



Using a hackathon format to innovate in Plastic Surgery

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Abstract:

The field of Plastic Surgery has always had innovative leaders prepared to push the boundaries of surgery so solve reconstructive problems. From nasal reconstruction in ancient India started by Sushruta¹, through to techniques pioneered by Sir Harold Gilles during the First World War where he was referred to as a “disruptor”, and eventually recognised as someone who drove changes in surgery which are still adopted today. Plastic surgeons continue to push the boundaries of reconstruction particularly as microsurgical techniques evolve allowing more complex free tissue transfer operations².

Within BAPRAS (British Association of Plastic Reconstructive and Aesthetic Surgeons) a group of motivated surgeons set up a Specialist Interest Group in Innovation to develop a platform for other people both within and beyond our specialty to get support to formulate new ideas and continue to innovate.

Since its inception in 2016 the group looks to present a refreshing and positive arena for doctors to work alongside other industry professionals to try to solve problems within the healthcare sector. One of the main success of the group has been the development of yearly themed hackathons³.

These events have provided plastic surgeons with the opportunity to present problems which are often overlooked or simply coped with in an underfunded, busy healthcare system to product designers, IT experts, coders, marketers and business developers. In 48 hours we have seen app designs to change the way pressure sores are monitored, new technology demos of how to track patients around a busy hospital and innovative ways of organising the storage in an operating theatre to improve efficiency in finding equipment.

These events have also allowed us to develop links with professionals that may have otherwise not engaged with



the National Health Service largely due to barriers to funding⁴.

We would be delighted to have the opportunity to share our experience of setting up a specific innovation specialist interest group, medical hackathons and an innovative environment for our specialty with the hope of inspiring others to do the same and also with the aim of developing the international links for our specialty.

Biography:

Nathalie Fennell is a plastic surgery registrar in the East Midlands currently working at the Pulvertaft Hand Unit at the Royal Derby Hospital. She is the hackathon lead for the BAPRAS Innovation Group and has organised two hackathons which have yielded fantastic outcomes for innovators across many sectors.

Publication of speakers:

1. Oo KKK, Park SS. The midline forehead flap in nasal reconstruction. *Fac Plast Surg Clin North Am* 2011; 19: 141-155
2. O'Brien BM, Macleod AM, Hayhurst JW, Morrison WA. Successful transfer of a large island flap from the groin to the foot by microvascular anastomoses. *Plast Reconstr Surg* 1973; 52(3): 271-278
3. Dobbs T, Dheansa B, Perks G, Kerstein R. The BAPRAS Innovation Group. *RCS Bulletin* 2018.305

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