



Proof Through
Transformation

History's first
proof-as-a-service
company, enabling
non-pharmaceuticals
to easily **prove their true
effects** beyond placebo



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OUR RADICLE MISSION:

*To close the proof gap between supplements
and pharmaceuticals*

OUR RADICLE VISION:

*An abundant future where democratized access to clinical
trials transforms non-pharmaceutical products into proven
personalized medicines accessible by all.*



rad·i·cle

/ˈradɪk(ə)l/

The first root to emerge from a plant.

A constant reminder of our radically disruptive approach.

OUR ORIGIN STORY:

Two people from different worlds, but with a common mission, came together with the powerful vision to create something different: An exciting and fundamentally new approach to research that could eliminate the Proof Gap, and usher in an abundant future of wellness.

Dr. Jeff Chen, a physician researcher, wanted to find better and cheaper health treatments, so he created and led first-of-its-kind natural product clinical trials at UCLA. However, he grew frustrated with how slow and expensive the trials were, and how he was prohibited from studying many of the products that consumers could buy in any store.

At that same time, Pelin Thorogood, a tech CEO turned philanthropist, was funding first-of-its-kind natural medicine trials at renowned research institutions across the U.S. As a data expert, she came to the painful realization that the small scale and homogeneous populations of those studies were never going to achieve her mission of affordable, personalized medicine for all.

Jeff and Pelin were on separate yet parallel missions to prove what non-pharmaceuticals could do and transform their role in society for all future generations. Together they sparked an idea that could fix a broken system and set healthcare on a new trajectory.

And that is how Radicle Science was born.



RADICLE SCIENCE OVERVIEW

Radicle Science is history's first Proof-as-a-Service company, enabling non-prescription health and wellness products to clinically prove their true effects beyond placebo. Radicle Science offers non-pharmaceutical products the first easy path to generate first-of-its kind clinical evidence across diverse conditions and populations at unprecedented affordability, speed and scale. The Radicle Proof Engine™ combines gold-standard double-blind, randomized, placebo-controlled design, with a unique AI-driven, crowdsourced, virtual, direct-to-consumer approach, to create standardized and automated clinical trials that deliver rigorous health outcome data. The large scale of the studies and diversity of the populations make our findings personalized and relevant for the population at large. Our transformative approach democratizes access to clinical trials and can finally close the “proof gap” between non-prescription wellness products and pharmaceutical drugs. For the first time in history, any natural health product or dietary supplement company can have clinical proof throughout their entire business cycle to develop the most effective products, make strong clinically proven claims, build loyalty with consumers, and build trust among doctors, retailers, and investors.

Since launching in 2021, Radicle conducted clinical trials on >20,000 Americans for clients ranging from startups to billion dollar publicly traded companies. Radicle Science has a bona fide claim for “largest” and/or “history's first” for nearly all of our studies to date, and we continue to expand our portfolio of IRB-approved standardized clinical trials on an array of health areas including energy, focus, appetite, sleep, pain, stress/anxiety, cognition and digestive health, with immunity and women's health in the pipeline.

Radicle Science has received significant industry recognition, including being named by KPMG as one of America's Top 10 "Tech Innovators", being a finalist for the prestigious UCSF Rising Star award in Consumer Wellness, and receiving several Stevie Awards in business. Outlets including Wall Street Journal, Newsweek, Forbes, Bloomberg, Business Insider, Medscape, NutraIngredients-USA, and Nutritional Outlook have covered Radicle Science's innovative approach. Radicle Science was co-founded by Dr. Jeff Chen, MD/MBA (founder and former Exec Director of the UCLA Cannabis Research Initiative) and Pelin Thorogood, M.Eng/MBA (tech CEO in big data/analytics + Trustee & Treasurer UC San Diego Foundation). The Radicle team includes luminaries ranging from Peter Diamandis (named “50 Greatest World Leaders” by Fortune) to Dr. Jonathan Fielding (Professor, UCLA Fielding School of Public Health, former advisor to President Obama). Radicle Science investors include leading tech VCs and the families behind some of the largest American life science, tech, and consumer goods companies.

We have:

Studied +25,000 Americans since 2021

- Conducted history's largest randomized controlled trial on cannabidiol (CBD), studying nearly 3,000 participants randomized to one of 14 treatment arms.
- Launched history's first large-scale, blinded, placebo-controlled clinical trials on a variety of natural ingredients to study their effects on energy, focus, appetite, sleep, pain, stress, and anxiety

Clients range from innovative start-ups to billion-dollar traded companies, including Gaia Herbs, Neurohacker, BioOptimizers, Charlotte's Web, Rae Wellness, OBX

We are dedicated to research and development, including choosing our ingredients using the best data available. We are thrilled to take our research to the next level with Radicle Science's disruptive clinical trials, which will provide invaluable data on optimal dosages and efficacy across all key demographics.



