



# MEDICAL & LIFE SCIENCES

- Basler cameras - the power of sight for medical and life science technology
- Broad industrial camera portfolio for digital imaging
- 3-year warranty, long-term availability
- Trust in over 25 years of experience
- Exceptional quality and reliability  
– Made in Germany

# WHY BASLER CAMERAS?



## MOST PRISTINE AND COLORFUL PICTURES

### Outstanding image quality

- True colors, clear contrasts, high resolution, fast live images
- Accuracy and exact reproduction of pictures for reliable analysis
- Outstanding performance stability due to high quality standards



## CARE-FREE CAMERA LIFE CYCLE

### Comprehensive support and services

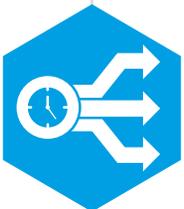
- 3-year warranty on entire camera portfolio
- Ad-hoc service by Basler's technical support
- Point of contact at your site via Basler worldwide network of offices



## PURCHASE DECISION WITH MINIMUM RISK

### Secure future investment

- Long-lasting camera life and reliability through numerous quality assurance measures
- Long-term availability of cameras
- Outstanding ratio of performance to price



## YOUR PARTNER FOR OPTIMUM DESIGN-IN PHASE

### Easy system integration

- Individual consulting and customized products
- Wide range of compatible accessories for your Basler camera
- Basler support teams located worldwide



## SELECTING YOUR PERFECT CAMERA

### Broad portfolio range

- Over 300 camera models provide cost-efficient and high-end performance
- Resolutions up to 14 MP, high speed with up to 750 fps, area and line scan cameras
- Monochrome or color variants and near-infrared (NIR) enhanced versions



## DEFINING YOUR SYSTEM REQUIREMENTS

### Supported by experts

- Technology leadership with 25 years of vision experience
- Key driver of technology trends and vision standards
- Basler position as most trusted brand in industrial digital cameras

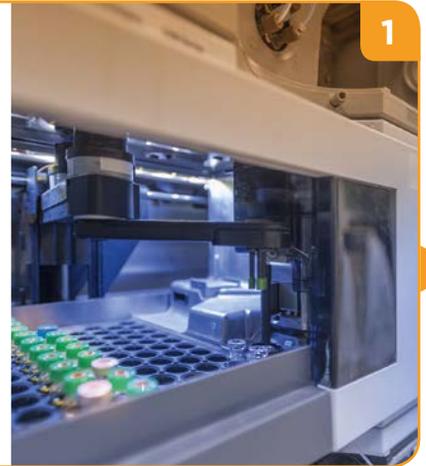
# TYPICAL APPLICATIONS

## LABORATORY EQUIPMENT AND AUTOMATION

High speed and resolution, reliability, accuracy and the best image quality in combination with an optimized design and an exceptional price/performance ratio provide flexibility in use and easy integration with

- in-vitro diagnostic laboratory and POCT equipment,
- imaging based laboratory equipment for biomedical and industrial research and
- process automation and quality control.

This supports the development and optimization of new technologies for laboratory automation, which is becoming increasingly important in modern life sciences, industry, and in many areas of clinical diagnostics.

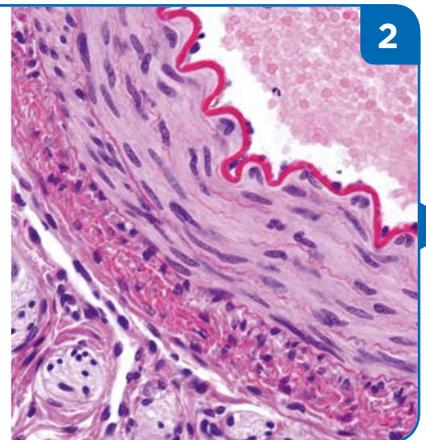


## MICROSCOPY

The best image quality in real-time, outstanding color rendering, and sensitivity for

- conventional light microscopy and
- fluorescence microscopy

provide detailed images. They are rich in contrast and with color fidelity for reproducible analysis and documentation. Microscopic imaging is used in many areas, such as, for example, in biomedical and industrial research, in the clinical laboratory, in materials and particle analysis or in process and quality control.

