27 July 2011

Strategic Review Process

On June 8, 2011 Optiscan announced the appointment of Cappello Capital Corp to assist the Company in conducting a review of all potential strategic options and opportunities prior to committing to a future strategic direction for the Company.

The overriding purpose of this strategic process is to restore the substantial value inherent within Optiscan and address the absolute and relative valuation issues the Company is faced with today. Absolute value is underscored by the relationship with world leading imaging company Carl Zeiss. Relative valuation is highlighted by the recent IPO in July of Mauna Kea Technologies (NYSE Euronext: MKEA), the only other relevant player in the endomicroscopy space, valuing that company at approximately US$311 million and demonstrating a pronounced valuation anomaly in existence between Mauna Kea and Optiscan.

While Optiscan is an Australian public company, recognition of the value of its technology, and therefore its primary business and strategic opportunities, reside overseas. There is considerable appreciation and understanding of endomicroscopy in Europe and the U.S. that is not present in Australia. Optiscan has a strong presence in the U.S. and Europe at leading institutions such as Johns Hopkins and The Mayo Clinic, along with a growing presence in China. Despite this, the Company has less than 4% of its ownership outside Australia and a market capitalisation currently around A$10 million.

To that end, Optiscan and Cappello have prepared relevant presentations detailing the offering and opportunity currently presented by Optiscan (these presentations are appended to this announcement). A comparison between Mauna Kea and Optiscan is also contained within the appended presentations. Strategic discussions with parties are expected to commence imminently, while dialogue on existing opportunities is ongoing.

Recent Developments

Optiscan still carries the legacy of its poor financial and operational health from several years ago. While the restoration of financial stability and operational focus was a significant and lengthy task, the Company is now in a sound financial condition, has developed a second generation platform and has developed bench-top prototype probes featuring world leading specifications that will enhance and expand the market opportunities for Optiscan's technology in proven fields.

Along with existing sales of the Company's FIVE-1 (research unit) and a number of custom High Definition flexible endomicroscope projects underway, the Company expects to see material revenue flow from our product launch with Carl Zeiss within 18 months. At the same time our R&D team is aiming to deliver prototypes of smaller probes (to 2mm) without compromise to our world leading specifications of providing the highest resolution, largest field of view images in endomicroscopy. Clinical studies utilising Optiscan's past generation of technology have consistently reported diagnostic accuracies well above the 90% accuracy threshold set by the American Society for Gastrointestinal Endoscopy ("ASGE") in their

recently introduced benchmark PIVI's (Preservation and Incorporation of Valuable endoscopic Innovation), a standard not achieved by any other technology to date. The new generation of technology is technically superior and expected to further improve upon these results. (Further information on PIVI is available at www.asge.org).

These recent developments are not highly capital intensive, rather they leverage Optiscan's near $100m investment to-date in its unique technology and its wealth of experience in the field of miniaturised confocal endomicroscopy, having pioneered the field and developed the world's first confocal endomicroscope more than 10 years ago. With financial stability and good visibility over future technology advancements, Optiscan must now take the next step in its development to becoming a significant company with world leading products in multiple medical fields.

About Cappello Capital Corp www.cappellocorp.com

Based in Los Angeles, Cappello Capital Corp has one of the largest Australian-staffed investment banking desks on the West Coast of the US. Founded over 30 years ago, Cappello is a middle market investment bank providing corporate advisory and placement services to institutional and corporate clients. The firm has a dedicated Australia Desk focussing on Australian companies seeking to access the US capital markets and is supported by a prominent Advisory Board, including the former Foreign Minister, Alexander Downer and the former Australian Consul-General in Los Angeles, Innes Willox.

About Optiscan

Optiscan is a global leader in microscopic imaging technologies for medical markets. Optiscan's unique and patented technologies enable high-powered microscopes to be miniaturised and used inside the body. The technology enables microscopic imaging of up to 1000 times magnification to be achieved. Doctors can use the technology to instantly see cellular level details of tissue without the requirement to surgically remove tissue (biopsy).

Further information:

Gus Holt, Chairman
Tel (613) 9538 3347
GusH@optiscan.com

Bruce Andrew, CFO
Tel (613) 9538 3398
brucea@optiscan.com

OptiScan Imaging Limited

Corporate Presentation

July 2011

CAPPELLO CAPITAL CORP.

FINRA / SIPC

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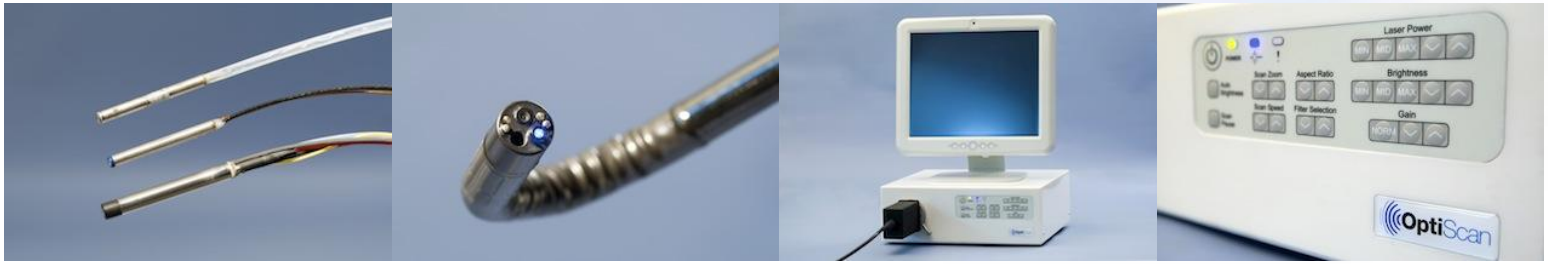
Breakthrough Miniaturized Technology for Endomicroscopy

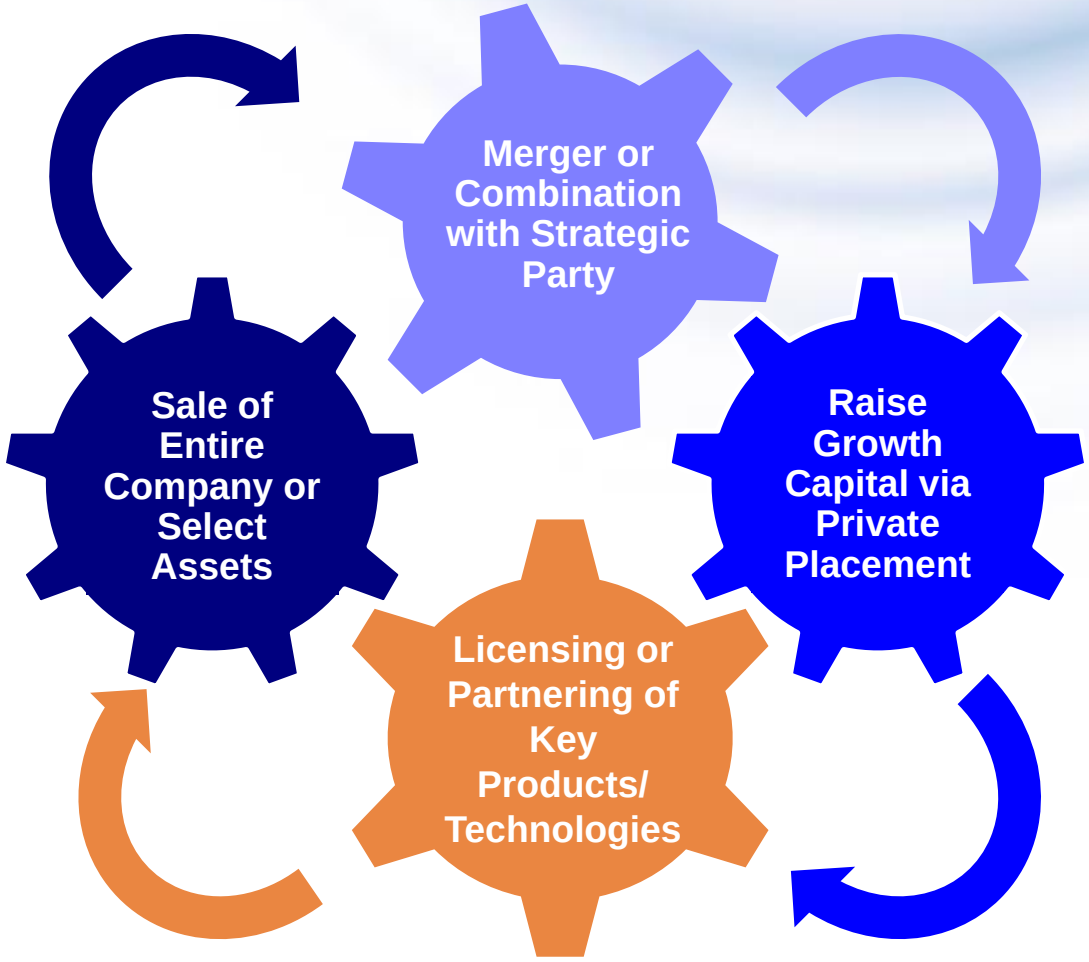
"Live Micro Imaging"



