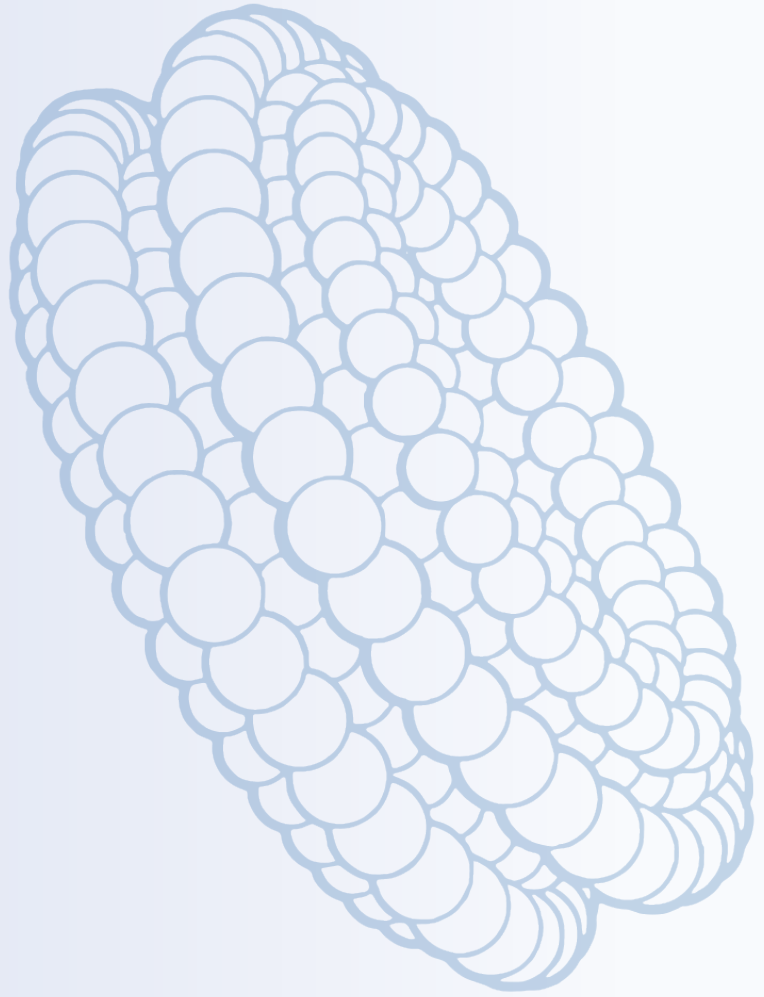


Q2 PROGRESS UPDATES



2023 Progress Update and Future Plans

Thank you for enabling us to do the work we do; i.e. supporting the beneficial development of highimpact technologies that are too ambitious for legacy funders to fund.

Introduction

With your support, Foresight Institute has been able to support more progress in undervalued areas for beneficial technology advancement than ever before.

Which areas do we focus on?

- Molecular nanotechnology for better materials to heal our biosphere Biotechnology to fight age-related diseases and extend healthy human lives
- Neurotechnology to improve human cognition and experience Computer science to secure human and AI cooperation, and Space to further human exploration of our universe

How do we support these areas?

- 5 monthly seminars to give domain-experts in each of these domains a chance to regularly discuss recent advanced and their implications in a curated seminar format
- 5 annual workshops to give domain-experts in each of these domains a chance to collaborate on the frontiers of these technologies in a fast-paced 2-day in person setting
- A fellowship supporting 10+ fellows in each of these domains (more than 60 fellows total!) via mentorship, networking, and professional exposure to advance their careers
- 3 annual prizes to award outstanding work in molecular nanotechnology, longevity, and, to be launched in 2023; in computer security!
- 1 monthly salon in different cities across the globe to welcome new talent into the Foresight community
- 2 annual end of year festivals gathering top talent of these domains to collaborate on progress across technology silos

In addition to our scientific core program, we have expanded our Existential Hope work, to explore distinctively positive scenarios powered by beneficial technology progress, in contrast to the doom scenarios we are all too familiar with.

In addition to our scientific core program, we have expanded our Existential Hope work, to explore distinctively positive scenarios powered by beneficial technology progress, in contrast to the doom scenarios we are all too familiar with.

