Trends

Keeps abreast of trends and developments in the diverse industry sectors in which CATC has an interest and in the CRO, aquaculture, fish science, feed and Pharma sectors. Uses this market intelligence to ensure that CATC has the best possible information with which to address and consider emerging issues and opportunities.

Reporting Relationships

Reports to: Board Chair

Direct reports: Vice President of Business Development

Director of Nutrition

Director of Operations

Director of Quality

Senior Manager of Business Development

Manager of Fish Health

Manager of Lab Technologies

Manager of Human Resources

Total staff: 75+



Candidate Profile

Chief Executive Officer



Priority Criteria

Experience: An experienced operational leader who has worked in a federally regulated business within biotechnology, pharmaceutical, life sciences, or feed/food manufacturing. Can demonstrate an understanding of how new science-based services are delivered. Understands what it takes to grow a small organization where utilization is core to driving financial performance.

Strategic Thinker: Has a well-developed ability to articulate a vision for an organization. Is able to lead the development of a vision and strategy for the future; can foster alignment and support for the strategy throughout the organization and externally among a wide range of stakeholders including industry leaders.

Leadership and Management Skills: A motivational and empowering leader. Excellent communication skills. Understands how to best structure an organization and create a performance culture. Has capacity for team building and developing effective coordinated action between Business Units. Is respected for their ability to give their team responsibility and authority. A track record of hiring, retaining and promoting talented people who are accretive to the organization.

Bias for Action: A demonstrated track record of optimizing performance and driving profitability while maintaining a commitment to innovation, quality, and service. Believes in a culture of accountability at every level of the organization. Has worked collaboratively with the leadership team to create KPIs and metrics that provide the leadership team with clear visibility to what is working and what needs attention in real time. Believes in managing both leading and lagging indicators, including the use of OKRs and KPIs.

Financial & Operational Acumen: Has the financial and operational acumen to understand the levers that need to be used to manage weakness or accelerate growth, understands where to make investments and how to measure the ROI. Has the operational acumen to oversee all aspects of the business.

Emotional Intelligence: Has strong emotional intelligence and is self aware. Has the ability to self-manage including demonstrating emotional self control, adaptability, achievement orientation and a positive outlook. Displays social awareness through empathy and organizational awareness. Has the ability to influence and provide coaching and mentoring, manage conflict and provide inspirational leadership.

Relationship Skills: Outstanding interpersonal skills. Builds relationships on trust, authenticity and transparency. Able to maintain strong, positive and transparent working relationships with both internal and external stakeholders, including all staff, shareholders, business partners, clients, regulators suppliers, external advisors, industry associations and academic institutions.

Communications: An open, authentic, confident and succinct communicator. Thrives on a high level of interaction with others. Able to distill complex issues and communicate to others in a language that the

Chief Executive Officer Health & Nutrition, CATC

audience understands. Ability to participate in and facilitate group meetings. Can inspire others into action.

Governance: Has experience working with a Board of Directors that is supportive of the business and there to provide advice and counsel. Has an understanding of how to effectively present to a Board. Believes in keeping the Board informed in a timely manner.

Politically astute: High level of political acuity. Has the ability to work collaboratively with the industry and government.

Capacity: Brings tremendous passion, energy, and commitment to driving a business. Able to multitask and prioritize effectively. Can move between being strategic and tactical. Not afraid to roll up their sleeves and lean into an issue with their team. Ability to motivate teams to produce results within tight timeframes and simultaneously manage several projects. Sets stretch goals for the team.

Style: Energetic and enthusiastic; positive, collaborative, confident, calm and reasoned. High integrity and emotional intelligence.

Education: Relevant education, preferably a degree in business or science. Brings a real interest and passion for the aquaculture sector and the important role it plays in providing protein to feed the world's population.

Travel: Is able to travel both in North America and internationally as required.



Overview of Search

About Us

Founded in 1946, Boyden was the first firm to focus entirely on retained executive search. Today Boyden remains a global leader in executive search, set apart by a client-centric approach and a consistent track record of recruiting high-calibre executive talent.

Boyden consists of an integrated global community of search professionals and industry specialists across more than 70 offices in 40 countries worldwide. With an intimate understanding of their local markets and a truly global perspective, Boyden Partners offer clients a decided advantage, both locally and internationally.

As one of the largest and most experienced executive search firms in the country, with more than 90 search professionals based in Calgary, Ottawa, Toronto, Montreal and Vancouver, Boyden Canada serves all of Canada's key sectors and executive functions. The search professionals of Boyden Canada have a rich foundation of experience and knowledge, reflected in the insight we bring to each of our industry and functional practices.

Our Philosophy

Boyden Vancouver focuses on providing clients with the highest return on investment in leadership, developing committed client relationships and exceeding expectations by working to four key operating principles:

- Integrity: We are committed to openness and candour with our clients, candidates, and each other.
- Client Focus: Our clients always come first. Client satisfaction is the key measure of our success.
- **Innovation:** Anticipating and acting on our clients' needs helps us think creatively and challenge the status quo.
- **Teamwork:** Shared goals and cooperation with clients, among team members and across international borders, optimizes performance.

Boyden Vancouver has always respected the privacy and the confidentiality of the personal information provided to us in context with our executive search assignments. This has been a fundamental value in building trust with our candidates and clients.

Boyden Vancouver is a member of the Association of Executive Search Consultants and operates in a manner consistent with the AESC Code of Ethics.



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