



Director of Production Science | R&D Qualitas Health

Position Overview

Prepared by Iraide Limia Senior Consultant - Houston March, 2017

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The Company - Qualitas Health (www.qualitas-health.com)

Established in Israel, Qualitas Health is Texas-based, privately-held company developing high-value vegetarian food supplements and pharmaceutical ingredients based on Omega-3 oils from a sustainable algae source. The company's products target the multi-billion global market for Omega-3 products, with its premium supplements segment sector growing at over 30% per year. The company's intellectual property portfolio, vast technological know-how and expertise span throughout the production process, from algae culturing to final product.

Qualitas Health developed a proprietary technology platform to launch fully sustainable, vegan nutritional products at scale. With its first product offerings featuring algae-based omega-3, protein and omega-7, Qualitas Health is aiming to change the way people fuel their best selves. Its first product, Almega PL®, has created a new category to disrupt traditional fish and krill oil in the multibillion dollar omega-3 market.

- 100% Plant-based: Sourced purely from algae
- Exclusive Source: The world's only eicosapentaenoic acid (EPA) omega-3 with polar lipids from algae
- High Bio-availability: Best absorption of Omega-3s
- Standardized: 25% EPA, 15% Polar Lipids
- Antioxidant Protection: contains naturally occurring carotenoids and chlorophyll
- Strong Body: Omega-3 EPA helps with cardiovascular function, nervous system function, immunity and neurotransmission
- Healthy Mind: Omega-3 EPA helps with memory, concentration and mood

LEADERSHIP TEAM



Dr. Isaac Berzin

Founder

PhD Chemical and Biotech; named to Time 100 for his work in sustainable micro-algae production. Former MIT researcher and founder of GreenFuel Technologies



Rebecca L. White, Ph.D.

VP of Algae Production Operations and Texas Site Manager

A worldwide recognized algae expert, with a PhD in Microbiology, Rebecca is passionate about algae and driven to realize its potential. She successfully directs farming operations and biomass production at commercial scale



Miguel Calatayud

CEO, Board Member

Entrepreneur and business leader in the food and nutrition industry with exceptional operating and financial results including Blencor and Virto Group

Position Overview

We are looking for **Director of Production Science | R&D**, based in Imperial, TX, to work closely with an outstanding Vice President of Algae Production Operations, leading all technical and operational aspects of the firm. You will join a:

- A company in growth mode with an extraordinary investor base and multidisciplinary management
- A company with a purpose and a unique & proprietary technology
- A place in which you can grow your career and expand your skills & knowledge

KEY STAKEHOLDERS

Reporting Line Rebecca White, VP of Algae Production Operations

Direct Reports 3 - 1Technitian, 1Bio Process Engineer, 1 Lab supervisor. Potentially whole lab

department to report to this position.

Collaborates with Operations, Maintenance and capital project teams.

KEY RESPONSIBILITIES

You will support microalgae biomass production by overseeing large scale production (cultivation, crop protection, harvesting, process monitoring) and leading production driven R&D efforts for all aspects of biomass production; providing leaderships as part of the site management team, and assuring that the site team addresses all relevant issues within the specifications and standards of the company and provide guidance to the team based on management direction.

Leadership

- Familiarize the site team with the company needs, specifications, design targets and standards, the development process, techniques and tools to support task performance
- Set expectations for the team and ensure that all direct reports execute their tasks as outlined in the shift plan
- Ensure all direct reports are trained and qualified to perform their duties
- Work with operations team to ensure all operators are trained and qualified to perform their duties
- Participate in the selection and hiring of new crew members
- Provide status reporting of team activities against the program plan or schedule
- Escalate issues which cannot be resolved by the team
- Participate in team, company and partnership meetings as required
- Write invention disclosures and assist with all levels of intellectual property development and protection, providing appropriate support to the IP team
- Foster an appropriate culture within the team including integrity and strong work ethic, encouraging teamwork and effective cross-department interactions

Production

- Provide senior level expertise for cultivation, crop protection, and harvesting issues
- Oversee and conduct field trials for process optimization, strain selection, process improvements for every production step; prepare proposals, and for each approved proposal, prepare periodic data reports, and final reports with conclusions and techno-economic analysis
- Investigate, test, analyze/compare new process units for every production step (pond to truck); coordinate with operations for resources as appropriate
- Work with operations, maintenance and capital project teams to implement, construct, commission new process units or process improvements
- Work with VP Quality and Regulatory and operations to produce SOPs and associated documentation and training for new process units and updated SOPs and associated documentation and training for process improvements

