Funding Opportunity Announcement CMV-101-26

THE HEALTHSPAN IMPERATIVE

A Century of Progress—and A Critical Gap. Life expectancy surged by more than 30 years during the 20th century, rising from 47 years in 1900 to 77 years by 2000. This extraordinary gain stemmed primarily from the biotechnology revolution: antibiotics and vaccines alone dramatically reduced infectious disease mortality, adding approximately 23 years to average human lifespan.

Parallel scientific advances brought meaningful improvements in healthspan and quality of life. The discovery of insulin in 1921 by Banting and Best and its eventual development as recombinant human insulin in the 1980s transformed diabetes from a death sentence into a manageable condition. The elucidation of the SREBP lipid and cholesterol pathway in the 1990s enabled the development of statins, reducing cardiovascular disease risk for millions. More recent examples include the discovery of the gut hormone GLP-1 and its therapeutic applications that have now shown to reduce all-cause mortality.

The Widening Gap between Lifespan and Healthspan. Despite these achievements, human healthspan lags significantly behind lifespan gains. The numbers tell a sobering story: worldwide, there is a 9.6 year gap between healthspan and lifespan, with developed countries showing a larger gap of 12.4 years; women experience a gap 2.4 years wider than men; this gap has widened over the past two decades despite continued medical advances. These statistics translate to the following observations: approximately 20% of an individual's adult life is now lived with morbidity. 85% of adults over 65 have at least one chronic condition and 60% have two or more chronic conditions (multimorbidity). By age 80+, 50% of people will experience significant functional limitations in the activities of daily living.

The Disease Burden. Together, these statistics reveal a global society that is experiencing an expansion rather than a compression of morbidity in the 21st century. While acute infectious diseases have been conquered in many nations, chronic conditions now dominate globally. More specifically, neurological and neurodegenerative diseases affect ~55 million people worldwide and are projected to reach 139 million by 2050. Cardiovascular disease is still the leading cause of death worldwide (~19 million deaths annually). Cancer remains a leading cause of death globally with ~10 million deaths annually, and with survivors often facing years of diminished quality of life. Despite new and ongoing treatments, metabolic diseases including Type 2 diabetes, obesity, metabolic dysfunction associated fatty liver disease (MASH) and metabolic syndrome affect >500 million people worldwide. Finally, musculoskeletal disorders and chronic pain remain leading contributors to years lived with disability globally.

Current biomedical research and healthcare systems are optimized for extending lifespan and treating disease, not for extending healthspan and promoting wellbeing. We lack:

- Interventions that target biological aging rather than individual diseases
- Validated therapies that compress and shorten morbidity into the final months of life

- Translational pathways from geroscience discoveries to clinical applications
- Entrepreneurial scientists bridging the academia-industry divide in healthspan research
- Equitable access to emerging longevity interventions.

The Promise: Compressing Morbidity. Evidence suggests the healthspan-lifespan gap is modifiable. Regional variations across the globe demonstrate that some populations maintain health far closer to the end of life than others. Conservative estimates indicate that systematic intervention could reduce the healthspan-lifespan gap by 20-30% with existing knowledge and lifestyle medicine; achieve 40-50% reduction through validated geroscience interventions (senolytics, metabolic modulators, regenerative therapies, lifestyle interventions) and potentially compress 50-80% of the gap through comprehensive biological aging interventions by 2040-2050. The economic case is also compelling: delaying aging and disease onset by just 2-3 years could generate tens of trillions of dollars in value globally over the next 50 years, with transformative impacts on healthcare systems, economies, and human wellbeing worldwide.

THE TRANSLATION ECOSYSTEM

An Evolving Scientific Landscape. The postdoctoral training system has historically focused on preparing scientists for academic research careers. However, an important opportunity remains underexplored for many young and brilliant minds in academic science: cultivating an entrepreneurial mindset and a translational focus that enables their efforts to reach their full impact for the betterment of human life. This vision requires rewarding entrepreneurial thinking that enables exceptional researchers to see the broader impact of their efforts, beyond the laboratory bench. For example, a postdoctoral fellow who understands the broad frameworks of intellectual property strategy, sources of capital beyond conventional grants and how to assess a given druggable target, can make fundamentally different research decisions by asking not only "Is this scientifically interesting?" but also "Could this solve a real problem, and what would it take to get there?"

Empowering Postdoctoral Fellows. Some institutions are beginning to address this gap through programs that incorporate entrepreneurship training, translational medicine exposure, and exposure to commercialization strategies into traditional postdoctoral experiences. These initiatives recognize that the 'founder mindset'—the ability to identify unmet needs, assess feasibility, build teams, and navigate the complex journey from discovery to application—is not antithetical to rigorous academic science but rather a natural extension of it.

