



# MARSCOLONIZATION.COM

## Researcher Listing Criteria

### Top 100 Space Colonization Researchers

---

The standards, selection factors, tier qualifications, exclusion rules, and review process governing which academic and institutional researchers are listed in the MarsColonization.com directory.

---

# Contents

---

Click any section title to navigate directly to that page.

---

|                                                 |       |
|-------------------------------------------------|-------|
| <b>1. Purpose of These Criteria</b>             | ..... |
| <b>2. Researcher vs. Company Directory</b>      | ..... |
| <b>3. General Eligibility Requirements</b>      | ..... |
| <b>4. Five Primary Selection Factors</b>        | ..... |
| Factor 1 — Direct Relevance to Colonization     | ..... |
| Factor 2 — Research Output & Productivity       | ..... |
| Factor 3 — Verifiability                        | ..... |
| Factor 4 — Active Research Status               | ..... |
| Factor 5 — Field Recognition                    | ..... |
| <b>5. Tier-Specific Qualification Standards</b> | ..... |
| Tier 1 — Interplanetary Logistics               | ..... |
| Tier 2 — In-Situ Resource Utilization           | ..... |
| Tier 3 — Structural Habitats                    | ..... |
| Tier 4 — Life Support Systems                   | ..... |
| Tier 5 — Energy Production & Storage            | ..... |
| Tier 6 — Food Systems                           | ..... |
| Tier 7 — Interplanetary Communications          | ..... |
| Tier 8 — Robotics                               | ..... |
| Tier 9 — Extraterrestrial Healthcare            | ..... |
| Tier 10 — Martian Law & Finance                 | ..... |
| <b>6. Tier Assignment Rules</b>                 | ..... |
| <b>7. Disqualification Criteria</b>             | ..... |
| <b>8. Verification &amp; Source Standards</b>   | ..... |
| <b>9. Annual Review Process</b>                 | ..... |
| <b>10. Nomination Evaluation Checklist</b>      | ..... |

---

## Purpose of These Criteria

---

The MarsColonization.com directory lists 100 academic and institutional researchers across ten mission-critical tiers. This document defines, in precise and consistent terms, exactly what qualifies a researcher for inclusion — and what disqualifies them.

These criteria serve three purposes: they guide the founder when making initial listing decisions and evaluating nominations; they provide transparency for researchers and institutions reviewing the directory; and they ensure consistent standards are applied as the directory grows and is maintained over time.

**Rule:** The researcher directory does not rank, score, or rate the individuals it lists. Criteria determine inclusion only — not any ordering. All included researchers are presented alphabetically by last name within their tier.

The overriding test for any researcher is: Does this individual's published, funded, or contracted work directly advance the scientific or technical possibility of permanent human settlement beyond Earth? If yes, and the researcher meets the eligibility requirements, they belong in the directory.

## Researcher vs. Company Directory

The researcher directory operates alongside the company directory but has different standards in several important areas. The table below summarizes the key differences.

| Dimension                       | Company directory                                          | Researcher directory                                                                                                                                                           |
|---------------------------------|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Primary entity</b>           | A legal corporate entity (company, LLC, corporation)       | An individual person with an academic, institutional, or independent research role                                                                                             |
| <b>Organizational viability</b> | Assessed via funding, contracts, employees, revenue        | Assessed via publication record, grants, institutional affiliation, and research activity                                                                                      |
| <b>Profile ownership</b>        | Claimed and maintained by a company representative         | Claimed and maintained by the researcher personally                                                                                                                            |
| <b>Entry type coverage</b>      | Commercial or non-profit organizations                     | University professors, government research scientists, NASA/ESA/JAXA staff scientists, independent researchers, and astronaut-researchers with a documented publication record |
| <b>Exclusions</b>               | Individuals; unincorporated sole proprietors               | Companies and institutions (listed instead in the company directory)                                                                                                           |
| <b>Primary identifier</b>       | Organization name                                          | Individual full name; institution listed as secondary identifier                                                                                                               |
| <b>Tier 10 scope</b>            | Investment funds, insurers, law firms with space practices | Legal scholars, policy researchers, space governance academics — not practitioners or fund managers                                                                            |

**Note:** A researcher who has founded a company may appear in both directories — once as an individual in the researcher directory and once as the company in the company directory — provided they meet the criteria for each independently.