James Schmachtenberger
Co-Founder and CEO of Neurohacker

Founded in 1987 on the principles of purity, potency and transparency, Gaia Herbs is committed to ensuring all of our products are 'Made to a Gaia Standard.' This means using ingredients that undergo rigorous DNA and purity testing, and collaborating with industry-changing companies like Radicle Science who share our high standards. We are excited to partner with them to conduct novel large-scale, randomized, placebo-controlled clinical trials to build our body of evidence to further validate the efficacy of our formulations.



Jeremy Stewart
Gaia Herbs Chief Scientist and VP of Scientific Affairs

Radicle Science offers a game changing solution for generating gold-standard proof of effectiveness at an affordable price. We couldn't be happier to finally have access to such a disruptive clinical trial approach that will build our body of evidence to further validate the effectiveness of our product.



Matt Gallant
CEO and Co-Founder of BioOptimizers

"As a brand committed to supporting the well-being of all, we're thrilled to partner with Radicle Science on their unprecedented clinical studies to champion evidence-based formulation development."



Angie Tebbe
CEO & Co-founder, Rae Wellness

ADVISORS

Our advisory board consists of luminaries from public health leadership and the FDA to the largest CPG companies in the world. [Meet our advisory board.](#)

"Radicle is generating some of history's first data on the safety and effectiveness of non-prescription products used by millions, and their findings will empower both consumers and health professionals to make better evidence-based health decisions."



Dr. Jonathan Fielding MD, MBA, MA, MPH
Professor at the Jonathan Fielding
School of Public Health at UCLA, former
Director of the Los Angeles Department
of Public Health and White House advisor

"Radicle's audacious mission has the potential to democratize clinical trials and unlock a future of abundant health products for all."



Dr. Peter Diamandis
Chairman of XPrize, Fortune Magazine's
"World's 50 Greatest Leaders"

COFOUNDERS

Dr. Jeff Chen, MD, is one of the foremost physician scientists on plant medicines. As the CEO and Cofounder of Radicle Science, he has created history's first easy path for non-pharmaceutical products to prove their true effects.

He is also the founder and former Executive Director of the UCLA Cannabis Research Initiative, where he created and led some of history's first official clinical trials on the medical potential of cannabis products.

Dr. Jeff personally was selected as an Industry Mentor for the National Institutes of Health I-CORPs startup accelerator, named a "Global Shaper" by the World Economic Forum, and awarded a David Geffen Fellowship.

Dr. Jeff is a Medical Editor at Healthline, and he has been interviewed by *Forbes*, *Wall Street Journal*, *TIME*, *NPR*, *Newsweek*, CNN, NBC News, CBS Sunday, Fox, TV shows including "The Doctors" and more.

He has also presented domestically for the National Academies of Science, American Bar Association, California Medical Association, California Senator Feinstein, Colorado Governor John Hickenlooper, the

Yale School of Management, Columbia University, and the Young President's Organization (YPO). Internationally, he has advised the Mexico Senate and the Royal Court of the Kingdom of Bhutan.

Following a BS at Cornell, Dr. Jeff earned his MD and MBA concurrently on a full merit scholarship at UCLA.

Dr. Jeff quotes:

"We've pioneered an AI-driven, crowdsourced, virtual, direct-to-consumer clinical trial approach that delivers rigorous health outcome data," said Dr. Jeff Chen, Radicle Science CEO and Co-Founder. "For the first time ever, we've made trials fast and affordable. Essentially, we've transformed clinical trials with automation and standardization the same way Ford Motors transformed auto manufacturing a century ago. We believe every non-pharmaceutical product has the right to compete on real merit and win in the marketplace and, to that end, should have easy access to a clinical trial."

"Our team is grateful and humbled by the support and acknowledgements," said Dr. Jeff Chen, Radicle Science CEO and Co-Founder. "We are excited to work with research-driven brands such as Gaia Herbs and Neurohacker as we bridge the proof gap between nutraceuticals and prescription drugs. It's an honor to generate this first-of-its kind evidence as we help shepherd an amazing new chapter for human health and consumer empowerment."