The challenge facing the global research community is to systematically equip our most talented postdoctoral researchers with the translational literacy and entrepreneurial confidence to transform their academic insights into rigorous solutions that reach the people who need them most. The goal of this Request for Applications (RFA) from Critical Mass Ventures is to meet

this important need by providing the first-in-kind bridging support for the most innovative scientific solutions from visionary postdoctoral fellows.

PROGRAM OVERVIEW

Bridging the Gap: From Discovery to Impact. This Healthspan Imperative RFA addresses both the biological impetus to extend healthspan and the workforce needed to prepare scientists for translational careers. We support late-stage postdoctoral fellows who have generated impactful discoveries and seek to translate their findings from academic research toward real-world applications that improve human healthspan.

This program is designed for postdoctoral scientists who:

- Have made significant scientific contributions during their postdoctoral training
- Possess deep expertise in broad areas relevant to all aspects of healthspan research
- Aspire to careers in biotechnology, entrepreneurship and other 'outward-facing' ventures
- Want to maximize the societal impact of their research.

WHO WE ARE

Critical Mass Ventures is a new initiative that focuses on philanthropic giving and strategic investing in two age-old sources of human inequality: good health and economic disparity. We are particularly interested in funding novel and creative ideas and solutions, and the scientists and thinkers who aspire to do so. The purpose of this RFA is to fund research that aims to expand the years of vibrant life and compressed morbidity by advancing a scientific understanding of healthspan. We wish to support outstanding postdoctoral scholars during their final year of postdoctoral research as they transition into their independent careers.

WHAT WE FUND

1. **Fundamental Aging Biology**

Cellular senescence and senolytic therapies
Stem cell exhaustion and regenerative approaches
Mitochondrial dysfunction and metabolic interventions
Genomic instability and DNA repair mechanisms
Epigenetic reprogramming
Proteostasis and protein aggregation
Autophagy and cellular quality control
Inflammaging and immune system rejuvenation
Chemical biology and targeting undruggable proteomic space
Disruptions to brain-body communication and gut-brain signaling
Non-coding RNA biology, nuclear condensates and phase separation biology

2. Preventive Geroscience

Interventions that delay onset of age-related diseases
Biomarkers of biological aging ("aging clocks"), lifestyle and other interventions
Exercise and nutrition biology
Microbiome-aging axis interventions
Fibrosis and cellular reprogramming

3. Disease-Specific Healthspan Research

Neurodegenerative diseases (Alzheimer's, Parkinson's, ALS)
Cardiovascular aging and vascular health
Metabolic diseases (diabetes, obesity, MASH)
Cancer prevention and survivorship
Musculoskeletal aging (sarcopenia, osteoporosis)
Cognitive decline and dementia prevention
Immunosenescence

4. Organ and Tissue Rejuvenation

Cell therapies and tissue engineering
Organoid models
Partial reprogramming approaches
Organ-specific aging mechanisms
Blood-borne factors and parabiosis research

5. Translational Tools and Technologies

Chemical biology and platform technologies enabling new mechanistic discovery
High-throughput screening for longevity interventions
AI/ML approaches to aging research
Novel delivery systems for aging therapeutics
Diagnostic tools including wearables for frailty and functional decline

AWARD STRUCTURE

Fellowship Duration: 12 months
Award Amount: $100,000 total support
Number of Awards: We expect to fund 3-4 applications in 2026.

WHAT WE DO NOT FUND

To maintain program focus and impact, we do not support:

- Pure lifespan extension without healthspan focus
- Research with no clear translational pathway
- Early-stage exploratory projects without preliminary data
- Anti-aging cosmetics or aesthetic interventions
- Research that could exacerbate health inequities
- Clinical trials and human studies (organoids derived from human lines are allowed with appropriate institutional certification)
- Retrospective statistical analyses

Career Stage Mismatch:

- Graduate students or pre-doctoral fellows
- Independent faculty members
- Postdocs with <2 years or >6 years of postdoctoral experience (exceptions considered on a case-by-case basis)
- Scientists already employed in industry full-time
- Individuals with no intention of transitioning from purely academic roles

Non-Translational Activities:

- No clear pathway to application, however risky and long-term projects are welcome
- Purely computational or theoretical work (planned collaborations for experimental validation are welcome)
- Projects that duplicate existing commercial efforts
- Studies lacking rigorous experimental design or statistical power

Ethical Concerns:

