

# Dr. Michaela Musilova

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## **Education:**

**International Space University – ISU (2015):**

**European Space Agency (ESA) scholarship** to attend the **ISU Space Studies Program** in partnership with the NASA Glenn Research Centre, USA

**University of Bristol – UoB, UK (2011-2015):**

**PhD researcher** specialising in extremophiles with applications to astrobiology, environmental science and glaciology

**Natural Environmental Research Council (NERC) studentship** and affiliated Doctoral Research Training Grant

**University College London – UCL, UK (2007-2011):**

**MSci Earth Sciences** with First Class Honours

Distinction: Dean’s List Commendation

**California Institute of Technology (Caltech) (2009-2010):**

UCL competitively selected exchange student on a scholarship

Annual Grade Point Average (GPA): **4.0/4.0**

**French Lycée Chateaubriand in Rome, Italy (2004-2007):**

French Baccalaureate with the distinction *summa cum laude*

## **Research & space industry work experience:**

**President of the non-profit XtremeFrontiers (2021-present):**

**Leader of all the XtremeFrontiers research and educational activities**, including the Astro Seven Summits project. It is a series of scientific and educational expeditions to the tallest mountain on each continent (the Seven Summits), with a focus on astrobiology and climate change. The project’s goal is to perform unique scientific research for institutions such as NASA and a variety of educational and outreach activities during each expedition. It’s very important for the project team to work with local communities in ethical ways and to make sure that they leave the smallest impact possible on the environment.

**Space scAvengers (2024-present):**

Ambassador for outreach and educational activities related to space and STEM subjects

**ISU, France (2021-present):**

**Global Faculty**

**STEM Punks, Australia (2020-present):**

Advisory Board Member for outreach, education and space

**NEEDRONIX – satellite tech. company (2017-present):**

Head of Research for NEEDRONIX and the Project Manager for an

**ESA funded project**, and an advisor for a second ESA funded project

**Mission Control Space Services Inc. (2015-present):**

**Senior Research Advisor** focusing on planetary science, astrobiology, developing international research collaborations, and supporting educational and outreach activities.

**Faculty of Electrical Engineering & Information Technology, Slovak University of Technology – FEI STU (2017-2023):**

**Visiting Professor**

**International MoonBase Alliance, USA (2018-2022):**

**Director** for the **HI-SEAS (Hawai’i Space Exploration Analog and Simulation)** Mars and Moon simulation facility in Hawai’i - led over 30 analog space missions as their **Commander** and organized over

**ISU, France (2020-2021):**

**ISU, France (2016-2020):**

**Slovak Organisation for Space Activities – SOSA,**

**Slovakia (2019-2021):**

**University of Hawai'i, USA (2018-2020)**

**Spacemanic – satellite tech. company (2017-2019):**

**SOSA, Slovakia (2016-2019):**

**NASA funded research at HI-SEAS, USA (2018):**

**Canada-France-Hawaii Telescope, USA (2018):**

**Mars Desert Research Station – MDRS, USA (2017):**

**Institute for Food Research, Slovakia (2016):**

**Mars Desert Research Station – MDRS, USA (2014):**

**Royal Society International Exchange in Japan (2013):**

**University College London, UK (2011):**

**Jet Propulsion Laboratory, NASA (2010):**

**Caltech, USA (2009-2010):**

**UK Space Agency/NASA MoonLite project (2009):**

**University of London Observatory – ULO (2008-2011):**

40 such missions, in collaboration with NASA, ESA, DARPA, SIFT, Honeybee Robotics, Ketone Technologies and numerous other space organizations and groups of volunteers worldwide.

**Adjunct Faculty**

Visiting lecturer

**Vice-Chair** of the organisation

Visiting Researcher

**CEO and Co-Founder**

**Chair** of the organisation

Science Officer & Martian analogue astronaut of Mission VI

Researcher studying the dust distribution within the Milky Way through a **NASA**-funded international research project.

Commander of a simulated mission to Mars, working with the Israeli Space Agency (**ISA**), **Weizmann Institute of Science** (Israel), Institute for Food Research (Slovakia), and multiple Slovak and international companies.

