



<b>Location:</b>	<b>Chlorine Gardens, Belfast</b>
<b>Client:</b>	<b>Queen's University Belfast</b>
<b>Consultant:</b>	<b>Hoare Lea</b>
<b>Architect:</b>	<b>Scott Tallon Walker</b>
<b>Project Manager:</b>	<b>Brendan Gildernew</b>
<b>Completion:</b>	<b>2018</b>
<b>Value:</b>	<b>£40m</b>

The Queen's University Belfast, School of Biological Sciences comprises of two main research groups: Ecology, Evolution, Behaviour and Environmental Economics (which includes Quercus) and Molecular Biosciences.

The life sciences and agri-food sectors play a massive role in Northern Ireland's economy, currently employing some 80,000 people and generating more than £5.5 billion each year. The new building will provides facilities to help grow the University's life sciences sector, especially in areas such as agriculture/ food science, food safety, disease/infection biology, diagnostics, waste management, ecosystems and the environment.

The new School, built at Chlorine Gardens in Belfast, offers state-of-the art teaching and research facilities for its 750 students and 170 staff, who will tackle some of the world's most pressing issues.

Michael Nugent Ltd provided a full mechanical installation for the project as well as coordinating the BIM process for both the mechanical and electrical services. This is a landmark fully compliant BIM Level 2 project LOD 7 with COBIE asset information LOI7, QUB's Flagship BIM programme, and the first ever in Ireland to be level 2 compliant. The new School of Biological Sciences was a heavily serviced and challenging Laboratory Building with associated teaching facilities requiring vast and complex mechanical services installation.

### Mechanical Services Installed by Michael Nugent Ltd

- Supply & extract ventilation throughout the building delivered via 11 No. AHU's
- Local exhaust ventilation (fume extract systems) to 30no. Fume Cupboards, 20no. Safety Cabinets, 3no. Local Extract Canopies, 2no. Extract Ams and 1 dissection bench via 42 Fume Extract Fans I
- Heating services throughout the building served by 6no. 350kW Gas fired condensing boilers and 2no. CHP units
- Chilled water services throughout the building served by 2no. 450kW air cooled chillers units
- Air conditioning systems in 6no. IT Comm's Room
- Refrigeration systems serving 12no. constant temperature rooms, 10no. purpose-built cold-rooms and 4n. purposed built freezer rooms
- Processed water system serving numerous Laboratory throughout the building which also includes a Reverse Osmosis water supply
- Domestic water system serving numerous kitchens, tea stations, toilet areas and shower rooms throughout the building.
- Laboratory gas systems throughout the building delivered via duty / standby gas bottle manifold arrangements and bulk gas store tanks, duplex compressed air plant, nitrogen generators and localized vacuum systems.