- Research that could increase health disparities without mitigation plans
- Studies with inadequate consideration of equity and access
- Interventions that would be accessible only to wealthy individuals
- Research that violates ethical standards or regulatory requirements

ELIGIBILITY

Applicant Requirements

To be eligible, applicants must:

1. Hold a PhD, MD or both in a relevant field (biology, biochemistry, neuroscience, pharmacology, genetics, bioengineering, chemical biology or related disciplines);

2. Be currently employed in a postdoctoral research position at an academic institution, research institute, or non-profit research organization;

3. Have completed 2-6 years of postdoctoral training at the time of application:
   - Minimum 2 years ensures sufficient preliminary data, expertise and track record of publication
   - Maximum 6 years maintains focus on career transitions
   - Extensions may be granted for parental leave, medical leave, visa delays, or other qualifying circumstances.

4. Plan to transition to academia, industry, biotechnology, or entrepreneurial venture:
   - Must articulate clear career goals. If targeting an academic position, explain how your position will allow for entrepreneurial activities;
   - If targeting an industry position, explain how you will retain independence and freedom to pursue your work and ideas.

5. Have generated significant research contributions as evidenced by:
   - First-author publications in peer-reviewed journals (minimum 2 papers published or in press);
   - Preliminary data supporting translational potential of proposed work;
   - Presentations at scientific conferences;
   - Other evidence of scientific productivity and impact.

6. Demonstrate translational potential of research through:
   - Articulation of trajectory from current findings to therapeutic application;
   - Identification of unmet medical need or market opportunity;
   - Intellectual property contributions, if relevant.

7. Secure institutional and mentor support including:
   - 2 letters of support, from graduate advisor and postdoctoral mentor/PI that address the candidate's scientific contributions, intellectual skills and potential towards entrepreneurship and translational biology;
   - A letter confirming institutional eligibility (see below).

Institutional Eligibility:

- Research universities, non-profit and medical centers and non-profit research institutes within California that hold tax-exempt status under section 501 (c) (3) of the IRS code;
- Although not required, institutions with established postdoctoral training infrastructure (for example, exposure to industry mentors, entrepreneurship curriculum and resources, legal and intellectual property consultation, pitch coaching and venture capital introductions) are an advantage.

Ineligible institutions:

- For-profit companies (applicants must be in academic/nonprofit positions)
- Institutions without any postdoctoral training infrastructure

Additional Eligibility Notes:

- No citizenship or nationality requirement
- International applicants must have appropriate visa or work authorization for their host country
- Visa/work authorization must allow duration of fellowship period
- Applicants may hold other non-salary fellowship funding (e.g., travel awards for conferences)
- May not concurrently hold salary support from other individual postdoctoral fellowships (e.g., NIH F32, HFSP, LSRF, EMBO, AFAR, AHA, HHMI and others, but may have received support in the past)
- Must disclose all current and pending support
- Must comply with Critical Mass Ventures' Terms and Conditions.

APPLICATION PROCESS

Application Components must include:

1. **Cover Letter (1 page maximum):**
   - Brief introduction to yourself and current research
   - Summary of career goals and translational aspirations
   - Explanation of how this fellowship aligns with your professional objectives

2. **Curriculum Vitae (NIH Biosketch format):**
   - Education and training
   - Research and professional experience
   - Publications and presentations
   - Honors, awards, and fellowships

3. **Research Statement (2 pages maximum, excluding references):**
   - Scientific context and unmet need
   - Preliminary data supporting translational potential
   - Aims for fellowship period (12 months)
   - Deliverables by fellowship end (examples include publications, patents, proof-of-concept data and other relevant outcomes)

4. **Career Development and Transition Plan (1 page maximum):**
   - Your entrepreneurial vision and long-term career goals

- Concrete timelines for stated career goals
- Specific skills, knowledge gaps, and planned development activities

5. Two Letters of Support (from PhD and postdoc mentors):
- Mentor's assessment of applicant's scientific accomplishments
- Evaluation of translational potential of research
- Commitment to supporting career transition activities
- Description of scientific and intellectual environment

6. Institutional Letter of Support:
- Confirmation of applicant's eligibility, institution's eligibility (see above) and applicant's institutional affiliation
- Description of institutional resources for career development
- Commitment to administrative support for fellowship
- Signed by department chair, or equivalent institutional official.

