



NEW!



- OPEN DESIGN MICROSCOPE WITH MOTORIZED FOCUS
- QUICKLY CONFIGURABLE BASED ON EXPERIMENTAL NEEDS
- OPTIMIZED TO ALLOW *IN VIVO* AND *IN VITRO* EXPERIMENTATION ON ONE SETUP
- ACCEPT OLYMPUS OBJECTIVES – CONTACT SUTTER FOR ADDITIONAL OPTIONS
- FREE MULTI-LINK™ SOFTWARE COORDINATES MOVEMENT WITH MICROPIPETTE POSITIONING OF MPC-200
- OBLIQUE COHERENT CONTRAST TRANSMITTED LIGHT AND EPI FLUORESCENT IMAGING MODES
- STANDARD OLYMPUS EPI-ILLUMINATOR (RFA)
- MPC-200 CONTROLLER WITH USB INTERFACE AND OPEN SOURCE COMMANDS

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 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**, configured with an optional motorized XY stage, 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.

BOB Open-design Upright Microscope
BOB basic system

- BOB** Scope, BOB basic system
- BOB-TRTL** Scope, BOB with trinocular head and transmitted light
- BOB-TR** Scope, BOB with trinocular head
- BOB-TL** Scope, BOB with transmitted light



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