

Professor THAIS RUSSOMANO MD MSc PhD

UK Permanent Residence Visa Held
Brazilian Citizen

Tel: +44 7905779555 (UK)
Tel: +55 51 998060667 (Brazil)

E-mail: trussomano@hotmail.com
Website: <http://www.thairussomano.com>

CURRENT POSITIONS HELD

- (1) Senior Lecturer, CHAPS, Faculty of Life Sciences & Medicine, King's College London
- (2) International Relations Director, HuSCO, Human Spaceflight Capitalization Office, London, UK
- (3) Founder & Director, InnovaSpace, UK
- (4) Co-Founder, Director & Chief Medical Officer, International Space Medicine Consortium Inc., USA
- (5) Guest lecturer ViCCA Master's Course, Alto University, Finland
- (6) Consultant Skolkovo Foundation, Moscow, Russia
- (7) Member of the iB Hubs Global Mentor Community, eHealth projects, India
- (8) Brazilian representative for the ISO/TC 20/SC 14/WG 6, Space systems and operations (Manned space flight)
- (9) Member of the Mars One Mission Advisory Board, Holland

SUMMARY

- 25+ years experience in Aerospace Medicine, Human Physiology, Biomedical Engineering, Telemedicine & eHealth
- Founded & Coordinated for 18 years the Microgravity Centre (MicroG), PUCRS, Brazil
- Inter-, multi-, transdisciplinary experience in developing and conducting international eHealth projects
- eHealth & Telemedicine research & development, project coordination including Amazon Indian missions
- Invited participant, Rockefeller Foundation sponsored National eHealth Policies conference, Bellagio 2008
- Co-founder/Co-Coordinator of the Student Committee of the International Society for Telemedicine & eHealth
- Special interest & active participation in research/committees into Manned Space Flight and Space Tourism
- Development of Microgravity/Hypogravity & Hypergravity simulation research projects
- Development of an international MicroG network of Space focused research teams
- Educational Space lectures for the Brazilian Space Agency, Universities, Schools and general public
- Biomedical research & development, project coordination, management & liaison
- Peer reviewer for 5 scientific journals in the areas of Telemedicine, eHealth and Aerospace Sciences
- Multidisciplinary teaching at both undergraduate & postgraduate level
- Extensive supervision of MSc thesis & BSc final projects at PUCRS & King's College London
- Coordinator of international student exchanges
- Conceptual development of grant proposals
- Human and telehealth study protocols development
- Preparation of manuscripts & technical reports, data analysis and presentation
- Numerous publications in peer reviewed journals and Chapters in Books
- Publication of 6 books in the areas of Astronomy, Space Life Sciences, & Aerospace Biomedical Engineering
- Holder of 7 patents: Products and processes related to Space Life Sciences and Aerospace Biomedical Engineering

Research areas include: telemedicine and eHealth projects; microgravity, hypogravity and hypergravity simulations; parabolic flight campaigns with the European Space Agency; hyperbaric and hypobaric chamber studies; tests in human centrifuges, Barany's chair, flight simulators, lower body positive pressure and negative pressure boxes, and positive pressure chambers, among others.

EDUCATIONAL BACKGROUND

2006 - 2007	Post-Doctoral in Space Life Science, King's College London, England, UK
2000 - 2009	Visiting Research Fellow - Department of Aerospace Medicine and Human Applied Physiology, King's College London, UK
1994 - 1998	PhD in Respiratory Space Physiology, King's College London, England, UK
1991 - 1995	MD in Emergency Rooms, Intensive Care Units and Ambulance Services, in the Porto Alegre region
1989 - 1991	Master's Degree Program in Aerospace Medicine (GPA = 3.94/4.0), Wright State University, Ohio, USA
1985 - 1989	Internal Medicine Residency Program, Clinical Hospital of Porto Alegre, RS, Brazil. Chief Resident (1988) and Senior Resident (1989) in Internal Medicine
1980 - 1985	School of Medicine of the Federal University of Pelotas, RS, Brazil

