Laboratory Technician I-PHYC

Location: Bristol

Salary: £18,000 to £22,000 depending on qualifications and experience

Hours: Full Time

Contract Type: Fixed-Term Contract – 12 months with potential extension

ABOUT I-PHYC

New legislation has highlighted the need for nutrients, such as phosphorous, in wastewater (WW) discharges to be reduced to protect our environment. The water treatment industry currently uses methods such as ferric salt dosing to precipitate the phosphorous into a sludge which can then be removed and disposed of. However, this method has numerous drawbacks such as requiring hazardous chemicals for pH balancing, producing large volumes of waste, and being unsustainable.

Microalgae are aquatic organisms that can use the energy from light to take up nutrients from their environment along with CO_2. When used in a controlled system, microalgae can be used to remove contaminants from WW. Algae can also remove other hazardous substances e.g. heavy metals, chemicals, and pharmaceuticals, effectively cleaning the water.

Industrial-Phycology (I-PHYC) has developed a new technology based on the industrial application of microalgae for the sustainable and environmentally friendly treatment of WW. I-PHYC's process is a modern, modular system, which can treat WW to meet current and future legislation. I-PHYC's technology was developed in response to new legislative, economic and corporate social responsibility (CSR) pressures being faced by wastewater (WW) operators to discharge cleaner effluent into the environment. Although, wastewater treatment utilising microalgae has a long history, large scale systems have always had long hydraulic residence times (HRT) of 2-10 days, and often achieve highly variable phosphate removals. In order to be an attractive WWT option for WW operators the I-PHYC process has a retention time of hours (8-14 hours) to gain P loads as low as 0.02 mg/L.

I-PHYC's patented technology removes the biological dependence on the weather, and dramatically reduced footprint, enabling I-PHYC modules to be retro-fitted onto troublesome small rural works, which often have limited land availability. I-PHYC is consistently pushing the boundaries of industrialising microalgae, producing new IP and patents.

I-PHYC's is a motivated and fast paced interdisciplinary team combining biology, chemistry, photonics and engineering. I-PHYC is expanding rapidly and has secured our first full-flow installation with South West Water, therefore we are seeking a motivated early career scientists to join our science team at this exciting time to ensure we meet our mission to:

"Clean the world's rivers and coastal waters by harnessing the natural power of algae."

Work Environment: The work conducted by the science team is diverse in skills and scale! A working week can range from working in our Bristol research facility with 400mL-1,700L reactors to

working with I-PHYC 25, 000 L demonstration reactor at Weston-Super-Mare. Our work mostly fits into office hours, but you may occasionally be required to flex to work outside office hours.

General Responsibilities:

- Microalgae culturing
- Scaling of microalgal cultures in I-PHYCs pilot scale reactors
- Standard chemical analysis of wastewater composition
- Contributing to experimental design and setup
- Assisting with data collection and analysis
- Keeping consistent records of progress and results
- Teamwork: We are a small dynamic team, so all take on whatever other tasks are needed, and you will be expected to have this ethos too

Education, Training & Qualifications:

• Minimum BSc in Biology, Microbiology, Plant Biology, Environmental Science or related subject	Essential
• Experience conducting independent laboratory research	Essential
• Experience and knowledge of designing experiments	Essential
• Experience and knowledge of statistical analysis	Essential
• Basic IT (MS Office)	Essential
• Analytical chemistry skills (Benchtop sampling)	Desirable
• Experience and knowledge of algae and cyanobacteria biology	Desirable
• Experience and knowledge of wastewater chemistry	Desirable

Specific Skills & Abilities:

• Have a passion to improve the environment	Essential
• Ability to prioritise and multitask	Essential
• Work independently and within a team	Essential
• Ability to effectively communicate and present findings (written and oral)	Essential
• Willingness to work at I-PHYCs field locations	Essential
• Full UK Driving licence	Desirable

How to apply:

If you would like to be considered for the role please email your CV to info@i-phyc.com along with a covering letter explaining why you would be suitable for the job.