Expert research fellow, specialising in food for extreme environments and space.

Martian analogue astronaut working with **ESA**, **Open University**, **UoB**, **UK Centre for Astrobiology** (University of Edinburgh) and the **Space Research Centre** (University of Leicester).

Experimental studies in microbiology and glaciology at the **Chiba University**, Tokyo

Seismology and earthquake hazard research for **UCL**, the **University of Cambridge**, **UoB** and **GEO Grid Research Group**, Japan.

**NASA** research fellowship on extremophiles and astrobiology

Projects in molecular biology and biochemistry conducted in the Professor **Victoria Orphan** and Professor **Jared Leadbetter** labs.

**UK Penetrator Consortium** research assistant at UCL, funded by a **Nuffield Foundation** grant.

Extracurricular research project searching for extra-solar planets

### **Grants and awards:**

- Grant from the **Ministry of Education, Science, Research and Sport of the Slovak Republic** for Dr. Musilova's research at the LunAres space research station in Poland; scientific and educational work in Antarctica; and for two Astro Seven Summits scientific and educational expeditions to the tallest mountains in South America (Aconcagua) and in North America (Denali) (2023 & 2024)
- Grant from **ESET** for **outreach and educational work** in Slovakia (2024)
- Dr. Musilova was part of the **largest expedition of women and non-binary leaders in STEM to Antarctica** (2023), for which she was selected as one of 100 professionals from all over the world in 2020 through a **global leadership** initiative.
- **Top 100 Professionals in Aerospace & Aviation** to follow on **LinkedIn** (2022)
- Dr. Musilova was part of the core team that achieved a **Guinness World Record** for teaching the largest space exploration class (2022).
- **Hero of Progress Award** by **ESET** and featured on **Forbes** (2022)
- **Top 100 Women in Aerospace & Aviation** to follow on **LinkedIn** (2022)

- Dr. Musilova was elected as an **Emerging Leader Representative** for the **Duke of Edinburgh's (DoE) International Award**, for Europe, Mediterranean and Arab States. Through this role, she helped govern an organization that helps over a million young people worldwide (2017-2022).
- **Ambassador's Award** in recognition of Dr. Musilova's **outstanding contribution to the development of the Slovak-American relations**, Embassy of the Slovak Republic of the USA, Washington DC (2021)
- **Top 100 Professionals in Aerospace & Aviation** to follow on **LinkedIn (2021)**
- **Leader of Tomorrow**, St. Gallen Symposium, Switzerland (2018)
- **Best publication prize** from the Chancellor of the Slovak University of Technology (2017)
- **Emerging Space Leaders Grant** from the **International Astronautical Federation (2016)**
- **Women in Aerospace – Europe Student & Young Professional Award (2016)**
- **Forbes Slovakia (2015)** – most promising 30 under 30
- Grant from the **Foundation Tatra Bank** to attend the Space Studies Program at ISU (2015)
- **ESA scholarship** to attend the Space Studies Program at ISU (2015)
- Best presentation prize at the **Astrobiology Society of Britain Conference**, UK (2015)
- **LEAF scholarship** for academic excellence (2014)
- **Royal Geographical Society (with IBG) Postgraduate Research Award** for MDRS analogue astronaut research (2014)
- Grant from the **Slovak Organisation for Space Activities (SOSA)** for MDRS research (2014)
- Grant from the **Ministry of Education, Science, Research and Sport of the Slovak Republic** for MDRS research (2014)
- Grant from the **University of Bristol's Alumni Foundation** for MDRS research (2014)
- **Travel awards** to attend the International Glaciological Society British Branch Meeting in Aberdeen (2012); 'Snow Impurity and Glacial Microbe effects on the abrupt warming in the Arctic' Workshop in Tazawako, Japan (2013); UK Astrobiology Conference in Edinburgh (2013); 'Life in the Cold' Workshop in Leeds (2013); and the European Astrobiology Network Association with AbGradE conferences (2014)
- **Royal Society International Exchange award** to conduct research at the Chiba University, Tokyo, Japan (2012)
- **NERC studentship** and affiliated Doctoral Research Training Grant for PhD research at UoB (2011)
- **UCL Dean's List Commendation** for outstanding academic achievements (2011)
- **UCL Graduate & Undergraduate Planetary Science Prize (2009 & 2011)**
- **UCL Old Students' Association Trust Scholarship** for academic excellence (2008 & 2010)
- **NASA summer research fellowship** for research at the Jet Propulsion Laboratory, NASA (2010)
- **Study Abroad Scholarship** to study at the California Institute of Technology (2009-2010)
- Grant from the **Nuffield Foundation** to perform UK Penetrator Consortium research for the UK Space Agency/NASA MoonLite project (2009)
- **UCL Alumni Scholarship** for academic excellence (2009)
- **Foundation SPP Hlavička ('Smart Head') Scholarship** for academic excellence (2008-2009)
- **UCL Hollingworth Prize** for academic excellence (2008)