OptiScan Imaging Limited
15-17 Normanby Road
Notting Hill
Victoria, Australia
3168

OptiScan Strategic Considerations

- OptiScan has engaged Cappello Capital in Los Angeles as Financial Advisor to assist the Company in a strategic review
- The Company is currently exploring several strategic options, including, but not limited to:



Investment Highlights

Breakthrough Diagnostic Tools That Are Clearly Superior To Competitors

- World leaders in endomicroscopy
- OptiScan is one of only two technologies that allow for *in vivo* imaging on the cellular level & multiple cell layers in both humans and animals
- OptiScan's small, mobile equipment is easily deployed with existing endoscopy technologies
- Imminent release of Second Generation Confocal Imaging System (CIS G2)
- $25 million in revenue to date

Robust Intellectual Property

- Nearly 50 patent families
- Granted patents in U.S. and other key sales regions focusing on the miniaturization of confocal microscopy technology
- Strong research and development activity that will soon produce a dramatically smaller and more widely usable scanning platform

High Barriers to Entry

- Significant research costs
- Long time-to-market
- High switching cost
- Cumbersome regulatory requirements
- $100 million invested to date

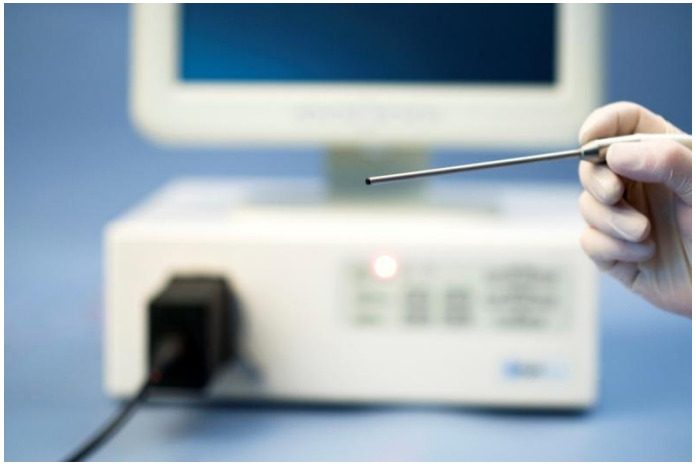
Huge Market and Growth Potential

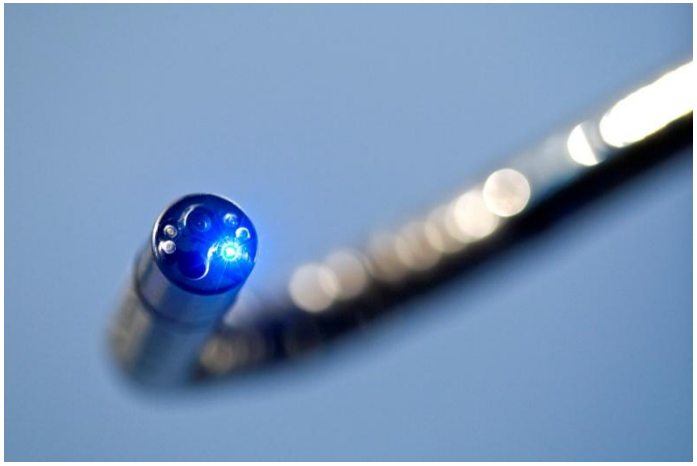
- Unmet market need currently based on subjective analysis
- Possible applications include visualization of endometriosis and cervical cancer, neurosurgery, laparoscopy substitution and colposcopy substitution among others
- A rapidly aging U.S. population will drive an increase in GI diseases that utilize endoscopic devices in diagnosis[1]

[1]Snyder, Sophia (April 2011) Medical instrument supply & manufacturing in the US. *IBISWorld Industry Report 33911a*

The Technology

- ✓ The world's first and highest resolution miniaturized microscope for viewing surface and subsurface cell layers interactively
- ✓ The microscope is integrated into an endoscope giving doctors high quality images of tissue at a cellular level
- ✓ Endoscopic advances in magnification and HD resolution have prepared endoscopists for this logical next step – adding cellular detail of living tissue
- ✓ A unique combination of laser, optical fiber, scanning and lens technology is used to interrogate a tiny imaging device from a computerized image acquisition system



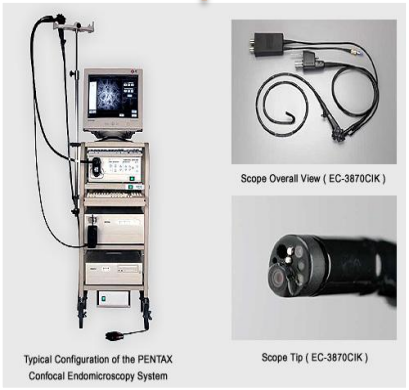


Confocal Microscope Development History

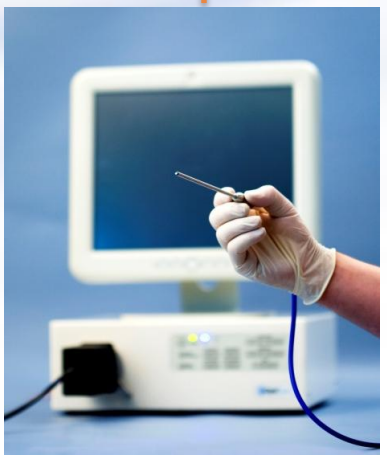
$100 Million Invested In Research & Development

1998-2011

1998: HBH Desktop Confocal Microscope



2001: ISC 1000



2011: CIS G2

The Industry is Ripe for Change

Status Quo

- **Current imaging technology is not ideal:**
  - This puts healthcare professionals at a disadvantage when visualizing the area of interest
  - There is a steady progression to improve imaging, with 2 players prominent in the field: OptiScan and Mauna Kea
- **Healthcare costs continue to rise**:
  - Healthcare providers and insurers are scrambling to identify cost savings
- **The healthcare industry is overburdened**:
  - Biopsies inherently involve wait times for results, slowing the healthcare process

The Future

OptiScan's technology is positioned to deliver critical improvements in both the quality and cost of healthcare services:

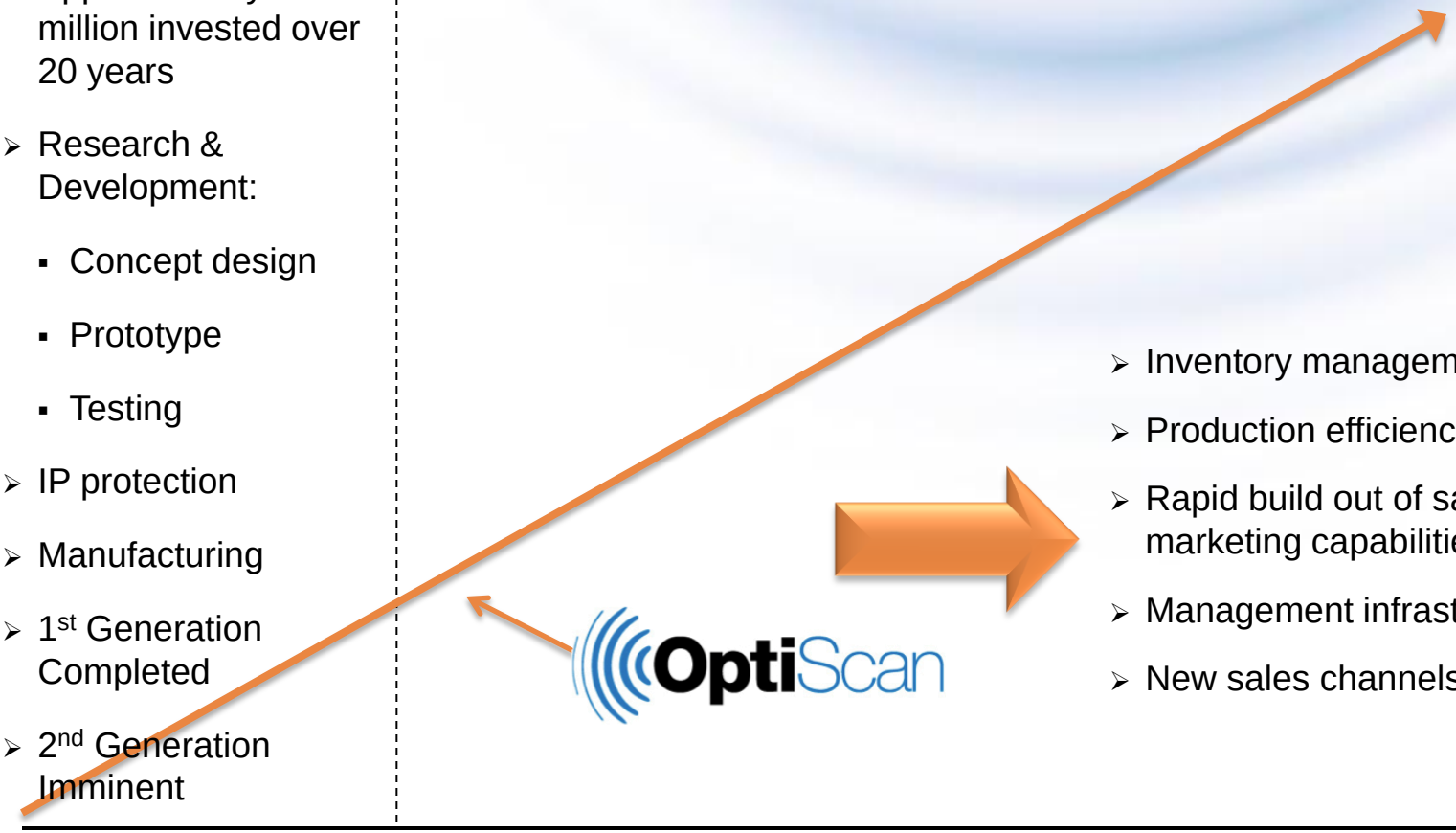
- Cellular level visualization allows for vastly improved precision during medical procedures
- Technology can provide significant cost savings in a vertically integrated setting
- Real-time cellular visualization reduces the need for biopsy, reducing time from presentation to resolution