PRINCIPAL PROJECTS DEVELOPED UNDER MY COORDINATION

Tele-transmission of surgical procedures

Tele-education via international video conferences

Tele-medical assistance to remote areas including projects in: Tele-ECG, Tele-dermatology, Tele-pathology, Tele-odontology, Tele-toxicology, Tele-nutrition, Tele-pharmacy, Tele-physiotherapy, Tele-psychiatry and Tele-radiology
eHealth for primary care attention

eHealth for Indian tribes in the Amazon, Brazil

Development and Validation of the first all-Brazilian Heart Defibrillator

Development and Validation of a Normobaric Hypoxia Chamber

Development and Validation of Lower Body Negative Pressure Box and Lower Body Positive Pressure Box

Development and Validation of a Human Powered Small Centrifuge

Development of small centrifuge for the study of effects of hyperG on plants

Development and Validation of a Tilt Table for Microgravity Simulation

Development of an Earlobe Blood Collector for use in Microgravity

Evaluation of Cardiopulmonary Resuscitation Procedures in Microgravity (Parabolic Flight) and Hypogravity simulations

Development and Validation of a Clinostat 3D for the Study of Cells in Microgravity Simulation

Development and Validation of a Barany's Chair for the Study of the Vestibular System

Development of small hypobaric chamber to study the effects of pressure changes on medication

Development and validation of individual portable dark chambers

PRESENTATION/PUBLICATION & EDUCATIONAL WORKS

Participation in 250+ scientific events with 300+ scientific papers presented, as well scientific and educational works in 30+ countries:

Argentina, Austria, Bosnia & Herzegovina, Brazil, Canada, China, Croatia, Czech Republic, England, Finland, France, Germany, Greece, India, Israel, Italy, Lithuania, Luxembourg, Mexico, The Netherlands, Norway, Philippines, Poland, Portugal, Romania, Russia, Scotland, Singapore, Slovenia, South Africa, Spain, Switzerland, Thailand, and United States of America.

SELECTION OF PUBLICATIONS IN SCIENTIFIC JOURNALS

ROSA, M. S. G. ; **RUSSOMANO, T.** ; SANTOS, Marlis A dos ; Felipe Escobal ; LAMADRID, I. ; ROSA, Mauricio Machado da ; OLIVEIRA, H. W. . TELEMEDICINE AS A HEALTH PROMOTION TOOL: A MULTIDISCIPLINARY VISION. J Int Soc Telemed eHealth, v. 5, p. 17-20, 2017.

Felipe Escobal ; LAMADRID, I. ; ROSA, M. S. G. ; OLIVEIRA, H. W. ; **RUSSOMANO, T.** . TELEGERONTOLOGY: KNOWLEDGE EXCHANGE RELATED TO ELDERLY HEALTHCARE BETWEEN BRAZILIAN AND PORTUGUESE UNIVERSITIES. J Int Soc Telemed eHealth, v. 5, p. 22-24, 2017.

RUSSOMANO, T.; MAIATE, F. ; Nicolas Meira da Silva Schirmer ; ROSA, M. S. G. ; CASTRO, J. C. ; LIMA, Julio Cesar M de . DEVELOPMENT OF A SOLUTION FOR OLED DISPLAY SMARTPHONES FOR PILOT TRAINING IN LOW-VISIBILITY FLIGHT SCENARIOS. *J Int Soc Telemed eHealth*, v. 5, p. 46-48, 2017.

SILVA-MARTINEZ, JACKELYNNE P. ; SORICE GENARO, ANDREIA ; WEN, HUI ANNIE ; GLAUBER, NAAMA ; **RUSSOMANO, T** . Remotely Guided Breast Sonography for Long-Term Space Missions: A Case Report and Discussion. *Telemedicine and e-Health*, v. 23, p. tmj.2016.0245, 2017.