### **Selected invited presentations:**

- Keynote speaker at the **Analog Astronaut Conference**, Biosphere 2, Arizona, USA (2024)
- Keynote speaker for an **International Women's Day** event at Volkswagen Slovakia, Bratislava, Slovakia (2024)
- Keynote speaker at the **Export Forum** in Košice, Slovakia (2023)
- Keynote speaker at the **European Space Agency Day** in Košice, Slovakia (2023)
- Keynote speaker at the **European Researchers' Night**, Bratislava, Slovakia (2022)
- **TEDxGateway** speaker, India (virtually) (2022)
- **STEM Punks 2021 Space Program** lecturer, UAE and United Kingdom (2022)
- Keynote speaker at the **Slovak National Library**, Martin, Slovakia (2022)
- Several keynotes and presentations at the **Dubai 2020 World EXPO**, Dubai, UAE (2021)

- **Global Shapers Paris Hub's ShapeHer** Talk, Paris, France (2021)
- **TEDxKošice** speaker, Košice (virtually), Slovakia (2021)
- Keynote lecture for **IBM**, Bratislava, Slovakia (2021)
- Keynote lecture for the **Project Management Institute** in Budapest, Hungary (2020)
- **Forbes Technologies** – Innovations in Business presentation, Bratislava, Slovakia (2019)
- HN Inspire presentation, Bratislava, Slovakia (2019)
- **IXPO** – the **biggest technological festival in Slovakia keynote speaker**, Bratislava, Slovakia (2019)
- Discussion at the **European Parliament** on the topic of Mars and astrobiology, together with the presentation of specific proposals on what the European Parliament & other EU institutions could do to contribute to these topics; Strasbourg, France (2018)
- **Leader of Tomorrow**, St. Gallen Symposium, Switzerland (2018)
- **European Mars Conference keynote** presentation, Innsbruck, Austria (2017)
- **March for Science** speech, Bratislava, Slovakia (2017)
- University presentation at the Slovak University of Technology, Kosice, Slovakia (2017)
- University presentation at the University of the Third Age at the Masaryk University, Czech Republic (2017)
- Scientific fair "Vedecký veľtrh" presentation, Bratislava, Slovakia (2017)
- 'Superškola' presentations and competition for school children, Bratislava, Slovakia (2017)
- University presentation at the Slovak University of Technology, Bratislava, Slovakia (2017)
- Partizánske observatory presentation, Partizánske, Slovakia (2017)
- Gymnasium Partizánske presentation, Partizánske, Slovakia (2017)
- 'Science Talk', Nitra, Slovakia (2017)
- 'Talks' HB Reavis presentations in Poland, Hungary, Czech Republic and Slovakia (2017)
- Observatory SOLAR presentation, Senec, Slovakia (2017)
- Cambridge Challenge award (inspirational speech), Bratislava, Slovakia (2017)
- EDUMED conference presentation, Košice, Slovakia (2017)
- **TEDxBratislava** speaker, Bratislava, Slovakia (2016)
- Presentation about Slovakia's research and technology to a **European Commission delegation**, Bratislava, Slovakia (2016)
- Presentation about Slovakia's research and technology to the **Director General of UNESCO**, Bratislava, Slovakia (2016)
- Presentation about Slovakia's space sector to the **European Union Press (media) trip delegation**, Bratislava, Slovakia (2016)
- Presentation about Slovakia's space sector to the **Slovak President**, Bratislava, Slovakia (2016)
- Presentation about Slovakia's research and technology to the **European Commission** at the "Science meets Regions" event, Brussels, Belgium (2016)
- Presentation about Slovakia's research and technology at the **Joint Research Centre, European Commission**, Italy (2016)
- Scientific discussion 'Science na N-tú', Bratislava, Slovakia (2016)
- Seminar at the **German Aerospace Center (DLR)**, Cologne, Germany (2016)
- Presentation about Slovakia's research and technology to **the Director General of the European Space Agency**, Bratislava, Slovakia (2016)
- Panel presenter at the **REFLEX - European EURAXESS** network workshop, Bratislava, Slovakia (2016)
- **GLOBSEC Young Leaders' Forum** (inspirational speech and discussion), Bratislava, Slovakia (2016)
- **Duke of Edinburgh's Award** Slovakia ceremony (motivational speech), Bratislava, Slovakia (2016)
- Scientific fair "Vedecký veľtrh" presentation, Bratislava, Slovakia (2016)