## General Eligibility Requirements

A researcher must meet all five of the following general requirements to be eligible for any tier. These are threshold conditions — failing any one is disqualifying regardless of other strengths.

| #         | Requirement                                         | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>G1</b> | <b>Individual person</b>                            | The listing must be for a named individual, not an institution or team. A research group or laboratory is not eligible as a researcher entry; the principal investigator (PI) leading the group is the eligible individual.                                                                                                                                                                                                                                                     |
| <b>G2</b> | <b>Active research role</b>                         | The researcher must currently hold or have recently held (within 36 months) an active research position: tenured or tenure-track faculty, research scientist, postdoctoral researcher, staff scientist at a government research agency, or equivalent. Retired researchers who remain actively publishing or advising on space colonization work may qualify. Emeritus professors are evaluated on the basis of current publication or advisory activity, not past title alone. |
| <b>G3</b> | <b>Publicly verifiable identity and affiliation</b> | The researcher's name, current or most recent institutional affiliation, and at least one verifiable publication, patent, or government research award in the relevant tier must be confirmable from public sources. A researcher without any publicly indexed work product cannot be listed.                                                                                                                                                                                   |
| <b>G4</b> | <b>Direct space colonization relevance</b>          | The researcher's primary or most significant research focus must have a plausible, specific pathway to supporting permanent human settlement beyond Earth. General aerospace, space science, or planetary science research is not sufficient unless it has a documented application to colonization infrastructure, life support, habitation, resource utilization, or the other nine tiers.                                                                                    |
| <b>G5</b> | <b>No fatal disqualifiers</b>                       | The researcher must not meet any of the disqualification criteria listed in Section 7.                                                                                                                                                                                                                                                                                                                                                                                          |

**Note:** Government research scientists (NASA, ESA, JAXA, DLR, CNES, ISRO) are fully eligible. Staff scientists at national laboratories (JPL, LANL, Ames, Glenn, Marshall, JSC, KSC) are among the most important contributors to space colonization research and should be well represented in the directory.

## Five Primary Selection Factors

Once a researcher passes general eligibility, they are evaluated against five selection factors. These factors are used as a structured framework for qualitative judgment. The goal is to identify the 10 most relevant and impactful researchers per tier — not necessarily the most famous or most cited.

**Rule:** No researcher is ranked against others within a tier. The five factors determine inclusion or exclusion only. All included researchers are treated as equals in the directory.

### Factor 1 — Direct Relevance to Colonization

This is the most important factor. The question is not "is this person a space researcher?" but "does this researcher's work directly move humanity closer to living permanently beyond Earth?" Strong relevance means the researcher has a named research program, grant, or publication body that is explicitly focused on a technology, system, or framework needed for off-Earth colonization.

| Level           | Description                                                                                                                                                                                                                           | Example                                                                                                                                         |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Strong</b>   | Researcher has a named research program or substantial publication record explicitly addressing a colonization-critical technology or system. Colonization application is stated in grant abstracts, paper titles, or researcher bio. | A NASA KSC scientist whose entire research program is crop growth systems for bioregenerative life support on long-duration missions.           |
| <b>Moderate</b> | Researcher's work is demonstrably applicable to colonization and they have at least one publication, grant, or collaboration explicitly connecting their research to space applications.                                              | A roboticist whose autonomous navigation research has been applied to planetary rover missions in at least one published or contracted project. |
| <b>Weak</b>     | Researcher works in a field that could theoretically support colonization but has no documented connection to space applications in their published or funded work.                                                                   | A structural engineer whose research on inflatable structures has no stated space application and no aerospace collaborations.                  |

**Important:** Researchers with only "Weak" relevance are not listed. The directory represents active contributors to the colonization effort, not the full universe of researchers whose work might one day be applicable.

### Factor 2 — Research Output & Productivity

A researcher must have a documented and verifiable body of work in the relevant tier. Output is assessed by the following hierarchy — any one is sufficient:

- ☐ Peer-reviewed publications: The researcher has published peer-reviewed journal articles or conference papers in a field directly relevant to their assigned tier, indexed in a recognized academic database (Google Scholar, PubMed, NASA NTRS, AIAA, Web of Science, Scopus, or equivalent).
- ☐ Government research grants or contracts: The researcher has received NASA, ESA, JAXA, NSF, DOE, or equivalent national agency funding for research in the relevant tier. Grant records are publicly searchable via NASA NSSC, NASA SBIR, NSF Award Search, or equivalent.
- ☐ Patents: The researcher holds or has applied for a patent in a technology directly relevant to their tier.
- ☐ Significant technical reports: The researcher has authored major technical reports, design reference missions, or architecture studies for NASA, ESA, or equivalent that are publicly indexed.

