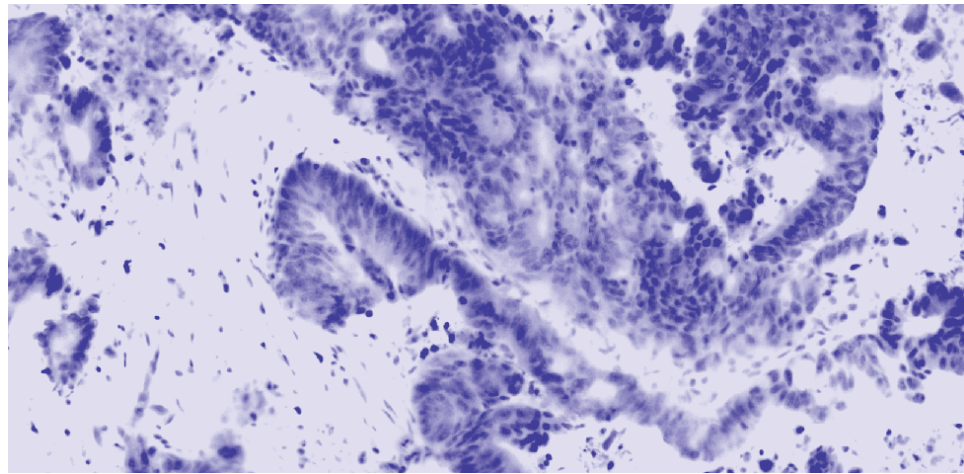
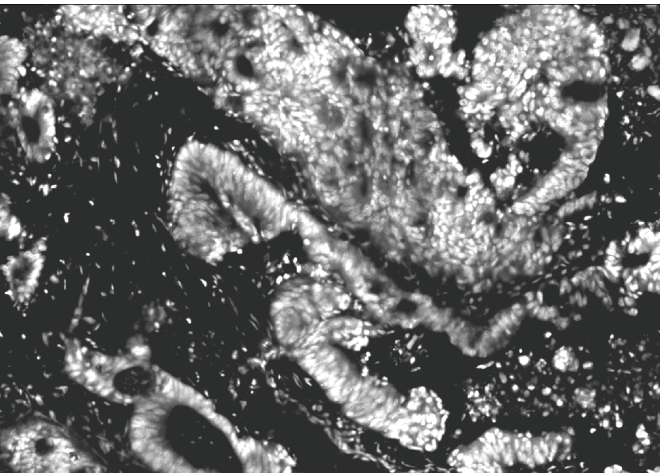




COLLEGE of AMERICAN
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Publications

In Vivo Microscopy Resource Guide



The In Vivo Microscopy Resource Guide highlights resources that provide awareness and understanding of this technology.

Opinions expressed in this document are the authors' own and do not necessarily reflect an endorsement by the CAP of any organization, equipment, reagents, materials, or services used by participating laboratories.

Cover image shows confocal fluorescence microscopic images of metastatic adenocarcinoma in liver from colon primary, grey scale and false colored images.

Courtesy of Savitri Krishnamurthy, MD, FCAP:
The University of Texas MD Anderson Cancer Center.

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Goal of this Resource Guide and How to Use It

What is the Resource Guide?

The In Vivo Microscopy (IVM) Resource Guide is one of four CAP Resource Guides that bring a collected set of resources together in one place that are focused on a specific hot-topic technology important to pathologists. Each comprehensive guide highlights current resources, such as a curated set of journal articles, and a collected set of CAP resources that includes learning opportunities, proficiency testing, and accreditation that are related to this technology. Also, each Resource Guide includes an “Insights From Adopters” section to gain perspective from pathology leaders in the field. In sum, each Resource Guide provides a one-stop resource that will assist busy pathologists to find valuable information about a dynamic and important emerging technology.

How to Use This Resource Guide

This Resource Guide is designed in a modular manner to facilitate its use in several different ways. For example, the guide may be used in its entirety as a comprehensive guide to the rapidly evolving field of IVM. Conversely, it may be used by a pathologist to focus on and gain a current understanding of the application of IVM to a very specific organ system or disease process. Images comparing traditional H&E to IVM images are included in several sections. The Adopters sections will undoubtedly prove to be of great value to those contemplating taking the plunge into IVM.

Special Features of the IVM Resource Guide

The IVM Resource Guide includes an introduction to the basic principles behind and instrumentation used for several IVM technologies, including multiphoton microscopy, optical spectroscopy and spectroscopic imaging and photoacoustic imaging. The curated journal articles cover both in vivo clinical applications of IVM and the potential use of IVM by pathologists in their practice. There is a section suggesting how pathologists can get started in IVM. The Resource Guide also highlights a number of IVM related activities that pathologists can take advantage of, including: a CAP IVM webinar series, with both upcoming live and

archived webinars ([details in Section 9.2](#)); and the only IVM interpretation course designed for pathologists “Introduction to Interpretation of In Vivo Microscopy (IVM)” ([details in Section 9.5](#)).

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This guide is a product of the CAP’s In Vivo Microscopy Committee.

The CAP has four Pathology Resource Guides:

Pathology Resource Guide: Precision Medicine

Pathology Resource Guide: Digital Pathology

Pathology Resource Guide: In Vivo Microscopy

Pathology Resource Guide: Clinical Informatics

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