In this Q2 report, you can get up to speed on all of these areas, or dive into the ones closest to your heart.

Thank you for supporting beneficial futures through technologies by funding our seminars, workshops, fellowships, and prizes.

Sincerely,

Allison Duettmann, and your Foresight team



Our team



Allison Duettmann

PRESIDENT & CEO



Beatrice Erkers

COO & EXISTENTIAL HOPE DIRECTOR



Niamh Peren

CHIEF PROGRAM OFFICER



Lydia La Roux

EXECUTIVE ASSISTANT



Vivienne Errington-Barnes

EVENTS MANAGER



Lou de Kerhuelvez

FORESIGHT EUROPE



Aleksandra Smilek

PARTNERSHIPS EUROPE



Sherry Hull

ADMINISTRATIVE MANAGER

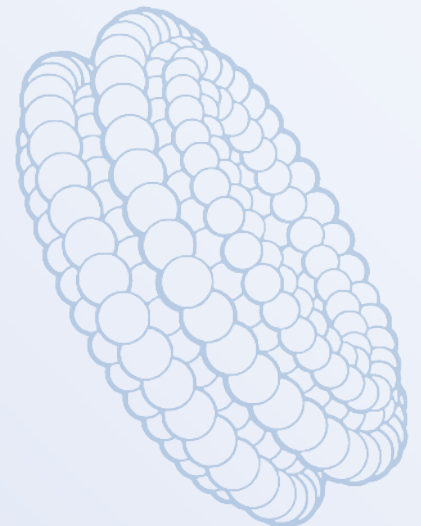


Djordje Devic

WEBSITE MANAGEMENT

Advancing technological progress

Q2 PROGRESS
UPDATES



Advancing technological progress

Seminar Highlights

We have had an incredibly busy start part of year in our virtual seminar series. Some of our seminars are off the record. For the ones that are public, please find their seminar recording and written summary here:

Neurotech: Improving Cognition



[Michael Graziano](#)
A Conceptual Framework for Consciousness



[Linda MacDonald Glenn](#)
The Future Envisioned Through the Prism of Interconnectedness



[Jacob Robinson](#)
Minimally Invasive Neurotech for Mental Health

Biotech & Health Extension



[Yuri Deigin](#)
Epigenetic Rejuvenation by In Vivo Partial Reprogramming: Past, Present, and Future



[Jonah Sinick](#)
Activating Mitochondrial Heat Production to Reverse Obesity

Advancing technological progress

Seminar Highlights

Space: Expanding Outward



Dr. Jonathan McDowell
Through Space and Time – The Big View of Spaceflight History



Nathan Johnson
Space Court Foundation's Research Into Foundations and Evolution of Space Law

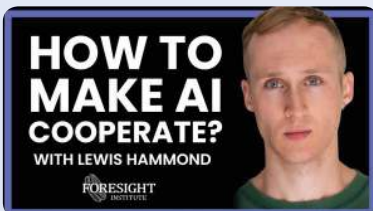


Randa Milliron
Ultra-Low-Cost Space Launch Technology

Computation: Intelligent Cooperation



Stuart Russell
Human Compatible AI



Lewis Hammond
Introduction to Cooperative AI



Puja Ohlhaber
Decentralization in the age of AI: Communication, Consensus, and Power



Kevin Esvelt
Securing Global DNA Synthesis and LLMs Against Risky Hazards

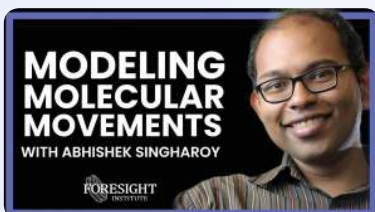
Advancing technological progress

Seminar Highlights

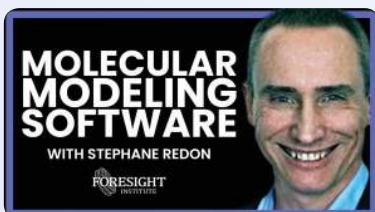
Molecular Machines Group



Aleksei Aksimentiev
DNA Electromotors



A. Singharoy
Molecular and Brownian Dynamics
Simulations of Rotary Catalysis in
Molecular Motors



Stephane Redon
Recent Developments in Integrated
Molecular Design



Award Ceremony
The Hypothesis Longevity Prize



David Deutsch
On Beauty, Knowledge, and
Progress



Kevin Kelly
Pioneering Visions of a High-Tech
Future

Workshops



Thank you to all who joined us for our Longevity Frontiers Workshop on April 17th and 18th at The Institute in San Francisco!