Springboard for Rapid Growth

R&D/ Commercialization

- Approximately $100 million invested over 20 years
- Research & Development:
  - Concept design
  - Prototype
  - Testing
- IP protection
- Manufacturing
- 1st Generation Completed
- 2nd Generation Imminent

Growth



- Inventory management
- Production efficiencies
- Rapid build out of sales and marketing capabilities
- Management infrastructure
- New sales channels

1988 **2011**

OptiScan's Technological Advantage

Miniaturization

- Endomicroscopy is made possible by combining laser, fiber optic and computer technologies. The imaging end of the confocal microscope is highly miniaturized and enables access to a variety of body cavities and tissues for imaging
- Miniaturized, laser-scanning microscope head allows real-time, 3-D, high-resolution visualization of lesions and adhesions

In Vivo

- Confocal microscopes enable microscopic optical sectioning of tissue *in vivo*, so that layers of cells are clearly imaged, a single layer at a time. Any light from within the tissue which is outside the particular plane of focus is optically rejected

Magnification

- *In vivo* imaging technology enabling 50-100x greater magnification vs. conventional endoscopy
- Magnification of up to 1,000x allows cellular and sub-cellular structures to be observed

Bolt-On Technology

- Small, mobile piece of clinical equipment easily deployed with existing endoscopy technologies in both office and hospital settings

FDA Status / Regulatory Approvals

- ✓ 2001 Optiscan's Foundation Platform for human use is cleared by the FDA
- ✓ 2001 World's First human confocal endomicroscopy by OptiScan– "endomicroscopy" is born
- ✓ 2004 (March) Pentax ISC 1000 receives Annex VI MDD certificate (CE Mark)
- ✓ 2004 (October) Pentax ISC 1000 is cleared for sale by U.S. FDA
- ✓ 2006 (March) Optiscan obtains EN ISO13485: 2003 certification with TUV-R
- ✓ 2006 (March) Optiscan obtains Annex II MDD certificate for CEIS*
- ✓ 2006 (March) Pentax obtains NRTL Licence for ISC-1000 with TUV-R for manufacturing of ISC 1000 at Optiscan
- ✓ 2007 (February) Optiscan obtains NRTL License for FIVE 1 with TUV-R
- ✓ 2008 (October) Optiscan obtains NRTL Licence for CEIS* with TUV-R
- ✓ 2010 (March) Optiscan achieves U.S. FDA 510k approval for the CEIS*
- ✓ 2010 Onwards Optiscan is pursuing U.S. FDA and EU regulatory clearances of a product for Carl Zeiss in the fields of neuro, ENT and spinal surgery

* The CEIS is Optiscan's "own brand" version of Pentax ISC 1000 "box" (1st generation)

Robust Intellectual Property Portfolio

- Nearly 50 patent families
- Long-life patents
- Granted in all major jurisdictions
- No royalties
- No infringements/disputes - FTO

Value Proposition to Patients, Physicians & Medical Facilities

- Real time decision making by the physician based on actual cellular images, thereby facilitating diagnosis and treatment in a single examination
- More malignancies and lesions are found due to better sensitivity, consequently patients have better treatment choices
- The treatment is less invasive for the patient and potentially reduces the number of biopsies resulting in more efficient screening and surveillance
- Cost Savings

Outstanding Clinical & Research Partnerships

OptiScan

JOHNS HOPKINS UNIVERSITY

MAYO CLINIC

Cleveland Clinic

THE UNIVERSITY OF TEXAS MD ANDERSON CANCER CENTER

Making Cancer History®

MOUNT SINAI HOSPITAL

the women's
the royal women's hospital
victoria

JOHANNES GUTENBERG UNIVERSITÄT MAINZ

Austin Health

MGH 1811 MASSACHUSETTS GENERAL HOSPITAL

THE HOSPITAL AT WESTLAKE MEDICAL CENTER®

OptiScan Sponsored Clinical Trials

- **Gastroenterology Trials:** “First time in human” studies at two centers. These data generated the clinical advocacy that led to the deal with Pentax and supported the initial regulatory submissions
- **Cervical Trials:** 3 published papers, including the *British Journal of Obstetrics and Gynaecology*
- **Endometriosis Trials:** (incomplete, paused due to resourcing constraints)
- **Pancreatic Cancer Resection Trial:** Published in *Annals of Surgery*
- **Liver Disease Trial:** Two published papers in *Hepatology* and *Endoscopy*
- **Robotic Prostatectomy Trial:** Possible co-application with robot-assisted surgery
- **Thoracic Malignancies Trial:** Used to investigate lesions on the extremity of the lungs and surrounding membranes (pleura) (ongoing)
- **Ophthalmology Trial:** Published in *Journal of Anatomy*

Investigator/Partner Sponsored Clinical Trials

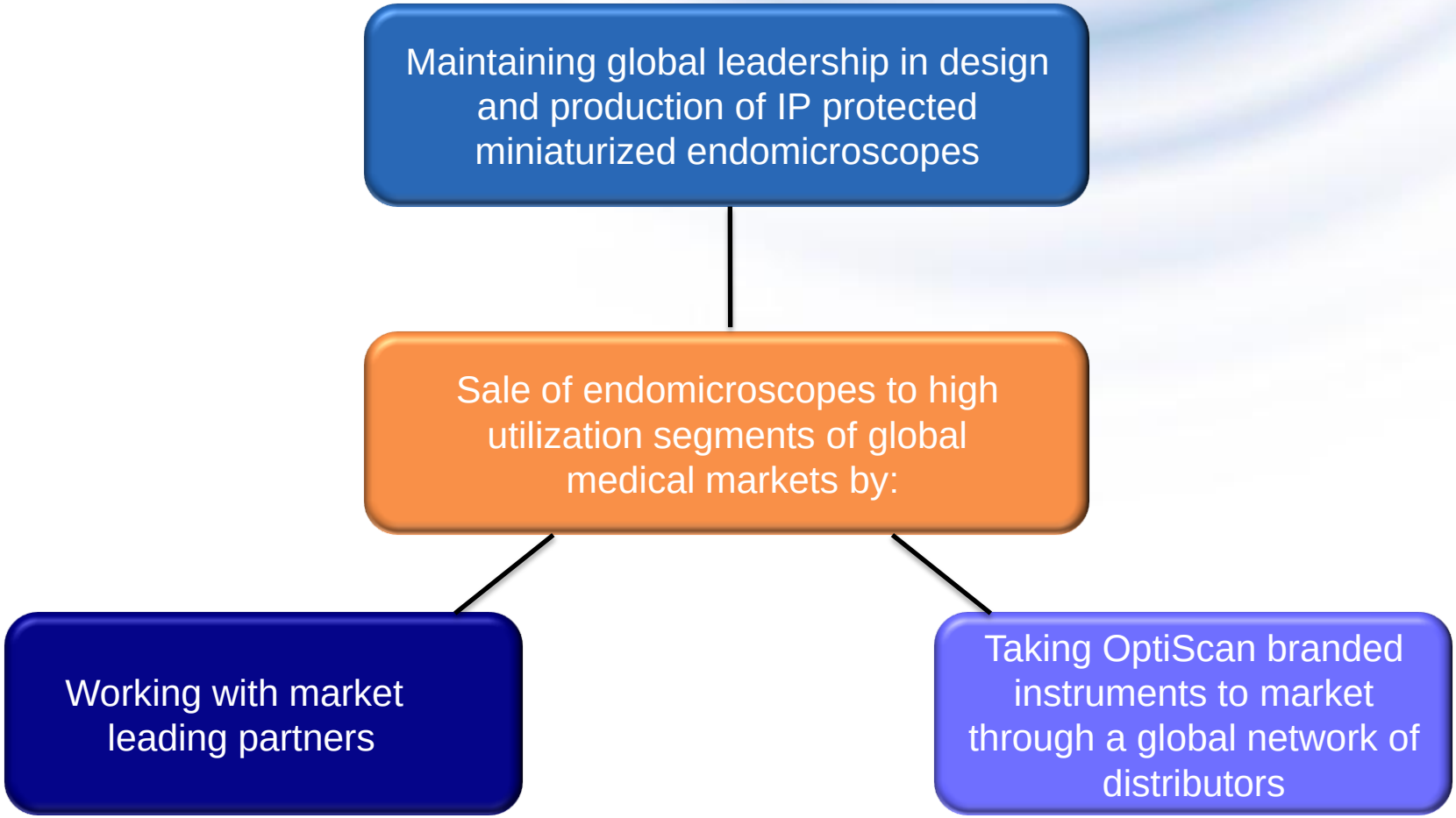
- **Gastroenterology Trials: Over 70 published studies containing original clinical trial data**
  - Trials in U.S., Germany, France, Italy, China, Singapore, Australia
  - Multi-center European trials led by Johannes Gutenberg University
  - Multi-center U.S. trials led by Johns Hopkins University
- **Neurosurgery:** Ongoing clinical trials in partnership with Carl Zeiss Meditec have yielded promising results and a clear path to market for a product based on OptiScan's second generation platform

