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# 08 Oil Microscope and Scanner

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 precipoint



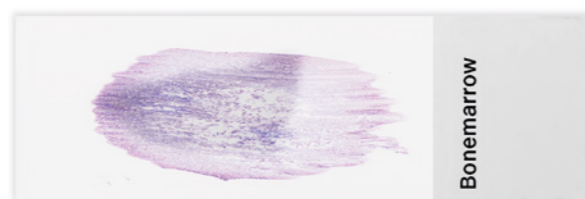
# PreciPoint O8

The unique solution for oil immersion whole slide scanning and general digital microscopy. Accelerate and digitize your workflow.

## Whole slide scanning

Scan whole slides and selected regions of interest with air and oil objectives up to 100x.

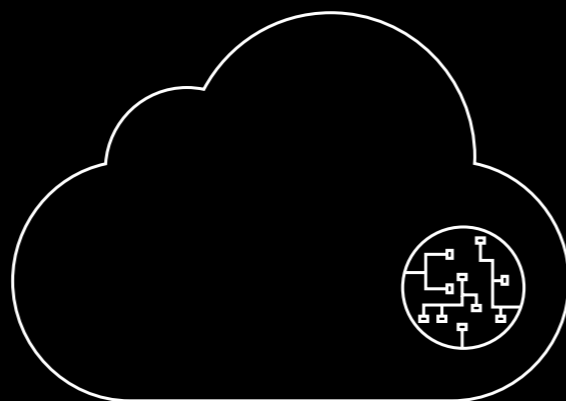
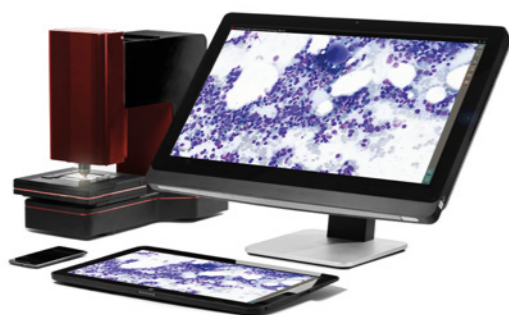
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## All-in-one device

The O8 serves both as a microscope and a scanner, thus offering completely new possibilities for your workflow.

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## Cloud and image analysis

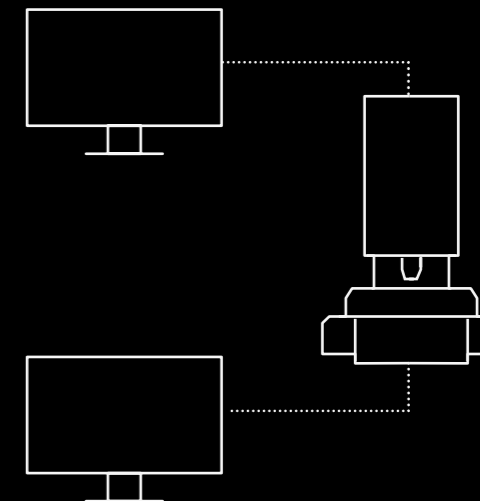
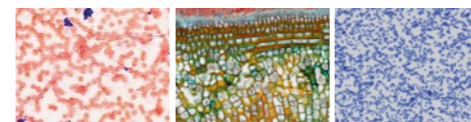
Empower your work with cloud solutions, virtual classrooms, and powerful image analysis tools.

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## Empower your application

The O8 is the perfect working tool for various applications.

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## Live remote control

Control the O8 from anywhere at anytime and simultaneously work with colleagues for second opinions.

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## Made in Germany

PreciPoint products are made and engineered in Germany since 1982.