- Kozmonautika conference presentation, ValMez, Czech Republic (2016)
- **Robotics Days** presentation, Trenčín, Slovakia (2016)
- Profesia Days (inspirational speech and presentation), Bratislava, Slovakia (2016)
- Presentation for the **Week of Science and Technology**, Vsetin, Czech Republic (2016)
- 'The current world of science and society' presentation, Zlin, Czech Republic (2016)
- 'Science Talk', The Week of Science and Technology, Bratislava, Slovakia (2016)
- University presentation at the Slovak University of Technology, Bratislava, Slovakia (2016)
- Scientific and outreach discussion at the music festival Pohoda, Trenčín, Slovakia (2016)
- **UNESCO presentation**, Bratislava, Slovakia (2016)
- Preveda (scientific and outreach) presentation, Bratislava, Slovakia (2016)
- Kozmos News Party presentation, Pardubice, Czech Republic (2016)
- Debate and presentation at the American Centre, Prague, Czech Republic (2016)
- EduForm presentation, Trenčín, Slovakia (2016)
- ProEduco presentation, Košice, Slovakia (2016)
- Awards ceremony presenter for the winners of the TVT 2015 competition, Bratislava, Slovakia (2015)
- 'Science Talk' in the Centre for Science, The Week of Science and Technology, Bratislava, Slovakia (2015)
- Scientific discussion 'Science na N-tú', Bratislava, Slovakia (2015)
- **Institute of Physics** evening lecture, Institute of Physics Headquarters, London, UK (2015)
- **Green Youth Day** presentation, Bristol Festival of Ideas, Bristol, UK (2015)
- **Institute of Physics** evening lecture, Atomic Weapons Establishment, Aldermaston, UK (2015)
- Bristol Improv Theatre workshop and presentation, Rising Ape Collective, Bristol, UK (2015)
- 'Talk and Meet the Scientist' presentation at the **Festival of Nature**, Bristol, UK (2014)
- Keynote speaker at the **European Researchers Night** in Bratislava, Slovakia (2014)
- Summer special speaker for the Science café, Bratislava, Slovakia (2014)
- **LEAF Summer Leadership Camp** inspirational speaker, Bratislava, Slovakia (2014)
- Summer special speaker for the observatory SOLAR, Senec, Slovakia (2014)
- **Institute of Physics** evening lecture, Atomic Weapons Establishment, Aldermaston, UK (2013)
- Earth Sciences seminar at Chiba University, Japan (2013)

