Ruth Hemmersbach

List of Publications by Year
in descending order

72 papers	2,029 citations	279701 23 h-index	243529 44 g-index
77 all docs	77 docs citations	77 times ranked	1301 citing authors

#	Article	IF	Citations
1	Ground-Based Facilities for Simulation of Microgravity: Organism-Specific Recommendations for Their Use, and Recommended Terminology. Astrobiology, 2013, 13, 1-17.	1.5	372
2	Differential gene expression profile and altered cytokine secretion of thyroid cancer cells in space. FASEB Journal, 2014, 28, 813-835.	0.2	110
3	Alterations of the cytoskeleton in human cells in space proved by life-cell imaging. Scientific Reports, 2016, 6, 20043.	1.6	93
4	Differential Gene Regulation under Altered Gravity Conditions in Follicular Thyroid Cancer Cells: Relationship between the Extracellular Matrix and the Cytoskeleton. Cellular Physiology and Biochemistry, 2011, 28, 185-198.	1.1	88
5	Gravityâ€sensitive signaling drives 3â€dimensional formation of multicellular thyroid cancer spheroids. FASEB Journal, 2012, 26, 5124-5140.	0.2	83
6	Rapid alterations of cell cycle control proteins in human T lymphocytes in microgravity. Cell Communication and Signaling, 2012, 10, 1.	2.7	72
7	Facilities for Simulation of Microgravity in the ESA Ground-Based Facility Programme. Microgravity Science and Technology, 2016, 28, 191-203.	0.7	71
8	Spheroid formation of human thyroid cancer cells under simulated microgravity: a possible role of CTGF and CAV1. Cell Communication and Signaling, 2014, 12, 32.	2.7	66
9	Mechanisms of three-dimensional growth of thyroid cells during long-term simulated microgravity. Scientific Reports, 2015, 5, 16691.	1.6	65
10	Moderate alterations of the cytoskeleton in human chondrocytes after shortâ€term microgravity produced by parabolic flight maneuvers could be prevented by upâ€regulation of BMPâ€2 and SOXâ€9. FASEB Journal, 2015, 29, 2303-2314.	0.2	65
11	Pyrocystis noctiluca represents an excellent bioassay for shear forces induced in ground-based microgravity simulators (clinostat and random positioning machine). Npj Microgravity, 2017, 3, 12.	1.9	63
12	Common Effects on Cancer Cells Exerted by a Random Positioning Machine and a 2D Clinostat. PLoS ONE, 2015, 10, e0135157.	1.1	61
13	Gravireceptors in eukaryotesâ€"a comparison of case studies on the cellular level. Npj Microgravity, 2017, 3, 13.	1.9	56
14	The Impact of Altered Gravity and Vibration on Endothelial Cells During a Parabolic Flight. Cellular Physiology and Biochemistry, 2013, 31, 432-451.	1.1	53
15	Adaptation of a 2-D Clinostat for Simulated Microgravity Experiments with Adherent Cells. Microgravity Science and Technology, 2013, 25, 153-159.	0.7	52
16	Syk phosphorylation â€" a gravisensitive step in macrophage signalling. Cell Communication and Signaling, 2015, 13, 9.	2.7	36
17	Fighting Thyroid Cancer with Microgravity Research. International Journal of Molecular Sciences, 2019, 20, 2553.	1.8	36
18	Hypergravity Facilities in the ESA Ground-Based Facility Program â€" Current Research Activities and Future Tasks. Microgravity Science and Technology, 2016, 28, 205-214.	0.7	33