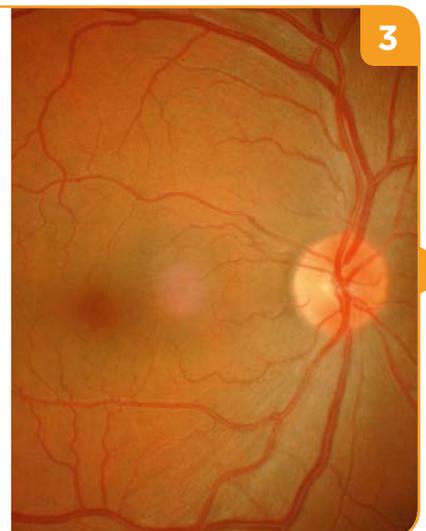


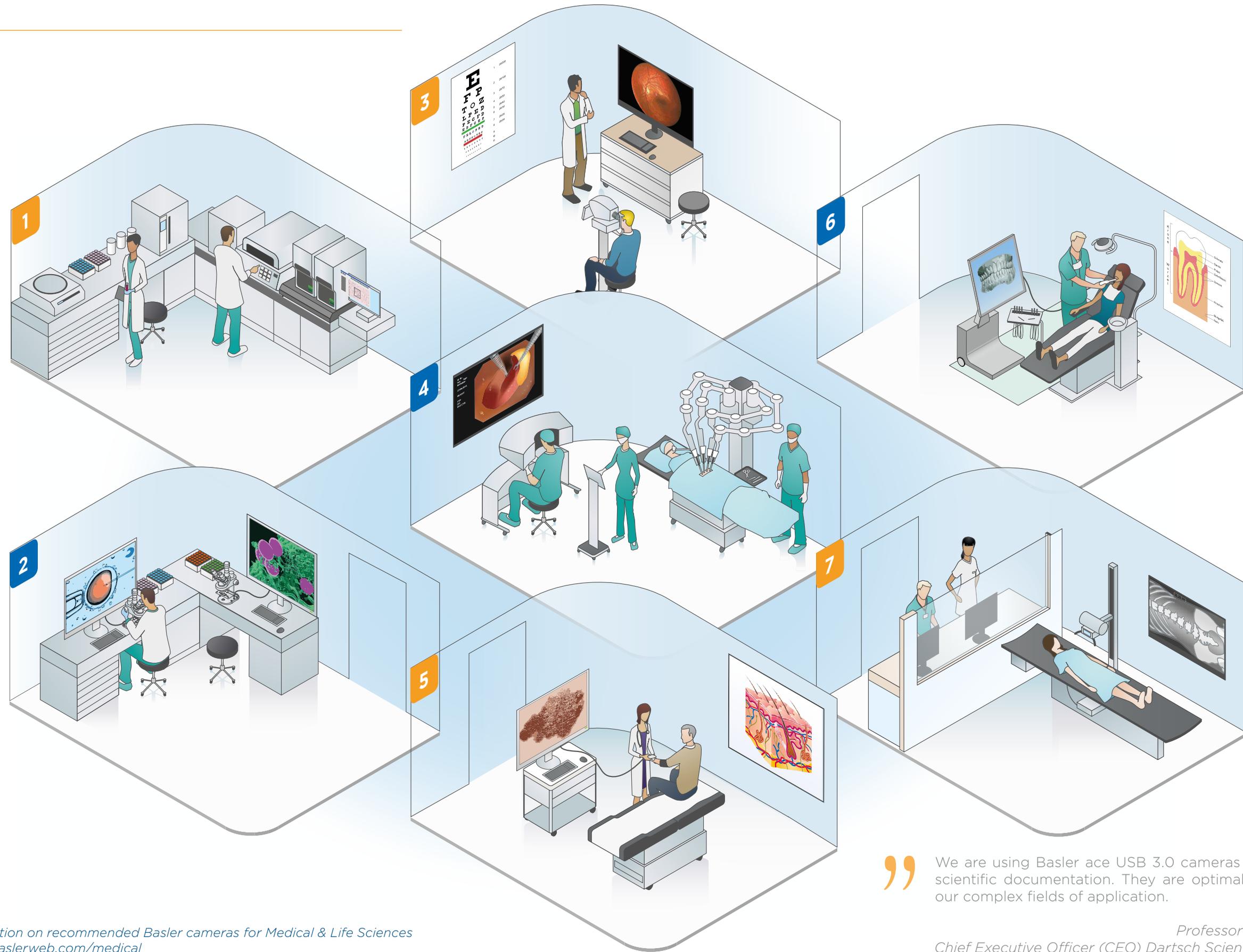
## OPHTHALMOLOGY

The best image quality with optimal resolution and sensitivity, reproducibility, consistency, and longevity are requirements for the imaging component of a multitude of imaging based technologies for diagnostics and therapy of the eye. These include, for example

- perimetry, refractometry, and keratometry,
- slit lamp microscopy, ophthalmoscopy, and fluorescence angiography,
- optical coherence tomography or LASIK.

Examples of use include surveying the visual field, measuring the corneal curvature, and determining the refraction, the detailed representation of the ocular fundus or modern ophthalmological surgery, such as a cataract operation.





For further information on recommended Basler cameras for Medical & Life Sciences please visit [www.baslerweb.com/medical](http://www.baslerweb.com/medical)

” We are using Basler ace USB 3.0 cameras on microscopes for scientific documentation. They are optimally covering each of our complex fields of application.

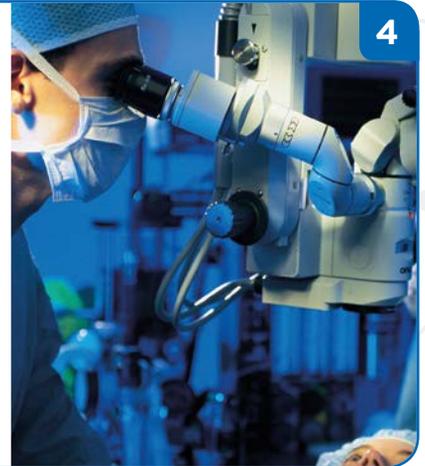
Professor Dr. Peter C. Dartsch  
Chief Executive Officer (CEO) Dartsch Scientific GmbH Germany

## SURGICAL IMAGING

Dependably high resolution and pin sharp images with high contrast and exact color fidelity for

- light microscopic/stereoscopic visualization,
- fluorescence-based intraoperative visualization,
- minimally invasive, computer and robot assisted surgery, or
- intraoperative navigation

guarantee the precise representation of the most complex and finest anatomical structures in real-time for intraoperative observation, for image analysis and simulation, for documentation, presentation, and discussion in the operating environment.



## DERMATOLOGY

Excellent image quality in real-time, outstanding color rendering and sensitivity for

- dermatoscopy and
- cosmetic skin analysis

provide image viewing, documentation, and detailed analysis, for example, for early cancer detection, the diagnosis of skin lesions, observation of wound healing processes or for the detailed analysis of facial skin in cosmetics.



## DENTISTRY

High speed with optimal resolution and sensitivity, combined with miniaturized design and exceptional price/performance ratio are the perfect prerequisites for integration with

- intraoral scanner, as well as
- model and impression scanner

and insure accurate and consistent digitization of the upper and lower jaw, the bite, and the dental volumes.



## MEDICAL DIAGNOSTIC IMAGING

Exceptional, constant image quality with impressive contrast and natural color rendering, high light sensitivity, and a small camera design, for example, for use in

- diagnostic and endoscopic procedures,
- mobile and digital radiography systems or for the
- positioning and alignment of patients for radiation therapy

support flexibility, the greatest possible mobility, immediate image control, safety, and optimal patient comfort.