- Agenda: <https://foresight.org/longevity-frontiers-workshop-2023>
- Recordings: <https://youtube.com/playlist?list=PLH78wfbG1lx2BZzck8YIXXYHp689qLavp>

We awarded a total of \$6k to three working groups for their incredible ideas:

- 1st Place: Promote the Use of Biomarkers of Aging in Clinical Trials – Tina Woods, Marielle Van Kooten, Karl Pflieger, Jim O’niell, Greg Fahy, Steve Horvath
- 2nd Place: Partial Reprogramming Bounceback and Master Regulators of Aging – Yuri Deigin, Alex Pickett, Cosmo Mielke, Alex K. Chen
- 3rd Place: Constructive Pessimism – Leon Peshkin, Brad English, Raiany Romanni, Kayla Leung, Benjamin Anderson

Workshops



Thank you to all who joined us for our Whole Brain Emulation for AI Safety Workshop in Oxford, UK on May 22nd and 23rd.

- Agenda: <https://foresight.org/whole-brain-emulation-workshop-2023>
- Recordings: coming soon

We awarded a total of \$6k to three working groups for their incredible ideas:

- 1st Place: Comparative Analysis of Static Neuroimaging Modalities – Andrew Payne, Todd Huffman, Logan Thrasher Collins, Joanne Peng, Ken Hayworth, Davidad, Berry Bentley, Michael Andregg
- 2nd Place: Minimum Emulation NextUp – Randal Koene, Anita Fowler, Adrian Gehr, Michael Skuhersky, Michael Andregg, Roman Bauer, Barry Bentley
- 3rd Place: BCIs for AI Alignment – Sumner Norman, Judd Rosenblatt, Andy Matuschak, Tamuz Hod, Niccolo Zanichelli, Davidad, Joanne Peng

Stay tuned for the recordings from speakers and the whole brain 2.0 roadmap!

Upcoming Workshops

Our upcoming workshops include:



Cryptography, Security, AI Workshop

July 10 – 11 in San Francisco

With Mark S. Miller, Agoric, Davidad, Future of Humanity Institute, Deger Turan, AI Objectives Institute, Robin Hanson, George Mason University, Divya Siddarth, Microsoft, Morgan Livingston, Tech Congress Fellow, Jeffrey Ladish, Gordian Research, and many others.



DeSci Workshop

July 15th and 16th in Paris

Presentations and workshops are meant to advance and proliferate the intersection between web3 technology and science: decentralized technology to innovate on scientific publication, data sharing, and knowledge engineering.



Molecular Systems Design Workshop

September 11 – 12 in San Francisco

With Ben Reinhardt, Speculative Technologies, Adam Marblestone, Convergent Research, Alexis Courbet, Washington University, William Shih, Harvard University, Chris Schafmeister, Temple University, and many others.

Vision Weekend

Vision Weekends

Annual member festivals of Foresight Institute

Our Vision Weekends are the annual member festivals of Foresight Institute. Held in two countries, over two weekends, top talent across biotechnology, nanotechnology, neurotechnology, computing, and space are encouraged to burst their tech silos, and plan for flourishing long-term futures.



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Agenda: <https://foresight.org/vision-weekends-2023/>

Take advantage of the Early Bird Special and get your tickets for [Vision Weekend France](#) or [Vision Weekend USA](#) today!

Global Meetups



We hosted several monthly global salons across the world to build our growing Foresight community in San Francisco, NYC, Stockholm, London, Montenegro, and Berlin.

Fellowship success stories



[Patrick Mellor](#), Living Carbon, made a [unified history of CO2](#) and temperature throughout deep time as a component of the Living Carbon website. Check it out to go on a journey detailing Earth's 4.54 billion years of existence.