ATTIAS, J; CARVIL P; WALDIE J; **RUSSOMANO, T**; EVETTS, S; GREEN, D A. The Gravity-Loading countermeasure Skinsuit (GLCS) and its effect upon aerobic exercise performance. *Acta Astronautica*, v. 132, p. 111-116, 2017.

SUNDARESAN, Alamelu; MEHTA, Satish K; SCHLEGEL, Todd T; **RUSSOMANO, Thais**; PIERSON, Duane L; MANN, Vivek; MANSOOR, Elvedina; OLAMIGOKE, Loretta; OKORO, Elvis. Placental Growth Factor Levels in Populations with High Versus Low Risk for Cardiovascular Disease and Stressful Physiological Environments such as Microgravity: A Pilot Study. *Microgravity, Science and Technology (Print)*, v. 29, p. 145-149, 2017.

BAERS, J H; VELHO, R; ASHCROFT, A; REHNBERG, L; BAPTISTA, R; **RUSSOMANO, T**. Is Weight a Pivotal Factor for the Performance of External Chest Compressions on Earth and in Space?. *Journal of Exercise Physiology Online*, v. 19, p. 1-15, 2016.

RUSSOMANO, THAIS; MAY, Francica; DALMARCO, Gustavo; BAPTISTA, R.; GAUGER, Peter; PETRAT, Guido; BECK, Luis. A Gender comparison of Cardiovascular Responses to Lower Body Negative Pressure Exposure. *American Journal of Medical and Biological Research*, v. 3, p. 95-101, 2015.

MARCELO, N; **RUSSOMANO, THAIS**; SANTOS, Marlise A Dos; POEHLS Leticia. A New Electronically Monitored Centrifuge for the Analysis of Plant Growth in Simulated Hypergravity. *American Journal of Medical and Biological Research*, v. 3, p. 88-94, 2015.

BAPTISTA, RAFAEL R; SUSIN, Thiago B; DIAS, M.K.P; CORREA Nicholas K; CARDOSO, Ricardo B; **RUSSOMANO, THAIS**. Muscle Activity during the Performance of CPR in Simulated Microgravity and Hypogravity. *American Journal of Medical and Biological Research*, v. 3, p. 82-87, 2015.

VAQUER, SERGI; MASIP, JORDI; GILI, GISELA; GOMÀ, GEMMA; OLIVA, JOAN CARLES; FRECHETTE, ALEXANDRE; EVETTS, SIMON; **RUSSOMANO, THAIS**; ARTIGAS, ANTONIO. Operational evaluation of the earlobe arterialized blood collector in critically ill patients. *Extreme Physiology and Medicine*, v. 4, p. 5-10, 2015

DAILEY CHRISTINE M; REINHOLTZ CHARLES; **RUSSOMANO THAIS**; SCHUETTE MICHAEL; BAPTISTA RAFAEL; CAMBRAIA RODRIGO. Resistance Exercise Machine within Lower Body Negative Pressure for Counteracting Effects of Microgravity. *Gravitational and Space Research* v. 2 (1) p. 94-107, Aug 2014.

REHNBERG, LUCAS; ASHCROFT, ALEXANDRA; BAERS, JUSTIN H.; CAMPOS, FABIO; CARDOSO, RICARDO B.; VELHO, ROCHELLE; GEHRKE, RODRIGO D.; DIAS, MARIANA K. P.; BAPTISTA, RAFAEL R.; **RUSSOMANO, THAIS**; Three Methods of Manual External Chest Compressions During Microgravity Simulation. *Aviation, Space, and Environmental Medicine*, v. 85, no. 7, p. 687-693, 2014.

