

Professor Helen Hughes, South East Technological University

Professor Hughes has been teaching in South East Technological University since 1994 in the areas of Inorganic Chemistry, Good laboratory Practice and Quality Management, including Lean Manufacturing. She has extensive experience in practical laboratory training in synthetic, analytical, inorganic and good laboratory techniques.

Prof. Hughes is a founding member of the Pharmaceutical and Molecular Biotechnology Research Centre (PMBRC) an Enterprise Ireland funded Technology Gateway centre established in 2008 and the Eco-Innovation Research Centre (EIRC) at SETU. She has acted as an expert reviewer for high impact journals and funding agencies including IRCSET. Professor Hughes also has extensive industrial collaboration with both national and international organisations. She is currently the Academic-Enterprise Liaison for Eco-Innovation across SETU funded by the TU RISE programme. Her current areas of research interest are:

- High impact applications of shellfish waste – waste valorisation.
- Use of green solvents for pharmaceutical applications, in particular solvating hard to solubilise products
- Use of seaweed extracts as novel bioherbicides for forestry applications.
- Use of seaweed extracts as novel antimicrobial compounds for wound dressing applications.
- Application of an Environmental Impact Assessment for eradication of mangroves on the Hawaiian islands.
- Investigation of excipients for stabilisation of biopharmaceuticals and novel drying methods.
- Development of Deep Eutectic Solvents for use with hard to solubilise drugs in transdermal applications using microneedles.
- Use of Aerosol Jet Printing for microneedles production.
- Applications of nanoparticle technology for the delivery of drugs to the posterior segment of the eye.

Particular interests:

Biodiversity and Sustainable Food Systems.

As the Academic-Enterprise Liaison for Eco-Innovation, we have 4 key areas of interest which are Ecology, Sustainable Agriculture and Food, Sustainable Forestry and Sustainable Marine Research, so any projects in those areas I can also pass on to appropriate people.

Relevant Industries:

Food, pharmaceutical, biopharmaceutical, medical device, agri-food or agriculture industries or marine related industries all of particular interest.