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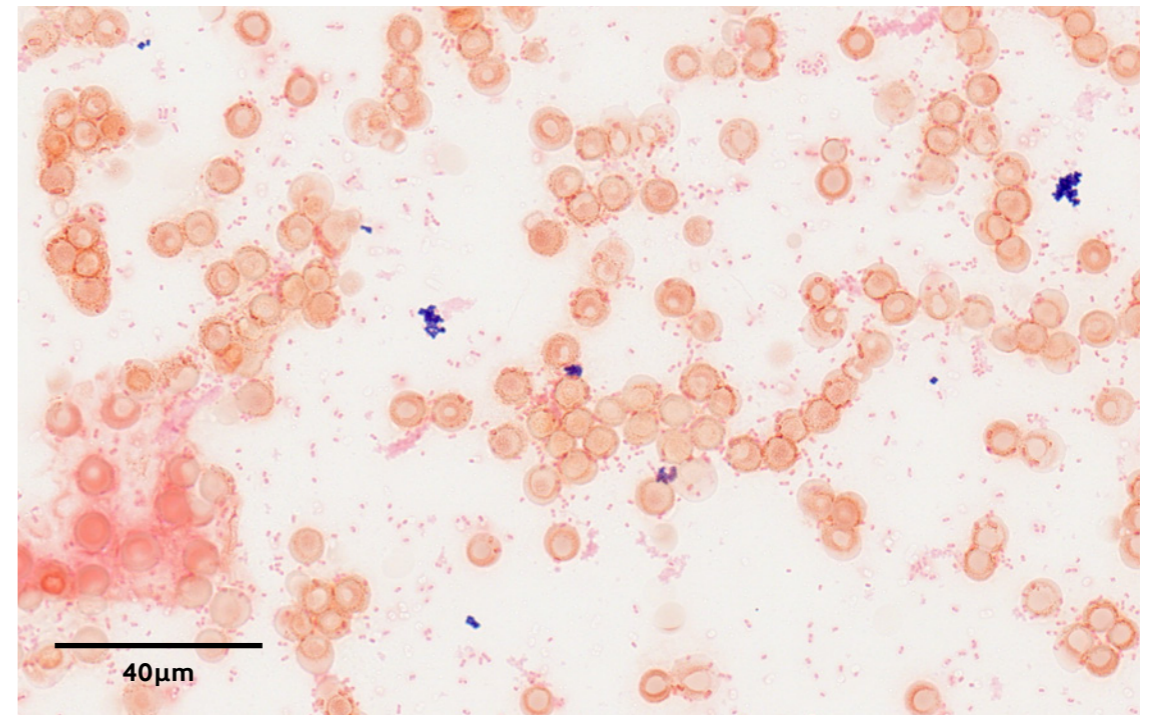
# Whole Slide Scanning

Scan whole slides and selected regions of interest with objectives ranging from 20x to 100x in oil or air.



Bonemarrow – 100x oil objective

Blood culture + bacteria – 100x oil objective



For the first time, users are offered the possibility to generate scanned whole slide images with oil objectives in highest quality. The resulting images are stunning. The O8 is a great working tool for various applications, allowing completely new use cases. The availability of digital whole slide images helps users to simplify and standardize their work, thereby increasing efficiency and quality.

# 100x

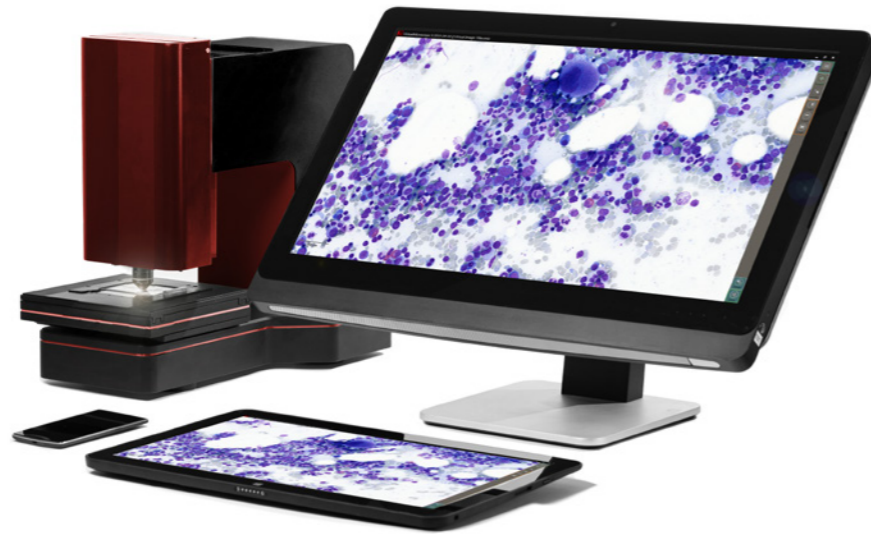
Scanning resolution: 100x, oil objective, 1.45 NA: 0.11 µm / px