SUBMISSION PROCESS

Applications must be submitted via email to **applications@criticalmassventures.co**
- Subject heading must include Last Name_First Name_App _2026
- **Application Deadline: July 1, 2026**

Reference Letters Deadline: at time of application, July 1 2026.
- Subject heading must include Last Name_First Name_Letter_2026
- Contact for Questions: applications@criticalmassventures.co

SELECTION CRITERIA AND REVIEW PROCESS

Selection Criteria

1. Scientific Merit and Rigor
- Quality and significance of scientific premise and preliminary data
- Soundness of experimental design and methodology
- Feasibility of proposed research
- Potential for high-impact scientific contributions
- Rigor of approach, including statistical power and reproducibility considerations

2. Translational Potential
- Clarity of goals from research to unmet healthspan need
- Strength of preliminary data
- Competitive landscape analysis and differentiation strategy (novelty and significance)

3. Applicant Qualifications

- Publication record and scientific contributions
- Demonstrated productivity and independence
- Evidence of translational thinking and entrepreneurial mindset
- Leadership potential and ability to drive projects forward
- Commitment to a career that bridges academia and entrepreneurship, broadly defined

4. Mentor and Environment

- Quality of mentor letters and commitment to applicant's success
- Institutional resources and collaborative opportunities
- Evidence of supportive environment for career transition

Review Process

Stage 1: A short list of successful applicants will be notified within 90 days from receipt of applications.

Stage 2: Short-listed applicants will be invited to present their work and ideas in a pitch deck format and meet the funders in a virtual interview.

Stage 3: Following the interview process, finalists will be notified via email within 1-2 weeks.

Number of Awards: 3-4 per year.

Award Start Dates: Flexible within 6 months of notification; will be coordinated with host institution.

REPORTING REQUIREMENTS FOR AWARDEES

Following acceptance and completion of the award duration, fellows are required to submit a 1-2 page report within 90 days of completion of the fellowship that includes:

1. **Research and Translational Outcomes**
   - Published or submitted manuscripts
   - Patents filed or issued
   - Submitted datasets, resources, or tools generated
   - Presentations given at scientific conferences
   - Overall scientific impact

2. **Career Transition Plans**
   - Position secured or plans for job search (organization, role, location)
   - Company founded (if applicable) with brief description

- Continuing work on fellowship-funded research
- Long-term career goals

3. Impact and Lessons Learned
- How fellowship enabled career transition and entrepreneurial thinking
- Scientific or professional barriers overcome

ONGOING ENGAGEMENT

Alumni Network Participation:

2026 is the inaugural year of grant-making from Critical Mass Ventures. As our program grows, we envision a community of outstanding and creative scientists that will benefit from networking with one another and contributing to the broader ecosystem of translational research. Such networking may take the form of:

- Attending an annual fellow symposium;
- Serving as mentor to current or future fellows;
- Participating in program evaluation and improvement;
- Sharing career updates and milestones.

Public Acknowledgment:

- Acknowledge foundation support in publications, patents, and presentations (oral, poster and other) in the standard format: *"This work was supported by the Critical Mass Ventures Healthspan Imperative"*.
- Include grant/award number

Reporting Requirement for Publications:

- Send copies of all publications acknowledging grant support (include your current email address)
- Include fellowship in ORCID and other researcher profile systems

Stay in touch (long-term, 3-5 years post-fellowship):

- Career position and trajectory
- Companies founded, funding raised or partnerships with existing biotech or pharma
- Continued work in healthspan/longevity field
- Additional healthspan-relevant accomplishments

TERMS AND CONDITIONS

Award Administration, ethical and regulatory compliance:

- Fiscal Responsibility: Awards administered through fellow's home institution
- Must comply with Critical Mass Ventures' Terms and Conditions

- No Indirect Costs
- Fellows must comply with all institutional, federal, and local regulations
- Research involving human organoids, animals, or biohazards must have appropriate approvals
- IP and invention disclosures must follow institutional policies
- Conflict of interest policies must be observed
- Publication and data sharing must follow open science principles where feasible

Termination:
Awards may be terminated for:

- Scientific misconduct or ethical violations
- Change in career plans inconsistent with program goals
- Fellow departure from research position without approved transition plan
- Institutional request or loss of eligibility

CONTACT INFORMATION
Program Inquiries: **applications@criticalmassventures.co**
General Information and FAQs: Critical Mass Ventures.

EQUAL OPPORTUNITY STATEMENT
Critical Mass Ventures is committed to diversity, equity, and inclusion in all aspects of our funding programs globally. We do not discriminate on the basis of race, color, national origin, nationality, sex, disability, age, religion, sexual orientation, gender identity, veteran status, or any other characteristic protected by law. We especially encourage applications from individuals from groups underrepresented in science globally and from diverse backgrounds and institutions within California.

This Funding Opportunity Announcement [CMV-101-26] represents our commitment to expanding healthspan and empowering the next generation of translational scientists to bridge the gap between discovery and impact.