



my green lab.

Academy Green Lab Committee Goals for 2023-2025

The aim of the ACSLM Green Lab Committee is to provide guidance and support for labs to implement sustainability practices to the best of their ability. Our goals for the next two years to help achieve this include:

- Creating guidelines on general sustainability best practice, such as waste segregation, water saving and energy use.
- Continuing to be a regular feature in Converse sharing information and updates on current developments
- Organise regular webinars on different topics of sustainability in the lab
- Put together a set of guidelines with step by step changes towards the standard your lab can achieve covering the four pillars of lab sustainability: *Energy, Water, Waste and Green Chemistry*.
- Compile guidelines specifically for purchasing and tenders to help ingrain lab sustainability.

News in Lab Sustainability:

Waste:

- Enevetec is an Irish company bringing a sustainable approach to biohazardous waste. They have created a technology which shreds and decontaminates biohazardous waste transforming it into a recyclable polymer flake. Their GENERATIONS technology is a low energy, non-thermal, clean technology which transforms the treatment of biohazardous laboratory waste into a net zero process directly at source, eliminating transportation and shipping abroad. Thus helping labs to meet their Scope 3 carbon reduction goals. Source: <https://envetec.com/>.
- Soltec is another Irish company providing sustainable, cost effective waste management solutions. They remove chemical waste from labs and industries, sample and analyse it in their on-site lab and work out the best available treatment for your waste which can include solvent distillation and fuel recovery – taking your waste products and allowing for their recycling and use again. Source: <https://soltec.ie/hazardous-waste/>.

Plastics:

- Grain-4-Lab are working to replace single use plastics with Bioplastics; plastics produced from renewable biological sources. A major advantage of using bioplastics is their ability to degrade in 3-6 months vs. several hundred years for regular plastics. The team based in Dublin City University (DCU) are working on biodegradable plastic generated using the grain waste from breweries and distilleries. They are exploring injection moulding and 3D printing as a means of producing lab equipment from their bioplastic. Source: <https://grain4lab.ie/>

Publications:

- Green Labs: a guide to developing sustainable science in your organization by Durgan et al., 'explore how research organizations can reduce their environmental impact, share useful resources and encourage the global community to engage in making science more sustainable'. Source: *Immunology & Cell Biology* 2023;101: 289–301; doi: 10.1111/imcb.12624
- South East Technological University (SETU) have published their Greener Lab Guide based on their experiences of taking part in MGL certification, full of information and ideas on how to best move toward a Greener Lab. Source: <http://pmbrc.org/>

If you want to take your sustainable lab learning further free content to inform and guide you through best practices and how to start to implement them is widely available:

- My Green Lab (MGL) runs a free Lab Ambassador Program covering all four pillars of lab sustainability. The course is all online and can be completed in your own time. Becoming a Green Lab Ambassador can empower you to encourage your lab to become more sustainable, while counting towards CPD points! This can be a great learning tool for new lab recruits during their training and has been used by some Universities in Ireland to teach their undergraduates on best practices.

- In addition to this MGL host monthly webinars to keep their ambassadors up to date on the ever evolving practices of lab sustainability (<https://www.mygreenlab.org/ambassador-program.html>). One of their recent webinars was a case study on Novartis and how they are eliminating single use plastics on their sites. 'How to Green Lab' monthly series hosted by MGL shares quick tips on becoming more sustainable in the lab covering a wide variety of topics such as inventory management, sharing equipment, properly maintaining your labs cold storage and repurposing your ice packs. Follow MGL on Twitter/LinkedIn to receive a #HowToGreenLab tip every month. MGL also run a blog called 'The Beaker' on their website with their most recent post discussing ten considerations for setting up a sustainable lab.
- The Sustainable Energy Authority of Ireland (SEAI) run modules and short courses on Energy Efficiency in Science and Technology covering Energy and Climate Change, Energy Use in Labs and Behavioural Change. The courses are all online and free, hosted through their Energy Academy (<https://www.seai.ie/energyacademy/>).
- Irish Green Labs is a voluntary collective of lab professionals working to minimise the negative impact labs have on the environment by sharing information and case studies on sustainability best practices. Their focus is on all labs, including research and industry (<https://irishgreenlabs.org/pillars/>).

Let us know by email what you would like to see from the ACSLM Green Lab committee in the form of guidelines, information, and converse articles that can help medical science labs specifically. If you are working in a clinical lab and would like to join the committee please email greta.domarkaite@aclm.ie