# Dr. Yi Zheng Recognized as a 2024 Boston Business Journal 40 Under 40 Honoree for Advancements in Sustainable Energy

BOSTON, MA, UNITED STATES, February 21, 2025 /EINPresswire.com/ -- Dr. Yi Zheng, founder of Planck Energies and tenured professor at Northeastern University, has been recognized as a 2024 Boston Business Journal 40 Under 40 honoree for his contributions to sustainable energy technology. His work focuses on addressing climate change, improving energy efficiency, and developing solutions for water scarcity. By bridging academic research with commercial applications, he has played a pivotal role in advancing clean energy innovations with global impact.



The recognition by the Boston Business Journal highlights the significance of Dr. Zheng's work in renewable energy and sustainability. This distinction is expected to further elevate awareness of his contributions, opening doors to new collaborations, funding opportunities, and industry partnerships. His leadership at Planck Energies and Northeastern University has also helped attract top talent, fostering a new generation of researchers and engineers dedicated to solving global environmental challenges.

Dr. Zheng's journey into clean technology entrepreneurship began with his research on passive cooling and energy efficiency. His projects, supported by organizations such as the National Science Foundation, laid the groundwork for Planck Energies, a company he founded to translate scientific discoveries into scalable commercial solutions. Under his leadership, the company has focused on two key technologies: passive cooling paint, which can significantly lower building temperatures without the use of electricity, and biomass-based solar desalination systems, designed to provide clean water in areas facing severe water shortages. These innovations have the potential to reduce energy consumption, cut greenhouse gas emissions, and contribute to sustainable infrastructure development.



Planck Energies operates with a multidisciplinary team of engineers, material scientists, and environmental experts who collaborate to refine renewable energy technologies. The team works on optimizing system efficiency and developing advanced materials that enhance passive cooling capabilities. This cross-disciplinary approach has accelerated the transition from laboratory research to market-ready solutions, allowing these technologies to be implemented in real-world settings, including urban infrastructure and commercial applications.

Balancing his roles as a tenured professor and entrepreneur, Dr. Zheng continues to integrate academic research with industry-driven solutions. His work at Northeastern University informs the technological advancements at Planck Energies, while the company's real-world applications provide valuable insights that shape his academic research. His students actively engage in research projects that allow them to apply theoretical knowledge to practical challenges, reinforcing the connection between education and innovation.

One of the primary challenges in translating scientific research into commercial products lies in

simplifying complex technologies for market adoption. The process requires rigorous prototyping, iterative testing, and refinement to ensure that innovations are both effective and user-friendly. Dr. Zheng's background in both academia and entrepreneurship has enabled him to navigate this transition, working closely with engineers and product developers to maintain scientific integrity while ensuring commercial viability. Securing funding for early-stage clean energy technologies is another critical hurdle. Convincing investors of the long-term potential of these solutions requires a strategic approach, leveraging grants from NSF, NIH, and NASA, as well as support from innovation hubs such as MassCEC and MassVentures. These resources have played a crucial role in attracting investment and facilitating the commercialization of Planck Energies' technologies.


Planck Energies is actively engaged in partnerships that align with its mission of applying renewable energy solutions to both commercial and residential settings. The company's passive cooling paint is being refined for large-scale adoption, with discussions underway with major corporations such as 3M and Samsung to explore potential integration into infrastructure and electronics cooling systems. The application of this technology in existing buildings has the potential to reduce energy costs and lower carbon emissions, making it a valuable tool for cities and businesses looking to improve sustainability.

What sets Planck Energies apart from other renewable energy companies is its ability to merge academic research with practical engineering applications. While many firms in the renewable energy sector focus either on scientific discovery or on technological implementation, Planck Energies integrates both, allowing for faster innovation cycles and real-world deployment. The company collaborates with stakeholders ranging from local communities to multinational corporations, ensuring that its technologies reach the widest possible audience and contribute to the global push for sustainable energy solutions.

Dr. Zheng envisions a future in which renewable energy is the dominant global energy source, seamlessly integrated into daily life. His vision includes a world where solar, wind, hydropower, and hydrogen technologies work together to create a diversified and stable energy mix. He believes that decentralized energy systems, such as solar microgrids and passive cooling solutions, will allow communities to be more self-sufficient while reducing reliance on centralized, fossil-fuel-based grids. His work at Planck Energies reflects this vision, particularly in the areas of passive cooling technology and solar-powered desalination, which aim to provide

scalable, sustainable solutions for modern infrastructure. By integrating energy efficiency with renewable energy generation, his company seeks to contribute to the development of smart, sustainable cities and industries.

Reducing carbon emissions remains a central goal in the transition to a net-zero economy. Achieving this requires widespread adoption of low-carbon technologies across multiple sectors, including energy production, transportation, manufacturing, and agriculture. Planck Energies is positioned to play a key role in this transformation by developing clean energy solutions that minimize reliance on conventional high-energy processes. The company's passive cooling paint, for example, has the potential to significantly reduce the demand for air conditioning, a major source of energy consumption in urban areas. By integrating such innovations into industries that are traditionally difficult to decarbonize, Dr. Zheng and his team are working to create long-term, measurable impacts on global emissions reduction.

For young professionals and researchers seeking to make an impact in the field of sustainable energy, Dr. Zheng emphasizes the importance of applying theoretical knowledge to real-world challenges. He encourages aspiring scientists and engineers to engage in hands-on projects that bridge the gap between research and application. He also highlights the role of collaboration across disciplines, as solving sustainability challenges requires input from experts in science, engineering, policy, and business. He advises young professionals to focus on problem-solving and the practical implementation of technologies that can be scaled for widespread adoption.

As both a researcher and entrepreneur, Dr. Zheng continues to drive innovation in sustainable energy. His work at Planck Energies is not only about developing cutting-edge technologies but also about ensuring that these solutions lead to tangible improvements in energy efficiency and environmental sustainability. By advancing renewable energy solutions that are both scientifically rigorous and commercially viable, he is shaping a future in which clean energy is accessible, efficient, and seamlessly integrated into everyday life.

For more information about the Boston Business Journal 40 Under 40, please visit: https://www.bizjournals.com/boston/40-under-40.

BIMC
Boston International Media Consulting, Inc
email us here