**Note:** There is no minimum publication count. A researcher who has produced two landmark papers in a critical area may be more valuable to the directory than a researcher with fifty papers of marginal relevance. Quality and relevance outweigh quantity.

### Factor 3 — Verifiability

Every claim in a researcher profile must be confirmable from public sources before publishing. At minimum, the following must be verifiable:

- ☐ Full name and current or most recent institution: via institutional faculty page, LinkedIn, Google Scholar, or ORCID.
- ☐ Primary research focus: via at least one public-facing source — faculty page bio, Google Scholar profile, published abstract, or grant record.
- ☐ At least one publication or grant in the relevant tier: indexed in Google Scholar, NASA NTRS, AIAA Digital Library, PubMed, NSF Award Search, or equivalent.
- ☐ Contact or profile links: institutional email domain, ORCID, or Google Scholar profile URL, for verification of identity.

### Factor 4 — Active Research Status

The directory is a living resource and should reflect the current ecosystem, not primarily a historical record. Activity is assessed as follows:

| Status           | Qualifies if...                                                                                                                                               | Does not qualify if...                                                                    |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Currently active | Researcher holds a current position at a university, government lab, or research institution and has published or received a grant within the past 36 months. | Researcher has no current institutional affiliation and no research output in 36+ months. |

|                            |                                                                                                                                                                                      |                                                                                                                                       |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>Recently active</b>     | Researcher retired or left active research within the past 5 years and has at least one publication or advisory role in the relevant field within that period.                       | Researcher retired 5+ years ago with no subsequent publications or advisory activity relevant to their tier.                          |
| <b>Emeritus / advisory</b> | Researcher is emeritus faculty or retired government scientist who continues to publish, advise on active programs, or contribute to industry/policy bodies in their tier.           | Researcher holds an emeritus title but has no documented activity relevant to their tier in the past 5 years.                         |
| <b>Early career</b>        | Postdoctoral researcher or early-career faculty who has produced at least one peer-reviewed publication or government grant specifically in the colonization-relevant research area. | Graduate student (not yet independent researcher) or researcher with no independent publication record outside their advisor's group. |

## Factor 5 — Field Recognition

Field recognition is a supporting signal, not a primary requirement. A researcher does not need to be internationally famous to qualify — a specialist doing critical work in an underrepresented tier is just as valuable as a widely cited generalist. However, recognition increases confidence in the listing decision.

Sources that constitute field recognition:

- ☐ NASA, ESA, JAXA, or equivalent agency principal investigator (PI) designation on a named research program.
- ☐ Invited speaker at a major conference (AIAA, IAC, COSPAR, ASCE Earth and Space, Space Resources Roundtable, or equivalent).
- ☐ Editorial board membership or peer review role at a recognized journal in the relevant field.
- ☐ Inclusion in institutional reports from BryceTech, Space Foundation, Space Capital, or equivalent industry surveys.
- ☐ Named award from a recognized aerospace or scientific body (AIAA, AAS, NASA Group Achievement Award, NSF CAREER Award, or equivalent).
- ☐ Citation count above the median for the researcher's subfield, as an indicator of influence — not as a hard threshold.

## Tier-Specific Qualification Standards

---

Each tier has specific standards defining what "direct relevance" means for researchers in that domain. A researcher must meet the tier-specific standard for their assigned tier in addition to the general eligibility requirements and five selection factors.

### Tier 1 — Interplanetary Logistics

- ❑ The researcher must have a documented publication or grant record in launch vehicle propulsion, spacecraft systems, orbital mechanics, in-space transportation, planetary entry/descent/landing, or propellant production for deep-space missions.
- ❑ Astrodynamics and trajectory researchers qualify if their work addresses cislunar, Earth-Mars, or deep-space trajectories — not just Earth-orbit mechanics.
- ❑ Theoretical physicists working on exotic propulsion concepts (warp drive, wormholes) qualify only if they have peer-reviewed publications in recognized physics journals and their work is connected to near-term propulsion research programs.
  - Exception: researchers at institutions that actively collaborate with NASA on next-generation propulsion qualify even if their individual work is at an early theoretical stage.