VAQUER, SERGI; MASIP, JORDI; GILI, GISELA; GOMÀ, GEMMA; OLIVA, JOAN; FRECHETTE, ALEXANDRE; EVETTS, Simon; **RUSSOMANO, THAIS**; ARTIGAS, ANTONIO . Earlobe arterialized capillary blood gas analysis in the intensive care unit: a pilot study. *Annals of Intensive Care*, v. 4, p. 11-19, 2014.

KRYGIEL, REBECCA G.; WAYE, ABIGAIL B.; BAPTISTA, RAFAEL REIMANN; HEIDNER, GUSTAVO SANDRI; REHNBERG, LUCAS; **RUSSOMANO, THAIS**. The evaluation of upper body muscle activity during the performance of external chest compressions in simulated hypogravity. *Life Sciences in Space Research*, v. 1, p. 2-26, 2014.

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WAYE, A; **RUSSOMANO, T**; KRYGIEL, R; SUSIN T B; BAPTISTA R; REHNBERG, L; HEIDNER G; CAMPOS, F; FALCÃO, F. Evaluation of upper body muscle activity during cardiopulmonary resuscitation performance in simulated microgravity. *Advances in Space Research*, p. 971-978, 2013.

Nelson Vinagre ; Dillmann A ; **RUSSOMANO, T.** ; Niklas A . A Paralympian Alpine Skier in a Wind-Tunnel: A Case Study. In: Ian Brittain, editor. (Org.). *Disability sport: a vehicle for social change?*. 1ed. Champaign, Illinois, EUA: Common Ground Publishing LLC, v. 1, p. 181-194, 2013.

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SANTOS, M A; FACHEL F; MARCELO, N; ASTARITA L; COLLIN P; **RUSSOMANO, T.** Effect of Hypergravity Simulation on Carrot Germination and Growth. *Aviation, Space, and Environmental Medicine*, v. 83, p. 1011-1012, 2012.

KORDI, M; CARDOSO, Ricardo B; **RUSSOMANO, T.** A preliminary comparison between methods of performing external chest compressions during microgravity simulation.. *Aviation, Space, and Environmental Medicine*, v. 82, p. 1161-1163, 2011.

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RUSSOMANO, T., CARDOSO, Ricardo B, DUVAL, Vinicius, LOPES, Maria H I, Celia S, HUTTER, Eder, HUTTER, Edison. Space Technology Used to Improve Health Care in Remote Areas. *Aviation Space And Environmental Medicine.* , v.80, p.61 - 63, 2009.

MARTINELLI, Leonardo K, **RUSSOMANO, T.**, SANTOS, M. A., FALCÃO, Felipe P, BAUER, Moises, Amanda Machado, SUNDARESAN, Alamelu. The effect of microgravity immune cell viability and proliferation. *IEEE Engineering in Medicine and Biology Magazine.* , v.1, p.85 - 90, 2009.

SCOLARI, Diogo ; FAGUNDES, Rubem D. R. ; **RUSSOMANO, T.** ; ZWETSCH, Iuberi Carson . A Comparative Study between DD-HMM and RBF in Ventricular Tachycardia and Ventricular Fibrillation recognition. *Medical Engineering & Physics*, England, UK, v. 30, p. 213-217, 2008.

RUSSOMANO, T.; RIZZATTI, Mara R; AZEVEDO, Dario F G de; COELHO, Rodrigo P; SCOLARI, Diogo; SOUZA, Daniel de; PRÁVELEDA, Paula. Effects of Simulated Hypergravity on Biomedical Experiments. *IEEE Engineering in Medicine and Biology Magazine*, England, UK, v. May/Jun, p. 66-71, 2007.

RUSSOMANO, T ; EVETTS, Simon; CASTRO, João; SANTOS, Marlise A dos; GAVILLON, Jorge; AZEVEDO, Dario F G de; WHITTLE, John; COATS, Edward; ERNSTING, John. A Device for Sampling Arterialized Earlobe Blood in Austere Environments. *Aviation, Space, and Environmental Medicine*, Alexandria, Virginia, EUA, v. 77, n. 4, p. 453-455, 2006.