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19	Differential gene expression of human chondrocytes cultured under short-term altered gravity conditions during parabolic flight maneuvers. Cell Communication and Signaling, 2015, 13, 18.	2.7	32
20	The Fight against Cancer by Microgravity: The Multicellular Spheroid as a Metastasis Model. International Journal of Molecular Sciences, 2022, 23, 3073.	1.8	32
21	Ground-based experimental platforms in gravitational biology and human physiology. Signal Transduction, 2006, 6, 381-387.	0.7	30
22	Short-Term Microgravity Influences Cell Adhesion in Human Breast Cancer Cells. International Journal of Molecular Sciences, 2019, 20, 5730.	1.8	28
23	Impact of Gravity on Thyroid Cells. International Journal of Molecular Sciences, 2017, 18, 972.	1.8	24
24	Validation of Random Positioning Versus Clinorotation Using a Macrophage Model System. Microgravity Science and Technology, 2019, 31, 223-230.	0.7	23
25	Thyroid Cells Exposed to Simulated Microgravity Conditions â€“ Comparison of the Fast Rotating Clinostat and the Random Positioning Machine. Microgravity Science and Technology, 2016, 28, 247-260.	0.7	21
26	Molecular response of Deinococcus radiodurans to simulated microgravity explored by proteometabolomic approach. Scientific Reports, 2019, 9, 18462.	1.6	20
27	Influence of extremely low frequency electromagnetic fields on the swimming behavior of ciliates. Bioelectromagnetics, 1997, 18, 491-498.	0.9	19
28	PMT (Photomultiplier) Clinostat. Microgravity Science and Technology, 2011, 23, 67-71.	0.7	19
29	A Birdâ€™s-Eye View of Molecular Changes in Plant Gravitropism Using Omics Techniques. Frontiers in Plant Science, 2015, 6, 1176.	1.7	19
30	Cytokine Release and Focal Adhesion Proteins in Normal Thyroid Cells Cultured on the Random Positioning Machine. Cellular Physiology and Biochemistry, 2017, 43, 257-270.	1.1	19
31	Tissue Engineering of Cartilage Using a Random Positioning Machine. International Journal of Molecular Sciences, 2020, 21, 9596.	1.8	19
32	Gravitaxis in Euglena. Advances in Experimental Medicine and Biology, 2017, 979, 237-266.	0.8	17
33	Impact of a High Magnetic Field on the Orientation of Gravitactic Unicellular Organismsâ€”A Critical Consideration about the Application of Magnetic Fields to Mimic Functional Weightlessness. Astrobiology, 2014, 14, 205-215.	1.5	15
34	2-D Clinostat for Simulated Microgravity Experiments with Arabidopsis Seedlings. Microgravity Science and Technology, 2016, 28, 59-66.	0.7	15
35	The influence of simulated microgravity on the proteome of Daphnia magna. Npj Microgravity, 2015, 1, 15016.	1.9	14
36	Modulation of Differentiation Processes in Murine Embryonic Stem Cells Exposed to Parabolic Flight-Induced Acute Hypergravity and Microgravity. Stem Cells and Development, 2018, 27, 838-847.	1.1	14