### Tier 2 — In-Situ Resource Utilization

- ❑ The researcher must have documented work in regolith processing, planetary surface mining, ISRU system design, biomineral for space, or the extraction of useful materials from planetary atmospheres, ice deposits, or rock.
- ❑ Geologists and planetary scientists qualify if their research directly informs ISRU — specifically, if they study the composition, distribution, or accessibility of resources on the Moon, Mars, or asteroids with an eye toward extraction or utilization.
- ❑ Materials scientists qualify if they have work on manufacturing processes that use space-derived feedstocks (regolith, lunar ice, Martian atmosphere) rather than Earth-sourced raw materials.
- ❑ Researchers whose work is purely remote sensing or compositional mapping of planetary surfaces (with no stated ISRU application) qualify only if they have at least one publication or grant explicitly connecting their findings to resource extraction or utilization.

### Tier 3 — Structural Habitats

- ❑ The researcher must have documented work in space habitat design, pressurized structure engineering, inflatable module systems, 3D-printed habitat construction, or the human factors and architectural design of off-Earth living environments.
- ❑ Architects qualify if they have published or contracted work specifically on space habitat design — not just terrestrial architecture or general sustainable building design.
- ❑ Civil and structural engineers qualify if their work addresses the specific loading, pressure, thermal, and radiation conditions of space or planetary surface structures.

- ❑ Human factors researchers qualify if their work explicitly addresses crew habitability, psychological health, or ergonomics in confined space environments — not just general workspace design.

## **Tier 4 — Life Support Systems**

- ❑ The researcher must have documented work in closed-loop environmental control, air revitalization, water recovery, thermal management, radiation shielding, spacesuit engineering, or human physiological adaptation to space environments.
- ❑ Biomedical researchers qualify if their work addresses crew health countermeasures, physiological adaptation (bone loss, muscle atrophy, cardiovascular deconditioning), or the specific health risks of long-duration spaceflight — not just general exercise science or sports medicine.
- ❑ Spacesuit researchers qualify if their work addresses pressure suit design, EVA mobility, life support backpack systems, or suit-human interface for space or planetary surface operations.
- ❑ Radiation researchers qualify if their work addresses space radiation environments (galactic cosmic rays, solar particle events, trapped radiation), shielding materials, or biological effects of space radiation — not just terrestrial radiation medicine.

## **Tier 5 — Energy Production & Storage**

- ❑ The researcher must have documented work in space nuclear fission or fusion power, space solar power, advanced energy storage for space applications, or planetary surface power systems.
- ❑ Nuclear engineers qualify if their work addresses compact fission reactors, nuclear thermal propulsion, or radioisotope power systems — not just terrestrial nuclear power plant design.
- ❑ Solar power researchers qualify if they work on space-grade photovoltaics, deployable solar structures, or wireless power transmission for space — not just commercial terrestrial solar.
- ❑ Battery and energy storage researchers qualify if their work addresses aerospace-grade or extreme-environment energy storage — specifically, systems tested or designed for the thermal and vacuum conditions of space or planetary surfaces.

## **Tier 6 — Food Systems**

- ❑ The researcher must have documented work in controlled-environment agriculture for space, bioregenerative life support food production, closed-loop nutritional systems, cultivated protein for space use, or microgravity effects on plant biology.
- ❑ Plant biologists and crop scientists qualify if they have at least one publication or grant specifically addressing crop growth in microgravity, reduced gravity, high-CO<sub>2</sub> environments, or controlled-environment systems designed for space food production.

- ❑ Food scientists qualify if their work addresses long-duration food preservation, nutritional stability in radiation environments, or novel protein sources viable in a closed-loop planetary colony.
- ❑ Synthetic biologists qualify if their work involves engineering microorganisms or metabolic pathways for food production in resource-constrained or off-Earth environments — not just general metabolic engineering.
  - Researchers studying cyanobacteria, algae, or microbial food production specifically for closed-loop space systems have particularly strong relevance and are encouraged for this tier.