Measurement

- Coordinate analysis for all R&D activities; oversee, implement, and perform onsite sampling and testing for various physical, chemical and biological parameters for R&D tests at all scales, including, but not limited to
 - o Water chemistry analysis
 - o Measurements for characterizing algae productivity and process yield
 - o Daily microscope evaluations of cultures
 - Crop protection assays
- Data analysis and interpretation, maintain electronic database
- Mass balance analysis
- Assist the operations and lab teams in troubleshooting
- Writing reports, summaries, and protocols regarding experiments/procedures
- Coordinate outside analytical analyses for R&D tests at all scales; prep and track samples
- Make and record detailed observations, analyze data, and interpret results; QA data and ensure careful maintenance of electronic database
- Develop and implement new technologies, procedures or instruments as required for process monitoring
- Interpret and report on findings on a weekly basis and/or as requested, and maintain a current electronic database
- Perform non-routine analysis in support of process development or troubleshooting purposes
- Perform routine maintenance and calibration of equipment and instrumentation

EHS

- Compliance and understanding of all EHS policies, standards and procedures
- Document safety near misses and participate in determining causes and remedies; document safety variances from policies and procedures; assist with completion of incident reports and after action reviews as required
- Ensure proper disposal of any hazardous waste is in compliance with environmental regulations
- Play an active role in continuous EHS improvement at Qualitas
- Ensure all data from the site are properly secured, and that computers and electronic equipment are not compromised with respect to security via improper use

<u>General</u>

- Work within a team to achieve team and company goals and milestones

- Foster as sense of collaboration and joint problem solving
- Conscientiously practice continuous improvement of processes
- Actively share information and resources

ROLE EXPECTATIONS

- In the first 90 days, candidate will:
 - o Familiarize themselves with the company history, systems, personnel, protocols, data (historical and current) and make recommendations for improvements or changes
 - o Participate in SOP process to ensure the cultivation and crop protection SOPs are completed
 - o Set up field testing infrastructure (both capital and operational) and begin tests
- In the first 120 days, candidate will:
 - Work with operations to implement of improvements or changes recommended, ensuring correct training and documentation are also implemented
 - Set up growth lab for satellite testing (this is separate from the existing lab, which is for analysis) and other experiments
 - o Analyze historical data to identify further improvements or things to avoid, and issue "lessons learned"
 - Complete first set of field trials
 - Draft research plan to address areas of needed improvement (crop protection, nutrients, others)
 - Expand testing capability either through additional equipment or outside collaborations to include additional metrics not currently tracked (such as polar lipids

EXPERIENCE & EDUCATION

- A Ph.D. in microbiology, biology, related field
- 5+ years of applicable post-degree experience in large scale algae biomass production, with a proven track record in industrial biotechnology R&D
- A strong track record as an algal researcher, as demonstrated by published patents, highly cited published literature, etc.

KEY COMPETENCIES

Skills

- Computer software: MS Office, Statistical programs such as JMP
- Communication Excellent oral and written skills, including the capacity to create and deliver effective presentations to a wide variety of audiences; fluent in written and spoken English
- Strong interpersonal skills and leadership leading successful teams to high level achievements in relevant areas of research and algal production

Knowledge

 Deep knowledge of large scale algae biomass production, including on the cellular, physiological and ecological levels High degree of technical ability with algal research related techniques, including cultivation from lab
to production scale, strain identification, purification and selection, water chemistry and nutrient
optimization, dewatering techniques, etc.

Behavioral Preferences

People & Relationships

• Influencing - A natural leader that enjoys having responsibility for others

Tasks & Projects

- Conscientious follows rules (procedures & experimental protocols) set down for their work; honors any promises, deadline or commitments made; believes in ethics and values
- **Methodical** Believes in methodical and procedural approaches; plans and organizes tasks; structures own work efficiently; gives due attention to accuracy
- Analytical An analytical problem-solver, with relevant information at their fingertips; able to see pros and cons; good at working with numbers and handling statistics

Drives & Emotions

- Decisive & Action oriented decision making skills to ensure quality of work meets expected standards. Has a high level of energy and stamina; gets things done; makes rapid decisions even when short of information; enjoys risk and a fast pace of work
- Flexibility Adapts flexibly to new challenges and circumstances; able to change behavior; thrives on variety and frequently changing environments. Comfortable with ambiguity and complexity

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