In-House Manufacturing

- Proprietary know-how embedded in the process
- Generic components are out-sourced
- Clean room facilities
- Facility is FDA compliant/accredited for medical device manufacturing

Sales & Marketing Strategy

The objective is to have an OptiScan-designed and developed endomicroscope in all major hospitals and leading day procedure centers in Europe, USA, Asia and Australia, which requires:



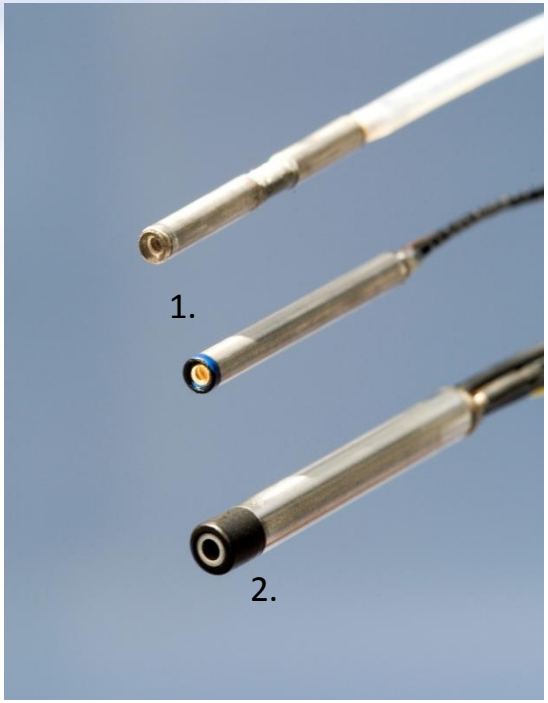
Second Generation Technology

OptiScan has developed a second generation scanner for its endomicroscope technology which is more streamlined, efficient and 70% smaller in volume

This smaller size makes it suitable for use in all major endoscope brands and in more models, in the FIVE 1 and in a smaller rigid endoscope or laparoscope

The Second Generation Technology offers:

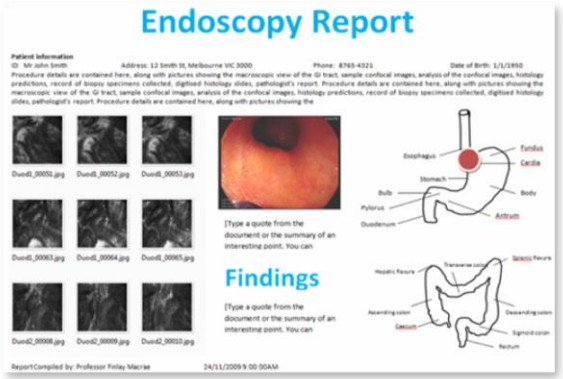
- **A new platform for future products**
- **New features driven by clinical experience**
- **Extension of functional capabilities for users**
- **Better integration with clinical environments**
- **Improved workflow in established applications**
- **Easier system to learn for new users**



1. New scanner model
2. Current scanner model

Second Generation Processor

Smaller footprint



Connectivity

Streamlined workflow
Hot-swap, Auto-contrast

Display flexibility

Partnerships and Collaborations

PENTAX®

- $20 million up front payment
- 9 year collaboration with Pentax in developing and manufacturing a Pentax-branded ISC 1000 platform
- Continuing non-exclusive royalty agreement through sales of ISC 1000 equipment

ZEISS

- 2007 Collaboration with Carl Zeiss Optics to explore the use of endomicroscopy in neurosurgery, ENT and spinal surgery
- Zeiss is OptiScan's exclusive partner in this field
- Licensing agreement will result in the OptiScan production of Zeiss-branded neurosurgery visualization technology
- Commitment by Carl Zeiss to purchase production units of second-generation CIS devices

Competitive Products

The Primary Competitor is the Cellvizio system by Mauna Kea Technologies (France)

Mauna Kea System

- Uses optical fiber bundles as the endomicroscope probes
- The scanning occurs at the end of the bundle inside the processor unit, meaning that there are no moving parts in the tip of the endomicroscope
- The probes are fixed in their imaging depth, thus there is no operator controlled dynamic Z depth adjustment
- Mauna Kea's high resolution probe suffers from a small field of view compared to Optiscan's technology
- The customer must therefore purchase multiple probes to achieve different views (i.e. depth, FOV and cellular detail)

Summary

- Advantages:
  - Smaller probe diameters access additional applications
  - Can be used in standard endoscopes
  - Historically, faster frame rates offer improved interactivity
- Disadvantages:
  - Higher price
  - No dynamic imaging depth
  - FOV vs. resolution compromises
  - Faster scanning addressed in 2nd gen Optiscan
  - Probe enabled by 2nd gen Optiscan

Mauna Kea IPO

- Listed on July 5th, 2011 MKEA
- Market Cap (July 25th): $305.2 million

OptiScan vs. Mauna Kea Technologies

Milestone	OPT	MK*
Founded	1988	2000
Market Capitalization	U.S. $10 m	U.S. $300 m
CE Mark and FDA clearance	2004	2005
Number of peer reviewed published papers	100	35
Number of patients who have benefitted from the technology	15,000	5,000
Number of patent families	~50	NA
Number of hospitals using the technology worldwide	100	50
Revenues/royalties to 2011	U.S. $25 m	U.S. $26 m

*Source: www.maunakeatech.com

Comparison of Features

Feature/ Performance Specifications	OptiScan	Cellvizio	OptiScan Superior
Form	• Scanner that can be integrated into the tip of an endomicroscope (during scope manufacture), or newly developed probe type for insertion through channels of unmodified endoscopes • Scanner is plugged into a "control box" about the size of a desktop computer	• Probe type for insertion through channels of unmodified endoscopes • The probe is plugged into a control box about the size of a desktop computer	**Comparable**
Workflow	• Integrated type allows microscopic imaging and biopsies concurrently as biopsy channel of scope is not occupied • Probe type occupies the endomicroscope biopsy channel for microscopic imaging and must be removed to take a biopsy of the imaging site	• Probe type occupies the endomicroscope biopsy channel for microscopic imaging and must be removed to take a biopsy of the imaging site	**Yes**
Lateral Resolution (smallest object can be seen distinctly)	0.5 µm	2.5 µm for large FOV probe, 1 µm for small FOV probe	**Yes**
Axial Resolution	4.5 µm	20 µm for large FOV probe, 15 µm for small FOV probe	**Yes**
Field of View	500 µm	About 450 µm (large FOV probe) or about 120 µm (small FOV probe)	**Comparable**
Zoom Capability (in single device)	Yes	No	**Yes**
Depth of View	0 to ~250 µm with dynamic adjustment in 4 µm steps	Each probe has fixed depth limited to choice of 0, 30, 50 or 80 µm	**Yes**

Comparison of Features (Continued)

Feature/ Performance Specifications	OptiScan	Cellvizio	OptiScan Superior
Image Information Correct	• Up to 2 megapixels can extract maximum detail across a large FOV	• Limited by number of fibers in bundle- largest is 30,000 pixels, or 0.03 megapixels • Not enough to extract cellular detail across large FOV	**Yes**
Optical Imaging Capabilities	• Can image cellular and sub-cellular detail with clean image (non-pixelated) and at the same time as offering a large FOV • Can take series of images at incremental depths to interrogate a small volume of tissue equivalent to a biopsy specimen	• Image is pixelated due to bundle cladding dead spaces • Cannot determine individual cell detail with large FOV, only with small FOV probe • Can only image at a single fixed depth, therefore incomplete determination of cell tissue morphology	**Yes**
Frame Speed	•1 to 6 frames per sec (dynamically adjustable)	•12 frames per sec	**Comparable**
Probe Sizes	• Scanner is 3.4 mm diameter for integrated type (to build into scope) • Two probe configurations have been developed, one would allow 3 mm diameter (already demonstrated), the other 2 mm diameter at full resolution	• Various diameter probes from 0.3 mm to 2.4 mm, dependent upon number of fibers in bundle, hence affects image resolution	**No**
Operational Factors	• Image depth dynamically adjustable. • With purchase of system and single probe can obtain images at tissue surface and variable depths	• To change imaging depth it is necessary to change probe • Large FOV and high resolution not available in one probe, but requires separate probes to obtain images at surface and fixed depths at 30, 50 and 80 µm	**Yes**
Robustness of Probes	• Umbilical cord to probe has good torsional and 2 directional flexibility	• Fiber bundles lack both torsional and 2 directional flexibility • Smaller sized fibre bundles are prone to breakage (at > U.S. $20K replacement cost)	**Yes**

