

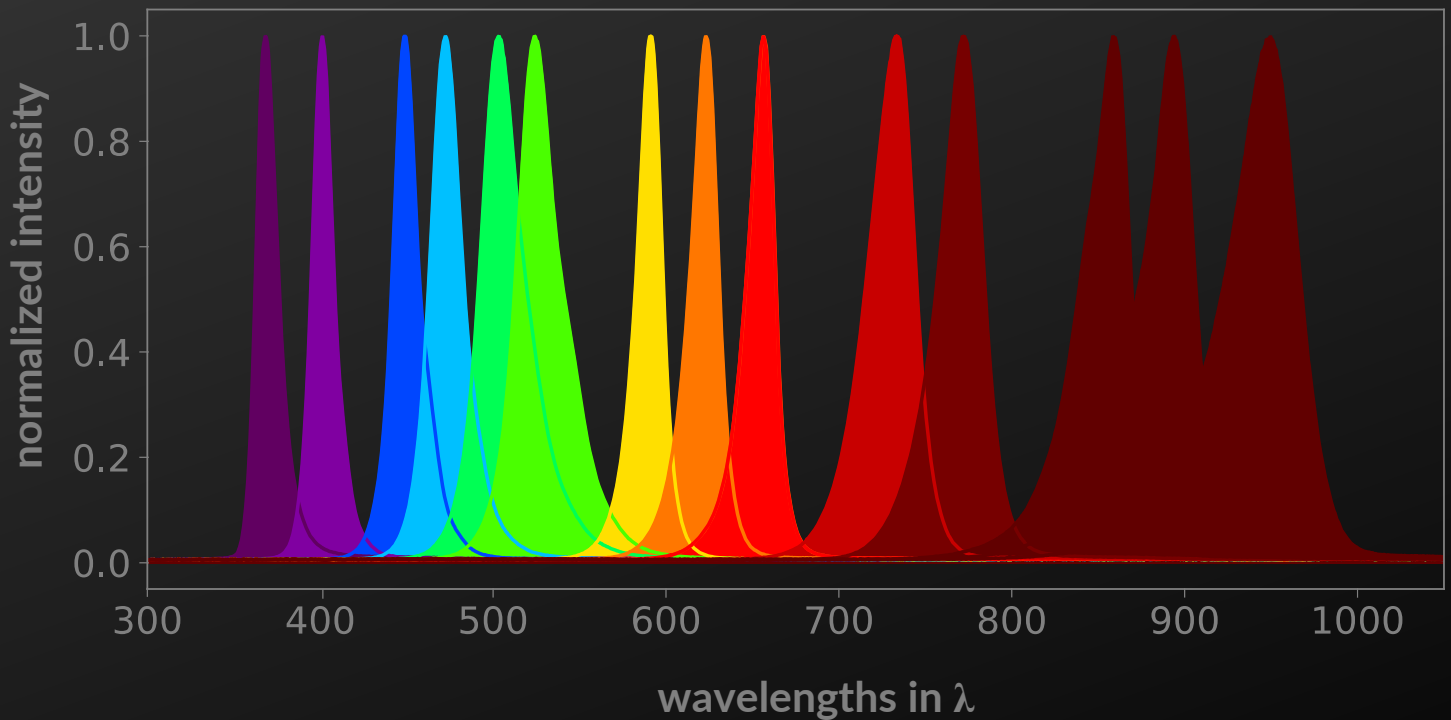


# optoWELL

the new gold standard for optogenetics

# You pick the wavelengths...

optoWELL spectral range



## Achieve precise illumination

Take your opto-research to the next level and resolve the tiniest phenotypic differences by avoiding crosstalk!

## Run up to 96 samples in parallel

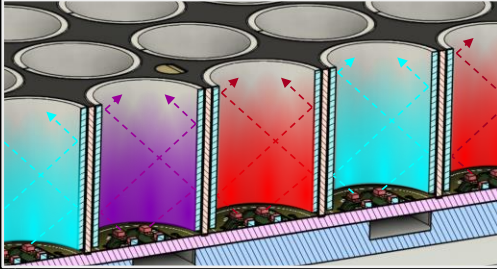
Know the exact, absolute intensity (0-10mW/cm<sup>2</sup>) of each individual well when performing parallel experiments.

## Avoid false pos./neg. results

Screen drug candidates and rely on homogenous illumination within each well and identical intensities across all wells.

# ...to control your optogenetic tool

Optical Light Guide Design



Compact aluminium housing



Effective cooling

## Increase Cell Viability

The optoWELL housing is anodized aluminum enabling fast heat dissipation and avoiding hot spots that can lead to increased cell death.

## Light efficiency

The Optical Light Guide design increases light yield by reflecting >90% of photons. This enables high intensities at minimal heat production.

