CARBOCENE INDUSTRIES

Living biological research needs somewhere to live.

A $50,000 founding bridge for an independent nonprofit home for long-horizon plant biotechnology.

$50,000
FOUNDING BRIDGE

Approximately six months of greenhouse continuity, partial scientific and operating compensation, focused research support, and preparation for larger grants and partnerships.

WHY CARBOCENE

Science can be abandoned before its value disappears.

Biological research is more than information. It depends on living plants, seed and tissue stocks, greenhouse systems, construct records, protocols, practical knowledge, and years of observation. When a program is discontinued, these systems may be discarded or dispersed. Once lost, they can be expensive - or impossible - to reconstruct.

Carbocene Industries is an independent nonprofit plant-biotechnology research organization founded to preserve and advance valuable biological climate research that may not fit ordinary venture-capital timelines or commercial priorities.

PRESERVE	DEVELOP	CONNECT
Maintain living material, greenhouse systems, records, and long-term stewardship.	Advance independent technology in photosynthesis, durable materials, and bamboo.	Build scientific, community, philanthropic, and deployment partnerships.

CURRENT POSITION

Carbocene operates a working greenhouse and propagation capability in Oakland, maintains a licensed photosynthesis-enhanced poplar research platform, and is developing new independent technology and larger research programs. The organization also hosts hands-on public gatherings that connect plant biotechnology, propagation, biochar, and community biology.

FOUNDER EXPERIENCE

Patrick Mellor is a cofounder and former CTO of Living Carbon. He led or materially contributed to early programs in photosynthesis-enhanced trees, biological durability, greenhouse and field development, construct design, and regulatory work.

RESEARCH

A portfolio built around growth, durability, and continuity.

Carbocene distinguishes clearly between licensed research material, independently developed technology, proposed programs, and exploratory work. The current $50,000 bridge supports the shared institutional foundation beneath this portfolio; major programs will require separate funding.

1

Photosynthesis-enhanced poplar

ACTIVE STEWARDSHIP AND RESEARCH PLATFORM

Carbocene holds a nonexclusive license covering a specifically identified photosynthesis-enhanced hybrid poplar line originally developed by Living Carbon. Current work includes preservation, propagation, greenhouse observation, research planning, and development of future ecological studies. Living Carbon discontinued development and commercialization of the licensed material and is not currently involved in Carbocene's work.

2

Enhanced photorespiration bypass (ePRB)

INDEPENDENT TECHNOLOGY IN DEVELOPMENT

Carbocene is developing a new species-flexible platform intended to reduce carbon lost through photorespiration and increase the proportion of captured carbon available for plant growth. ePRB is being developed as independent Carbocene background intellectual property. Enabling technical details are being withheld while appropriate protection is prepared.

3

Bamboo biotechnology

PROGRAM AND PARTNERSHIP DEVELOPMENT

A species-flexible research program in bamboo transformation, tissue culture, accelerated biomass production, biological durability, dark culm traits, and long-lived construction materials. The proposed full program is separate from this bridge and will require dedicated research funding and formal partner agreements.

4

Durable biological materials

RESEARCH DEVELOPMENT

Work connecting plant growth with slower decomposition, resistance to fungi and insects, stable biological pigments or polymers, biochar, coppice systems, and longer-lived plant-derived materials. The aim is to improve both the rate and duration of biological carbon storage.

5

Biological carbon mineralization

EXPLORATORY

Early exploration of biological or microbial pathways that may move carbon into persistent mineral forms, including oxalate-carbonate systems. This area will advance only with a strong scientific partner, defensible mechanism, and appropriate program funding.

PARTICIPATE

OPEN GREENHOUSE AND COMMUNITY BIOLOGY

Recurring Oakland gatherings combine propagation, plant care, biochar, experimental growing systems, and discussion of plant transformation and synthetic biology. Scientists, biohackers, gardeners, artists, engineers, and beginners are welcome.

INDEPENDENCE AND IP CLARITY

The licensed poplar platform is one part of Carbocene. ePRB, bamboo, durable-material, and other independent programs are developed separately. Carbocene does not imply Living Carbon endorsement, unrestricted commercial rights, or ownership of Living Carbon technology.

SUPPORT

Move the work from founder subsidy to institutional stability.

Carbocene has so far operated with substantial founder subsidy, personally carried greenhouse expenses, and unpaid scientific and organizational labor. The founding bridge would place core costs on a sustainable nonprofit footing while preserving the living research platform and preparing larger scientific programs for funding.

$50,000 is a six-month stabilization bridge - not the full cost of a transformation program, field deployment, or the proposed bamboo initiative.

Use of funds

USE	AMOUNT	WHAT IT SUPPORTS
Greenhouse and facility continuity	**$12,000**	Lease, utilities, lighting, water, maintenance, and basic care of the living platform.
Scientific and operating leadership	**$18,750**	Partial six-month founder compensation for scientific, operational, fundraising, and partnership work.
Research materials and propagation	**$7,500**	Media, containers, plant care, propagation supplies, consumables, and basic technical development.
Scientific and technical support	**$3,000**	Specialized short-term assistance, consultation, and limited laboratory or analytical services.
IP, administration, insurance, governance	**$4,500**	Patent preparation, nonprofit administration, accounting, insurance, compliance, and board systems.
Partner and grant development	**$2,500**	Proposal preparation, partner coordination, meetings, and development of larger research awards.
Operating contingency	**$1,750**	Unexpected facility, plant-care, administrative, or equipment needs.
TOTAL FOUNDING BRIDGE	**$50,000**	*No founder-loan repayment is included.*

What the bridge makes possible

- Preserve and propagate the living poplar platform.
- Maintain the greenhouse without relying entirely on personal subsidy.
- Continue high-level ePRB development and patent preparation.
- Improve plant, construct, and operational documentation.
- Prepare stronger grant and partnership packages.
- Advance bamboo and durable-material program development.
- Strengthen governance, accounting, insurance, and donor reporting.
- Build a broader base of supporters for larger scientific work.

SUPPORT THE FOUNDING BRIDGE

Unrestricted support is most useful because greenhouse operations, scientific labor, plant care, administration, and partner development are interdependent. Appropriate restricted gifts and introductions to aligned funders are also welcome.

DONATE

carbocene.org/support