## Outreach:

- **Writer:**
  - **Biography "Woman from Mars"** (Žena z Marsu) published in 2020
  - *articles for Space.com* (2020-2022):  
<https://www.space.com/author/michaela-musilova>
  - short story author, as part of the collection of stories: Bratislava Legends come to life  
<https://www.martinus.sk/?uitem=1752805>
  - *cover story* of the Space Journal ROOM  
<https://room.eu.com/article/life-in-the-extremes-confessions-of-an-astrobiologist>
  - *cover story* of NERC Planet Earth magazine (UK):  
<http://planetearth.nerc.ac.uk/features/story.aspx?id=1669&cookieConsent=A>
  - Musilova et al., 2015 *Frontiers in Microbiology* paper featured on:  
phys.org: <http://phys.org/news/2015-04-microbial-diversity-ice-sheet-season.html>  
& *Microbe* magazine:  
<http://www.asmscience.org/content/journal/microbe/10.1128/microbe.10.270.1>
  - Series of articles for:  
ROOM (International), Science Uncovered (UK), Denník N (SK), Quark (SK), Kozmos (SK), Nový Čas (SK), [www.aktuality.sk](http://www.aktuality.sk), [www.science.sk](http://www.science.sk), [www.vedatechnika.sk](http://www.vedatechnika.sk),

[www.vedanadosah.cvtisr.sk](http://www.vedanadosah.cvtisr.sk), [www.vedeckykaleidoskop.cvtisr.sk](http://www.vedeckykaleidoskop.cvtisr.sk), [www.sosa.sk](http://www.sosa.sk),  
[www.eductech.sk](http://www.eductech.sk), [www.kozmonautika.sk](http://www.kozmonautika.sk)

- **Competition organiser:** Organised the Mission to Mars competition for high school and university students in Slovakia, aimed at motivating students to design an experiment, which would be performed during simulated space missions (2016-present) <https://www.seas.sk/misia-mars>
- **Television interviews:** BBC (UK), CNN (USA), Science Channel (USA), Space.com (USA), National Geographic (USA), CNET (USA), Comedy Central (USA), ProSieben (DE), ARTE (FR & DE), VPRO (NL), Česká Televize (CZ), TV JOJ (SK), TA3 (SK), Markíza (SK), RTVS (SK), Tablet.tv (SK), Teraz.sk (SK)
- **Radio interviews:** BBC (UK), Cosmic Shed (UK), Space Clinic (USA), WATH 'The Party Line' (USA), Community for Bristol Radio (UK), Fun Radio (SK), Radio Express (SK), Radio FM (SK), Radio Slovakia International (SK), Radio Slovakia (SK), Radio Devín (SK), Radio Aktual (SK), Sky Radio (SK) and Radio Regina (SK)
- **Journal interviews:** Space.com (USA), Smithsonian (USA), CNET (USA), The Atlantic (USA), Pacific Business News (USA), Marie Claire (USA), Big Island Now (USA), West Hawaii Today (USA), Hawaii Tribune Herald (USA), khon2 (USA), Hawaii News Now (USA), Spacewatch.global (CH), Forbes (CZ), Pravo (CZ)
  - Slovak national newspapers and magazines: Hospodárske noviny (Economic Times), Forbes, SME, Pravda, Profit, .Týždeň, Denník N, Interview, Svet a my, Plus 1 deň, Miao, Nota Bene, Československý ústav zahraniční, Plus 7 dní, Nový Čas, Báječná žena, Slovenka, Slovenské korene, Učiteľské Noviny, topky.sk, aktualita.sk, startitup.sk, BREAK, diva.sk, EMMA, Jednota, Martinus Cena Fantázie, Slovak Spectator, Život, Košické Noviny, Lenna, mindshareworld.com, OKO, To som Ja, Jednota

#### **Peer review:**

- **Editorial board:** Slovak National Committee on Space Research (COSPAR) report
- **Editorial board:** *Frontiers in Space Technologies* – topic: "How to survive in space? - biotechnological challenges to provide opportunity for long-term space exploration"
- **Editorial board:** *ROOM Space Journal*
- **Reviewer for:** **NASA Planetary Protection Research (PPR) Program**, *Astrobiology*, *National Science Foundation*, *ICMAE*, and many other international grant programs and research journals

