Texas Medical Center Library
DigitalCommons@The Texas Medical Center

Advances in Teaching and Learning Day Abstracts | Advances in Teaching and Learning Day

4-20-2007

Taking Digital Microphotography and Videos through a Microscope without any Special Lens

Nilson A. Salas MD
Baylor College of Medicine

Javier E. Sosa MD

Ismael Salas MD

Abby M. Geltemeyer MD
UT Medical School at Houston

John R. Boon MD
Baylor College of Medicine

See next page for additional authors

Follow this and additional works at: http://digitalcommons.library.tmc.edu/uthshis_atldayabs

Recommended Citation
Citation Information: Salas, Nilson A. MD; Sosa, Javier E. MD; Salas, Ismael MD; Geltemeyer, Abby M. MD; Boon, John R. MD; and Avila, Desiderio MD, "Taking Digital Microphotography and Videos through a Microscope without any Special Lens" (2007). DigitalCommons@The Texas Medical Center, Advances in Teaching and Learning Day, *Advances in Teaching and Learning Day Abstracts.* Paper 59.
http://digitalcommons.library.tmc.edu/uthshis_atldayabs/59

This Article is brought to you for free and open access by the Advances in Teaching and Learning Day at DigitalCommons@The Texas Medical Center. It has been accepted for inclusion in Advances in Teaching and Learning Day Abstracts by an authorized administrator of

Authors
Nilson A. Salas MD, Javier E. Sosa MD, Ismael Salas MD, Abby M. Geltemeyer MD, John R. Boon MD, and Desiderio Avila MD

This article is available at DigitalCommons@The Texas Medical Center: http://digitalcommons.library.tmc.edu/uthshis_atldayabs/59

Taking Digital Microphotography and Videos through a Microscope without any Special Lens., Nilson A Salas, MD. BCM, Houston, TX, 77030. Javier E Sosa, MD. Others, Maturin, Ismael Salas, MD. Others, Caracas, Abby M Geltemeyer, MD. UTHSC-H Medical School, Houston, TX, 77030. John R Boon, MD. BCM, Houston, TX, 77030. Desiderio Avila, MD. BCM, Houston, TX, 77030.

Introduction: Photography through a microscope is virtually identical to that used with an astronomical telescope. For years, the 35mm camera was the choice for microphotography, but we live in a digital camera age now. We describe a custom homemade adapter that can be fit most of the cameras and microscopes.
Purpose: To design and develop an inexpensive and simple but effective system to assist any person interested in taking digital microphotography or record videos through one of the eyepiece of the microscope.
Method: We used Polyvinyl Chloride (PVC) Pipe obtained from the hardware store to make our homemade microscope adapter. It is ideal to use black PVC to ward off reflections that destroy image contrast. The camera is mounted on a microscope eyepiece using the adapter system. The adapter aligns and rigidly fixes the camera to the microscope. Once the camera is mounted and the lens is adjusted (focused) to provide a clear view of the entire field, final focus is achieved using the microscope knobs and not the camera focusing mechanism. The point is to use the macro mode, a feature nearly all camera have these days.
Results: The adapter is daily used in our Microsurgery course to take digital photos. The photos are used to evaluate the progress of the trainee during the 40 hours microsurgery course. The adapter has had great acceptance from our students, residents and surgeons since this digital photos and videos can be used for publication and presentations.
Conclusion: Adapting a microscope to a digital camera does not have to be hard or expensive. It is sufficient to get the two lenses (the camera lens and the eye piece lens) as close to alignment as possible, and this can easily be accomplished with a little effort using the PVC pipe.