(0-10mW/cm<sup>2</sup>)

## Robotic integration

The compact, sturdy design and the optoWELL-API enable integration into robotic/shaker/microscopy systems.

# Identical illumination across all wells...

Achieve precise illumination in every experiment!



Precise illumination matters when you want to resolve small differences your sample phenotype. Regardless if you are photoswitching a light-inducible cancer-drug, evolve whole organelles or induce a transcription factor: You want to have perfect control over the light doses in each well and every experiment.

- For each wavelengths across all wells (24- and 96-well)
- Detailed calibration protocol provided
- API enables integration into robotic and HTS systems

# ...even when using different dishes

Adapt the optoWELL to **your needs**, not the other way round!



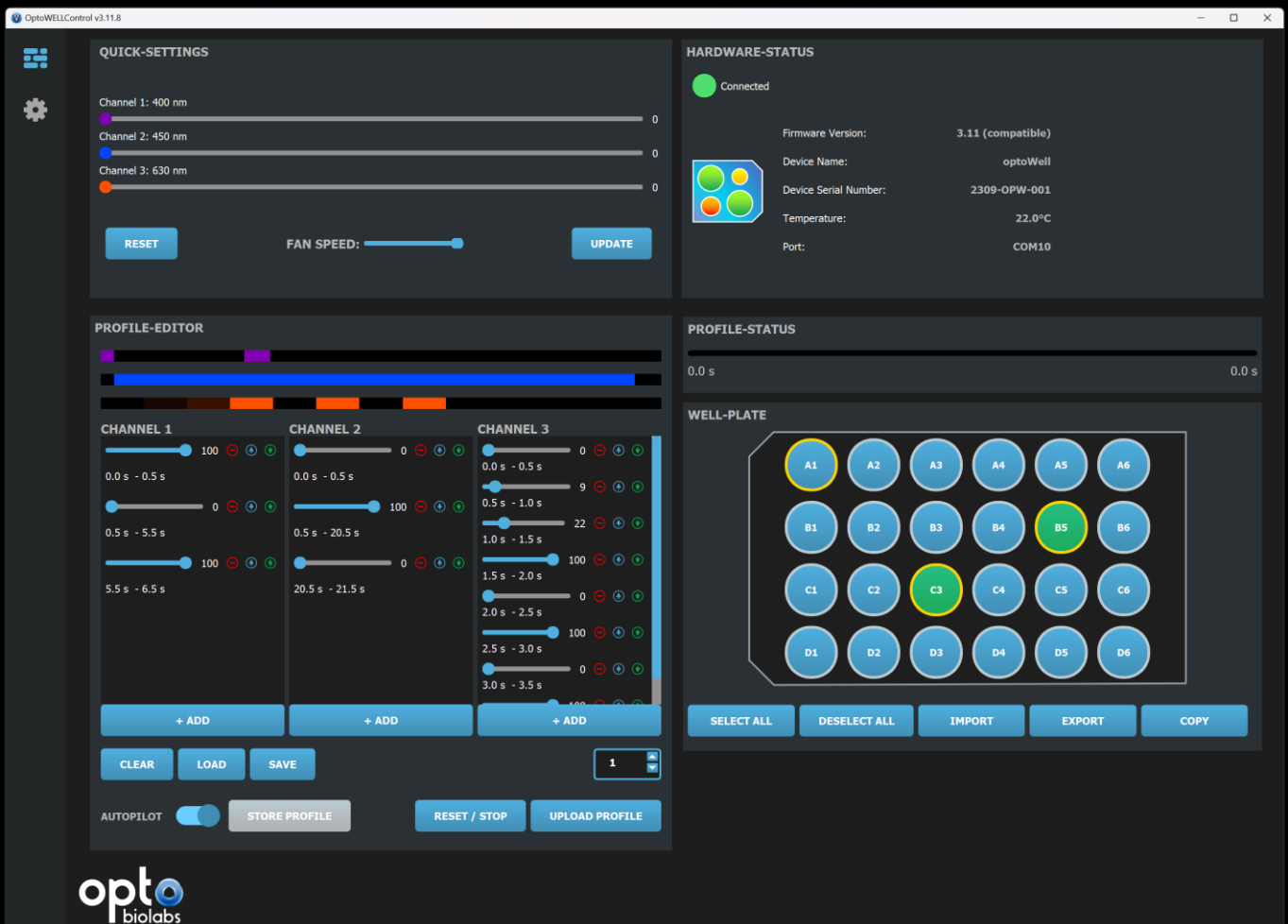
- ◉ Various adapters enable flexible illumination of **different dishes**
- ◉ Use **identical illumination** for all your different experiments
- ◉ Compatible with **shaker and incubator** for maximum flexibility