## Tier 7 — Interplanetary Communications

- ❑ The researcher must have documented work in deep-space telecommunications, optical/laser communications for space, delay-tolerant networking (DTN), space-ground link protocols, or interplanetary relay network architecture.
- ❑ Electrical engineers and communications researchers qualify if their work has been applied to or explicitly designed for deep-space missions — not just terrestrial or LEO satellite communications.
- ❑ Networking and protocol researchers qualify if their work addresses DTN, Bundle Protocol, or other networking paradigms designed to handle the long latencies and intermittent connectivity of interplanetary communication.
- ❑ Navigation researchers qualify if their work addresses deep-space navigation, cislunar positioning, or Mars/lunar surface navigation systems — not just terrestrial GPS applications.

## Tier 8 — Robotics

- ❑ The researcher must have documented work in autonomous planetary rovers, space manipulation systems, in-orbit servicing robots, construction robotics for space environments, or AI/autonomy systems specifically designed for deep-space or planetary surface operations.
- ❑ Robotics researchers qualify if their systems have been flight-tested, field-tested in a space analog environment (Antarctic, desert, cave systems as Mars analog), or explicitly contracted by a space agency.
- ❑ AI and machine learning researchers qualify if their work addresses autonomy under the specific constraints of planetary surface operations: communications delay, limited compute, unknown terrain, and the inability to rely on real-time human control.
- ❑ Soft robotics researchers qualify if their work addresses mobility or manipulation in the specific conditions of planetary surfaces or vacuum environments — not just general soft robotics.

## Tier 9 — Extraterrestrial Healthcare

- ❑ The researcher must have documented work in space medicine, long-duration spaceflight health effects, telemedicine for remote or autonomous medical care, space

radiation biology, bioprinting for medical use in space, or pharmaceutical development and production for off-Earth environments.

- ❑ Space medicine physicians qualify if they hold a research appointment and have publications in crew health — not just clinical practice. Former astronauts who have published peer-reviewed research on spaceflight health qualify.
- ❑ Radiation biologists qualify if their work addresses the specific radiation environment of space (GCR, SPE) and its biological or medical consequences — not just general radiation oncology or terrestrial radiation research.
- ❑ Bioprinting researchers qualify if they have an active space bioprinting program or ISS research project — not just terrestrial organ and tissue printing with no documented space application.
- ❑ Neuroscientists qualify if their work addresses spaceflight-induced changes to brain structure, function, cognition, or sensorimotor adaptation — not just general neuroscience without a space connection.

## Tier 10 — Martian Law & Finance

This tier covers academic and policy researchers working on the legal, governance, and financial frameworks for a space economy. It is the least technically mature tier and requires the broadest interpretation of "research."

- ❑ Space law academics qualify if they hold a faculty or research position at a university or research institute and have published peer-reviewed articles or book chapters specifically on space law, space governance, or the legal frameworks for space resource utilization.
- ❑ Policy researchers qualify if they are employed by a research institute (not a government agency or commercial firm) and have published policy analysis or governance frameworks for space activities — not just general international law or trade policy.
- ❑ Space finance researchers qualify if they have published academic or institutional research on space venture capital, launch insurance markets, space asset valuation, or financial instruments specific to the space sector.
- ❑ Former government officials (e.g., former NASA policy leads, former treaty negotiators) qualify if they hold a current research or advisory appointment at a university or think tank and continue to publish or contribute to the academic literature on space governance.
  - Note: Active government officials and practicing lawyers or fund managers do not qualify as researchers. The researcher directory covers the academic and research community, not practitioners.

## Tier Assignment Rules

Every researcher is assigned one primary tier and may be assigned one secondary tier. The following rules govern how assignments are made and updated.

| Rule                                             | Definition                                                                                                                                                                                                                                                           |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Primary tier = dominant research focus</b>    | The primary tier reflects the area where the researcher's most significant, most funded, and most published work sits. A researcher who publishes across multiple areas is assigned to the tier where their contribution is greatest and most distinctive.           |
| <b>Secondary tier = material secondary focus</b> | A secondary tier is assigned only if the researcher has a distinct and documented body of work (at minimum: two or more publications, one grant, or one major technical contribution) in a second tier area. Adjacency or potential applicability is not sufficient. |
| <b>Maximum of two tiers</b>                      | No researcher may be listed under more than two tiers. A researcher with breadth across three or more tiers is assigned to the two where their contribution is most significant.                                                                                     |
| <b>Annual reassignment review</b>                | Tier assignments are reviewed annually. If a researcher's primary focus has shifted (e.g., a propulsion researcher who moved into space nuclear power), the primary tier is updated in the annual review cycle.                                                      |
| <b>Early-career researchers</b>                  | For early-career researchers (postdocs, assistant professors), the tier assignment is based on their current research focus as documented in their most recent publications and grant records — not on their advisor's focus or their PhD dissertation topic alone.  |

