

Competence Center BioLas

Holographic Stimulation Platform for Optogenetics

- ❖ Two-Wavelength Operation for Concurrent Activation and Inhibition
- ❖ Variable Wavelengths to Match Various Optogenes
- ❖ Arbitrary 3D Patterns based on Computer Generated Holograms (CGH)
- ❖ Subcellular Spatial Resolution
- ❖ Ferroelectric Spatial Light Modulators for Fast Pattern Generation (1 kHz)
- ❖ Real-Time Closed-Loop Control possible
- ❖ Suitable for In Vitro and In Vivo Experiments
- ❖ Experiments performed at human induced stem-cell derived neurons and cardiomyocytes

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