



**Making the  
Most of Masters**  
Work based projects



## Collaborations Across Scotland's Industrial Biotechnology Sector

*Having an MSc student is also a way to increase interdisciplinarity in our team...*

The IBioIC Collaborative MSc in Industrial Biotechnology is a unique course which is administered and awarded by the University of Strathclyde and taught over eight HEIs throughout Scotland with valued input from our industrial partners. The 10-12 week industrial project placement is a collaborative activity between the Industrial Biotechnology Innovation Centre (IBioIC) and its industry members, with members being afforded the opportunity to host one or more MSc projects annually.

Xanthella are a core member of IBioIC and are participants in a number of research projects and PhD studentships along with academic partners from St Andrews and Robert Gordon University. This research project was the second MSc project hosted by Xanthella in recent years and the student was based at the company site in Oban throughout the placement.

The project aimed to investigate the effect of narrow spectrum light on cultures of microalgae and Cyanobacteria. Key objectives included the investigation of both HINS light and blue light LEDs exposure and Cyanobacteria inactivation and approaches to ensure a cost-effective application of HINS light in large scale micro-algae cultivation.

### EMPLOYER EXPERIENCE

DOUGLAS MCKENZIE - XANTHELLA LTD

*"The opportunity to have MSc students working alongside Xanthella's team has been a very fruitful experience to our company. Being a small-sized enterprise involved in a number of different projects, the contribution of students of such level allows us to reach targets that otherwise would take longer or additional efforts to accomplish. To offer industrial placements of this kind is also a good way to increase our collaborations with other institutions which potentially can result in new research projects and contribute to the further development of our products.*

*Having an MSc student is also a way to increase interdisciplinarity in our team and that may result in new ideas and improvement of our processes and procedures. We have had two IBioIC MSc students so far and both of them have become involved in our activities after their placements, one as a PhD researcher as part of a collaboration with Robert Gordon University in Aberdeen, and the other one as our employee. Barbara, now Xanthella's Algal Technologist. She has been a very motivated and enthusiastic student who performed research and development work of very good quality. The results from her MSc project are going to be included in a patent and published in a scientific journal."*

### SKILLS MANAGER

DR SUSANNE BOYLE - IBioIC

*"The industry based project provides our students with the opportunity to undertake research on a project offered by one of the Industrial Biotechnology Innovation Centre's (IBioIC's) industrial partners. Project allocation is by open competition and includes shortlisting and interviews with industrial hosts. The laboratory based industrial placement also exposes students to the wider activities of the business thereby supporting the development of a wide range of transferable skills and potentially enhancing their employability."*

### STUDENT FEEDBACK

BÁRBARA GUIMARÃES - MSc INDUSTRIAL BIOTECHNOLOGY STUDENT, UNIVERSITY OF STRATHCLYDE

*"I was attracted to the MSc Industrial Biotechnology degree course since it provided an opportunity to get more involved in Biotechnology and associated projects that have more applicability in the industry. I thoroughly enjoyed this unique and challenging course and the opportunity to attend courses at different universities across Scotland meant that we were tapping into the strengths of each university, developing a national network and experiencing the culture and ethos of different institutions.*

*During my project my industrial supervisor, Ana dos Santos Vejrazka, gave me a lot of freedom to design my experiments and stimulated my creativity and problem solving skills. I was able to attend meetings with the scientific advisors of the project I was involved in which gave me a much better understanding of the impact of my work and improved my confidence. This MSc course has enhanced my career prospects since I was offered and accepted a post at Xanthella as an Algal Technologist and started the role immediately after my placement."*