#### **Teaching experience:**

- **Co-Chair** of the **Science Department** during **ISU's Space Studies Program**, in collaboration with the **Brazilian Space Agency** (AEB), National Institute for Space Research (INPE) and Aeronautics Institute of Technology (ITA), São José dos Campos, Brazil (2023)
- **Visiting professor**, and **bachelor's and master's thesis supervisor** at the Faculty of Electrical Engineering & Information Technology, Slovak University of Technology, Slovakia (2017 - present)
- **Global Faculty Member**, **ISU**, Strasbourg, France (2021 - present)
- Lecturer for **ISU's Interactive Space Program** (2020- 2022)
- **Co-Chair** of the Science Department during **ISU's Space Studies Program**, Strasbourg, France & Granada, Spain (2021)
- **Adjunct Faculty**, **ISU**, Strasbourg, France (2020 - 2021)
- **Lecturer** for **ISU's Master in Space Studies**, Strasbourg, France (2016-2021)
- **Co-Chair** of the **Engineering Department** during **ISU's Space Studies Program**, Strasbourg, France (2019)
- **Lecturer** at **ISU's Space Studies Program** at ESA's European Space Research and Technology Centre (**ESA-ESTEC**), Delft University of Technology (**TU Delft**) and **Leiden University**, run by the Netherlands Space Office (**NSO**) in the Netherlands (2018); Cork Institute of Technology, Ireland (2017); Technion – Israel Institute of Technology, Israel and the Israel Space Agency (ISA) (2016)
- **Astrobiology lecturer** and **master's project supervisor** at the Masaryk University, Brno, Czech Republic (2016 – 2018)
- Co-supervision of two bachelor's degree final year dissertation projects, **UoB** (2012-2015)
- Research supervision and training for master's and bachelor's degree students, Jet Propulsion Laboratory, **NASA** (2010)
- Demonstrating, field trip supervision (UK and Greenland), tutoring and marking essays/exams, **UoB** and **UCL** (2008-2014)

- Teaching assistant for **UCL** bachelor's degree astronomy and astrophysics classes, **ULO** (2010-2011)
- Teaching assistant for outreach in astrobiology, astronomy and geology at numerous schools in London and Bristol, UK (2008-2014)

### **Organizational and administrative experience:**

- Leader, manager and chief fundraising officer for expeditions to **extreme environments on all seven continents** through the **non-profits XtremeFrontiers** in the USA and **Michaela Musilová, o.z.** in Slovakia (2021 – present)
- **Managing over 40 analog Moon and Mars missions** in collaboration with space agencies, academic institutions, companies and independent organizations from all over the world. This includes managing the mission crews, staff, tens of volunteers and overseeing all of the research, technological and outreach projects too. (2018 – 2022)
- **Advisory Board Member** for outreach, education and space for **STEM Punks**, Australia (2020-present)
- Technical Program Co-chair for the **International Conference on Mechanical and Aerospace Engineering (ICMAE)** 2018-2020
- International Publicity Co-chair for **ICMAE** 2017
- Scientific Organizing Committee member of the **European Mars Conference** 2017
- Co-organised, with the Ministry of Education, Science, Research and Sport of the Slovak Republic, several ESA and PECS meetings and workshops for the Slovak space research and industry communities, Bratislava, Slovakia (2015 - 2019)
- Organising steering committee member for the International Glaciological Society British Branch Meeting (UoB, 2014), **UK Antarctic meeting** (UoB, 2014) and the '**Glacial microbiology and biogeochemistry**' Workshop (UoB, 2013)
- PhD student representative, UoB (2012-2014)
- Undergraduate student and departmental representative, UCL (2008-2010)
- Student mentor and visiting students' ambassador, UCL (2008-2011)
- Museum assistant, UCL Geology Museums and Collections (2008)

