Fund the science of the future.



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Since our founding in 1986 on a vision of guiding powerful technologies, we have continued to evolve into a multi-disciplinary organization that focuses on several fields of science and technology that are too ambitious for legacy institutions to support. Foresight Institute aims to coordinate collaboration and development across our six focus areas through events, prizes, fellowships, and our grant.





























Nanobech: Molecular Machines



Neurobech: Improving Cognition





Oomputation: Intelligent Cooperation







Our Events

We host technical groups, workshops, and seminars where we connect scientists, entrepreneurs, and institutional allies who cooperate to advance the respective technologies. Currently, meetings take place virtually every month, and workshops annually. In 2023, applications to join our seminar groups grew 200%, and our top seminar reached 50K views.



Workshops



Seminars



Vision Weekend France



Global Meetups



Vision Weekend USA



Collaborations



Our Fellowship

We are currently in the 6th year of our fellowship. Our fellows benefit from 1-1 meetings with selected mentors and funders, travel-paid conference invitations to present their work, and career counseling across fellowship cohorts.

Many of our fellows are now collaborating with us to build out our <u>Tech Trees</u> to help orient new talent and funders joining these spaces by mapping existing projects and outstanding bottlenecks.

Our 2023 fellowship supported 76 fellows working to overcome crucial scientific bottlenecks across our different focus tracks.

Highlights include:

Longevity: <u>*Rico Meinl's*</u> work on ML for modeling aging systems, <u>*Guido Putignano's*</u> synthetic biology approach to longevity therapeutics, and <u>*Raiany Romanni's*</u> efforts to improve longevity journalism.

Neurotech: Logan Thrasher Collin's work on emulating insect brains, <u>Renaud Jolivet's</u> work on neural engineering and computation, and <u>Andy Matuschak's</u> work on tools to improve thought and deliberation.

Intelligent Cooperation: *Lewis Hammond's* work on cooperative Als, *Ghada Almashaqbeh's* work on using unclonable polymers for encryption, and *Morgan Livingston's* work to improve cyber and Al policy.

Space: <u>Tomas Gesino's</u> new space payload launching system powered by rail guns, <u>Nathan Johnson's</u> work to improve space policy, and <u>Jordan Baechle's</u> efforts to improve longevity in space.

Molecular: <u>Erik Benson's</u> work on Nanoscale Machinery from DNA, <u>Xinru Wang's</u> work to design receptor-binding proteins, and Michael Matthies' work to improve the current nucleic acid nanotechnology software environment.

Al Safety Grant

In August 2023, we successfully launched Foresight's first *grant program* in AI Safety; supporting projects in three areas we think are underexplored:



Neurotechnology, Whole Brain Emulation, and Lo-fi uploading for Al safety



Cryptography and Security approaches for Infosec and AI security



Safe Multipolar Al scenarios and Multi-Agent games

We have awarded projects, and are looking to fund \$1 million annually. By leaning into this grant, you will help us award more deserving projects that have potential for positive impact.

Feynman Prizes

back a future prize with us.

Awarded since 1992, and named after nanotechnology pioneer Richard Feynman, our Feynman Prizes recognize outstanding achievements that contribute meaningfully to progress in advanced molecular nanotechnology.

Please get in touch with us at Foresight Institute if you would like to propose and

The Prizes have become known for spotting talent early. Nine years after he received Foresight's Feynman Prize in Experiment, Sir J. Fraser Stoddart was co-awarded the Nobel Prize in Chemistry for the design and synthesis of molecular machines.



Norm Hardy Prize for Usable Security

Foresight's newest prize is named after Norm Hardy, a computer scientist most widely known for identifying the confused deputy vulnerability. The long term goal of the Norm Hardy Prize is to create a set of design principles and tools that encourage developers to make interaction designs easy for people to use secure systems securely.



The Longevity Prize

In 2023, we launched The Longevity Prize, a new collaborative prize platform in collaboration with VitaDAO, Methuselah, and Lifespan.io. We awarded the first prize for new hypotheses about longevity approaches that are currently overlooked. Carlos Galicia, Buck Institute, won first place for his proposal to study rejuvenation during embryogenesis as a way to combat age-related decline.