EVETTS, Simon ; EVETTS, Lisa ; **RUSSOMANO, T.** ; CASTRO, Joao; ERNSTING, John. Basic Life Support In Microgravity: Evaluation of a Novel Method During Parabolic Flight . *Aviation, Space, and Environmental Medicine*, Alexandria, VA, Estados Unidos, v. 76, n. 5, p. 506-510, 2005.

SIDES, Marian; VERNIKOS, Joan; CONVERTINO, Victor; STEPANEK, Jan; TRIPP, Lloyd; DRAEGER, Jorg; HARGENS, Alan; PAPADELI, Chrysoula; TRAON, Anne Pavy Le ; **RUSSOMANO, T.** ; WONG, Julielynn; BUCCELLO, Regina; LEE, Peter; NANGLAIA, Vishal; SAARY, Joan; DAY, Pam . The Bellagio Report: Cardiovascular Risks for Space Flight: Implications for the Future of Space Travel. Aviation, Space, and Environmental Medicine, USA, v. 76, n. 1, p. 877-895, 2005.

BOOKS PUBLISHED

RUSSOMANO, T; CASTRO, Joao de C. Fisiologia Aeroespacial - Conhecimentos Essenciais para Voar com Segurança. 1. ed. Porto Alegre: EdiPuc, 2012. v. 1. 186p.

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RUSSOMANO, T; Vernikos, J. A Gravidade Esta Grande Escultora (*Gravity, This Great Sculptor*). Edipucrs, 2009. 338p.

ANTUNANO, M., Hobe, S., Gerzer, R., Russomano, T (International Academy of Astronautics) Medical Safety & Liability Issues for Short Duration Orbital Space Flight. 2009. 45p.

RUSSOMANO, T; Dalmarco, G; Falcao, Felipe P. Synthesis Lectures on Biomedical Engineering #18 - The Effects of Hypergravity and Microgravity on Biomedical Experiment (Paperback). 1. ed. Connecticut: Morgan & Claypool Publishers, 2008. v. 1. 70 p.

RUSSOMANO, T; Dalmarco, G; Falcao, Felipe P. 1st. Ed. Connecticut: Biomedical Engineering Book Series Editor for Morgan and Claypool Publishers, 2007. v. 1. 70 p. The Effects of Hypergravity and Microgravity on Biomedical Experiments – also as an e-book (online)

RUSSOMANO, T. Mosaico. 1. ed. Pelotas: Editora Jornal Diario Popular, 2002. v. 1. 238 p.

RUSSOMANO, T.; Bauermann, B.. O ABC da vida no espaço. (*The ABC of Life in Space*) 1. ed. Porto Alegre: Editora Alcance, 1992. v. 1. 82 p.

RUSSOMANO, T.; Chatkin, M. ; Chatkin, A. . Três Crianças Falam de Astronomia. (*Three Children Talk About Astronomy*) 1. ed. Rio de Janeiro: Editora Freitas Bastos S.A., 1976. v. 1. 43 p.

CHAPTERS in BOOKS

RUSSOMANO, THAIS. Life Support Systems for Manned Mars Missions, Overview. In: Erik Seedhouse; D. Shaler. (Org.). Handbook of Life Support Systems for Spacecraft and Extraterrestrial Habitats. 1ed. NY, USA: Springer International Publishing, 2016, v., p. 1-12.

RUSSOMANO, THAIS. What medical skills will the crew need to survive and ultimately thrive on Mars? Improvisation and Exploration. In: Norbert Kraft, James R Kass, Raye Kass. (Org.). Mars One - Humanity's Next Great Adventure. 1ed. Dallas, Texas, EUA: BenBella Books Inc, 2016, v. 1, p. 23-36.