Significant Barriers to Entry

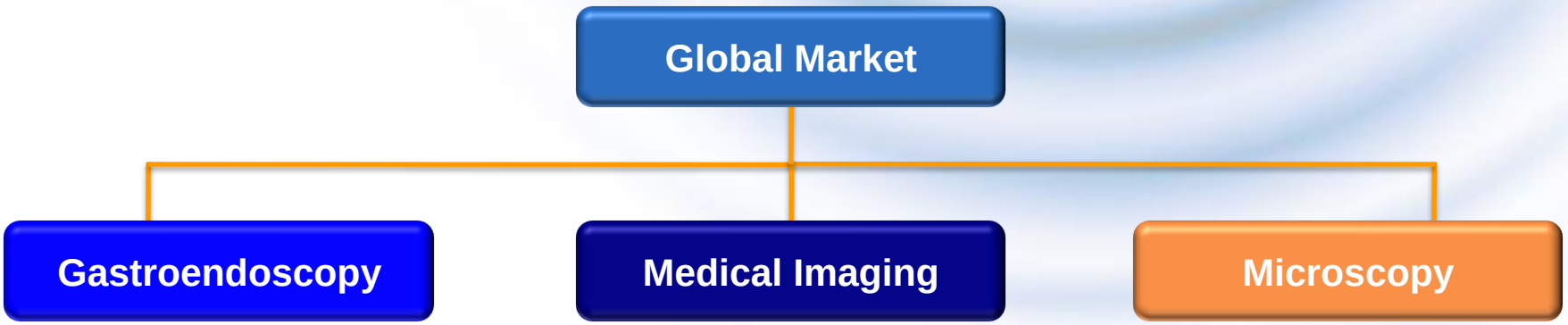
Significant Research Costs	Technology for miniaturization has required more than $100 million to date
Long Time-to-Market	No product of similar practical application is anticipated to be ready for market in the next 5-10 years
High Switching Cost	Health professionals are often reluctant to switch to new technologies which will require learning new implementation methods and additional capital expenditures, presenting a significant first-mover advantage
Cumbersome Regulatory Requirements	Invasive technologies are required to undergo an extensive approval process, allowing established companies more time to cement their hold on the market

Major Players

Company	Market Cap ($ in millions)	Revenue	EBITDA	Description
FUJINON	15,053.3	28,291.8	3,744.7	Fujifilm's Information Solutions segment manufactures, develops, markets and services equipment and materials for medical systems and life sciences
OLYMPUS	9,234.5	10,809.7	1,074.0	Olympus Corporation manufactures precision machineries and instruments in five segments: Imaging Systems, Medical Systems, Life Science, Information and Communication and others
stryker	21,813.6	7,823.4	2,252.2	Stryker Corporation operates as a medical technology company worldwide
Mauna Kea	305.2	NA	NA	Mauna Kea Technologies SAS engages in the design, development and manufacture of medical devices for microscopic imaging
RICHARD WOLF	NA	146.1*	NA	Richard Wolf manufactures products for endoscopic diagnosis in human and veterinary medicine
PENTAX	N/A	N/A	N/A	Pentax provides medical technology products which comprise instruments, equipment components and ceramics
STORZ KARL STORZ—ENDOSKOPE	NA	866.3*	NA	Karl Storz designs, develops, manufactures and sells medical instruments and devices

*Dun & Bradstreet Estimate

Strong Market Demand



- The gastrointestinal diagnostic equipment market was measured at revenues of U.S. $1.7 billion in 2005, rising approximately 23.7% to $2.1 billion in 2007
- An additional 12.2% to $2.4 billion in 2008
- Forecast to reach revenues of approximately $3.3 billion in 2014

- The U.S. market for medical imaging equipment was estimated at $7.8 billion in 2007
- It should reach $11.6 billion in 2012, a compound annual growth rate (CAGR) of 8.1%

- The global market for microscopes and accessories was worth about $2.1 billion in 2006
- Worth $2.3 billion in 2007
- Forecast to approach $3.6 billion in 2012, a compound annual growth rate (CAGR) of 9.1% between 2007 and 2012

Source: BCC Research

Customers

- Hospitals
- Universities
- Endoscopy Centers
- Animal Research & Testing Labs
- Health Clinics

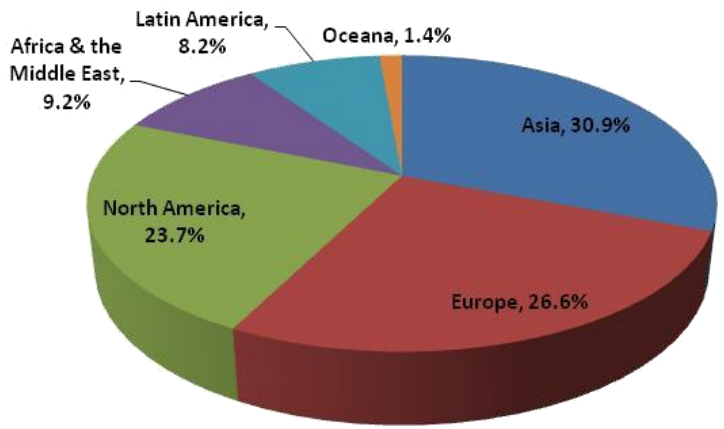
Global Microscopic Imaging Market

Market Overview

The entire gastrointestinal endoscopy market is $7.3 billion

Forecasted latent global demand for all endoscopy visualization equipment in 2014 is $1.6 billion

Global Market – by Geography



Each year there are more than 1 million new cases of colon/rectal cancer globally; this number is expected to rise to 1.3 million by 2020

Sources: The Icon Group, Dr. Philip M. Parker, Kalorama Information

Why OptiScan?

Pronounced valuation anomaly compared to Mauna Kea

Carl Zeiss collaboration accelerating progress in neurosurgery developments

Global leader in the development and application of fiber optics based microscopic imaging technology

Substantial capital investment to date in technology ($100 million)

Medical equipment market witnessing rapid growth globally with high utilization segments for OptiScan technology in hospitals and day surgeries

CAPPELLO
CAPITAL CORP.
FINRA / SIPC

100 Wilshire Blvd., Suite 1200
Santa Monica, CA 90401
Phone: 310-393-6632
Fax: 310-393-4838
www.cappellocorp.com

For more information or if you have any questions, please contact the following:

Paul Hopper
Managing Director
Cappello Group, Inc.
ph@cappellocorp.com

Paul Kromwyk
Senior Vice President
Cappello Capital Corp.
pkromwyk@cappellocorp.com

