

HSC Imaging Core Newsletter March 2023

Contents:

1. We DID IT: a new Zeiss Axioscan 7 Slide Scanner is coming.
2. Slider scanner features (fast scan, OPAL dyes, Polarized Imaging, separated analysis software)
3. March 28-31: Olympus new All-In-One Fluorescence Microscope Demo (HCI 1470)
4. Hiring: Research Associate (Microscopist) is needed.
5. Future instruments.

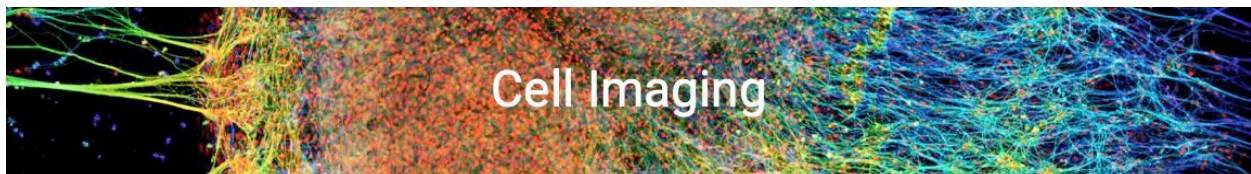
1. New Zeiss Axioscan 7 Slide Scanner

We have exciting news for our core slide scanner users! Dr. Xiang Wang's application for a RIF grant has been successful awarded by VPR office, and we are thrilled to announce that a new Zeiss Axioscan 7 slide scanner is on its way.

We would like to express our sincere appreciation to the Zeiss team and our core members, Dr. Mike Bridge and Dr. Bill James, for providing valuable suggestions to help us select the right tool for our core. We would also like to acknowledge the PIs, departments, and colleges who have provided financial support for this purchase. Without their generous assistance, this acquisition would not have been possible.

HCI (Dr. Alana Welm and Dr. Martin McMahon)
Department of Neurobiology (Dr. Monica Vetter)
Department of Pathology (Dr. Brian D. Evavold)
Department of Biomedical Engineering (David W. Grainger)
Dr. Jessica Osterhout, Department of Neurobiology
Dr. Hans Haecker, Department of Pathology
Department of Radiology and Imaging Sciences (Dr. Allison Payne)
Department of Nutrition & Integrative Physiology (Dr. Scott Summers)
Dr. Keren Hilgendorf, Biochemistry

Furthermore, we would like to extend our gratitude to individual users Dr. Micah Drummond and Dr. Moriel Zelikowsky for their support letters. We would also like to thank Dr. Chris Hill, Dean of the School of Medicine, and Dr. James Cox, HSC Core Director, for their strong backing.



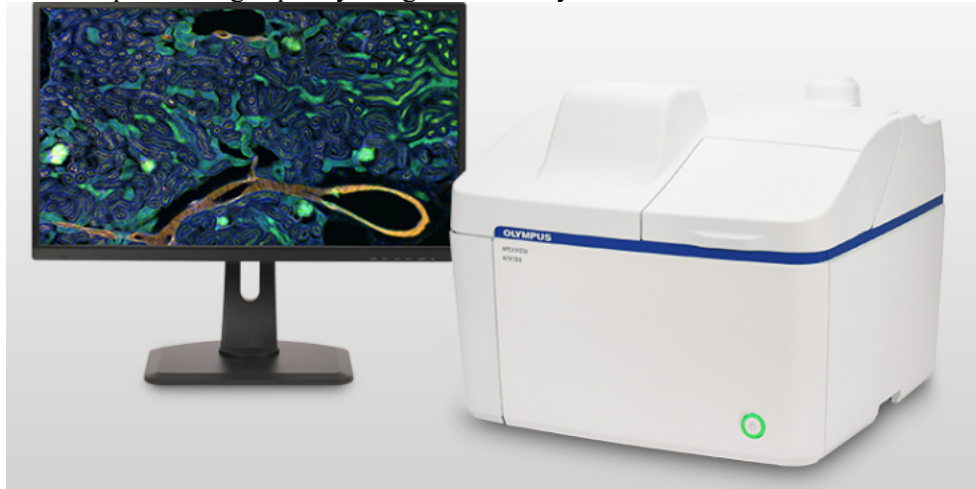
2. What are the new features coming with the new slider scanner?