Nelson Vinagre ; Dillmann A ; RUSSOMANO, T. ; Niklas A . A Paralympian Alpine Skier in a Wind-Tunnel: A Case Study. In: Ian Brittain, editor. (Org.). Disability sport: a vehicle for social change? 1ed. Champaign, Illinois, EUA: Common Ground Publishing LLC, 2013, v. 1, p. 181-194

Porto, Flavia ; Gurgel, Jonas L ; RUSSOMANO, T. ; Paulo Faminatti . Moiré Topography: From Takasaki Till Present Day. In: InTech - Open Access Publisher. (Org.). Recent Advances in Scoliosis - Intech Publication. 1ed.: Intech, 2012, v. 1, p. 103-118.

Flavia Porto, Jonas Lirio Gurgel, Thais RUSSOMANO, Paulo de Tarso Veras Farinatti. Shadow Moiré Technique to Measure Deformity of the Trunk Surface in the Elderly: A Population Based Study, Source: Scoliosis, Causes, Symptoms and Treatments, Editors: A Bessette et al., Publishers: Nova Science Publishers Inc, ISBN: 978-1-62081-007-1 Published Date: October 2012, v.1 Chapter III, p.73-90

RUSSOMANO T, Cardoso Ricardo B, Jones Christopher R, Oliveira Helena W, Hüttner Edison, Lopes Maria Helena Itaquí eHealth Projects of the Microgravity Centre. Source: Biomedical Engineering, Trends, Research and Technologies, Book edited by: Malgorzata Anna Komorowska and Sylwia Olsztyńska-Janus, ISBN: 978-953-307-514-3, Publisher: InTech, Published date: January 2011, v.1, p. 529-550

Leães, Roberta; Cambraia, Rodrigo; Bacim, Felipe; Dalmarco, Gustavo; Calder, Alyson; Azevedo, D. F. G. ; Pinho, Márcio RUSOMANO, T. Development of a Walking Pattern Evaluation System for Hypogravity Simulation. In: Nilmini Wickramasinghe and Eliezer Geisler, editors. (Org.). Encyclopedia of Healthcare Information Systems. New York: Information Science Reference (an imprint of IGI Global), 2008, v. 1, p. 440-445.

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RUSOMANO, T. Center of Microgravity - Pioneering Center of Research and Teaching in Biomedicine & Aerospace Biomedical Engineering. In: Jorge Luis Nicolas Audy & Marília Costa Morosini. (Org.). Innovation and Interdisciplinarity in the University (Inovação e Interdisciplinaridade na Universidade). 1 ed. Porto Alegre RS: EdiPucrs, 2007, v. 1, p. 325-334.

PATENTS

- (1) RUSOMANO T., J. Dupont, MA dos Santos, BAmaro da Silveira Neto, FP Falcão - Processo de proteção de biodiesel e biodiesel obtido por tal processo (*Process for the protection of Biodiesel & Biodiesel obtained by the process*). Patent PROV020110058216 3rd June 2011 Co-ownership UFRGS
- (2) RUSOMANO T and DFG Azevedo. Equipamento para incubação de peixes e outros animais e processo de cultivo de peixes e outros animais (*Equipment for incubation of fish and other animals and process of cultivation of fish and other animals*) Patent 020080095366 8th July 2008; PI0802399-9 8th July 2008; PCT/BR2009/000201 8th July 2009; US Patent US13/003,061 7th Jan 2011; European Patent EP09793727.0 7th Jan 2011
- (3) RUSOMANO T, FP Falcao, MA Santos, LV Astarita, CA Machado, P Collin and AA Vieira. Processo de cultivo de plantas sob condições de hipergravidade (*Procedure for culture of plants under conditions of hypergravity*) Patent PI 0705245-6 9th July 2007 Patent PCT/BR/2008000199 9th July 2008; European Patent EP08772762.4 8th Jan 2010; US Patent US12/668,208 8th Jan 2010
- (4) Santos MA and T RUSOMANO. Câmara para a difusão de ingredientes ativos, e processo para cultivo de células em microgravidade. (*Chamber for the diffusion of active ingredients, and process for culture of cells in microgravity*) Patent PI0801375-6 13th May 2008 Co-ownership King's College London
- (5) RUSOMANO T, RB Cardoso, V Nangalia, G Dalmarco, FP Facao and M Vian. Blood collector device and blood analysis process. Patent PCT/BR2007/000157 18th June 2007; Brazil PI0720946-0 10th July 2009; US Patent US12/665,433 18th Dec 2009; European Patent EP07719325.8 8th Jan 2010
- (6) RUSOMANO T, JL Gavillon, M Vian, CL Schossler, CRV Dos Santos, DFG Azevedo and ELP Louzade. Coletor de sangue arterializado do lóbulo da orelha (*Blood collector device for arterialized blood from the earlobe*). Patent PI0203602-9 30th August 2002
- (7) RUSOMANO T, EC Grigolo, DFG Azevedo, RP Coelho, JC Castro. Disposição construtiva em câmara escura individual e portátil (ceip). (*Development of individual portable dark chambers*) Patent MU8200234-7 31st January 2002