Los Angeles ♦ Austin ♦ Beijing ♦ Mexico City ♦ Seoul ♦ Taipei

OptiScan Imaging Limited

Scientific Appendix

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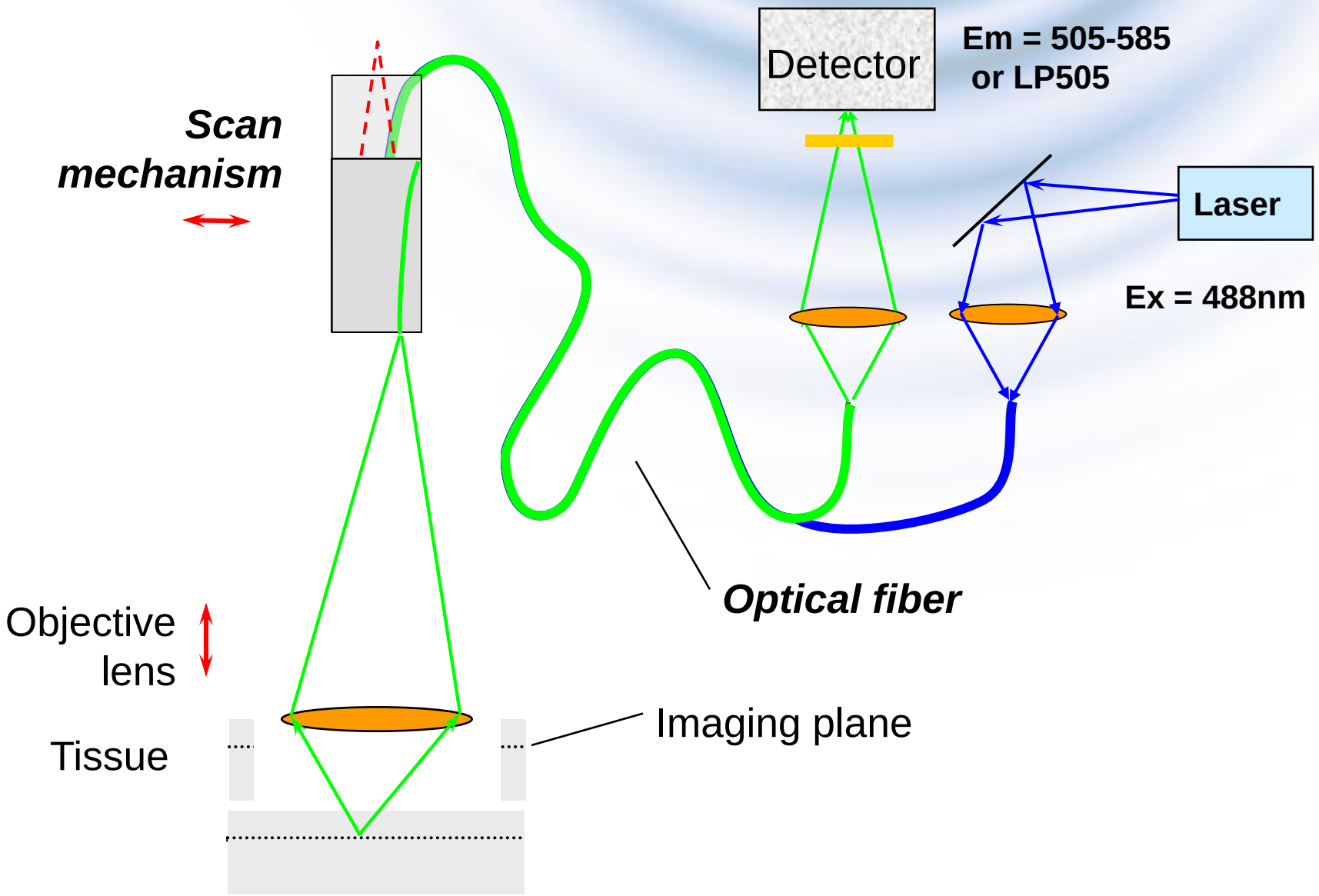
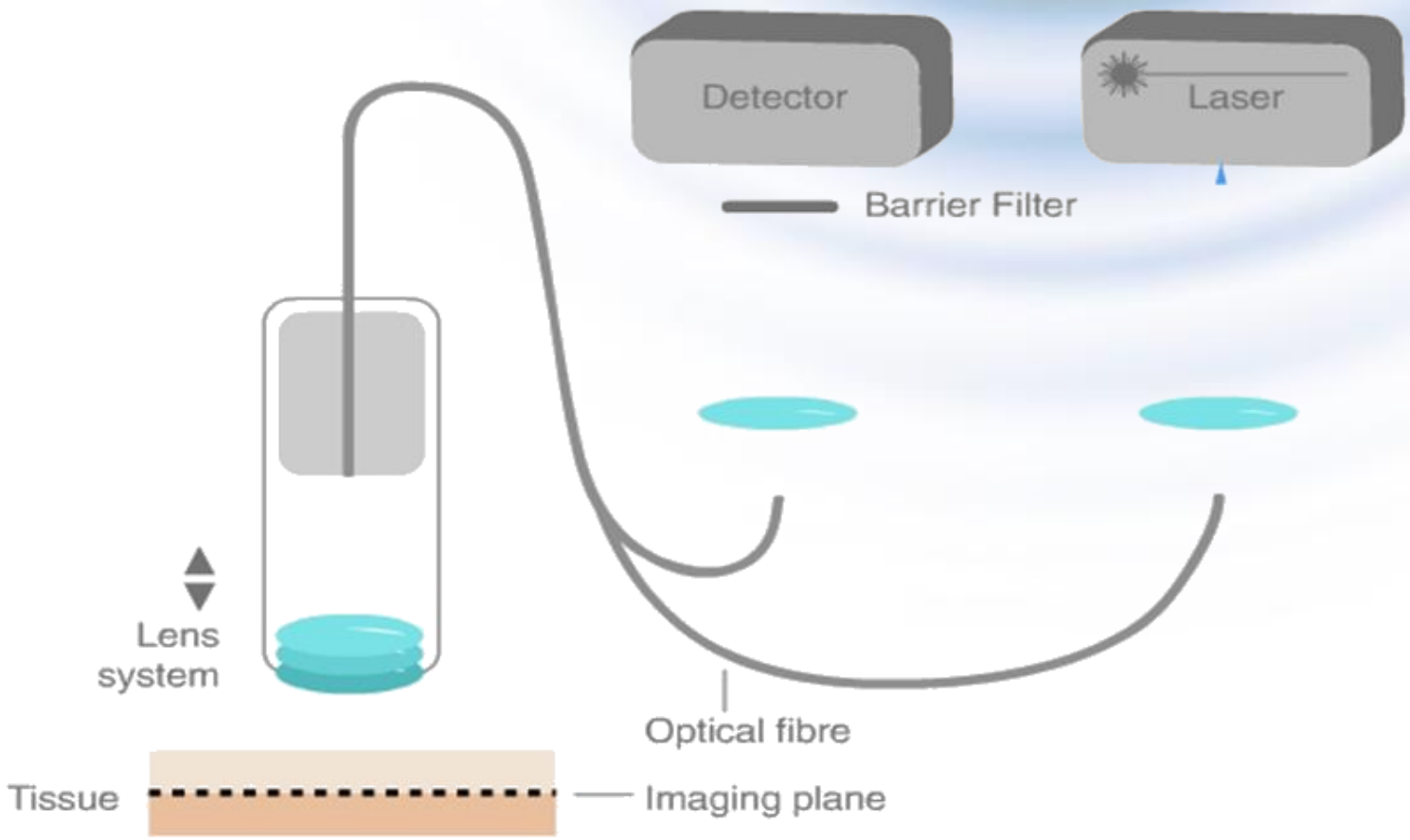
Appendix

Fiber Optic Confocal System



Confocal Endomicroscopy System



Over 100 Clinical Studies Published

➢**See bibliography at www.optiscan.com**

Scientific Papers

Clinical

2009 | 2008 | 2007 | 2006 | 2005 | 2004 | 2003 | 2002

2009 - Clinical

Bojarski C, Gunther U, Rieger K, Heller F, Loddenkemper C, Grunbaum M, Uharek L, Zeitz M, Hoffman JC. In vivo diagnosis of acute intestinal graft-versus-host disease by confocal endomicroscopy. *Endoscopy* 2009; 41(5):433-438.

Cotruta B, Gheorghe C, Bancila I. Magnifying endoscopy with narrow-band imaging or confocal laser endomicroscopy for in vivo rapid diagnostic of Barrett's Esophagus. *J Gastrointestin Liver Dis* 2009; 18(2): 258-259.

Gheorghe C, Iacob R, Dumbrava M, Becheanu G, Ionescu M. Confocal laser endomicroscopy and ultrasound endoscopy during the same endoscopic session for diagnosis and staging of gastric neoplastic lesions. *Chirurgia (Bucur)* 2009; 104(1): 17-24.

Kiesslich R, Canto M. Confocal laser endomicroscopy. *Gastrointest Endosc Clin N Am* 2009; 19(2): 261-272.

Leung KK, Maru D, Abraham S, Hofstetter WL, Mehran R, Anandasabapathy S. Optical EMR: confocal endomicroscopy-targeted EMR of focal high-grade dysplasia in Barrett's Esophagus. *Gastrointest Endosc* 2009; 69(1): 170–171.

Liu H, Li YQ, Yu T, Zhao YA, Zhang JP, Zuo XL, Li CQ, Zhang JN, Guo YT, Zhang TG. Confocal laser endomicroscopy for superficial esophageal squamous cell carcinoma. *Endoscopy* 2009; 41(2): 99-106.

Nguyen NQ, Biankin AV, Leong RW, Chang DK, Cosman PH, Delaney P, Kench JG, Merrett ND. Real time intraoperative confocal laser microscopy-guided surgery. *Ann Surg* 2009; 249(5): 735-737.

Trovato C, Sonzogni A, Ravizza D, Pruneri G, Rossi M, de Roberto G, Tamayo D, Vanazzi A, Fiori G, Crosta C. Confocal laser endomicroscopy diagnosis of gastric adenocarcinoma in a patient treated for gastric diffuse large-B-cell lymphoma. *Dig Liver Dis* 2009; 41(6): 447-449.

Sanduleanu S, Driessen A, Hameeteman W, van Gemert W, de Bruine A, Masclee A. Inflammatory cloacogenic polyp: diagnostic features by confocal endomicroscopy. *Gastrointest Endosc* 2009; 69(3): 595-598.

Venkatesh K, Cohen M, Akobeng T, Ashok D, Abou-Taleb A, Evans C, Howarth K, Taylor C, Thomson M. Diagnosis and management of the first reported case of esophageal, gastric and small-bowel heterotopias in the colon, using confocal laser endomicroscopy. *Endoscopy* 2009; 41 (Suppl 2): E58.

Venkatesh K, Cohen M, Evans C, Delaney P, Thomas S, Taylor C, Abou-Taleb A, Kiesslich R & Thomson M. Feasibility of confocal endomicroscopy in the diagnosis of paediatric gastrointestinal disorders. *World J Gastroenterol* 2009; 15(18): 2214–2219.