# MATCHING CAMERAS

## Which Basler camera is suitable for my application?

Selected camera series	area scan					line scan	
	ace	aviator	beat	dart	pulse	racer	sprint
Low light sensitivity	✓		✓			✓	✓
Speed up to	750 fps	120 fps	62 fps	60 fps	60 fps	80 kHz	140 kHz
Resolution up to	14 MP	4 MP	12 MP	5 MP	5 MP	12k px	8k px
High color fidelity	✓	✓	✓	✓	✓		✓
Near-infrared (NIR) enhanced	✓						
Global shutter	✓	✓	✓	✓	✓	✓	✓
Rolling shutter	✓			✓	✓		
CMOS / CCD	CCD/ CMOS	CCD	CMOS	CMOS	CMOS	CMOS	CMOS
USB 3.0	✓			✓*1	✓*1		
GigE	✓	✓				✓	
Camera Link	✓	✓	✓			✓	✓
BCON - LVDS-based interface				✓			
Housing type	Box	Box	Box	Board Level	Box	Box	Box
Housing size*2	small	large	medium	very small	small	medium	large
Microscopy	✓	✓	✓	✓	✓		
Lab. Equipment & Automation	✓	✓	✓	✓	✓	✓	✓
Ophthalmology	✓			✓	✓	✓	
Dentistry	✓			✓			
Dermatology	✓		✓	✓	✓		
Med. Diagnostic Imaging	✓	✓					
Surgical Imaging	✓		✓	✓	✓		

Specifications are subject to change without prior notice. Latest specifications can be found on our website.

\*1 USB 2.0 backwards compatible

\*2 Housing Size starting at (L x W x H) in mm: very small = 7 x 27 x 27, small = 29 x 29 x 29, medium = 36 x 56 x 62, large = 40 x 62 x 62

## Camera Highlights

### Basler ace



Ultra-flexible with broad sensor range and multiple interface variants. Over 100 models available.

### Basler beat



High resolution and sensitivity for demanding applications.

### Basler PowerPack - Microscopy



Precise, reliable, high-quality microscopy cameras bundled with accessories and professional software.

### Basler dart



Small board level camera for flexible system integration.

For further information on our cameras, please visit: [www.baslerweb.com/datasheets](http://www.baslerweb.com/datasheets)

# OTHER INFORMATION

## About Basler

Founded in 1988, Basler is a leading global manufacturer of high quality digital cameras and lenses for factory automation, medical & life sciences, retail and traffic applications. The company employs 500 people at its headquarters in Ahrensburg, Germany and subsidiaries in the United States and Asia.

Basler's portfolio of products offers customers the vision industry's widest selection of industrial and network cameras as well as lenses. Today it includes some 300 camera models – and it's still growing. We're committed to developing technology that drives business results for our customers: cameras and lenses that are easy to use, easy to integrate, and deliver an exceptional price/performance ratio.

## How Does Basler Ensure Superior Quality and Reliable High Performance?

Our approach to quality assurance is rigorous: we continually audit all facets of our business to ensure powerful performance, increase efficiency and reduce costs for our customers. We are compliant with all major quality standards including ISO 9001, CE, RoHS, and more.

To ensure consistently high product quality, we employ several quality inspection procedures during manufacturing. Every Basler camera is subjected to exhaustive optical and mechanical tests before leaving the factory. Regardless of what technology or camera model you choose you can be assured of consistent performance.

## 3-Year Warranty

Basler offers a 3-year warranty for their cameras and Basler Lenses. We make this unprecedented promise because we have unparalleled confidence in our products. We continually reinvest in research, development and superior manufacturing capabilities so that our customers can fully rely on the products we manufacture.

## How Does Basler Measure and Define Image Quality?



Basler is leading the effort to standardize image quality and sensitivity measurement for cameras and sensors. Our cameras are characterized and measured in 100% compliance with the EMVA 1288 standard. Measurement reports can be downloaded from our website.

” Introducing digital imaging to the Medical & Life Sciences market will result in a more reliable, efficient and affordable health care.

We contribute in providing easy access to good diagnostics and therapy for people around the world. That's why we feel passionate about giving medical technology the power of sight.

*Dr. Dietmar Ley  
Chief Executive Officer (CEO)  
Basler AG Germany*



**Basler AG**  
Germany, Headquarters  
Tel. +49 4102 463 500  
sales.europe@baslerweb.com

**Basler, Inc.**  
USA  
Tel. +1 610 280 0171  
sales.usa@baslerweb.com

**Basler Asia Pte Ltd.**  
Singapore  
Tel. +65 6367 1355  
sales.asia@baslerweb.com

©Basler AG, No. 02, 03/2016  
ID 2000035927

Please visit our website to find further Basler offices and representatives close to you:  
[www.baslerweb.com/sales](http://www.baslerweb.com/sales)

