



FOUNDED: 2023

HQ: Osaka, Japan

STAGE: Seed

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WEBSITE: <https://www.start-lep.jp/en/home-2/>

## VISION

Contributing to the reduction of CO<sub>2</sub> emission by achieving a lifestyle that uses minimal electricity

## OVERVIEW

Founded in 2023, LEP is at the forefront of pioneering bioluminescent plants as the next generation light source, poised to replace traditional lighting and significantly reduce CO<sub>2</sub> emissions. Leveraging cutting-edge technologies developed in Osaka University and Nara Institute of Science and Technology, LEP has successfully engineered prototypes of self-glowing poplar trees, tobacco, and petunias. These are now ready for scale-up. Our innovative enhancement of the bioluminescence technologies not only increases brightness but also allows for multi-color illumination, opening up a wide range of market opportunities.

## PRODUCTS – prototypes available



Young poplar tree



Cut flowers bouquet



Lamp (luminescent cells)

## MARKET OPPORTUNITY – \$5 Trillion TAM

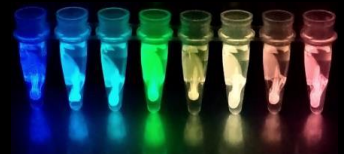
Entertainment - Exhibition and rental of bioluminescent plants for entertainment purposes

Flowers - Sale of bioluminescent flowers for gift and home

Lighting - Replacement of conventional lighting for homes, businesses, and cities

## COMPETITIVE ADVANTAGE – Multi color

LEP is the only company in the world with the multi-color bioluminescence technology. Competitors such as Light Bio (US), and Woodlight (France) are only capable of glowing in single color.



## MANAGEMENT TEAM



CEO  
Takeharu Nagai, PhD



Executive Officer  
Taku Demura, PhD



## OUR ASK

- Business development and distribution partners in U.S.
- Funding for Series A