[Shady El Damaty](#), co-founder of Holonym, explores the use of Zero Knowledge protocols to ensure privacy and guarantee the reliability of the information. Check out his talk at the 2023 European Blockchain Convention [here](#).



[Dr. Mariam Elabry](#), of Bronic, is hosting an event on the 18th of May in London in collaboration with Foresight. The event explores the fusion of fashion and art through the lens of biosecurity. Join us for a thought-provoking and inspiring event that explores the intersection of art, science, and activism.



[Jamie Joyce](#), The Society Library, is now beginning to create a knowledge graph of AI Alignment / Safety/ X-Risk debates. Check out the project [here](#). The Society Library has been given a \$150k matching grant offer, so if you're interested in supporting this project, please reach out to Jamie.



[Patrick Finley](#) recently launched the [Collegiate Lander Challenge](#) — a 4 year challenge to student teams to self land liquid rockets. They're hiring and looking for volunteers. Get in touch (contact@definityproject.org). Check out [this video](#) to see what the teams in the challenge are capable of.

Fellowship success stories



[Guido Putignano](#), Nucleate, will be hosting the first ever longevity conference in Italy on May 24th. Topics covered will be human augmentation, chronic disease, treatment, and policy. Our very own Niamh Peren will also be speaking. [Sign up and learn more.](#)



[Iqbal Utama](#), postdoctoral researcher at Northwestern University, is developing methods to better control how single-photon emitters produce light! Check out his paper "[Chemomechanical modification of quantum emission in monolayer WSe₂](#)" recently published in Nature! This work was accomplished with theoretical support from Professor George C. Schatz, winner of the Foresight Feynman Prize in 2008.



[Renaud Jolivet](#), Professor of Neural Engineering and Computation at Maastricht University, was appointed Chair of the EBRAINS Science and Technology Committee as of March 27th, 2023. [Congratulations!](#)



[Kevin Lalli's](#) spacetech start up, [Hydrosat](#), was recently nominated by [PitchBook Data](#) as a top European spacetech startup to watch!



[Jamie Joyce](#), Society Library, recently gave a talk titled Democracy's Library: Community Collaboration at the Internet Archive HQ in San Francisco. Check out the recording [here](#).



[Barry Bentley](#), Cardiff Metropolitan University, published a review of Space Motion Sickness, a condition that affects over 70% of astronauts, in his recent paper [Pharmacological and non-pharmacological countermeasures to Space Motion Sickness: a systematic review](#) in volume 17 of [Frontiers in Neural Circuits](#).

Fellowship success stories



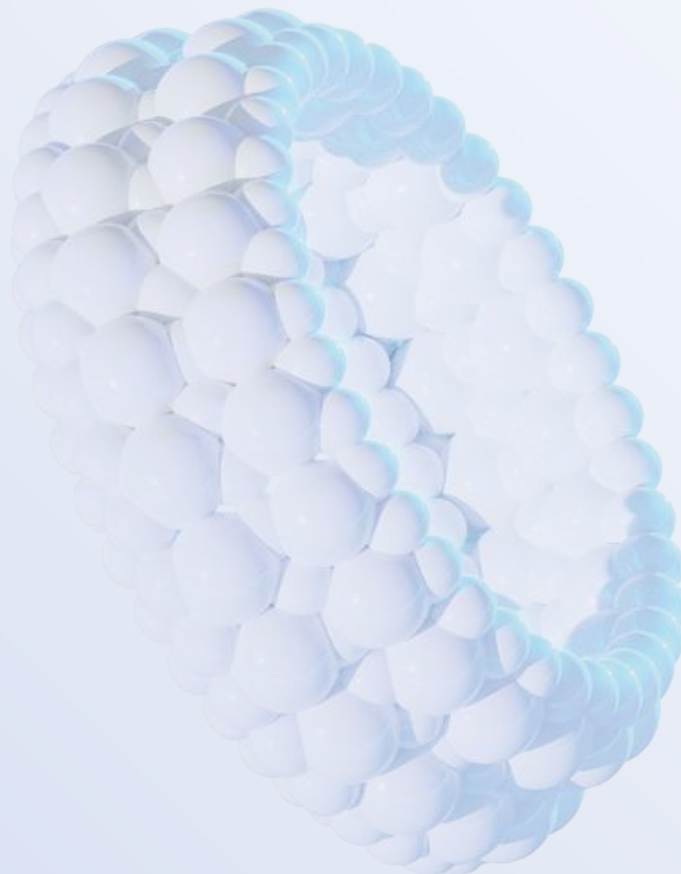
[Stacy Marla Copp](#), UC Irvine, was recently published [Chloride Ligands on DNA-Stabilized Silver Nanoclusters](#) in *Journal of American Chemical Society* outlining her group's work on development of DNA-based metal nanoclusters for biomedical applications.



