



The Movable Objective Microscope® (**MOM**®) is a two- or three-photon microscope capable of imaging deep within living specimens when combined with an appropriate laser. The Sutter **MOM** was the first scope to provide 3-dimensional objective movement and rotation allowing the specimen to remain horizontal and stationary. Many highly regarded imaging laboratories around the world use the Sutter MOM and we constantly work with our customers to adapt the design for their changing needs.

MOM *Opto-mechanical Design*

The **MOM** consists of two independent microscopes. The wide-field half of the microscope consists of an Olympus vertical illuminator, Sutter Xenon arc lamp and camera mount to provide standard epifluorescence. The two-photon side of the microscope provides the optical pathway for guiding the excitation laser light from the table up into the scanning galvanometric mirrors and then expanding the beam through the scan lens and directing into the back of the objective. Following twophoton

excitation, the emitted photons are directed by a dichroic mirror immediately above the objective into the detection pathway. The main body of the microscope moves backwards on a rail system allowing easy access to the specove

Imaging Software

Starting in 2011, Sutter began offering the **MOM**[®] Computer System and Software (MCS). Before this software package was developed, most users relied on ScanImage or MPScope to generate scanned images. Customers valued the fact that the **MOM** would operate with open source freewares, however, there seemed to also be a market for a commercial package. MCS continues to offer a simple, easy to use package available at a price that compares with other commercial and freeware packages. **MScan** 3.0, the latest version, is Windows 10 compatible. A recent publication takes advantage of the long (1-2 hour) data files that can be captured in the C b9.90 T938.1 (i)18.4 (n)512.8 (e)38.1 (i)-6.5 i s)-1(n)51mprct the

BASIC SYSTEM FOR 2-PHOTON ANTIMICROSCOPY

Includes Moving Objective Microscope detector with PMTs, preamps and PS-2 scanners with drive electronics, wide field including vertical illuminator, **Lambda** Arc lamp, LLG and light guide adapter, field camera, data acquisition system.

- MOM-3MM¹** MOM System with scanners and multi-alkali
- MOM-6MM¹** MOM System with scanners and multi-alkali
- MOM-RES-MCS¹**