## Benefits of whole slide scanning

- Connect different sites and locations with digital images
- Create networked and centralized support and service
- Work with and share same slides to your audience
- Decrease turnaround times
- Save shipping costs
- Enhance and promote quality through standardization

# All-in-one device

Accelerate your workflow with the O8 Microscope and Scanner



**The O8 is an all-in-one device** that offers completely new possibilities for your workflow. The O8 is equipped with three different modes - Live, Instant Scan, and Slide Scan. With these three modes combined, the O8 serves both as a microscope and a scanner. It allows you to directly work on your sample, perform various analyses, and to scan your slides for documentation and future viewing. With its live

remote control capability, the O8 can also be controlled from all over the world. Thanks to its entirely automated hardware, you can work on a sample from anywhere, just as if you were right next to the device.

Let your work get faster, easier, and smarter with the O8 Microscope and Scanner.

## Three operating modes tailored to diverse workflows

The Instant Scan mode is a world's first and unique to PreciPoint

### Live Mode

The Live Mode offers capabilities of a digital microscope. See the sample live, and zoom through the sample to view different layers and structures in your specimen. The overview image helps you to orientate and navigate.

### Instant Scan Mode

The Instant Scan mode is unique to PreciPoint. It gives you a large field of view of a digital scan with the speed of a microscope. Access a 15x15mm area within seconds at high resolution. Perform analyses, look for rare happenings, make annotations, take notes, and then digitize everything. Generate all the reports you need.

### Slide Scan Mode

Achieve highest quality scans to digitize your microscope slides. Scanning your selected region of interest (ROI) or whole slide imaging (WSI) is possible, regardless of the sample's thickness, size, and difficulty (e.g. cytology and osteology slides).

# Digitize your workflow

Uses of the O8



## Research

Speeds research by quickly digitizing images

Ergonomic large touch screen makes long research hours easier

Increases accuracy with annotation tools

High quality slides scans for publications and documentation

Work from home with virtual microscopy

Receive consultations with remote control immediately



## Education

Project microscope onto large screen when exploring specimen

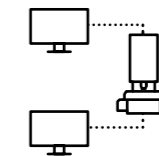
Eliminates need for a microscope and slide per student