## Disqualification Criteria

The following conditions disqualify a researcher from listing regardless of their other merits. Disqualification criteria are reviewed after general eligibility and before selection factor evaluation.

| Disqualifier                                      | Description                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>No public research record</b>                  | The researcher has no publicly indexed publications, patents, grants, or technical reports in the relevant tier area. A researcher who cannot be verified as having produced independent research output — regardless of their title or institutional affiliation — cannot be listed.                    |
| <b>Research not publicly verifiable</b>           | The researcher's work is entirely classified, proprietary, or restricted. If no verifiable public output exists, the listing cannot be supported. Note: a researcher whose primary work is classified may still qualify if they have a separate, verifiable public research record in the relevant tier. |
| <b>Inactive for 5+ years with no current role</b> | A researcher who has been fully inactive for more than five years — no publications, no grants, no advisory roles, no institutional affiliation — is not listed. Their past contributions may be acknowledged in a note on a currently active researcher's profile if relevant.                          |
| <b>Misconduct or retraction</b>                   | A researcher who has had major publications retracted due to data fabrication or fraud, or who is the subject of active formal misconduct proceedings at their institution, is not listed until the matter is resolved.                                                                                  |
| <b>No direct space colonization connection</b>    | A researcher whose work, however excellent, has no documented connection to any of the ten tiers — even after reviewing their full publication record and grants — is not listed. Potential future applicability does not qualify.                                                                       |
| <b>Student (not independent researcher)</b>       | Graduate students and undergraduate researchers are not listed, even if their research is highly relevant. The directory lists independent researchers who direct their own research programs. A PhD student may be listed once they complete their doctorate and hold an independent research position. |

## Verification & Source Standards

Every piece of information in a researcher profile must be sourced before it is published. The following table defines acceptable and unacceptable sources for each type of claim.

| Claim type                     | Acceptable sources                                                                                                           | Not acceptable alone                                                        |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| <b>Name and identity</b>       | Institutional faculty page, ORCID profile, Google Scholar, LinkedIn, NASA/ESA staff page                                     | Wikipedia; social media only; third-party list without primary source       |
| <b>Current institution</b>     | Institutional website faculty/staff page, ORCID affiliation, Google Scholar affiliation, recent paper byline                 | Outdated faculty page (older than 3 years without corroboration); Wikipedia |
| <b>Research focus</b>          | Faculty page bio, Google Scholar profile description, grant abstract (NSF Award Search, NASA NSSC), published abstract       | Press article without corroboration; LinkedIn headline only                 |
| <b>Publications</b>            | Google Scholar, ORCID publications list, NASA NTRS, PubMed, AIAA Digital Library, arXiv (for physics/math), journal directly | Author's own website without linked DOIs; Wikipedia citations               |
| <b>Government grants</b>       | NSF Award Search (nsf.gov), NASA NSSC, NASA SBIR/STTR, ESA STAR, DOE OSTI, SAM.gov contract records                          | Researcher's self-reported grant list without public record                 |
| <b>Awards and recognition</b>  | Awarding organization's official announcement (AIAA, AAS, NASA, NSF, etc.), institutional press release                      | Wikipedia; researcher's own bio without verifiable primary source           |
| <b>Contact / profile links</b> | Official institutional email domain (for verification), ORCID URL, Google Scholar URL                                        | Personal email addresses; unverified social media handles                   |

**Rule:** When a researcher claims their own profile, they may submit updates directly. However, any claim that cannot be corroborated by at least one external public source must be marked as "Researcher-provided — not independently verified." Institutional affiliation and publication records must always be independently confirmable.

