



Space Medicine and Human Exploration Workshop 2026

16-20 November 2026
The Botnar Institute, Oxford, UK



NDORMS
NUFFIELD DEPARTMENT OF ORTHOPAEDICS,
RHEUMATOLOGY AND MUSCULOSKELETAL SCIENCES





Workshop *Agenda* 2026

Day 1 - Monday, 16 November 2026

Time	Title	Speaker(s)
08:30 – 09:00	Coffee and Registrations	
09:00 – 09:15	Welcome & Opening Remarks	Prof. Ghada Alsaleh Prof. Afshin Beheshti
Foundations of Space Exploration and Human Health		
09:15 – 10:00	The Search for Life Beyond Earth	Dr. James Green
10:00 – 10:45	Space Physiology	Dr. Tara Ruttlely
10:45 – 11:00	Coffee Break	
Computational Approaches to Space Biology Session 1		
11:00 – 11:45	How Space Biomedicine Research Will Benefit All People on Earth	Prof. Afshin Beheshti
11:45 – 12:30	The Twin Studies	Dr. Chris Mason
12:30 – 14:00	Lunch	
Computational Approaches to Space Biology Session 2		
14:00 – 14:45	From DNA Damage to Digital Twins - Integrating Modelling, AI, and Human Biotwins	Dr. Sylvain Costes
14:45 – 15:30	Space Perturbomics: Predicting and Redirecting Biological Responses to Spaceflight	Dr. Jangkeun Kim
15:30 - 16:00	Coffee Break	
From Data to Discovery		
16:00 – 16:45	From Malta to Mars - Space Omics, Human Health and the Future of Exploration	Dr. Joseph Borg
16:45 – 17:30	Turning Omics Data into Biological Insights	Dr. Willian Da Silveira
17:30 – 17:45	Closing Remarks	Prof. Ghada Alsaleh Prof. Afshin Beheshti
17:45 onwards	Networking (optional)	



Workshop *Agenda* 2026

Day 2 - Tuesday, 17 November 2026

Time	Title	Speaker(s)
08:30 – 09:00	Coffee and Arrivals	
Spaceflight as a Model of Ageing		
09:15 – 10:00	Ageing Beyond Earth	Prof. Ghada Alsaleh
10:00 – 10:45	Microgravity as a Model of Accelerated Skeletal Muscle Ageing	Prof. Malcom Jackson
10:45 – 11:00	Coffee Break	
Organ systems in spaceflight		
11:00 – 11:45	Preserving Brain Health During Human Spaceflight: Towards a Neuroadaptive Framework for Deep Space Exploration	Dr. Jon Sen
11:45 – 12:30	You might make it to Mars, but will you need dialysis on the way back?	Dr. Keith Siew
12:30 – 14:00	Lunch	
Adapting to spaceflight		
14:00 – 14:45	Individual and combined effects of space radiation and reduced weight bearing during actual and simulated spaceflight on musculoskeletal tissues	Prof. Jeffrey Willey
14:45 – 15:30	Clinical Space Medicine	Dr. Lisa McNamee
15:30 – 16:00	Coffee Break	
Plant and Microbiology in space		
16:00 – 16:45	Lessons from Microbiome Science Beyond Earth	Dr. Nick Brereton
16:45 – 17:30	Biofilms in Space	Dr. Katherine Baxter
17:30 – 17:45	Closing Remarks	Prof. Ghada Alsaleh Prof. Afshin Beheshti



Workshop Agenda 2026

Day 3 - Wednesday, 18 November 2026

Time	Title	Speaker(s)
08:30 – 09:00	Coffee and Arrivals	
The Space Ecosystem		
09:00 – 09:30	How to think about doing research in microgravity: and why Velcro is your best friend	Dr. Lucie Low, Axiom Space
09:30 – 10:00	Biology for ESA Exploration Science	Dr. Rodrigo Almeida, ESA
10:00 – 10:30	Space Application for Industry	Dr. Hilde Stenuit, Space Applications Services
10:30 – 11:00	Adjustable Gravity for Experimentation and Manufacturing	Dr. Alastair Broom, Spinning Around Ltd
11:00 – 11:15	Coffee Break	
Abstract Presentations		
11:15 – 12:30	Selected Presentations	
12:30 – 14:00	Lunch	
Workshop session 1		
14:00 – 15:30	Introduction to Payload Design	Dr. Aya Aly, Dr. Ramón Nartallo *
15:30 – 16:00	Coffee Break	
Workshop session 2		
16:00 – 17:30	Payload Design Workshop	Dr. Aya Aly, Dr. Ramón Nartallo *
17:30 – 17:45	Closing Remarks	Prof. Ghada Alsaleh Prof. Afshin Beheshti

*Mentored by: Dr. James Green, Dr. Tara Ruttley, Prof. Ghada Alsaleh, Prof. Afshin Beheshti, Dr. Willian Da Silveira, Dr. Jon Sen.



Workshop Agenda 2026

Day 4 - Thursday, 19 November 2026

Time	Title	Speaker(s)
08:30 – 09:00	Coffee and Arrivals	
Workshop session 3		
09:00 – 10:45	Payload Design Workshop	Dr. Aya Aly, Dr. Ramón Nartallo *
10:45 – 11:00	Coffee Break	
Workshop session 4		
11:00 – 12:30	Payload Design Workshop	Dr. Aya Aly, Dr. Ramón Nartallo *
12:30 – 14:00	Lunch	
Workshop session 5		
14:00 – 15:30	Payload Design Workshop	Dr. Aya Aly, Dr. Ramón Nartallo *
15:30 – 16:00	Coffee Break	
Workshop session 6		
16:00 – 17:30	Payload Design Workshop	Dr. Aya Aly, Dr. Ramón Nartallo *
17:30 – 17:45	Closing Remarks	Prof. Ghada Alsaleh Prof. Afshin Beheshti

*Mentored by: Dr. James Green, Dr. Tara Ruttley, Prof. Ghada Alsaleh, Prof. Afshin Beheshti, Dr. Willian Da Silveira, Dr. Jon Sen.



Workshop *Agenda* 2026

Day 5 - Friday, 20 November 2026

Time	Title	Speaker(s)
08:30 – 09:00	Coffee and Arrivals	
09:00 – 09:45	ESA Exploration Science	Dr Angelique Van Ombergen, ESA
09:45 – 10:45	Group Presentations 1	
10:45 – 11:00	Coffee Break	
Group Presentations 1		
11:00 – 12:30	Group Presentations 2	
12:30 – 14:00	Lunch	
Group Presentations 2		
11:00 – 12:30	Group Presentations 3	
15:00 – 15:30	Presentation Awards	
15:30 – 16:00	Closing Remarks	Prof. Ghada Alsaleh Prof. Afshin Beheshti

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