Watson AJ, Duckworth CA, Guan Y, Montrose MH. Mechanisms of epithelial cell shedding in the Mammalian intestine and maintenance of barrier function. *Ann N Y Acad Sci* 2009; 1165: 135-142.

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2008 - Clinical

Bani-Hani KE, Bani-Hani BK. Columnar lined (Barrett's) esophagus: Future perspectives. *J Gastroenterol Hepatol* 2008; 23(2): 178–191.

Buchner AM, Wallace MB. Future expectations in digestive endoscopy: competition with other novel imaging techniques. *Best Pract Res Clin Gastroenterol* 2008; 22(5):971-987.

Curvers WL, Kiesslich R, Bergman JJ. Novel imaging modalities in the detection of oesophageal neoplasia. *Best Pract Res Clin Gastroenterol* 2008; 22(4): 687-720.

Delaney P, Thomas S & McLaren W. Chapter 3: Development and Current Technological Status of Confocal Laser Endomicroscopy. In *Atlas of Endomicroscopy*, Eds. Kiesslich R, Galle PR; Neurath MF. Springer Medizin Verlag, Heidelberg, 2008, p 17-22. ISBN 978-3-540-34757-6.

Dunbar K, Canto M. Confocal endomicroscopy. *Curr Opin Gastroenterol* 2008; 24(5): 631-637.

Falk GW. Is conventional endoscopic identification of non-erosive reflux disease adequate? *Digestion* 2008; 78 (Suppl 1): 17-23.

Gheorghe C, Iacob R, Becheanu G, Dumbrava M. Confocal endomicroscopy for in vivo microscopic analysis of upper gastrointestinal tract premalignant and malignant lesions. *J Gastrointestin Liver Dis* 2008; 17(1): 95-100.

Goetz M, Kiesslich R. Confocal endomicroscopy: in vivo diagnosis of neoplastic lesions of the gastrointestinal tract. *Anticancer Res* 2008; 28(1B): 353-360. [Review].

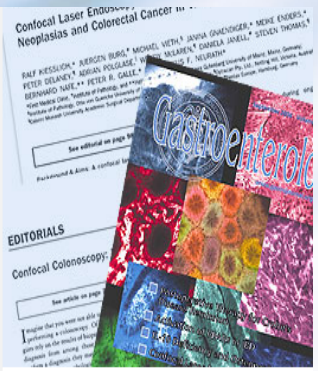
Goetz M, Kiesslich R, Dienes HP, Drebber U, Murr E, Hoffman A, Kanzler S, Galle PR, Delaney P, Neurath MF. In vivo confocal laser endomicroscopy of the human liver: a novel method for assessing liver microarchitecture in real time. *Endoscopy* 2008; 40: 554-562.

Gossner L. Potential contribution of novel imaging modalities in non-erosive reflux disease. *Best Pract Res Clin Gastroenterol* 2008; 22(4): 617-624.

Gunther U, Epple HJ, Heller F, Loddenkemper C, Grunbaum M, Schneider T, Zeitz M, Bojarski C. In vivo diagnosis of intestinal spirochaetosis by confocal endomicroscopy. *Gut* 2008; 57(9): 1331-1333.

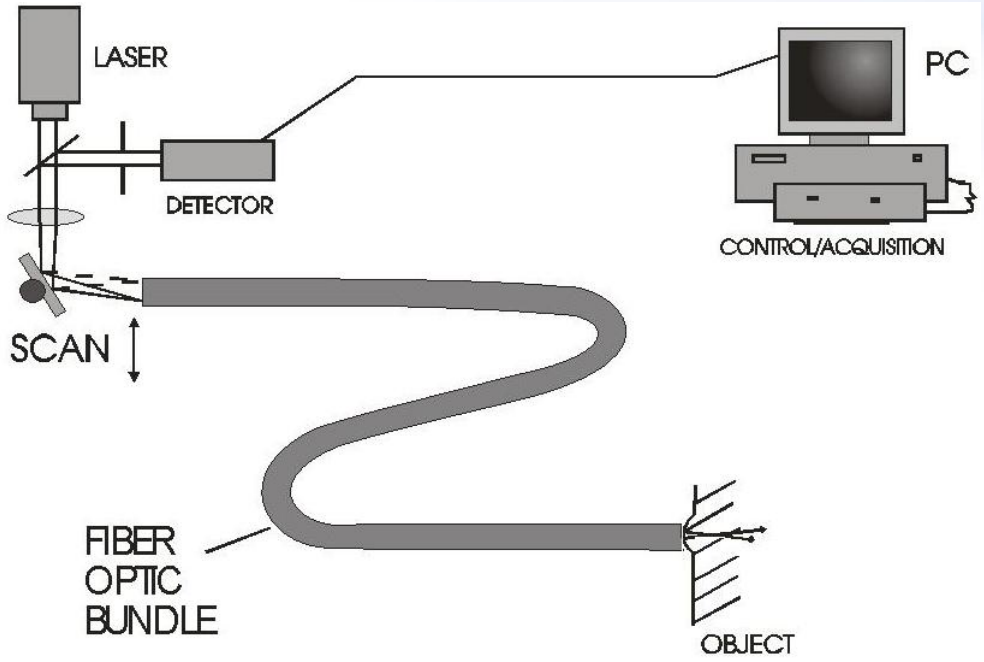
Guo YT, Li YQ, Yu T, Zhang TG, Zhang JN, Liu H, Liu FG, Xie XJ, Zhu Q, Zhao YA. Diagnosis of gastric intestinal metaplasia with confocal laser endomicroscopy in vivo: a prospective study. *Endoscopy* 2008; 40: 547-553.

Hurlstone DP, Baraza W, Brown S, Thomson M, Tiffin N, Cross SS. In vivo real-time confocal laser scanning endomicroscopic colonoscopy for the detection and characterization of colorectal neoplasia. *Br J Surg* 2008; 95(5): 636-

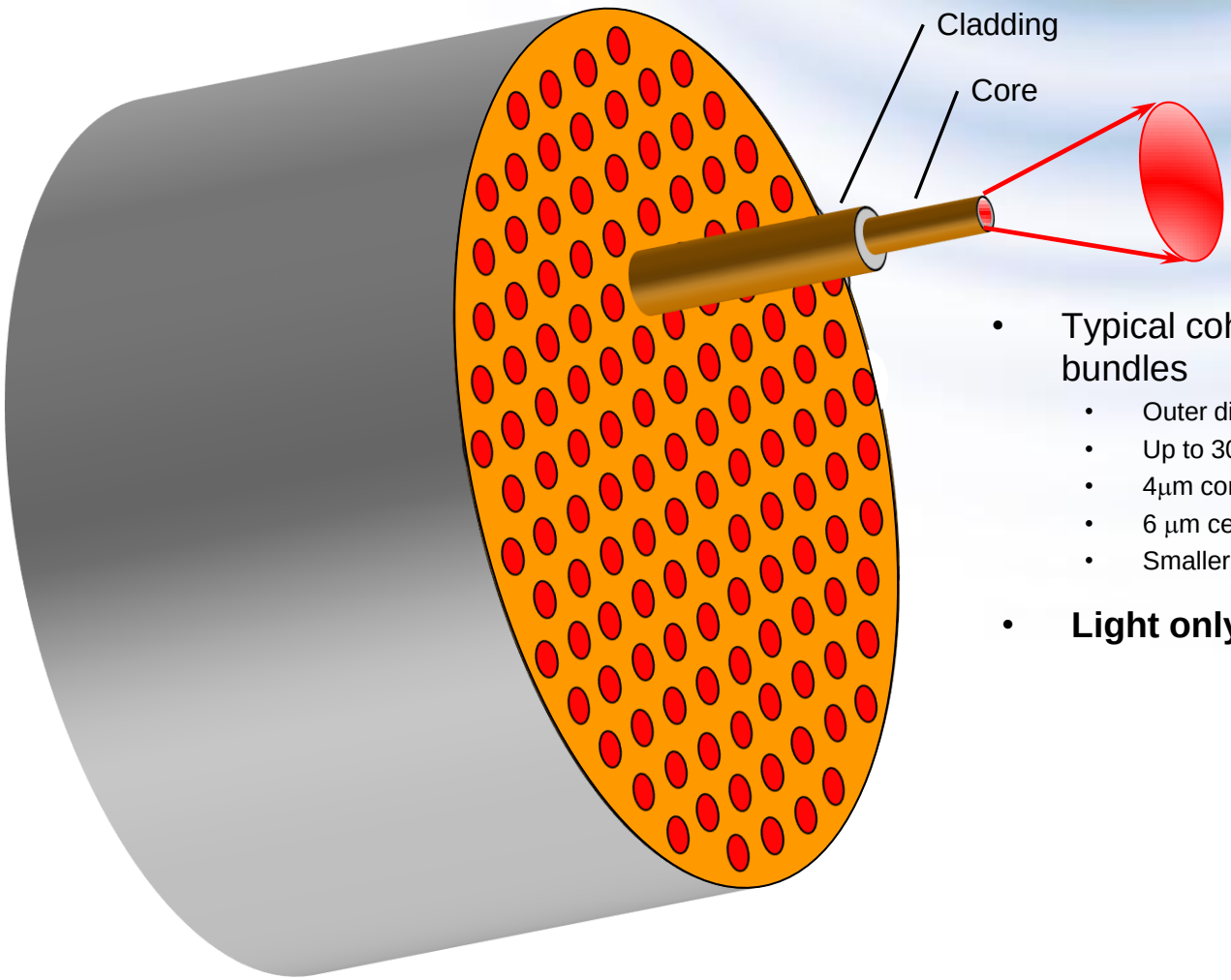


Scanned Bundle Probes (as used in MKT Cellvizio)

