Digital Pathology Virtual Microscope Slides with Online Database

Technology #20110025

The Digital Pathology Virtual Microscope Slides allow medical students and allied health professionals to access hematology, body fluids, bacteriology and parasitology microscope slides through an online database for distance learning and enhanced curriculum delivery.

<table>
<thead>
<tr>
<th>COVID-19 Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>To support the online learning efforts during this pandemic, Dr. Wiesner, the creator of this tool, is offering it free of charge until May 31, 2020. Please choose the &quot;MnSCU or UMN License (for COVID-19)&quot; provided on the right panel. Once a license is purchased, you will receive user ID and password by email within 48 hours.</td>
</tr>
</tbody>
</table>

Learn about more groundbreaking discoveries at www.research.umn.edu/techcomm
The Virtual Microscope

The Digital Pathology Virtual Microscope Slide database is the only database that offers a high quality resolution of 83X oil immersion, which is necessary for the proper examination of blood cells and microorganisms. The use of virtual microscopes can transform traditional teaching methods by removing the reliance on physical space, equipment, and specimens to a model that is solely dependent upon computer-internet access. This rich database is enhanced with patient clinical presentations, laboratory data, comprehensive slide interpretations, and diagnoses.

Transforming Glass Pathology Slide Sets into a Digital Online Database

The University of Minnesota's high resolution (83x oil immersion) pathology slide sets are used to develop an understanding of blood cell morphology and identification for clinical hematology training. The database also includes slide sets for bodily fluids, bacteriology and parasitology. The slide sets represent a variety of rare and unique disease samples.

Glass microscope slides are extremely difficult to duplicate because they have been created from actual patient samples. Glass microscope slides are very fragile and fade over time, by digitizing the slide sets, this resource is preserved and can be accessed via the web by more students.

For Distance Learning and Enhanced Curriculum

Before the development of virtual microscope databases, clinical laboratory instruction relied on the availability of slide sets and microscopes for student use. The Digital Pathology Virtual Microscope Slides for allow medical students to access the entire University slide set database online through distance learning education. This increases the convenience of accessing the slide sets and making the slides available to a broader audience. The slide sets are a tremendous resource in the instruction of new clinical laboratory scientists for their roles as qualified medical professionals. The online database can extend past traditional laboratory science programs, serving as a resource for lab professionals continuing their medical education.

Benefits

- Less expensive - the cost is less than that of replicating, creating, and storing glass slide sets.
- High quality - the digitized slides have a high resolution of 83x oil immersion.

Learn about more groundbreaking discoveries at www.research.umn.edu/techcomm
• Convenient - slide sets can be accessed through an online database, anywhere, anytime. No longer dependent on availability of space, equipment, or specimens.
• Access - increases availability of pathology slide sets to students, while also extending the reach of traditional laboratory science programs.

**Fulfillment Details** After execution of the Digital Pathology Virtual Microscope Slides with Online Database license and verification of payment, you will receive your userid and password by email.

**System Requirements** The database is a web-based platform. It can be accessed using any browser. Firefox is preferred. Recommended connection type is cable or LAN; DSL can be used but provides minimum functionality.

**Inventors**

Stephen Wiesner, PhD
Assistant Professor, Allied-Medical Technology

**IP: UM Docket 20110025**

**For additional information, contact**

Guru Venkatesan
Technology Commercialization Fellow
explic@umn.edu
612-301-2728

Learn about more groundbreaking discoveries at [www.research.umn.edu/techcomm](http://www.research.umn.edu/techcomm)