SGAC
Space Medicine & Life Sciences Project Group
Views & Activities

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About SGAC

- Founded 20 years ago and UN COPUOS Permanent Observer since 2001
- Supports the UN program on Space Applications
- Vision is to employ the creativity and vigor of youth in advancing humanity through the peaceful uses of space
Our aims

• To be a global interdisciplinary platform and “Community of Practice”

• To create tangible space applications that address terrestrial healthcare issues

• To focus on capacity building of grassroot efforts for space and health activities

https://spacegeneration.org/projects/smls
2019 Activities

• Founded in Jan 2019

• **166 members** from 47 **member states across the world**

• **Active discussion** platform on Slack with 2700 messages in 2019

• Monthly **newsletter** to 227 subscribers

• **Twitter** reach to 316 followers

• Online **Health in Space Webinar Series** with 306 views

• Supports the **UN COPUOS Space & Global Health Working Group**
2019 Workshops

Working Group at European Space Generation Workshop sponsored by Merck

Working Group at Space Generation Congress sponsored by Secure World Foundation

Space4Earth Hackathon at International Astronautical Congress supported by the IAF, the Space Foundation and US Department of State
European Space Generation Workshop

- **ESGW structure**
  - Space medical panel – space technology for global health benefit
  - Space medical workshop over 1.5 days with sub-teams

- **Aims**
  - To develop grassroot project ideas for our project groups
  - Focused on space technology for global health

- **Collaborators**
  - Imperial College London – venue and catering
  - Commercial and not for profit sponsors

- **Delegates**
  - Male / Female ratio was 11 : 11
  - Students / Young Professional ratio was 12 : 10
  - Global reach – 22/100 delegates from 13 member states

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London, UK
31 May – 1 June 2019

Imperial College London

MERCK

UK SPACE L.A.B.S
ESGW Recommendations

**Space Medicine Projects**
- Four working groups explored the following topics:
  - Monitoring of increased intracranial pressure
  - Radiation exposure reduction strategy
  - Psychology—decision making and team cohesion in space missions toolkit
  - Evaluating the next wave of transformative technologies for space medicine

**Recommendations to UN**
- To investigate the application of satellite data to terrestrial medicine applications (such as population estimates, disease spread models, search and rescue support)
- To work with other UN groups to develop research projects tackling the sustainable development goals (SDGs) and accept applications or set up hackathons to solve these issues.
# Space Generation Congress

<table>
<thead>
<tr>
<th>SGC structure</th>
<th>Working Group on Space and Global Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aims</td>
<td>To identify new terrestrial stakeholders that may benefit from space technology for healthcare applications</td>
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</tbody>
</table>
| Collaborators  | Secure world foundation – sponsor for space medicine group  
|                | Full list 48 sponsors and partners  
| Delegates      | Male / Female ratio: 7 : 8  
|                | Students / Young Professionals ratio: 10 : 5  
|                | Global reach – 15/150 delegates from 14 member states |

**Washington D.C, USA**  
**17th to 19th October 2019**
# Space 4 Health Hackathon

## Hackathon structure
- Hackathon - Space and Global Health after SGC and before IAC 2019 in Washington D.C.

## Aims
- Multidisciplinary teams
- Brainstorming novel application of space technologies for terrestrial health benefit

## Collaborators
- IAF, the Space Foundation, Airbus, and US Department of State

## Delegates
- 22 delegates
SGC and Hackathon recommendations

### Earth observation (EO)
- Expand the legal definitions for **open-access public EO data regulations and agreements** to encompass health (acute and chronic disease)
- Should include, but not be limited to, access to EO to improve:
  - **Prevention** → Improve geo-specificity of health promotion campaigns
  - **Management** → Dynamic epidemiological mapping and response to emergent disease epidemics and pandemics

### Space data acquisition
- To encourage expansion of the cohort of space data acquisition services
- To harness evolving space data that gives us exponentially more information with greater geographica breadth and more technological depth through global collaboration

### Geo-spatial data
- To encourage a scaled usage of geospatial data for health solutions, and the dissemination of data-driven platforms to harness space-derived data and technology.

### Space resource allocation
- To recommend the **direction of space resources**, such as navigation systems technology, **towards applications that improve access to healthcare**
- Especially for telemedicine access for communities that are remote or affected by natural disasters.
2020 vision

Global team building

1. **Capacity build** a multidisciplinary team to harness novel means to utilise space technologies for global health benefit
2. Membership survey in progress

Workshops and events

1. **Open access webinars** on pan-disciplinary topics to engage a global audience
2. Widening access to young investigators from low-income and minority groups through **scholarships** to attend international conferences e.g. ICAM 2020 and IAF 2020

Research

1. **Workshops** with expert mentors (from industry, agency and academia) early investigators to build transferable research skills
2. Post-workshop support to present and publish research
3. **Research resource repository**

UN policy outputs

1. Guidance to transpose research outcomes into **recommendations relevant to SDGs**
2. These recommendations are reviewed and selected for presentation at UN high level forums

Find out more:
https://spacegeneration.org/projects/smls
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