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37	Natriuretic peptide-sensitive guanylyl cyclase expression is down-regulated in human melanoma cells at simulated weightlessness. Acta Astronautica, 2011, 68, 652-655.	1.7	13
38	The Influence of Simulated Microgravity on Purinergic Signaling Is Different between Individual Culture and Endothelial and Smooth Muscle Cell Coculture. BioMed Research International, 2014, 2014, 1-11.	0.9	12
39	Proper selection of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mn>1</mml:mn><mml:mtext> g</mml:mtext></mml:math> controls in simulated microgravity research as illustrated with clinorotated plant cell suspension cultures. Life Sciences in Space Research, 2015, 5, 47-52.	1.2	12
40	Microgravity-induced stress mechanisms in human stem cell-derived cardiomyocytes. IScience, 2022, 25, 104577.	1.9	12
41	Analysis of Statoliths Displacement in Chara Rhizoids for Validating the Microgravity-Simulation Quality of Clinorotation Modes. Microgravity Science and Technology, 2018, 30, 229-236.	0.7	11
42	Parabolic, Flight-Induced, Acute Hypergravity and Microgravity Effects on the Beating Rate of Human Cardiomyocytes. Cells, 2019, 8, 352.	1.8	11
43	Tissue Engineering of Cartilage on Ground-Based Facilities. Microgravity Science and Technology, 2016, 28, 237-245.	0.7	10
44	Cytosolic Calcium Concentration Changes in Neuronal Cells Under Clinorotation and in Parabolic Flight Missions. Microgravity Science and Technology, 2016, 28, 633-638.	0.7	8
45	Differential Regulation of cGMP Signaling in Human Melanoma Cells at Altered Gravity: Simulated Microgravity Down-Regulates Cancer-Related Gene Expression and Motility. Microgravity Science and Technology, 2018, 30, 457-467.	0.7	8
46	Radiation Response of Murine Embryonic Stem Cells. Cells, 2020, 9, 1650.	1.8	8
47	Streamlining Culture Conditions for the Neuroblastoma Cell Line SH-SY5Y: A Prerequisite for Functional Studies. Methods and Protocols, 2022, 5, 58.	0.9	8
48	Live-Cell Imaging of the Contractile Velocity and Transient Intracellular Ca2+ Fluctuations in Human Stem Cell-Derived Cardiomyocytes. Cells, 2022, 11, 1280.	1.8	7
49	Simulating Parabolic Flight like g-Profiles on Ground - A Combination of Centrifuge and Clinostat. Microgravity Science and Technology, 2016, 28, 231-235.	0.7	6
50	2-D clinorotation alters the uptake of some nutrients in Arabidopsis thaliana. Journal of Plant Physiology, 2017, 212, 54-57.	1.6	6
51	Guanylyl Cyclase-cGMP Signaling Pathway in Melanocytes: Differential Effects of Altered Gravity in Non-Metastatic and Metastatic Cells. International Journal of Molecular Sciences, 2020, 21, 1139.	1.8	6
52	ARADISH - Development of a Standardized Plant Growth Chamber for Experiments in Gravitational Biology Using Ground Based Facilities. Microgravity Science and Technology, 2016, 28, 297-305.	0.7	5
53	Pathway Analysis Hints Towards Beneficial Effects of Long-Term Vibration on Human Chondrocytes. Cellular Physiology and Biochemistry, 2018, 47, 1729-1741.	1.1	5
54	ARABIDOMICSâ€”A new experimental platform for molecular analyses of plants in drop towers, on parabolic flights, and sounding rockets. Review of Scientific Instruments, 2020, 91, 034504.	0.6	5

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55	The Impact of Hypergravity and Vibration on Gene and Protein Expression of Thyroid Cells. Microgravity Science and Technology, 2016, 28, 261-274.	0.7	4
56	Pipette-based Method to Study Embryoid Body Formation Derived from Mouse and Human Pluripotent Stem Cells Partially Recapitulating Early Embryonic Development Under Simulated Microgravity Conditions. Microgravity Science and Technology, 2016, 28, 287-295.	0.7	4
57	Beneficial Effects of Low Frequency Vibration on Human Chondrocytes in Vitro. Cellular Physiology and Biochemistry, 2019, 53, 623-637.	1.1	4
58	In Prostate Cancer Cells Cytokines Are Early Responders to Gravitational Changes Occurring in Parabolic Flights. International Journal of Molecular Sciences, 2022, 23, 7876.	1.8	3
59	Image Analysis. , 2005, , 28-50.		1
60	Flagellates. , 2005, , 75-105.		1
61	Topical Issue on Ground-Based Facilities (GBF): Results and Experiences from ESAâ€™s Ground-Based Facilities Programme in Space Life Sciences. Microgravity Science and Technology, 2016, 28, 189-189.	0.7	1
62	The MAPHEUS module CellFix for studying the influence of altered gravity on the physiology of single cells. Review of Scientific Instruments, 2020, 91, 014101.	0.6	1
63	Hypergravity selectively augments neuronal in vitro differentiation. FASEB Journal, 2018, 32, 897.1.	0.2	1
64	Evolutionary Aspects of Gravisensing: From Bacteria to Men. , 2005, , 184-196.		0
65	Methods in Gravitational Biology. , 2005, , 12-27.		0
66	Ciliates. , 2005, , 51-74.		0
67	Other Organisms. , 2005, , 106-112.		0
68	Responses to Other Stimuli. , 2005, , 113-140.		0
69	Energetics. , 2005, , 141-164.		0
70	Models for Graviperception. , 2005, , 165-183.		0
71	Enhancing Synaptic Plasticity <i>in vitro</i> using Novel Ketamine Derivatives. FASEB Journal, 2021, 35, .	0.2	0
72	Variable acceleration influences cyclic AMP levels in Paramecium biaurelia. Journal of Gravitational Physiology: A Journal of the International Society for Gravitational Physiology, 2002, 9, P267-8.	0.0	0