"With sleep issues impacting 50 to 70 million Americans, scientifically-validated research is needed more than ever on how to help improve rest. Sleep is among one of the most popular therapeutic usages for cannabinoids, and we're excited to have begun this groundbreaking work in researching formulations and dosages to discover those with greatest effect," shared Dr. Jeff Chen, Radicle Science's CEO and co-founder.

"I spent my whole life becoming a physician so I could heal, only to realize our modern medicines were failing so many folks who were suffering. I co-founded Radicle Science to unlock an entirely new category of effective trusted products that were naturally occurring and affordable and accessible to all. Radicle Science is ushering in a new era of healthcare by validating the effects of natural products for the first time."

Pelin Thorogood has been leading industry-disrupting, award-winning companies at the forefront of big data/analytics and tech. She is currently re-imagining ways to achieve precision medicine as Executive Chair and Cofounder of Radicle Science.

Previously, Pelin was a leader in creating the digital marketing space as CMO of WebSideStory (IPO, acquisition by Adobe/Omniture), the pioneer of web analytics, as well as CEO of Anamatrix (acquisition by Ensignten), an award-winning multichannel predictive analytics company serving multinationals including Chrysler, J&J, and Viacom.

Deeply committed to impact, education, and community, Pelin is trustee and Treasurer of the [UC San Diego Foundation](#), Executive Board member of the [UC San Diego Basement](#) start-up incubator, Co-Chair of the UC San Diego Innovation and Entrepreneurship Council, and an advisor for the proposed School of Computing, Information and Data Science at UC San Diego.

She is also the Industry Scholar for the Cornell Institute of Healthy Futures and served for many years as Executive-in-Residence for Cornell's Johnson Graduate School of Management.

Pelin holds a B.S. in Operations Research & Information Engineering, M.Eng and MBA, all from Cornell.

Pelin quotes:

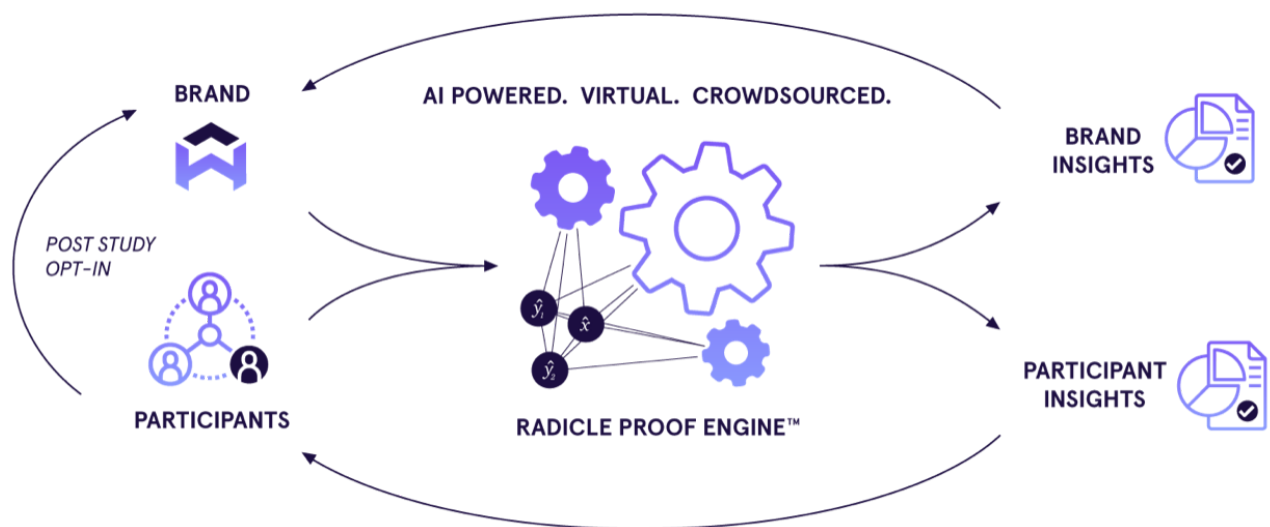
"Proof creates trust with all stakeholders; Proof also drives transformation, and we're transforming natural health products and dietary supplements into proven personalized medicines that are accessible to all," notes Pelin Thorogood, Radicle Science Co-Founder and Executive Chair. "Our study results have benefitted our clients in so many ways: Everything from tens of millions of dollars of increased public company valuation to triple digit increases in sales. And, just as importantly, the large scale and diversity of the populations we study make our findings more equitable, relevant and personalized for society at large."

"A key difference in the 'Radicle' approach is the vast scale and heterogeneity of our clinical trials, enabling us to study dosages, consumption, effectiveness and side effects across large numbers of diverse participants," said Pelin Thorogood, Radicle Science Co-Founder and Executive Chair. "The large scale of our studies serve to increase the statistical confidence of findings and their relevance to the broader population."