Discuss integration into  
your workflows

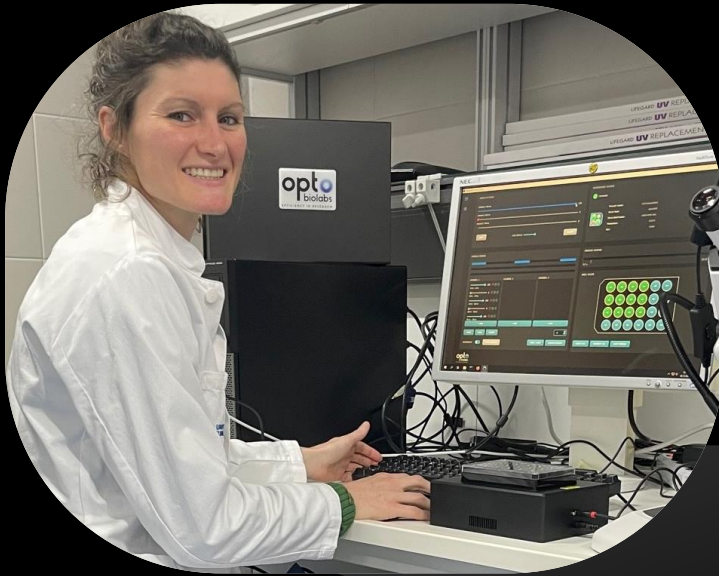


[www.optobiolabs.com](http://www.optobiolabs.com)

# You are in control of everything



- All functions in **one window**
- **Intuitive** design makes it fun to create complicated illumination series
- Upload 24/96 individual illumination protocols - one for each well - with a **few mouse clicks**
- Use it anywhere: Runs without software connection in **autopilot mode**



I use the optoWELL system for my studies in *Xenopus* embryos. The tunable settings allow precise manipulation of for example gene expression at specific time points and wavelength.

Silvia Groiss, Peter Walentek's lab at Uniklinik Freiburg

Our lab uses the optoWELL for multichromatic control of gene expression in bacteria. With biological systems incorporating blue, red, and green light in our repertoire, it's great having a device that enables precise control of all three wavelengths at once!



Caroline Blassick, Phd Student in Prof. Mary Dunlop's lab, Boston University



I work on understanding light-dependent regulation of the *Drosophila* circadian clock by Cryptochrome (CRY). Utilizing the optoWELL to look at light-dependent binding of peptides of its clock partner, TIM.

Connor Schnepps  
Former PhD student in Brian Crane's lab at Cornell University

# different models



**Plexiglass  
Light Guides**

**Fused silica  
Light Guides**

**Fused silica  
Light Guides**

**Fused silica  
Light Guides**

24-well plates  
Greiner

24-well plates  
Greiner

24-well plates  
Corning/CellVis

96-well plates  
384-well plates\*

3 custom wavelengths

Software + API (Application Programming Interface)

0-8 mW/cm<sup>2</sup>

0-10 mW/cm<sup>2</sup>

0-10 mW/cm<sup>2</sup>

0-10 mW/cm<sup>2</sup>

Calibration available

\*fits all 96-well plates and a selection of 384-well plates (Quadruplet-illumination)



# Book a demo call



## 1. Benefit from our expertise

- Compare your setup with used cases around the globe
- Optogenetics, Photopharmacology, Photochemistry and more
- Compare LED, Laser and Display technologies

It's all about the light!  
You pick the wavelengths!

optoWELL spectral range

Take your research to the next level!

Optical Light Guide Design

Compact aluminum housing

Effective cooling

Optical output

10,000+ channels

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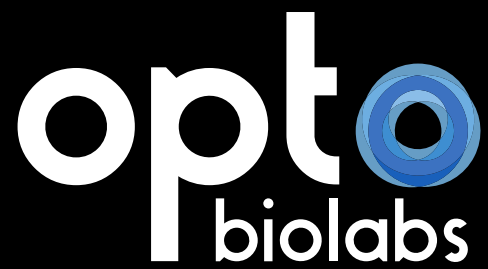
## 2. Take action

- Go to [www.optobiolabs.com](http://www.optobiolabs.com)
- Schedule a meeting
- Block 30 min in our calendars



## 3. What to expect in the call

- Discussion your applications and workflows
- Evaluation of integration optogenetic illumination workflows
- Sharing of learnings from our users around the globe



your partner for optogenetic experiments



engineered in Germany

opto biolabs GmbH

Freiburger Innovationszentrum

Georges-Köhler-Allee 302

D-79110 Freiburg im Breisgau

+49-176-85901130

[info@optobiolabs.com](mailto:info@optobiolabs.com)