[David Manheim](#), founder of the Association for Long Term Existence and Resilience (ALTER), recently published in collaboration with Christoph Winter, Nicholas Hollman, and David Manheim. ["Value alignment for advanced artificial judicial intelligence."](#) *American Philosophical Quarterly* 60.2 (2023): 187-203. See also: [How Agnostic Is Your "Threat Agnostic" Biosurveillance System?](#)



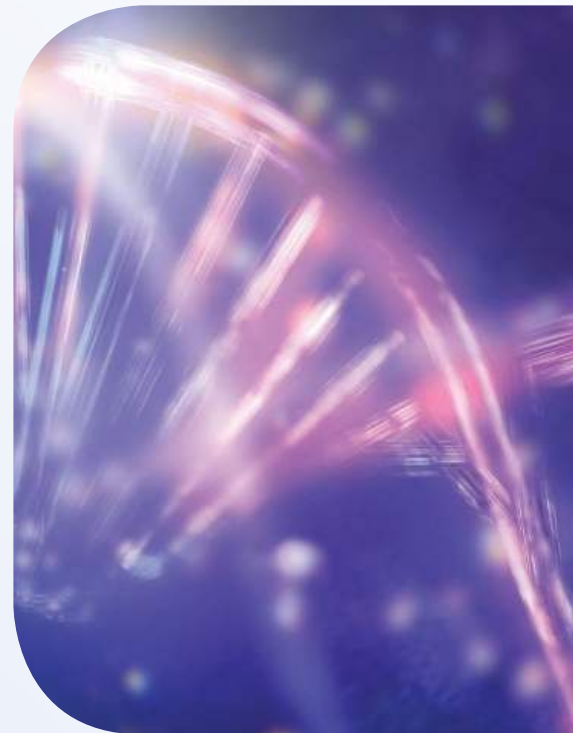
[Cosmo Mielke](#) recently published a [piece](#) recounting details from our Longevity Frontiers Workshop in April. He also wrote [a longer blog post](#) describing some new ideas that came out of the conference.



Prizes

Barry Bentley wins a Fulbright Scholarship

Carlos Galicia wins our Longevity Prize



The Longevity Prize

Congratulations to [Carlos Galicia](#) of the Buck Institute for winning the first Longevity Hypothesis Prize! The Longevity Prize rewards applicants that best answer the question: What is the most promising but underappreciated or obscure area of longevity science we should pursue? Carlos proposed studying rejuvenation during embryogenesis as a way to combat age-related decline.

Learn more about the Longevity Prize [here](#).

Prizes

Space Prize Launch



THE COLLEGIATE PROPULSIVE LANDER CHALLENGE

Thrilled to share that Foresight Institute has partnered with 2023 Foresight Fellow Patrick Finley, who is the Founder of The Collegiate Propulsive Lander Challenge, to announce our very first Space prize.

The Collegiate Propulsive Lander Challenge believes humanity desperately needs to create more opportunities for young people to work on ambitious projects; for true inspiration happens when students build new things and solve real problems. This Prize will award 5 milestones critical to building self-landing vehicles. A total of 15 awards will be granted over the next four years. Applications open now.