The new Zeiss Axioscan 7 slide scanner comes with a range of exciting features, including:

- 1) Improved Automatic Tissue Detection, which simplifies and speeds up the scanning process.
- 2) Specialized Focus Strategies, which ensure optimal imaging of tissue sections with varying topographies.
- 3) A new Polarization scan mode (POL), which enhances contrast and reduces background noise in certain applications.
- 4) Optimized Illumination: Calibri 7 and X-Cite Xylis light sources enable fast, reliable imaging even for the most demanding multiplex applications.
- 5) An updated high-end Orca Flash monochrome Camera for high sensitivity fluorescence acquisition.
- 6) Multiband filters for fast scanning with six colors and selected OPAL dyes.
- 7) Independent Analysis Software: Zen Desk 3.7 with 2D Toolkit and Bio App, which will be installed on our workstation rather than on the acquisition microscope, allowing for more efficient and flexible data analysis.

3. Olympus APX 100 All-In-One Fluorescence Microscope Demo

The APEXVIEW APX100 all-in-one fluorescence microscope makes it fast and simple to acquire expert-quality microscope images. Built with renowned Olympus optics, an intuitive user interface, a powerful AI, and a suite of smart features, the APX100 system combines the ease of use of an all-in-one-microscope with high-quality image data to fit your research needs.



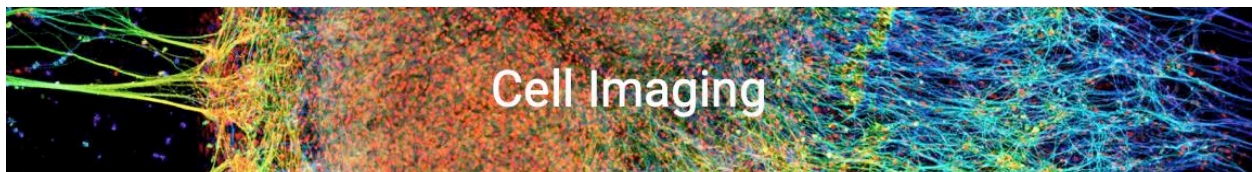
When: March 28-31 from 9:00 am to 5:00 pm

Where: HCI 1470 <https://cores.utah.edu/wp-content/uploads/2023/01/CellImaging-HCI-555.pdf>

Contact: Jessica McCombs jessica.mccombs@evidentscientific.com ; Xiang Wang
xiang.wang@cores.utah.edu

See Flyer at <https://twitter.com/UofUMicroscopy/status/1635311518257659904?s=20>

Sign up at: <https://signup.com/go/bTOkeSm>



4. Core Hiring.

We are actively seeking a highly skilled and passionate Microscopist to join our team. Here is the application link: <https://utah.peopleadmin.com/postings/145458>

The successful candidate should possess a Ph.D. in a relevant field, such as biology, engineering, or physics, and must have excellent skills in advanced microscopy techniques, as well as experience in a service environment, including training and assisting researchers, and troubleshooting instrument issues. The Core understands that this is a unique multidisciplinary position and provides complementary training to ensure the successful candidate is able to effectively integrate into the team. While prior experience with scientific imaging analysis tools, such as Imaris, Nikon Elements, and ImageJ, is preferred, it is not a strict requirement. Strong communication and interpersonal skills are essential for success in this dynamic and multidisciplinary role.

If you have any questions, please reach out Xiang Wang (xiang.wang@cores.utah.edu).

5. New Instruments are coming.

We are collaborating with other PIs to enhance our core facility's capabilities by integrating state-of-the-art instruments. We are expecting to acquire the Nikon Ring-TIRF Spinning Disk Confocal microscope and Nano-String Spatial Molecular Imager. Once these instruments become available to the public, we will send notifications to our users.

