# The UK's '*next step*' in Space Life and Biomedical Sciences

Dr Adam Hawkey





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# UNITED NATIONS Office for Outer Space Affairs



United Kingdom Space Life and Biomedical Sciences Association (UK SpaceLABS)





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Swiss Confederation

### Launch of the Space and Global Health Network and Ceremony of Signature of the Letter of Intent 2 June 2023, 14:00-14:50 p.m. (CEST, Vienna time) Vienna International Center, Room CR-3

- 14:00 **Opening Remarks** by Ambassador Alexandra Baumann, Head of the Prosperity and Sustainability Division, Federal Department of Foreign Affairs, Switzerland
- 14:05 **Ceremony of Signature** with introductory addresses by: Mr Niklas Hedman, Acting Director, United Nations Office for Outer Space Affairs Prof. Antoine Geissbühler, Vice-Rector, University of Geneva
- 14:20 **Presentation** of the "Implementome" Digital Platform and other updates from the Space and Global Health Network, moderated by Prof. Antoine Geissbühler
- 14:30 **Presentation** of developments within the UK Space Life and Biomedical Sciences (UK SpaceLABS) Association by Dr Adam Hawkey
- 14:45 **Closing Remarks** by Ms Selena Lopreno and Ms Natália Archinard, Officers for Health and Space Affairs, Federal Department of Foreign Affairs, Switzerland





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Professor of Sport Science, Saveetha Institute of Medical & Technical Sciences (SIMATS)

- Honorary Lecturer of Sports Medicine/Biomechanics, School of Medicine, University of Dundee Executive Board Member, UK Space Life and Biomedical Sciences (UK Space LABS) Association
- Committee Member, Space and Global Health Network (Swiss Confederation/UNOOSA)
- Former Member, United Nations Space and Global Health Expert Working Group (UNOOSA)
- Former Researcher, NASA Biomedical Office/Biomedical Task Group, Kennedy Space Center

# Why Space?



UNITED NATIONS Office for Outer Space Affairs



UK Space LABS





# Why Space? Contributors



\*Organisations featured does not necessarily represent an official endorsement of the paper or its recommendations.





# Why Space? Thematic Chapters

- Life Science
- Human Factors, Psychology & Neuroscience
- Bio-Medical and Clinical Considerations
- Engineering, Robotics, Data and AI
- Education and Knowledge Exchange







# Why Space? Key Recommendations

- Harness the innovation opportunity from existing research portfolios:
- Create a proof of concept/ catalyst program for Industry:
- Fund high-risk high-reward thematic centres:





- Inspire careers in the Health & Life Sciences:
- Establish a dedicated knowledge exchange infrastructure:
- Join the International Space Life Sciences Working Group (ISLSWG)

# **UK Space Life and Biomedical Sciences Association**



### **VISION 2030**

The UK Space Life and Biomedical Sciences Association (UK Space LABS) is the central hub for this vibrant and globally recognised field of British excellence. We are passionate advocates for growth of opportunities in this field and the integration of UK space life and biomedical sciences into the national strategies for space, research and innovation.

### AIMS

The UK Space Life and Biomedical Sciences Association exists to improve Communication, Cooperation and Collaboration (C3) between UK based organisations and individuals involved or interested in research, outreach and educational activities related to space life and biomedical sciences and the human element of human spaceflight. In order to achieve its Vision 2030, UK Space LABS aims to:

**AIM 1:** Facilitate growth of a broad interdisciplinary community in space life and biomedical sciences.

AIM 2: Establish the relevance of space life and biomedical sciences to future space workforce and STEM careers.

**AIM 3:** Maximise the visibility and reputation of the UK space life and biomedical sciences field and enhance science, career and industry opportunities.

AIM 4: Integrate UK space life and biomedical sciences into the national strategies for space, research and innovation.

# **UK Space Life and Biomedical Sciences Association**



# **STRATEGIC OBJECTIVES**

### AIM 1: Facilitate growth of a broad interdisciplinary community in space life and biomedical sciences

**SO1: Update and develop membership** through engaging with academics, industry, student societies and other relevant professionals, establishing a comprehensive database of UK activities across these populations.

SO2: Develop a Communication Plan, mapping out how UK Space LABS will connect with members, academia, professionals and industry (including, for example, newsletters, social media, representation at key events, networking opportunities, etc.).

**SO3:** Develop and **launch a monthly webinar series**, inviting members and other UK experts to present on their work.

**SO4: Hold an annual multi-disciplinary conference** and have a presence at key space events.

**SO5**: Develop a database of UK successes in terms of funding, acceptance onto space environment research platforms, academia-industry collaborations, IP development, UK industrial organisations that can support UK space life and biomedical sciences research and development, etc.

**SO6: Establish special interest groups** on key topics that will provide opportunities to bring experts together, with each special interest group producing a position statement .

AIM 2: Establish role of space life and biomedical sciences relevance to future space workforce and STEM careers.

SO7: Develop a Skills Promotion and Development Plan that outlines how UK Space LABS can support members, academia, professionals and industry in identifying the skills needed by the sector, working with schools and universities to develop mechanisms for skills development.

### SO8: Develop an Education and Outreach Plan that

outlines how UK Space Labs will engage with schools, science museums, STEM Learning, ESERO-UK, etc.

**SO9: Establish regional academic hubs** which individually focus on key areas of excellence in the field, identifying funding opportunities to support regional skills development. AIM 3: Maximise the visibility and reputation of the UK space life and biomedical sciences field and enhance science, career and industry opportunities.

**SO10:** Identify funding opportunities to support UK Space LABS in **developing a** *Marketing Plan,* through employing a marketing consultant, to showcase UK research and development excellence in the field.

SO11: Employ a web developer to refresh UK Space LABS website, ensuring it is fit for purpose in support of the Associations strategic objectives.

**SO12:** Repurpose the UK Space LABS' *Why Space?* white paper into a **submission to Nature Microgravity**.

# **UK Space Life and Biomedical Sciences Association**

### **STRATEGIC OBJECTIVES: ROADMAP TO 2030**

2023/24				2025/26			2027/28		2029/30
AIM !	SO1: Update and develop membership	SO1: Update and levelop membership		nch a bi- pinar series	SO5: Develop a database of UK successes		SO6: Establish special interest groups		
	SO2: Develop a Communication Plan				SO4: Hold an annual multi-disciplinary conference				
SO7: Develop Skills Promotion and Development Plan							n and lan	09: Establish interdiscip academic	n regional blinary hubs
AIM 3	SO10: Develop a Marketing Plan	S	O11: Refresl Space LAB website	h UK S	SO12: Submit position white paper to Nature Microgravity				

# CONTACTS

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