### **Publications:**

- **Musilová, M.** (2024) Life Sciences. *Space Research in Slovakia 2022 – 2023*. COSPAR Slovak National Committee. ISBN: 978-80-89998-38-8, <https://nccospar.saske.sk/REPORT20222023/SPACERESEARCHINSLOVAKIA20222023.pdf>
- Fishman, C.B., Bevilacqua, J. G., Hahn, A. S., Morgan-Lang, C., Wagner, N., Gadson, O., McAdam, A. C., Bleacher, J., Achilles, C., Knudson, C., Millan, M. M., Bower, D. M., **Musilova, M.** & Johnson, S. S. (2023) Extreme Niche Partitioning and Microbial Dark Matter in a Mauna Loa Lava Tube. *Journal of Geophysical Research: Planets*, **128**:6, e2022JE007283, doi: <https://doi.org/10.1029/2022JE007283>
- Millan, M., Napoleoni, M., McAdam, A. C., Bower, D. M., Knudson, C. A., Achilles, C., Fishman, C., Bleacher, J. E., Young, K. & **Musilova, M.** (2022) Organic Molecules in Secondary Mineral Deposits of Mauna Loa Lava Tubes, Hawaii, as Analogs for Mars: Implications for Martian Habitability and Exploration. *Proceedings of the 44th COSPAR Scientific Assembly*, July 16-24, 2022. Abstract F3.3-0001-22.
- **Musilová, M.** (2022) Life Sciences. *Space Research in Slovakia 2020 -2021*. COSPAR Slovak National Committee. ISBN: 978-80-89998-24-1, <https://nccospar.saske.sk/REPORT20202021/SPACERESEARCHINSLOVAKIA20202021.pdf>
- Pouwels, C., Nunes, A. P. C. P., **Musilova, M.**, Toop-Rose, J., Poli, E. C. & Foing, B. (2022) An Endorsement to Utilize Terrestrial Analogs as Support for the Upcoming Artemis Missions. *Proceedings of the 53rd Lunar and Planetary Science Conference*, March 7-11, 2022, The Woodlands, Texas, USA. LPI Contribution No. 2678, 2022, id.1902
- **Musilova, M.**, McAdam, A. C., Seto, E.P., Bower, D. M., Millan, M., & Fishman, C. (2021) Lessons learned from human lava tube exploration and research during simulated lunar and Martian missions at the HI-SEAS space research station. *Proceedings of the 72nd International Astronautical Congress (IAC) by the International Astronautical Federation (IAF)*, 25-29 October 2021, Dubai, UAE. Paper IAC-21,A5,2,13,x66867
- **Musilova, M.**, Ojeda, O., Fischer, J., Brown, E., Edwards, B. & Maxwell, Z. (2021) Selene III: Challenges and lessons learned during an analog lunar mission at the HI-SEAS research station. *Proceedings of the 72nd International Astronautical Congress (IAC) by the International Astronautical Federation (IAF)*, 25-29 October 2021, Dubai, UAE. Paper IAC-21,A5,1,12,x66971
- Neidlinger, K. & **Musilova, M.** (2021) Algae Textile and Bioplastic Kit for Space Travel and Sustainable Living Applications. *Proceedings of the 72nd International Astronautical Congress (IAC) by the International Astronautical Federation (IAF)*, 25-29 October 2021, Dubai, UAE. Paper IAC-21,D4,2,8,x66977

- McAdam, A. C., Achilles, C., Bower, D. M., Fishman, C., Millan, M., Johnson, S., Napoleoni, M., Knudson, C. A., Weng, M., Bleacher, J. E., Arevalo, R. D., **Musilova, M.**, & Young, K. (2021) Investigation of a Mars-Analog Basaltic Subsurface Lava Tube Environment. *Workshop on Terrestrial Analogs for Planetary Exploration 2021*, Online, 16-18 June 2021, LPI Contribution No.2595, 8074.pdf
- Crowell, C., **Musilova, M.**, & Burns, B. (2021) Determination of Iron Concentration in Volcanic Soil Around the HI-SEAS Analog Habitat. *Workshop on Terrestrial Analogs for Planetary Exploration 2021*, Online, 16-18 June 2021, LPI Contribution No.2595, 8120.pdf
- **Musilova, M.**, Foing, B. & Rogers, H. (2021) International MoonBase Alliance Campaigns at HI-SEAS. *Global Space Exploration Conference 2021*, 14-18 June, 2021, paper ID: 62387
- **Musilova, M.**, Foing, B. & Rogers, H. (2021) Simulating Lava Tube Exploration and Research during Analog Lunar and Martian Missions at HI-SEAS in Hawaii. *EGU General Assembly 2021*, 19–30 April 2021, EGU21-14600
- **Musilova, M.**, McAdam, A. C., Richardson, J. A. , Young, K., Bleacher, J. E., Achilles, C., Bower, D. M., Fishman, C., Johnson, S., Millan, M., Napoleoni, M., Knudson, C. A., Wagner, N. Y., Schmerr, N. C., Shiro, B. & Rogers, H. (2021) Lunar and Martian lava tube research simulation at HI-SEAS. *LPSC 52 Virtual Conference*, 15-19 March 2021, LPI contrib.no. 2548, 2600.pdf
- Seto, E.P., Zacny, K., and **Musilova, M.** (2021) Astronaut drilling simulation for sign of life. *LPSC 52 Virtual Conference*, 15-19 March 2021, LPI Contrib.no. 2548, 1738.pdf
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### **Fieldwork – including educational and research expeditions:**