Provide comprehensive overview in high quality

Annotate samples together live

Scan and share images after class

Work from home, create virtual classrooms



## Remote Control

Access samples from anywhere at anytime

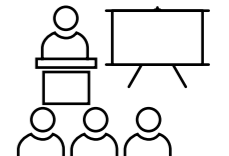
Save travel time and shipping costs

Work from home, virtually consult colleagues

Have full control of microscope without directing technician

Save scan wait time

Eliminate on-call traveling physicians



## Conferences

Project microscope onto large screen when exploring specimen

Overview image helps you and the audience to orientate

Provide comprehensive overview in high quality

View and analyze live images together

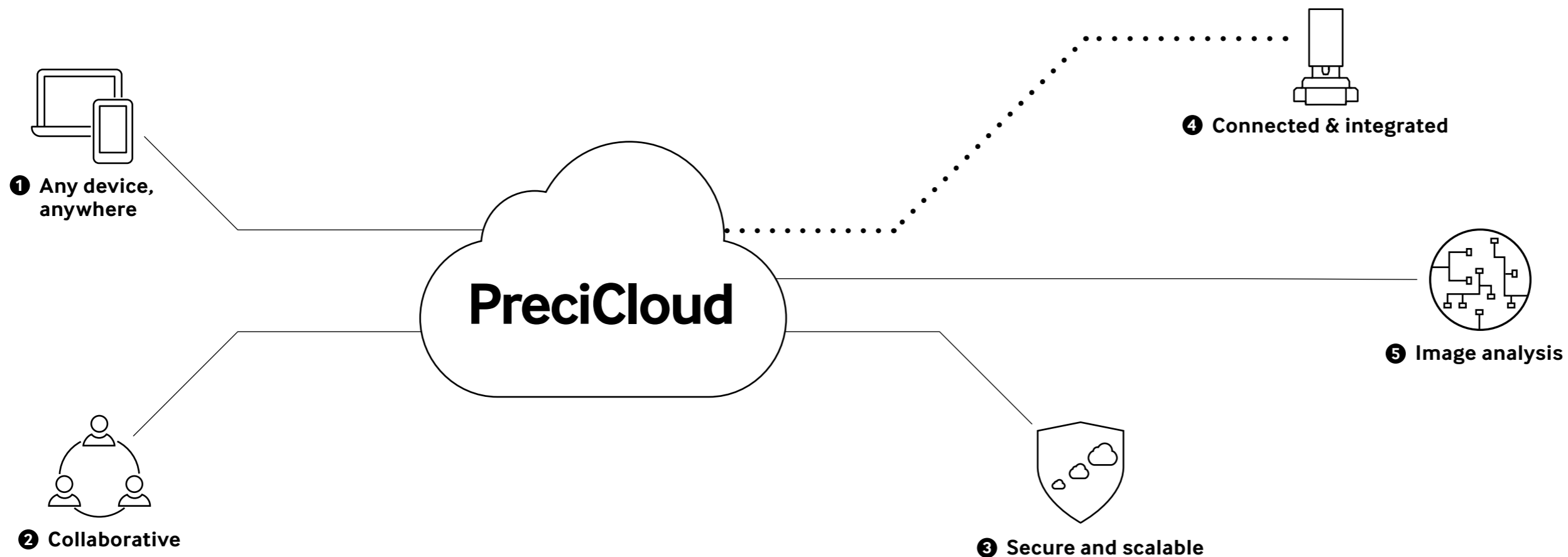
Remote presentations possible

Save travel time and shipping costs

Discover more use cases at:  
[PreciPoint.com/discover](https://www.precipoint.com/discover)

# Cloud and image analysis: PreciCloud

Centralize and digitize your workflow on our secure web-based platform – PreciCloud



## 1 Work seamlessly from wherever you are

Store, view, share, and access your digital images and slides from anywhere in the world with any device. Our web-based solution works both in desktop and mobile browsers. The platform will provide everything you need to organize your tasks and projects of any size.

## 2 Set up collaborative workflows & virtual classrooms

The comprehensive tools available on PreciCloud enable you to set up virtual classrooms, collaborative workflows, as well as second opinion consultation. Experts and colleagues can easily interact simultaneously while working in different locations.

## 3 Secure and scalable

PreciCloud is perfectly adapted for your data: Within our platform, users have the option to control sharing rights and permissions, as well as to have access to logs for documenting or auditing purposes. Our cloud platform is inclusive, secure, and scalable.

## 4 Full integration to your PreciPoint products

All PreciPoint solutions are connected and fully integrated. You may upload your scans from a PreciPoint microscope and scanner directly onto PreciCloud. Share and access your slides virtually without needing to transfer files manually.

## 5 Use image analysis to empower your work

PreciPoint provides a collection of powerful and automated analysis tools that use cutting edge image recognition and machine learning algorithms. Pre-analysis is made possible with the help of a deep learning approach for final review by users.

Visit [www.Preci.Cloud](http://www.Preci.Cloud) to go virtual

# Live remote control

Access the O8 from anywhere at anytime

Users can log into the O8 from anywhere in the world, directly steer the O8 live, offer their opinions remotely, and even participate in consultations from their own offices. These are a few of the many benefits that the O8 offers with its live remote control capabilities. You no longer have to use hefty dual or multi headed microscopes. No more scanning the sample beforehand. No more traveling. No more shipping slides.

Thanks to the fully automated and motorized O8 Microscope & Scanner, users can access and control the O8 from afar and steer the O8 live and instantly. Live remote control is possible on computers, laptops, tablets, and even smart phones. Evolve the way you participate in teaching, conferencing, collaboration, second opinion consultation, and more.

## Benefits of live remote control

Access samples from anywhere at anytime

Simultaneous viewing for multiple users for second opinions

Top image quality with large field of view within seconds

View different layers with manual focus plane adjustment

Save travel time and shipping costs

Save scan waiting time

No worries about scanner sensitivity and unfocused images

Easy handling and cleaning when switching between fresh sample slides



### 1 Elizabeth connects with Fritz

While examining a slide in Houston, she asks her European colleague Fritz for instant consultation.

