

Executive Statement:

A novel method combining light and chemical therapy to increase neuromelanin formation and dopamine release, offering potential treatments for Parkinson's and addiction.

Technology Overview:

This technology introduces a non-invasive approach to stimulate dopamine release and neuromelanin production in the brain using a combination of short-wavelength blue light and flavones. Unlike traditional methods that rely on electrical stimulation, this technique leverages the natural auto-oxidation process of dopamine in the presence of light, flavones, and iron. Initially tested in rodents, it holds promise for treating conditions associated with dopamine deficiency.

Key Advantages:

- Non-invasive compared to electrical stimulation methods
- Utilizes natural biochemical processes for neuromelanin and dopamine production
- Offers a novel approach for treating dopamine-related disorders
- Potential for broader application beyond Parkinson's and addiction treatment
- Supported by preliminary research and a provisional patent

Problems Addressed:

- Limitations of current dopamine stimulation methods
- Lack of non-invasive treatments for neuromelanin production enhancement
- Challenges in treating dopamine-related conditions like Parkinson's and addiction

Market Applications:

- Treatment of Parkinson's disease
- Therapies for addiction and other dopamine deficiency disorders
- Research tools for studying dopamine and neuromelanin dynamics in the brain