Leader of expeditions on all seven continents.

### **Languages:**

- Fluent in: English, Slovak, French, Italian and Czech
- Intermediate: German
- Beginner: Japanese, Chinese, Russian and Hawaiian

### **Extracurricular activities and achievements:**

#### ***Patron/Ambassador of educational programs:***

- “I’m an expert” – an educational program from young women and girls with aspirations in science and technology (2023 – present):  
<https://dualnaakademia.sk/aktuality/den-dievcat-v-dualke-iniciativa-som-expertka/>
- **Mission to Mars student competition** (2016 - present)  
<https://energoland.sk/misia-mars/>
- **Duke of Edinburgh’s Award (DofE) Slovakia patron** (2016 - present)  
<http://www.dofe.sk/sk/patroni-a-podporovatelia/>

#### ***International relations:***

- Slovak delegate to the International Astronautical Congress with the Ministry of Education of Slovakia (Paris, 2022)
- Slovak delegate with the Slovak president during his business orientated visit to Israel (2017)
- Slovak delegate at the Space Generation Congress (SGC) in the Exploration Working Group (Mexico, 2016)
- Slovak delegate to ESA and PECS meetings at the ESA Headquarters in Paris (2015-2016)
- Leader of several groups, as part of the International Space University’s team that participated in the **ESA Moon Challenge** (2015)
- Leader of several groups, as part of the International Space University’s team that participated in the **NASA Challenge “Converting *in situ* Materials on a Planet to Support Exploration”** (2015)
- **First prize winner** three years in a row for **UNESCO educational programmes** in Slovakia (2001-2004)
- Slovak representative at UNESCO meetings in **Italy, Romania and Slovakia** (2002-2004)

#### ***Fundraising:***

- Fundraising for the **Shaw Trust Charity** by running the **London Marathon 2016**
- **Fundraising for charities by helping organize and run different performances, pop-up restaurants and other events**
- **Fundraising for research and educational expeditions within Europe and the USA**

***Volunteering:***

- **DofE Slovakia and the International Award** (2016- present)
- **SOSA** (2015-2019)
- Volunteering as a leader for several teams for the **International Space Analogues (ISA)** organization (2015- 2017)
- **18 months of voluntary work** at the Third Age Project in London (part of the **Duke of Edinburgh's Gold Award (DoE)**)
- **Volunteering Awards** from **UCL** for 2007-2008 and 2008-2009

***Competition judge:***

- **Mission to Mars student competition** in Slovakia (2016 - present)
- **European Mars Conference** student competition judge, Innsbruck, Austria (2017)
- **Mission to Mars student competition** for the Mission Mars competition for high school and university students in Slovakia (2016 - present)
- **Science fiction and fantasy writing** competition judge in Slovakia (2015)

***Arts:***

- **First prize** for painting in the **Rotary Club International** art contest in Italy - winning €600
- **Second prize** for photography of the **Swiss Institute** in Rome - winning an all-expenses paid holiday to Switzerland

***Sports:***

- cross country running, dancing, scuba diving, tennis, badminton, skiing, swimming and hiking

**References upon request**