### 2 Fritz uses live remote control

Fritz personally steers the O8, located more than 9,000 km away. He can instantly analyze the sample. Fritz asks two more specialists for their opinions.



### 3 Jay and Patrick find the solution

The two specialists in Beijing observe the sample simultaneously with Elizabeth and Fritz. Together as a team, they find the solution.



# In brief

Technical data and key features of the O8



O8 front-view

# 0.11 $\mu\text{m}/\text{px}$

Scanning resolution with 100x oil objective: 1.3 – 1.45 NA: 0.11  $\mu\text{m}/\text{px}$

# Whole slide scanning

Scan whole slides with 100x oil objectives

## Microscope and Scanner

Operating modes tailored to diverse workflows:	Live mode, InstantScan mode, SlideScan mode
Light:	Transmitted Light; LED, brightfield
Barcode scanning:	Yes
Supported objectives:	20x to 100x air and oil (Olympus)
Seamless zoom:	Live-Stitching makes objective changes unnecessary
Dimensions:	45 cm x 40 cm x 30 cm; 25 kg
Automated Microscope:	X-Y-stage automated, Z-axis automated
Handling:	Controlled with computer; Live remote control due to automation

## Digitization

Scanning parameters:	Whole Slide Imaging or partial digitization
Scanning algorithms:	Different scanning algorithms tailored to different slide qualities
InstantScan-mode:	Large field of view within seconds at high resolution
Scanning speed per slide with 100x:	1 h <sup>1</sup>
Scanning speed per slide with 20x:	2 min <sup>1</sup>
Scanning resolution with 100x:	1.3 – 1.45 NA <sup>2</sup> : 0.11 $\mu\text{m}/\text{px}$
Scanning resolution with 60x:	0.9 – 1.42 NA <sup>2</sup> : 0.18 $\mu\text{m}/\text{px}$
Scanning resolution with 40x:	0.75 – 1.4 NA <sup>2</sup> : 0.28 $\mu\text{m}/\text{px}$
Scanning resolution with 20x:	0.5 – 0.8 NA <sup>2</sup> : 0.55 $\mu\text{m}/\text{px}$
Slide capacity:	25 x 75 mm (2 slides) or 50 x 75 mm (1 slide)
Z-Axis Resolution:	25 nm
XY-Axis Resolution:	78 nm
Z-Stacking:	Yes

## Cloud, Image Analysis, and Computer

Operating software:	MicroPoint included
Viewer software:	ViewPoint* included (unlimited users)
Storage:	PreciCloud slide storage
Image analysis:	Several software applications on request, based on customer needs
Computers:	Various computers recommended and approved by PreciPoint
Microscope computer connection:	USB 3.0
Image output formats:	PNG, JPEG, TIFF, BMP, VMIC, XLS, and many more

*RUO (intended for use in non-clinical laboratory research)  
Technical specifications Subject to change without notice*

<sup>1</sup>Dependent on sample preparation, scan parameters and objectives; 15x15 mm

<sup>2</sup>Dependent on used objective

\*Free download of ViewPoint on [www.precipoint.com](http://www.precipoint.com)

# PreciPoint – Made in Germany

German Engineering at its best

Since 1982, we have made more than 15,000 installations of diverse systems and devices all over the globe. They are produced in Germany and our solutions are made to the highest German engineering standards. Our key competence is the digitization of measurement and automation technology in the field of microscopy and micropositioning systems. The spectrum of our offers ranges from smart microscopes to automated testing systems with custom-made software and from microspectroscopy to x-y-stages.

Since 2017 we proudly present the O8, a truly smart system that caters to the global demand for whole slide scanning with oil objectives. The O8 integrates all our expertise and experience collected over the past decades. Our global sales success proves that users worldwide embrace and appreciate the opportunities that the O8 offers.

Contact us to learn more about the future of microscopy at [sales@precipoint.de](mailto:sales@precipoint.de) or +49 (0) 8161 976 93 49. Let's digitize and accelerate your workflow together.

Discover the future of microscopy. Book a remote session today to see how the O8 can digitize and accelerate your workflow.