<https://landerchallenge.space/>

Prizes



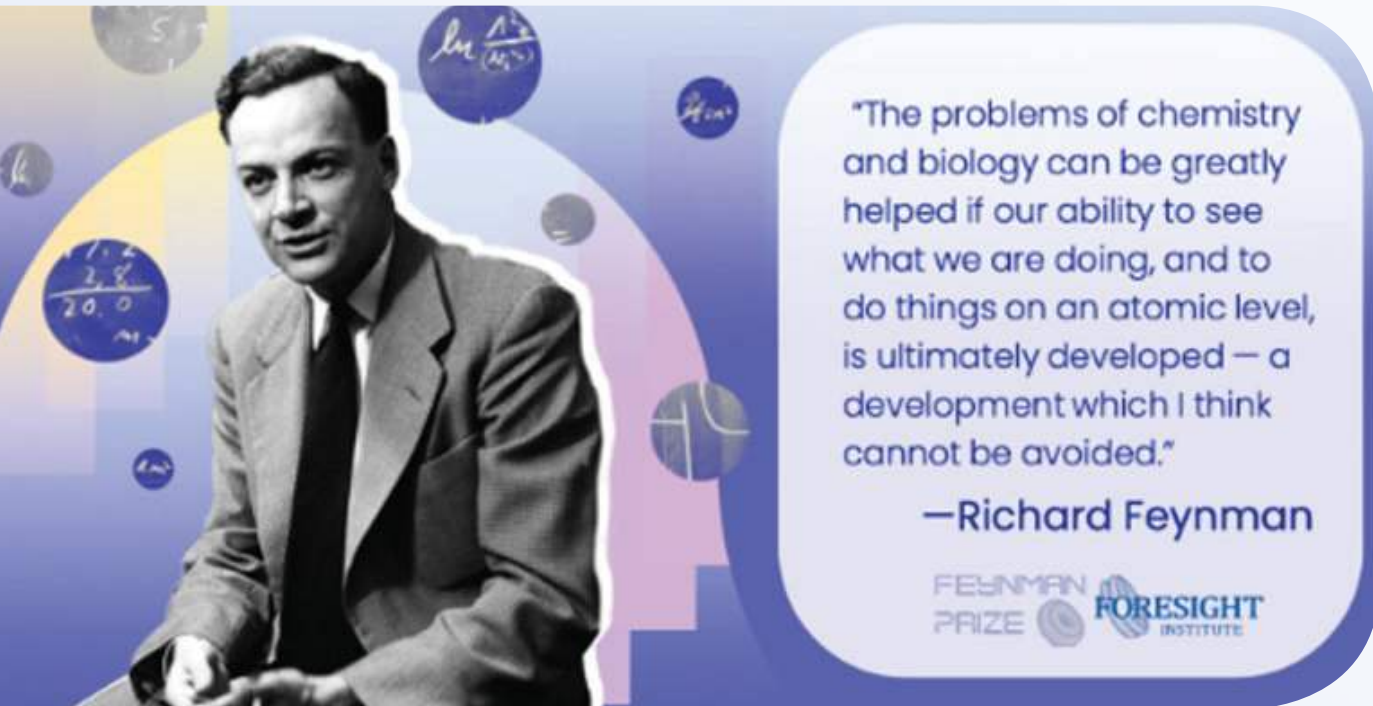
We are excited to announce the first ever [Norm Hardy Prize](#), administered by the Foresight Institute and sponsored by [Agoric](#) and [Protocol Labs](#).

The long term goal of the Norm Hardy Prize is a set of design principles and tools that encourage developers to create interaction designs that make it easy for people to use secure systems securely.

To be eligible for the annual \$10k prize, please submit a short essay, no more than 1,500 words, discussing at least one of these four criteria:


- 1. Actual implementation of a system
- 2. User studies of novel system
- 3. Theory of mind of the user
- 4. Sets of principles for user interaction design

Prizes



"The problems of chemistry and biology can be greatly helped if our ability to see what we are doing, and to do things on an atomic level, is ultimately developed — a development which I think cannot be avoided."

—Richard Feynman

FEYNMAN PRIZE  FORESIGHT INSTITUTE

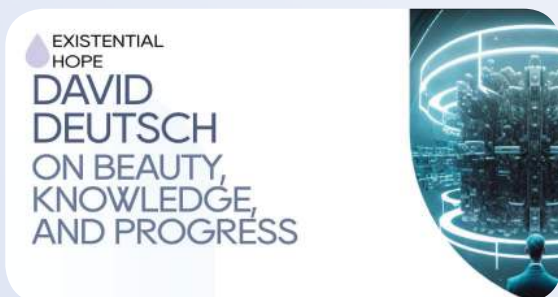
The Feynman Prizes are named in honor of the physicist Richard Feynman. In 1959, Feynman gave a talk titled "There's Plenty Of Room At The Bottom," which is considered by many industry advocates to have inspired the field of nanotechnology itself. With the Feynman Prizes, Foresight Institute wishes to recognize recent and brilliant achievements that contribute deeply to the field of Nanotechnology.

