

## BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.  
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NAME: Freedman, Gordon

ORCID iD: <https://orcid.org/0009-0004-4284-3919>

POSITION TITLE: President

PRIMARY ORGANIZATION AND LOCATION: National Laboratory for Education Transformation, Oakland, CA, USA

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE	Completion Date	FIELD OF STUDY
Michigan State University, East Lansing, MI	B.A.	1975	Communications
Johns Hopkins University, SAIS, Washington, DC	Graduate Studies	1975–1977	International Policy & Science Policy

### A. Personal Statement

I am the president, founder and board member of the California human capital and STEM R&D nonprofit, the National Laboratory for Education Transformation (NLET) founded in 2011. NLET operates two global mitochondrial organizations, [www.MitoWorld.org](http://www.MitoWorld.org), a global web-hub for researchers and clinicians and [www.MITOS.Global](http://www.MITOS.Global), in distributed institute for world-wide multidisciplinary collaborative research projects. Within NLET, we designed, staffed, built a board to manage large-scale, complex issues that require core knowledge, deep cross-disciplinary collaboration, and human management skills to find novel ways to solve seemingly intractable problems that are held back by tradition, culture or organization. Technology, data and focus on individuals are key to these approaches. My work has been applied to business organizations, development of education technology and online learning and transformation of modern human capital systems onto technology platforms. I was a Congressional investigator (US Senate and US House of Representatives) and an investigative reporter, an investigative network news producer and a film and television producer. I had the honor of spending three years with Stephen Hawking and leading astrophysicists and cosmologists to transform Hawking's \*A Brief History of Time\* book into an award-winning feature documentary. This work continued into further public work to bring this complex subject matter to the public. Learning I had a non-life-threatening mitochondrial disorder, I spent the last three years building two unique and powerful global organizations to map mitochondria across disease, medicine and health and build the basic science to further that work. Mitochondria are the cells' engine of life, but have been held back in basic research, medicine and health by intractable traditional views that are long out of date. I work globally with mitochondrial research and clinical communities.

### B. Positions, Scientific Appointments, and Honors

#### Positions

2011–present President & Founder, National Laboratory for Education Transformation (NLET)

2021–present President / Strategic Advisor, GoEducate, Inc. (education-to-employment SaaS platform)

1998–present Managing Director, Knowledge Base, LLC (technology, knowledge & policy consulting)

2005–2012 Vice President, Global Education Strategy, Blackboard, Inc.

2008–2011 Executive Director, Blackboard Institute (K–20 progression research)

2002–2004 Acting CEO, TextCentric, Inc. (CMU-affiliated digital textbook startup)

1999–2000 Vice President, University & Publisher Relations, HungryMinds.com

1996–1999 New Business Officer, California State University Monterey Bay

Earlier career: Investigative reporter and congressional investigator (U.S. Senate & House); Executive Producer, A Brief History of Time (Stephen Hawking, Sundance Grand Jury Prize).

## C. Products

### A. Closely Related to Proposed Project (Mitochondria, Ecology, Evolution)

- MitoWorld.org — Founder and Publisher; global portal integrating mitochondrial science, medicine, and evolution, with news, databases, and lab mapping functions.
- MITOS.Global — Founding and management of a cross-disciplinary initiative linking mitochondrial research, clinical translation, and ecological systems to evolutionary energetics.
- Wolf, D.; Freedman, G. (2025). Welcome to the Mitoverse. STEM Magazine, October 2025.
- Freedman, G. (2024). Is Life in Space Possible or Is Space a Laboratory for Health and Disease on Earth? MitoBlog, <https://mitoworld.org/is-a-life-in-space-possible-or-is-space-a-laboratory-for-health-and-disease-on-earth/>
- Freedman, G. (2024). Mechanisms of Mitochondrial DNA Mutation and Repair. MitoBlog, <https://mitoworld.org/mechanisms-of-mitochondrial-dna-mutation-and-repair/>

### B. Other Significant Products

- Freedman, G. (2024). Special Issue: Cell Biology of Mitochondria. MitoWorld Blog, <https://mitoworld.org/special-issue-cell-biology-of-mitochondria/>
- Freedman, G. (2024). Mitochondria Are More Than Powerhouses of the Cell – They're the Motherboards of the Cell. MitoBlog, <https://mitoworld.org/mitochondria-are-more-than-powerhouses-theyre-the-motherboard-of-the-cell/>
- Freedman, G. (2024). Mitochondrial DNA Fragments (NUMTs) Insert Into Our Genome, Sometimes With Serious Results. MitoBlog, <https://mitoworld.org/mitochondrial-dna-fragments-numts/>
- Freedman, G. (2014). Google vs. Me: Who Owns My Digital DNA? Policy Futures in Education, 12(4), 482-490.
- Freedman, G. (2008). Unlocking the Global Education Imperative: Core Challenges & Critical Responses. Blackboard Inc.

## C. Synergistic Activities

- Mitonuclear Ecosystem Building: Convening cross-disciplinary mitochondrial researchers and clinicians to develop data standards and shared frameworks linking ecology, evolution, and medicine.
- Open Knowledge Graphs for Biology: Applying FAIR data and provenance frameworks from education-to-employment systems to mitochondrial data for transparent, reusable research.
- Cross-Sector Collaboration: Leads multi-institution partnerships involving universities, national labs, foundations, and technology firms to design durable open science infrastructure.
- Public Communication of Complex Science: Producer and science communicator (e.g., *A Brief History of Time*) translating advanced astrophysical and mitochondrial topics to public and policy audiences.
- Workforce and STEM Pipeline Development: Through GoEducate, builds training and credentialing pipelines for data science and bioscience careers to broaden participation in mitochondrial and ecological research.