Send us an email: [sales@precipoint.de](mailto:sales@precipoint.de)

or talk to us directly: [+49 \(0\) 8161 976 93 49](tel:+49081619769349)

## The PreciPoint product family

**M8** Microscope and Scanner



**O8** Oil Microscope and Scanner



**I8** Inverted Microscope and Scanner



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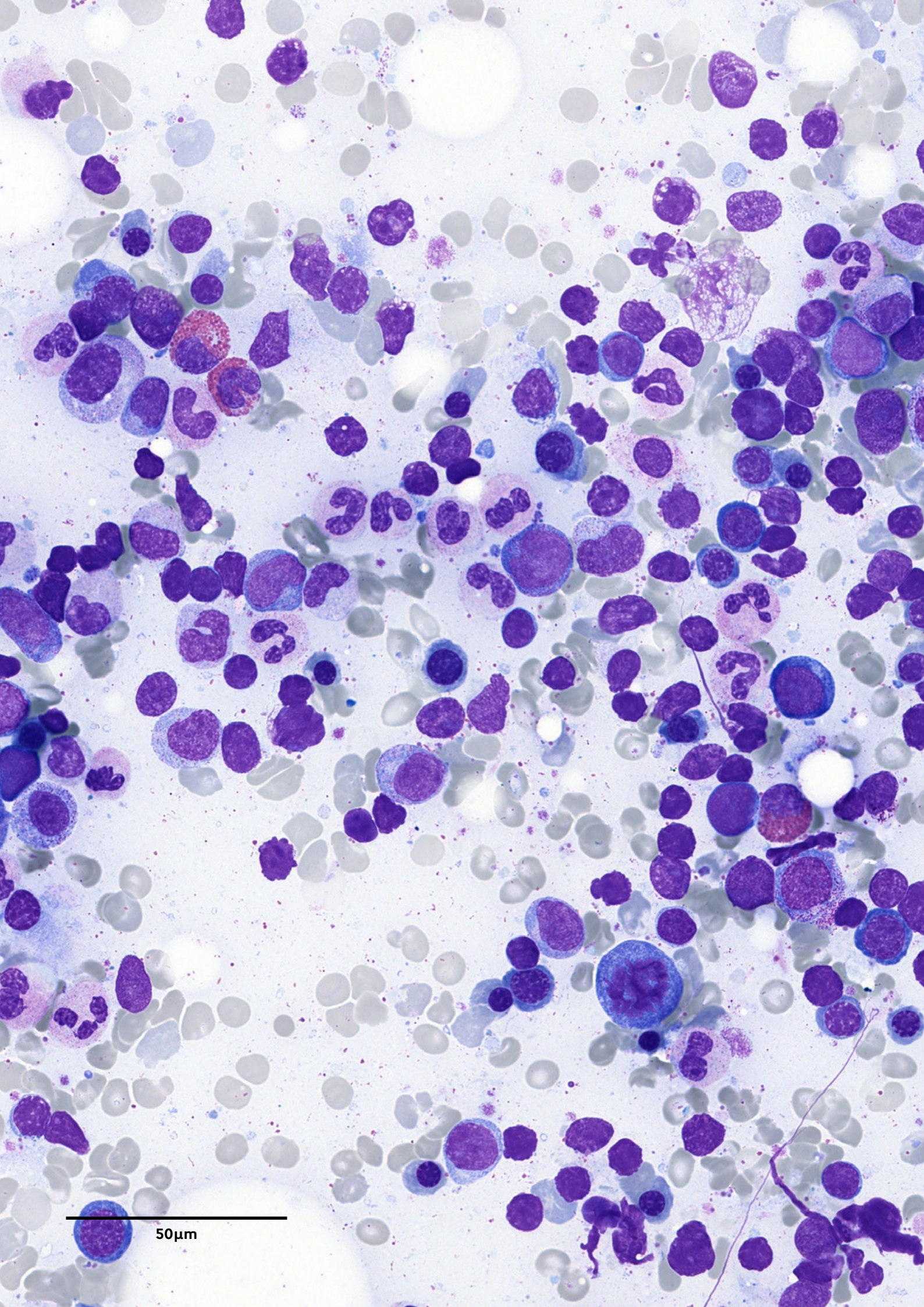
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