## Annual Review Process

The researcher directory is reviewed annually using the same five-phase process as the company directory. The following adaptations apply specifically to researcher entries.

| Phase                                   | Timing   | Researcher-specific actions                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Phase 1 — Active status check</b>    | January  | For each of the 100 listed researchers: verify that they still hold an active research position (institutional page, recent publication, or current grant). Flag researchers who appear to have retired, changed fields, or become inactive.                                                                                           |
| <b>Phase 2 — Criteria re-evaluation</b> | February | For flagged researchers: re-evaluate against the full criteria. Researchers who no longer meet criteria (e.g., fully retired with no ongoing activity) are moved to "Archived" status on their profile. Their profile is preserved with a note indicating their listed contributions. The slot is made available for a new researcher. |
| <b>Phase 3 — Nomination review</b>      | March    | Review all researcher nominations submitted via the public nomination form. Apply the full eligibility and selection criteria. Approved nominations are added to replace archived entries. New tiers may be seeded if a tier has fewer than 10 strong entries.                                                                         |
| <b>Phase 4 — Affiliation updates</b>    | April    | Update institutional affiliations for any researchers who have moved to a new university, government lab, or research institution. Update profile links (Google Scholar, ORCID, institutional pages). This is particularly important for early-career researchers who move frequently.                                                 |
| <b>Phase 5 — Publish update</b>         | May      | Publish the annual update. Announce changes in the newsletter: new researchers added, archived researchers, and notable affiliation changes. Credit nominators for approved nominations.                                                                                                                                               |

**Note:** Researcher affiliations change more frequently than company details. Priority should be given to verifying ORCID and Google Scholar links during the annual review, as these are maintained by the researchers themselves and provide the most reliable current information.

## Nomination Evaluation Checklist

Use this checklist when evaluating each researcher nomination. A nomination must pass all PASS/FAIL gates before selection factors are applied.

| Checklist item                                                              | Type             | Notes / Evidence required                                                  |
|-----------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------|
| <b>GATE 1 — GENERAL ELIGIBILITY</b>                                         |                  |                                                                            |
| Nomination is for a named individual (not a team or institution)            | <b>PASS/FAIL</b> | Identify the PI or lead researcher by name.                                |
| Researcher currently holds or recently held an active research role         | <b>PASS/FAIL</b> | Confirm via institutional page, ORCID, or recent publication.              |
| Name, affiliation, and at least one publication are publicly verifiable     | <b>PASS/FAIL</b> | Identify the sources used for each claim.                                  |
| Research has direct space colonization relevance                            | <b>PASS/FAIL</b> | State the specific research program and colonization connection.           |
| No disqualifiers apply (Section 7)                                          | <b>PASS/FAIL</b> | Check all six disqualification criteria.                                   |
| <b>GATE 2 — SELECTION FACTORS</b>                                           |                  |                                                                            |
| Factor 1 — Relevance: Strong, Moderate, or Weak?                            | <b>ASSESS</b>    | State the specific research program and its colonization connection.       |
| Factor 2 — Research output: Publication, grant, patent, or report?          | <b>ASSESS</b>    | Name the most significant outputs and the database where they are indexed. |
| Factor 3 — Verifiability: All key claims confirmable?                       | <b>ASSESS</b>    | List the sources used for name, affiliation, focus, and publications.      |
| Factor 4 — Active status: Currently active, recently active, or emeritus?   | <b>ASSESS</b>    | State the evidence of current or recent activity.                          |
| Factor 5 — Field recognition: Any PI designation, invited talks, or awards? | <b>ASSESS</b>    | Note grants, agency PI roles, conference invitations, or publications.     |
| <b>GATE 3 — TIER ASSIGNMENT</b>                                             |                  |                                                                            |
| Researcher meets the tier-specific standard for the assigned tier           | <b>PASS/FAIL</b> | Reference the specific standard from Section 5.                            |
| Primary tier identified and justified                                       | <b>REQUIRED</b>  | State the primary tier and the qualifying evidence.                        |
| Secondary tier identified if applicable                                     | <b>OPTIONAL</b>  | Only assign if a distinct second-tier body of work is documented.          |
| <b>FINAL DECISION</b>                                                       |                  |                                                                            |
| All PASS/FAIL gates passed?                                                 | <b>REQUIRED</b>  | If any gate fails: do not list. Notify nominator with brief explanation.   |
| Relevance level is Strong or Moderate?                                      | <b>REQUIRED</b>  | If Weak only: do not list.                                                 |

| Decision: APPROVE or REJECT | DECISION | Record decision, date, and evidence summary for the annual review log. |
|-----------------------------|----------|------------------------------------------------------------------------|
|-----------------------------|----------|------------------------------------------------------------------------|

**MarsColonization.com**

Space Colonization Directory  
marscolonization.com