PROFESSIONAL ASSOCIATIONS/COMMITTEES – Past & Present

Co-founder/Co-coordinator Student Committee of the International Society for Telemedicine & eHealth
Aerospace Medical Association, USA
Asociacion Iberoamericana de Medicina Aeroespacial, Mexico.
Brazilian Aerospace Society, Scientific Director, Brazil
Honorary Member Slovenian Aerospace Medical Association, Slovenia
IAA – International Academy of Astronautics, Space Life Sciences Committee
International Academy of Aviation and Space Medicine, Europe
Advisory Board of the Envihab, German Aerospace Centre
International Space Committee ISO/TC 20/SC 14/WG 6 - Space systems - Man- Life activity support systems and equipment integration in space flight.
Honorary member of the Philippine Academy of Aerospace Medicine & Biomedical Engineering
Former member of the IAA – Medical Guidelines for crew members - Committee
Former member of the IAA - Study Group in Space Tourism
Former member of the Educational and Training Committee of the Aerospace Medical Association, USA
Former member of the Educational Committee of the International Astronautical Federation
Former member of the International Astronautical Federation’s Committee on the Contribution of Space Related Research to Advances in the Field of Medicine

MEMBER OF INTERNATIONAL WORKING GROUPS

2013 International Academy of Astronautics (IAA), Commission 2 on Space Life Sciences
2013 International Academy of Astronautics (IAA), Space Life Sciences in the Exploration Era
2011 International Space Committee ISO/TC20/SC14/WG6, Space Systems – Man-Life Activity Support Systems and Equipment Integration in Space Flight
2011 International Academy of Astronautics (IAA), Medical Safety Guidelines for Space Crews Involved in Short-Duration Commercial Orbital Flight Operations
2010 Advisory Board of Envihab, German Aerospace Centre
2010 International Academy of Astronautics (IAA), Space Life Sciences Committee
2010 International Academy of Astronautics (IAA), Space Tourism Committee
2008 National eHealth Policies. Promoted by The World Health Organisation & The Rockefeller Foundation.
2008 Commission 2 - International Academy of Astronautics Study Group –eLearning in space life science
2006/2007 Medical Safety Guidelines for Passengers on Commercial Orbital Space Flights. Promoted by International Academy of Astronautics Study Group, Commission 2 – Life Sciences. 2006/2007
2005 Space Flight Issues in the 21st Century: Cardiovascular and Fluid Shift Issues. Bellagio, Italy. Promoted by The Rockefeller Foundation & The Mayo Clinic, USA

LANGUAGES

Portuguese Fluent, native language
Spanish Fluent in comprehension, speech, reading and writing
English Fluent in comprehension, speech, reading and writing
French Good comprehension, speak, read and write reasonably well

REFERENCES

Available upon request