

New Feature

NEW: ALSO AVAILABLE WITH SPACE SAVING POST-STYLE COLUMNS OR MAGNETIC STAGE

OPTIONAL MOTORIZED OR FIXED XY STAGE, OR MOTORIZED TRANSLATOR

OPEN-DESIGN MICROSCOPE WITH MOTORIZED FOCUS

QUICKLY CONFIGURABLE BASED ON EXPERIMENTAL NEEDS

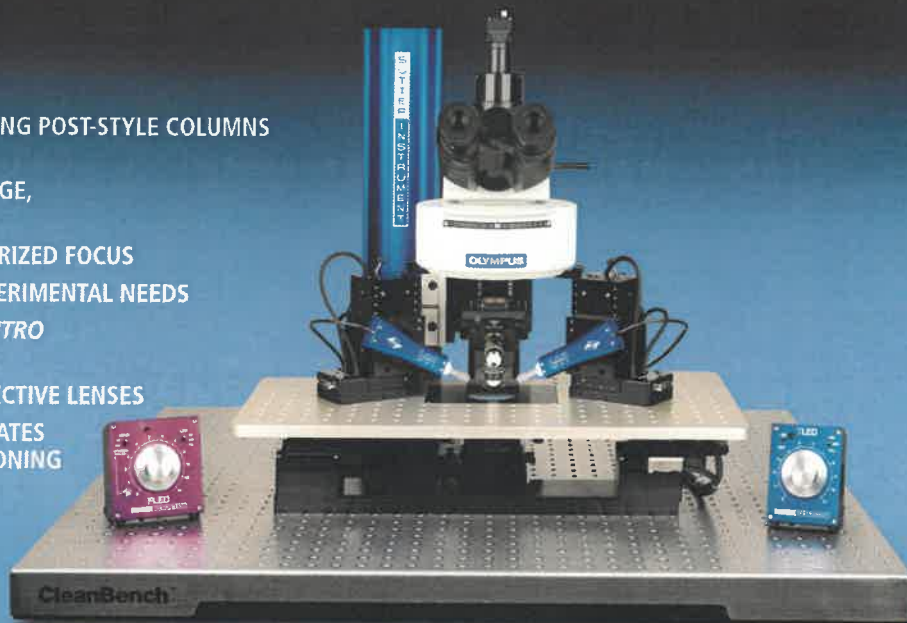
OPTIMIZED TO ALLOW *IN VIVO* AND *IN VITRO* EXPERIMENTATION ON ONE SETUP

DESIGNED FOR USE WITH OLYMPUS OBJECTIVE LENSES

FREE MULTI-LINK™ SOFTWARE COORDINATES MOVEMENT WITH MICROPIPETTE POSITIONING OF MPC-200

OBLIQUE COHERENT CONTRAST (OCC) OR DIFFERENTIAL INTERFERENCE CONTRAST (DIC)

EPI-FLUORESCENT ILLUMINATION



## BOB™ OPEN-DESIGN UPRIGHT MICROSCOPE

The Sutter **BOB™** – designed to eliminate the conventional microscope frame – is a simple, open-design upright microscope platform ideal for slice electrophysiology, wide field functional imaging, two photon retinal imaging, photostimulation and new techniques just being developed! A microscope, in its simplest form, is an objective and a tube lens. Other components of most modern microscopes are designed to serve specific functions: different types of experiments, methods of illumination and means of signal detection.

Replacing the microscope frame with an optical rail builds in the ability to adjust the overall height of the microscope, unheard of in conventional microscope designs. Work on slices in January, *do in vivo* experiments in March. The **BOB** microscope is a compact, single assembly that mounts to the "blue rail" with one massive, stable connection. Focusing is motorized and incorporated between the focus arm and the optical rail.

Fluorescence epi-illumination is built into the basic **BOB** via an Olympus vertical illuminator. LED transmitted light illumination uses the Olympus Oblique Coherent Contrast (OCC) condenser. Sutter's **Lambda TLED** and **TLED** controller form the trans-illumination light source. The **TLED**

controller is capable of being triggered with a digital signal eliminating the need for shutters and adding the ability to photostimulate from the trans location. In experiments where transmitted light is not desired, the LED, condenser focus mechanism and OCC condenser are easily removed as a single assembly. Additionally, the transmitted light path is shorter than in other frames, allowing the microscope body to sit significantly lower than a conventional microscope. When the microscope is shorter, there is more stability and increased ergonomics for ease of use.

The Sutter **BOB**, when configured with an optional motorized XY stage or translator with **MPC-200** controller, takes full advantage of our free **Multi-Link™** software program for micromanipulator positioning. During whole-cell patch recording in slices, it is common to search a large area of the slice to find appropriate neurons. If the **BOB** is configured with **Multi-Link**, after you find your target, **Multi-Link** will then retrieve your recording and stimulation pipettes to the same field of view so that you can begin recording immediately. If later you need to stimulate a region outside the current field of view, **Multi-Link** can release the recording pipette and allow you to reposition the objective and stimulating pipette(s) to the new stimulation region.

### Applications

- *In vivo* and *In vitro*
- Whole-cell imaging
- Intracellular imaging
- Material science

### BOB system without fluorescence

<b>BOB</b>	BOB microscope
<b>BOB-TRTL</b>	BOB with trinocular head, transmitted light
<b>BOB-TRTL2</b>	BOB with trinocular head, dual transmitted light
<b>BOB-TR</b>	BOB with trinocular head
<b>BOB-TL</b>	BOB with transmitted light
<b>BOB-TL2</b>	BOB with dual transmitted light

### BOB system with fluorescence

<b>BOB-FL</b>	BOB microscope with epi-illuminator,
<b>BOB-FLTRTL</b>	BOB with epi-illuminator, trinocular head, transmitted light
<b>BOB-FLTRTL2</b>	BOB with epi-illuminator, trinocular head, dual transmitted light
<b>BOB-FLTR</b>	BOB with epi-illuminator, trinocular head
<b>BOB-FLTl</b>	BOB with epi-illuminator, transmitted light
<b>BOB-FLTl2</b>	BOB with epi-illuminator, dual transmitted light

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## CONFIGURE YOUR BOB™ MICROSCOPE

Use this chart to determine the BOB system suited to your requirements.

### BOB SYSTEMS WITH FLUORESCENCE

FEATURES	Trinocular head or camera mount	Transmitted light	Add a second wavelength to transmitted light
<b>BOB-FL</b>	Camera	No	No
<b>BOB-FTL</b>	Camera	Yes	No
<b>BOB-FTL2</b>	Camera	Yes	Yes
<b>BOB-FLTR</b>	Trinocular Head	No	No
<b>BOB-FLRTL</b>	Trinocular Head	Yes	No
<b>BOB-FLRTL2</b>	Trinocular Head	Yes	Yes

### BOB SYSTEMS WITHOUT FLUORESCENCE

<b>BOB</b>	Camera	No	No
<b>BOB-TL</b>	Camera	Yes	No
<b>BOB-TL2</b>	Camera	Yes	Yes
<b>BOB-TR</b>	Trinocular Head	No	No
<b>BOB-TRTL</b>	Trinocular Head	Yes	No
<b>BOB-TRTL2</b>	Trinocular Head	Yes	Yes

To complete your configuration, please visit our web site or phone Sutter for details.