Nominations are now open for this year's award. Please nominate yourself or someone you think should be awarded [here](#).

Existential Hope

Our Existential Hope platform is continuing to grow and gain more attention. The Magazine “The Beautiful Truth” turned its attention towards Existential Hope in its article [“Transcending Time: The Hidden Cost of the Greater Good – The Beautiful Truth”](#). The article explores the complexity of how we can think more long-term, and how to do it in a way that doesn’t compromise our humanity.

We have also been fortunate to host some truly exceptional minds on our podcast over the past quarter, embodying the very essence of what Existential Hope stands for.



David Deutsch On Beauty, Knowledge, and Progress

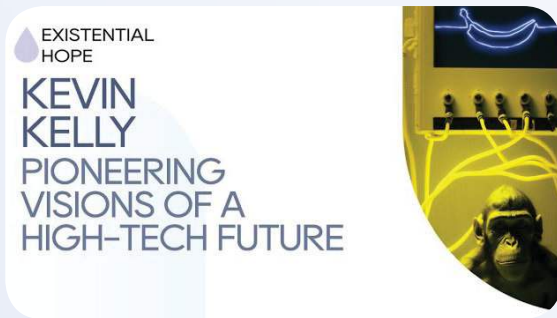
Firstly, we had the pleasure of engaging in a thought-provoking conversation with David Deutsch, a pioneer of quantum computing and renowned physicist. His visionary insights into the potential of technology to reshape our world, and his steadfast belief in the capacity of human intellect, served as a potent reminder of the audacious ambition that defines Xhope.

“

“Hope it optimism with a plan. I think it’s sad that often when we think about caring for the future, we ask ourselves how we can delete our footprint from the planet.”

BEATRICE ERKERS, THE FORESIGHT
INSTITUTE

Existential Hope



Kevin Kelly

Pioneering Visions of a High-Tech Future

Next, we were joined by Kevin Kelly, co-founder of Wired Magazine and a luminary in the field of digital culture. Kelly’s perspective on the role of technology as the seventh kingdom of life, its inevitable trajectory, and its implications for our future resonated deeply with our mission at Xhope.



Sara Walker

Unraveling Life’s Beginnings with the Cosmic Perspective

Last, but not least, we hosted Sara Walker, a theoretical physicist and astrobiologist whose work explores the origins and nature of life. Her profound understanding of the interconnectedness of life and cosmos, and her pioneering research on life as a new phase of matter, are symbolic of the vast scope that xHope embraces.

Media Coverage

Allison Duettmann, Foresight's CEO, published a [Lesswrong sequence](#) on why security, cryptography, and auxiliary approaches are still neglected in AI safety, specific insights those communities can offer for AI safety, and some potential opportunities to bridging the gaps. Take a look at Allison's appearance on [CoinDesk TV](#) at Consensus 2023 or check out her Coindesk piece on AI Safety [here](#).

Her piece "[Our new brains: neurotechnology advances that could change everything](#)" was also recently published on Freethink.

InTechnology (Intel Podcast) "[Nanotechnology & Molecular Manufacturing](#)"

Fund beneficial futures!

Thanks to your support, we are in great shape to strengthen the support of our community in advancing technological progress, while also increasing awareness and responsibility for the beneficial technologies they develop.

Given the current global financial situation leading to an unpredictable budget, your contribution matters a lot this year. Every dollar makes a difference in enabling us to continue to grow a community of technologists committed to beneficial futures.

We have a variety of opportunities for more tailored collaborations, such as workshops and fellow sponsorship, and have a few exciting perks, such as our [personal longevity group](#), to thank you for your support.

As a donor, you [fund the beneficial development of science](#) and technology that is too ambitious to be supported via legacy institutions.

We gratefully accept [donations here](#) and please contact allison@foresight.org to learn more about potential collaborations.

Thank you for advancing technologies for beneficial futures with us!