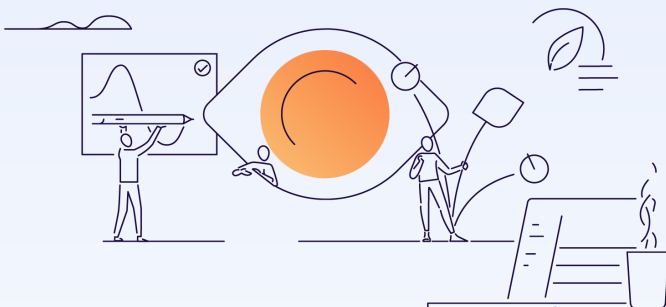
"By reducing the cost and increasing the speed, we are able to democratize access to clinical trials for pretty much any company."

"I've personally experienced how a data-driven approach can transform entire industries," said Pelin Thorogood, Radicle Science co-founder. "It is about time we embrace that same thinking for supplements and leverage the power of large scale rigorous health outcome data to inform smarter health and business decisions for all."

PIONEERING PROOF-AS-A-SERVICE WITH THE RADICLE PROOF ENGINE™



Radicle Proof Engine™ Offerings



Radicle Validation™

Double blind, randomized, placebo-controlled trial to prove the effects of an **existing product**

- ✓ **Generate objective evidence**
- ✓ **Enable strong structure/function claims**
- ✓ **Drive revenue and customer lifetime value (CLV)**



Radicle Discovery™

Double blind, randomized, placebo controlled trial to prove the effects of multiple **new products**

- ✓ **Rapidly compare multiple formulations/dosages**
- ✓ **Guide consumer and condition targeting**
- ✓ **Bring the most effective product to market**

Radicle Success Stories

The Radicle Proof Engine™ validates the true effects of your existing products and discovers which new product is most effective to bring to market.

- A major women's supplement brand carried in large retailers such as Target worked with Radicle to compare 8 new formulations head-to-head to identify the most effective formulation to bring to market.
- A client experienced a 188% increase in sales in the week following their announcement of their study results
- A publicly-traded brand saw an 11% jump in their stock price the day they announced their Radicle study results, and this NASDAQ! article attributed the gain to their research findings
- The positive study results of one client attracted the attention of Brooke Shields, who now serves as their Chief Brand Officer

RECENT PRESS

Forbes

'Thinkers And Innovators':
How Radicle Science Is
Pioneering Proof-As-
A-Service For Clinical Trials
November 14, 2022

Newsweek

Free Radicles: A New Model
for Democratizing Clinical
Trials
October 31, 2022

nbr+nutraceutical BUSINESS REVIEW

Supplement-pharma 'Proof
Gap' finally resolved by
disruptive healthtech
October 14, 2022

Nutritional OUTLOOK

Radicle Science launches
Radicle Proof Engine to make
clinical validation more
accessible
December 2, 2022



Consumer transparency
non-profit Clean Label Project
and Proof-as-a-Service
Pioneer Radicle Science
Announce Strategic
Partnership
November 30, 2022



Sleep quality improves when
combining CBD and
melatonin, finds landmark
clinical trial
October 13, 2022

AWARDS



Top 10 Tech Innovator in US



2022 Rising Star finalist



THE STEVIE® AWARDS FOR
WOMEN IN BUSINESS

ASSOCIATIONS



The Supplement industry is vital to our nourishment and well-being, yet has represented a small group of clinically backed ingredients to date. Radicle Science effectively democratizes the science of wellness and nutrition by enabling all companies to safely, rapidly and affordably conduct clinical trials. Now we can make better choices about the health benefits of emergent technologies and ingredients on a broader base of consumers of all socioeconomic levels and identities. This approach fosters thriving companies and a thriving industry from both a profit and human health perspective.



Lara Dickinson
Co-founder One Step Closer, J.E.D.I
Collaborative, and Climate Collaborative

"Marketing departments do a good job at selling comfort, security, and effects. Let's be honest, when was the last time that you saw a label on a supplement product that said this product DOESN'T work? Rather than simply taking the brand's 'word for it,' Radicle provides an evidence-based platform that empowers consumers to make the best choice for themselves and the condition they are managing."



Jaclyn Bowen, MPH, MS
Executive Director, Clean Label Project

Logos and media assets are [available for download](#).

For additional information or to schedule interviews, please contact Grace Lightfoot,
Director of Communications, at Grace@radiclescience.com