Biology Seminar

12:30 - 1:30 pm
Friday, March 12, 2021
Seminar to be held via ZOOM

Muriel Grenon
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School of Natural Sciences
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Multiple benefits of the Cell EXPLORERS programme – a STEM public engagement model in Ireland

Cell EXPLORERS (https://www.cellexplorers.com) is an outreach and public engagement initiative that promotes modern biology nationally in Ireland. It aims to "Inform, Inspire and Involve" people in the excitement of science, increases the general public's engagement with "Science Technology Engineering and Maths (STEM)" and its importance in society. Between 2012 and 2019, the programme has engaged 2,240 team members and 38,500 members of the public directly. In 2019, the team was made of 253 facilitators and visited 3186 children in 124 classrooms.

Cell EXPLORERS uses a unique model for sustainable science public engagement in Higher Education Institutions (HEIs), originally developed in NUI Galway. It engages students in educational outreach activities as part of their curriculum and also works with a growing volunteering base made of students and researchers. This organisation underpins the model's sustainability and has the dual benefits of engaging children, young people and the public in STEM whilst developing key graduate student attributes and researchers' public engagement skills.

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The programme is made of 13 teams spread nationwide delivering hands-on science activities to young people and their families. Cell EXPLORERS teams based in HEI act as informal science education providers by bringing engaging science activities and information on science careers to children at an age when they make decisions about their interest in STEM (10-13 years old) or make their choice of STEM as a career (14-16 years old). This is achieved by children behaving like scientists under the mentorship of local scientists, facilitating real-life science experiences and one-to-one interactions with science role models.

The Cell EXPLORERS programme has developed a teaching and research foundation to ensure its sustainability. It has followed action research approaches in its methodology to study the most sustainable way of delivering public engagement activities. The programme studies its impact on children's perception of science and scientists, on volunteer team members' motivation for participation, as well as institutional values, support and commitment to outreach and public engagement. In parallel, it is also developing teaching and learning solutions by embedding some of its component in HEI student curriculum.

The structure and organisation of the programme, its characteristics as well as relevant findings will be presented.

Western Biology