

Gentle Power.  
Stronger Seeds.



Cold Plasma Group (CPG) develops eco-friendly systems that eliminate microbial contamination without chemicals, heat, or ionizing radiation. Cold plasma is a highly effective physical treatment for clean, safe, effective revitalization and sterilization of seeds. Plasmina® is our breakthrough technology for Seed Enhancement & Revitalization, a turnkey, smart machine for modern production environments.

### The challenges

- **Rising global pressure:** population growth and climate volatility
- **Shrinking arable land** and **increasing crop losses** from pests and diseases
- **Stricter environmental regulations** are challenging traditional, input-heavy agriculture

### For seed producers:

- Declining germination rates and x
- Limited shelf life with B\$ of inventory discarded annually
- Loss of years of investment and commercial value

### The Plasmina® Solution

**We deliver** immediate, measurable benefits, without chemicals, ionizing radiation, or genetic modification:

- **Increase** germination and seedling vigor by 20-140%
- **Improve** tolerance to drought and heat stress
- **Revitalize** aged seeds & extend shelf life by 2-4 yrs
- **Reduce** seed-borne pathogens

**In addition**, plasma treatments:

- Modify only the seed surface (no genomic changes)
- Leave no toxic residues and requires minimal energy
- Can be applied on a **treat-as-you-need** basis

### BENEFITS & ADVANTAGES

- **Premium Positioning:** Market enhanced germination and stress tolerance
- **Inventory Recovery:** Revitalize aging stock before disposal deadlines
- **Reduced R&D Pressure:** Complementary to long-term breeding programs
- **Sustainability Leadership:** Meet ESG commitments and consumer demand for eco-friendly solutions
- **No regulatory delay:** Deployment across existing seed varieties in current production.
- **Same-season results:** Fast and significant Return On Investment

### MARKET OPPORTUNITY

The global seed treatment market exceeds \$8 billion, with demand accelerating for climate-resilient varieties. However, developing resistant seeds through conventional breeding takes 7-10 years and can cost \$50-100 million per trait.

### CPG KEY MILESTONES (2025)

- Patents awarded in USA and Australia, pending in Europe, Canada, etc.
- Launched two commercial scale & EU-GMP-suitable systems
- Achieved validation for verticals in the Agri Sector, e.g. seeds.

### RELEVANT APPLICATIONS

- Seeds: Enhanced germination and drought resistance
- Plant Microbial Remediation (e.g., cannabis)
- Medical PPE & Instruments: Safe sterilization and re-use

**Plasmina®** marks a fundamental shift in seed treatment, enabling immediate portfolio upgrades, recovering value from aging inventory, and delivering climate-resilient performance while improving margins.



## Transform Seed Performance

For innovative plasma solutions, contact us to discuss integration into your production systems:

- Dr. Florina Truica, plasma scientist and engineer
- Mr. David Jonhson, MSc, large scale process development specialist

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