Our next funded prize is the Biomarker Assessment Prize for building a comprehensive expandible database of biomarkers that can compare and evaluate the legitimacy of past and new longevity.



Space Lander Challenge

We are proud to partner with 2023 Foresight Fellow Patrick Finley to launch the Space Lander Challenge. Patrick is a pioneer in the space community, and hopes this project will push for real progress and encourage the next generation of space enthusiasts to get involved.

Our Foous Areas



Molecular Machines

Now in its eighth year, Foresight's <u>Molecular Machines</u> <u>workshop</u> was chaired by Ben Reinhardt from SpecTech, and Adam Marbleston from Convergent Research. We gathered sixty junior and senior researchers, entrepreneurs, and funders in the molecular machines field to advance progress on the original vision of nanotechnology—creating reprogrammable tools that can create individually specified chemical bonds at scale. An intro session on potential molecular 3D printing architectures was followed by rapid keynotes discussing existing systems that could function as building blocks.

In 2023, we have hosted 10 <u>seminars</u>, including Simon Duerr on Designing Stable Metalloproteins using Deep Learning, Basille Vicky on Designing De Novo Interactomes for Biomolecular Computations, and Hendrik Dietz on Virus Traps and Other Molecular Machines of The Future.





Intelligent Cooperation

Our second <u>Cryptography, Security, AI workshop</u> gathered fifty researchers, entrepreneurs, and funders to advance progress at this critical intersection. The goal was to determine how cryptography and security technologies can improve cooperation with humans, strengthen defense against civilizational risks, and offer differential technology development paths to secure AGI. Leading researchers, such as computer security pioneer Mark S. Miller, head of OpenAI's Superalignment Program Jan Leike, and Anthropic AI researcher Kipply Chen presented. Working groups then went on to explore potential areas to advance. Project proposals included leveraging cryptographic techniques to prevent collusion amongst AIs, preventing backdoors in ML models, and improving hardware security.

This year, we have hosted 10 <u>seminars</u>, including Hyrum Anderson on Securing ML, Kevin Esvelt on Securing Global DNA Synthesis, and Natalie Dullerud on Confidential and Private Collaborative Learning.





Longevity Biotech

Advancing progress in undervalued longevity areas is at the heart of our mission, and our efforts are growing rapidly: from a stark increase in fellowship applications, to promising longevity workshop project collaborations, a new longevity prize, and virtual seminars.

Our 2023 Longevity Frontiers workshop gathered fifty junior and senior researchers, entrepreneurs, and funders in longevity to advance progress in undervalued longevity areas. Leading researchers, such as Greg Fahy from Intervene Immune, Steve Horvath from Altos Labs, and Michael Snyder from Stanford highlighted potential areas for progress which were taken on by working groups to explore how to advance this area. Top project proposals were awarded a development grant to continue their work post workshop. Highlights included an industry-wide effort to promote aging biomarkers in clinical trials, determine master regulators for epigenetic reprogramming, and issue constructive criticism for sub-optimal longevity approaches.



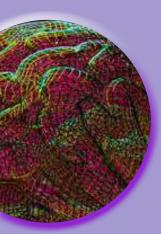


Space

Our inaugural 2023 <u>Space Tech Frontiers Workshop</u>, chaired by Creon Levit from Planet Labs, gathered fifty junior and senior researchers, engineers, and funders working in the space domain to advance progress on undervalued approaches to accelerate space exploration. Leading researchers, such as Steve Butow from the DOD, Mike Grace from LongShot, and Carol Stoker from NASA highlighted potential areas for progress which were taken on by working groups to explore how to advance this area. Project proposals included a new technology institute focused on Mars, an effort to liberalize launch locations, and proposal to make in-orbit assembly radically cheaper.

So far, we have hosted 10 <u>seminars</u>, including Mike Safyan on SmallSat Launch Opportunities, Eric Salwan on Firefly Aerospace, and Tanya Harrison on Mars robots.





