Regenerative Medicine at the Front Line
1 February 2018
Background to the competition

Dr. Abi Spear, Principal Scientist, Dstl
Regenerative medicine holds great potential for treating people injured as a result of conflict.

If, and how, should MOD engage?
Review and requirements capture

Academia/industry/funding

Defence requirements
Conclusions

1. While a significant amount of high quality regenerative medicine (RM) research is conducted in the UK and internationally, there are still significant research gaps in areas that would meet UK Defence Medical research requirements.

2. RM approaches are applicable throughout the operational patient care pathway (OPCP).
Research Themes

- Engineered blood
- Soft tissue regeneration (mechanical and biophysical approaches)
- Endogenous response

Model development
(in vitro, ex vivo, in vivo)
Secondary Injury - endogenous and iatrogenic

Casualty Care:
- Ongoing resuscitation
- Damage control surgery
- Wound management and skeletal fixation

Primary Injury
Casualty Care:
- Haemorrhage control
- Pain relief
- Resuscitation

Reconstruction
Rehabilitation
Recovery

Medical Logistics