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Editorial - SURE Journal vol 4

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Editorial – SURE Journal, vol 4



What do the following have in common: mistletoe, adipose derived stem cells, parasites, mitochondrial disorders, healthy literacy interventions and sprained ankles?

As Ireland emerged from the COVID-19 pandemic it is encouraging to see that despite the pandemic negatively impacting on so many aspects of life, the work undertaken by the research community in the HEI continued uninterrupted.

This current volume of the SURE Journal publishes the latest in research (lab and desk based) from a selection of Higher Education Institutes in Ireland. It seems fitting at this time of year to report that the focus of one of the current articles is mistletoe. In the early 19th century Rudolf Steiner's work resulted in the first

documentation of the use of a mistletoe (hemiparasitic plant) formulation as an anti-cancer agent. Healy and Friel, discuss the biological effects of mistletoe on cancer cells, formulations developed and the benefits and caveats of such treatments. Parasites however are not always beneficial. Tumulty and Geraghty report on the increasing levels of anthelmintic resistance in sheep across Ireland and the UK. These authors emphasise that unless worming strategies are improved on sheep farms, animal health and anthelmintic efficacy will continue to deteriorate.

Mitochondrial disease is a complex condition that affects people clinically in a variety of ways. Sousa Smyth and Mulvihill discuss mitochondrial disorders (MTDS), challenges in obtaining regulatory approval for therapies and the benefits of genetic counselling for families affected. Also included in this volume is another research study with implications for human health. This article is from Cunningham *et al.*, whereby their work highlights the importance of full clinical screening, for evidence of premalignant or residual lesions, prior to lipografting. In this study the authors demonstrate the potential for adipose derived stem cells (ADSC) to

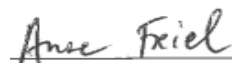
increase oncogenic risk in breast cancer patients. They show ADSC can influence miRNA gene expression, thereby showing a correlation between miRNA, cytokines involved in EMT and carcinogenic properties.

A move from the bench to the field is the remit of the article by Hempstall and O'Rourke. Here the authors investigate and compare remedies (Mulligan's mobilisation With Movement of talocrural joint and Soft-Tissue of the plantarfascia) for acute ankle dorsiflexion range of motion post chronic lateral ankle sprain (LAS) in Gaelic footballers. Their study indicates the clinical relevance of incorporating either treatment intervention into rehabilitation or treatment protocol of LAS.

Finally, it is known that Health literacy studies have shown the beneficial impact of health literacy on health outcomes. Healthy Literacy Intervention: LifeLab, a system developed to increase health literacy levels of adolescents is assessed by Burke *et al.* LifeLab is aimed at disadvantaged adolescents and focuses on sleep, physical activity, mental health, social and environmental factors that influence health, substance misuse and food choices. Their study evaluated the

enjoyment levels of students participating in LifeLab, and document that a competitive element along with variation and active learning is needed for full engagement.

Therefore, to answer the question posed in the Editorial title, all of the articles published here are a snapshot of research undertaken by undergraduate students during their academic year. On taking over the role of Editor in Chief in 2022, I welcome continued submission of articles from our National undergraduate research community and look forward to having our International colleagues' students submitting work in the next volume.



Editor in Chief, SURE Journal