Neurotech (BCI, WBE)

Our inaugural 2023 <u>Whole Brain Emulation workshop</u> gathered thirty junior and senior researchers, entrepreneurs, and funders in neurotechnologies and adjacent fields to advance progress on Whole Brain Emulations, with a focus on AI safety-relevant applications. The goals of this workshop were to log state of the art WBE related technology, outline plausible development paths for full WBE, and determine areas for speeding up WBE development.

We hosted 10 <u>seminars</u>, including Brett Kargan from Cortical Labs on brain cells in a dish for computing, Thomas Macrina on AI for Whole Brain Circuit Mapping, and Chris Eliasmith on how to build a brain.



EXISTENTIAL HOPE

In February 2023, we celebrated our first *Existential Hope Day*. Inspired by panelists such as *Toby Ord*, *Robin Hanson*, and *Gaia Dempsey*, participants generated their own future scenarios, like *multigenerational habitats in space*, *AI enabled personal flourishing*, an *epistemic revolution*, or a *human/AI paretotopia*.

We are also thrilled to report a 30% surge in listeners and readers of the *Existential Hope podcast* and *Hope Drops* (our much-loved positive future art pieces)! This year's episodes have featured great thinkers like *David Deutsch*, *Liv Boeree* and *Kevin Kelly* on how we can build positive tomorrows.

In 2024, with your help, we plan to found an online Existential Hope course to attract STEM talent to work on positive applications of their technology of choice. The aim is to deepen participants' understanding of potential future scenarios, enabling them to make informed choices and effectively steer their careers away from risks to positive futures.

Furthermore, we invite you to take a hands-on approach to foster innovation and safety in AI through a specialized hackathon. This event aims to prototype new institutions and frameworks specifically designed to address real-world challenges in TAI development.

Vision Weekends

Our <u>Vision Weekends</u> are the annual end-of-year festivals of Foresight Institute. Held over two weekends, at Chateau du Feÿ in Paris and across three iconic Bay Area locations, we invite our fellows, prize winners, funders, and core community to burst their tech silos, and plan for flourishing futures. In addition to our conference, we offer mentorship hours, lab visits, satellite gatherings, cyberfuture dinners, prize awards, and surprise experiences to explore our core areas:

- Long-term History & Flourishing Futures
- Longevity, Rejuvenation, Cryonics
- Molecular Machines, Computing, APM
- Neurotech, BCIs & WBEs
- Cryptography, Security & AI
- Energy, Space, Expansion
- Funding, Innovation, Progress



We hope you join us!

Donate & Join

As an active part of our community of talented scientists and technologists who expand the limit of what civilization is capable of doing, your donation helps us progress research. Foresight Institute is a 501(c)(3) non-profit organization, so your donation is tax-deductible in the US as permitted by law. Our tax ID number is 77-0119168.

Associate - \$240 Annual Donation

- · You are invited to collaborate with our community on Discord
- You are invited to join our monthly seminars in one of the technical groups of your choice; Molecular Machines, Longevity, Neurotech, Computing, and Space

Patron - \$10K+ Annual Donation

- You are invited to collaborate with our community on Discord
- You are invited to join our monthly seminars
- You are invited to join one of our 7 annual in-person workshops to advance the beneficial development of Molecular Machines, Longevity, Neurotech, Computing, and Space
- Join our patron-only <u>personal longevity group</u> to explore how you can extend your own lifespan

Sponsor - \$30K+ Annual Donation

- You are invited to collaborate with our community on Discord
- You are invited to join our monthly seminars
- You are invited to join one of our 7 annual in-person workshops to advance the beneficial development of Molecular Machines, Longevity, Neurotech, Computing, and Space
- Join our patron-only <u>personal longevity group</u> to explore how you can extend your own lifespan
- Join regular meetings with Foresight's core team to co-design our program, explore boutique projects of your choosing, and discover novel opportunities for shaping our path toward beautiful futures
- Email <u>a@foresight.org</u> to learn more.

"New technologies will nurture new arts, and new arts will bring new standards. The world of brute matter offers room for great but limited growth. The world of mind and pattern, though, holds room for endless evolution and change. The possible seems room enough."

-Eric Drexler, co-founder

