International Space Station: Expedition Five Experiments

Experiment	Mission Information	Duration	Location on ISS	Research Area
Advanced Astroculture-GC-03 (ADVASC)	Up on UF-2 Down on 9A	75 days,	EXPRESS Rack 4	Commercial plant biotechnology
Commercial Generic Bioprocessing Apparatus (CGBA)	Up on 9A Down on 11A	35 days	EXPRESS Rack 4	Commercial plant biotechnology
Plant Growth Bioprocessing Apparatus (PGBA)	Up on 9A Down on 11A	35 days	EXPRESS Rack 4	Commercial plant biotechnology
Protein Crystal Growth Single-locker Thermal Enclosure System housing the Diffusion-controlled Crystallization Apparatus for Microgravity (PCG-STES-DCAM)	Up on UF-2 Down on 9A	3 months	EXPRESS Rack 4	Biotechnology
Protein Crystal Growth Single-locker Thermal Enclosure System housing the Protein Crystallization Apparatus for Microgravity (PCG-STES-PCAM)	Up on 9A Down on 11A	1 month	EXPRESS Rack 4	Biotechnology
Zeolite Crystal Growth Furnace (ZCG)	Furnace unit up on UF-1; samples up and down on most Shuttle flights	Expeditions Four through Seven	EXPRESS Rack 2	Space product development
Experiment	**Mission Information**	**Duration**	**Location on ISS**	**Research Area**
Effect of Prolonged Spaceflight on Human Skeletal Muscle (Biopsy)	Expeditions 5-8	N/A	Pre- and post-flight	Human life sciences
Microencapsulation Electrostatic Processing System (MEPS)	Up on UF-2 Samples down on 9A	8 months	EXPRESS Rack 3	Space product development
Solidification Using a	Up on UF-2	4 months	Microgravity Science	Materials

Baffle in Sealed Ampoules (SUBSA)	Down on 11A		Glovebox	Science
Pore Formation and Mobility Investigation (PFMI)	Up on UF-2 Down ULF-1	8 months	Microgravity Science Glovebox	Microgravity sciences
Educational Payload Operations-5	Up on UF-2 Down on 11A	2 days	Stowed when not in use	Education
StelSys Liver Cell Research (StelSys)	Up on UF-2 Down on 9A	3 months	EXPRESS Racks 1 & 4	Commercial biotechnology
Crew Earth Observations (CEO)	Expeditions 1-7	28 months	Destiny lab window or other ISS windows	Earth observations
Materials International Space Station Experiment (MISSE)	Up on 7A.1 Down on ULF-1	17 months	External attachment on Quest airlock	Materials exposure
Microgravity Acceleration Measurement System (MAMS)	Up on 6A	Permanent	EXPRESS Rack 1	Microgravity
Space Acceleration Measurement System (SAMS)	Up on 6A	Permanent	EXPRESS Racks 1 and 4	Microgravity
Crewmember and Crew-Ground Interactions During ISS Missions (Interactions)	Expeditions 2-9	32 months	Human Research Facility	Human life sciences
Subregional Assessment of Bone Loss in the Axial Skeleton in Long-term Spaceflight (Subregional Bone)	Expeditions 2-9	32 months	Pre- and post-flight	Human life sciences
EVA Radiation Monitoring (EVARM)	Expeditions 4-6	12 months	Human Research Facility	Human life sciences
Promoting Sensorimotor Response Generalizability (Mobility)	Expeditions 5-10	N/A	Pre- and post-flight	Human life sciences
Experiment	**Mission Information**	**Duration**	**Location on ISS**	**Research Area**
Space Flight Induced Reactivation of Epstein-Barr Virus (Epstein-Barr)	Expeditions 5-10	N/A	Pre- and post-flight	Human life sciences
Test of Midodrine as a Countermeasure against Postflight Orthostatic Hypotension (Midodrine)	Expeditions 5-10	N/A	Pre- and post-flight	Human life sciences

Effects of Microgravity on the Peripheral Subcutaneous Veno-Arteriolor Reflex in Humans (Xenon 1)	Expeditions 3-5	12 months	Human Research Facility	Human life sciences
Pulmonary Function in Flight (PuFF)	Expeditions 3-6	16 months	Human Research Facility	Human life sciences
Experiment on Physics of Colloids in Space (EXPPCS)	Up on 6A Down on 9A	16 months	EXPRESS Rack 2	Fluid physics
Renal Stone Risk During Spaceflight (Renal Stone)	Expeditions 3-12	30 months	Human Research Facility	Human life sciences