Editorial

Wound Innovation: now and in the future

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As I reflect on another year drawing to a close, and how quickly this year has flown by, it is useful to pause and consider where we are, where we have come from and where we are going to in our lives, our workplaces and our communities. It is clear that the world is changing and changing at a pace where it becomes harder and harder to keep up with all the day-to-day challenges, never mind stepping back to consider where we are and what we still need to do.

Over the past few decades, we have seen remarkable advances in technologies that have affected our lives, our homes and our workplaces. We just have to look at the phones that we carry that immediately connect us, at the touch of a button, to our friends, families and colleagues through social media, email, google and the worldwide web to see how far we have come. Over the past 20 years, we have seen remarkable technological advances in solar energy, space travel, driverless cars, 3D printing and satellite systems. In health, we have seen breakthroughs that include vaccinations, cellular immunotherapy for cancers, insulin for diabetes, PET/MRI scanners, ultrasounds and the bionic ear, to name but a few. Yet when we look at wound care, we seem to lag behind in the major breakthrough areas. Where is the drug that will promote healing of a chronic wound or a diabetic foot ulcer? When will we have an alternative to antibiotics for the treatment of biofilm-infected wounds? How can we reduce scarring and contractures in burn injuries, reduce lymphoedema or decrease skin fragility?

Undoubtedly, wounds are complicated because people are complicated and there is no easy fix or it would have been done by now. Researchers are keen to take up the challenge, but face the additional issue of securing funding to enable them to address this growing clinical need. However, over the coming years I am confident that we will see developments in protein and cell therapies, with innovative new dressings and new technologies becoming available for wound management. We will see monoclonal antibody therapies that can promote healing from the inside out. Dressings that can deliver cells to diabetic foot ulcers and improve healing responses. New nanofibre dressings to detect and treat infected wounds by releasing drugs upon demand. We will see point-of-care diagnostics to provide information about healing trajectories and digital technologies for monitoring and recording wound repair. We are already seeing an increase in digital technologies for teaching, artificial intelligence for surgical procedures and remote wound monitoring. The next thing will be drones to distribute medicines to isolated areas! The future is bright, even though the here and now may be challenging; remembering why we are doing this makes it all worthwhile.

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