- Proximal (near) bundle end scanned
- Image plane transferred to distal (far) end
- Small distal tip diameter
- Image broken up into pixels based on bundle pattern

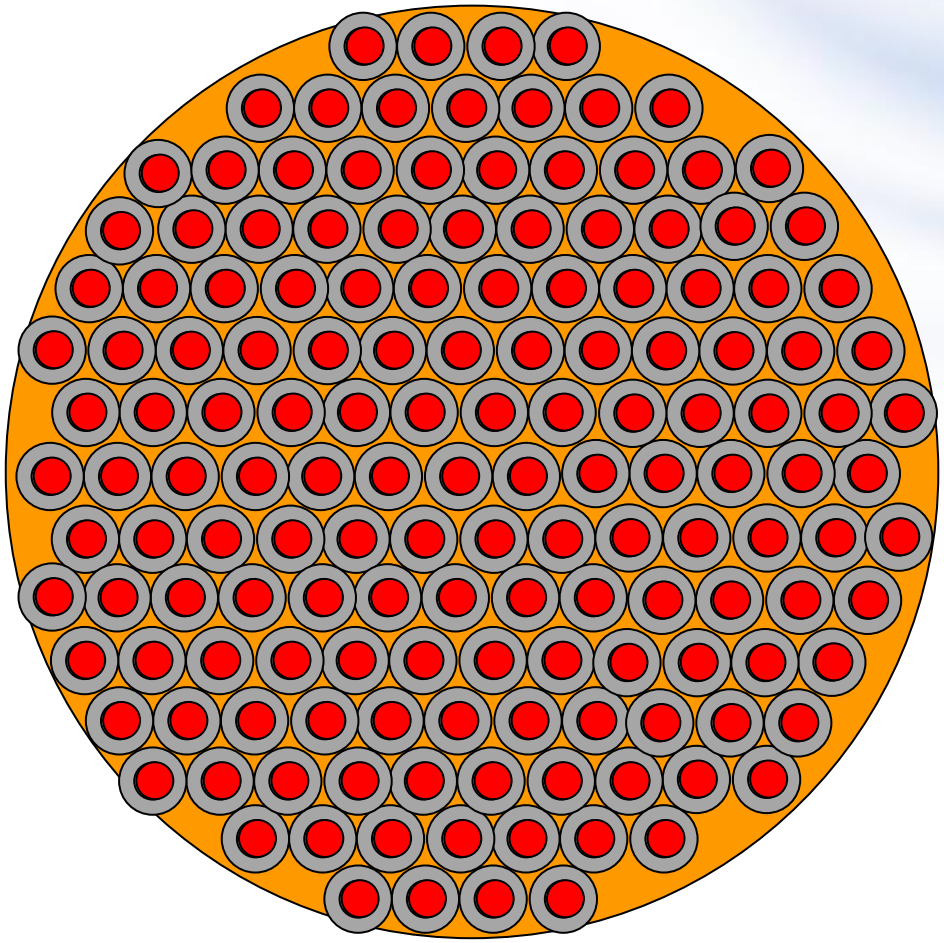


Fiber Bundle



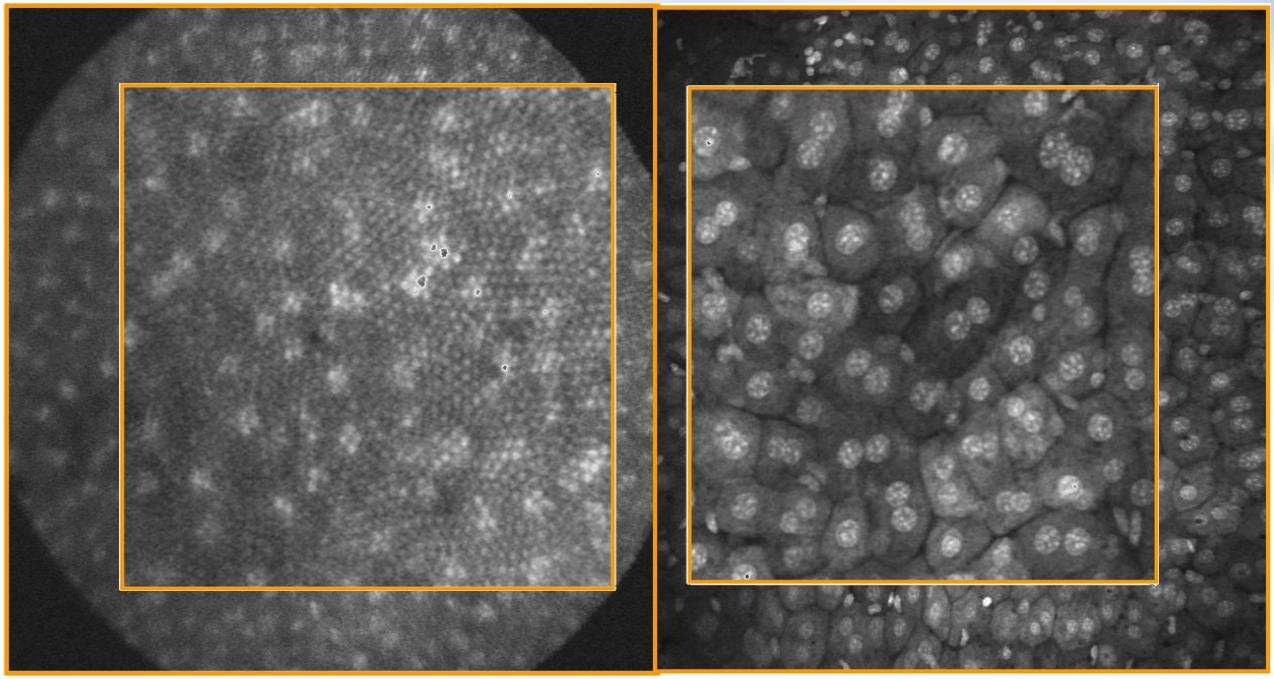
- Typical coherent imaging fiber bundles
  - Outer diameter ~1mm
  - Up to 30,000 fibers (about 1)
  - 4μm cores
  - 6 μm centre – centre (2 μm cladding)
  - Smaller diameter bundles have less fibers
- **Light only travels through cores**

Fiber Bundle Probe



- Bundle scanned at proximal end
- 1 core illuminated at a time
- Each core sees 1 point
  - no structure detected within each point
- **No data collected from between cores**
- Image is an array of spots with gaps in between
- “Microwave oven door” effect

Bundle Imaging (Mkt) vs. Point Scanning (OptiScan)

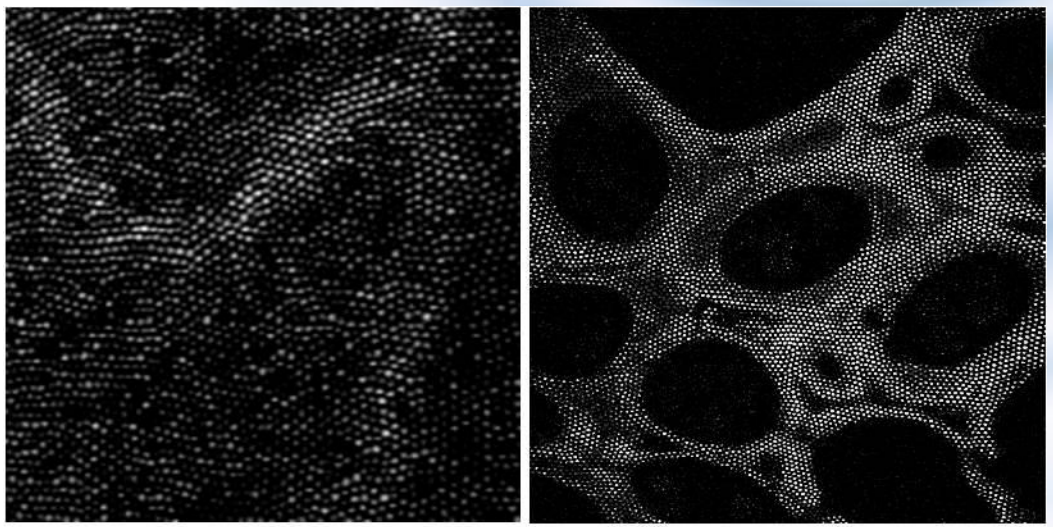


Bundle Probe

Scanning Fiber Probe

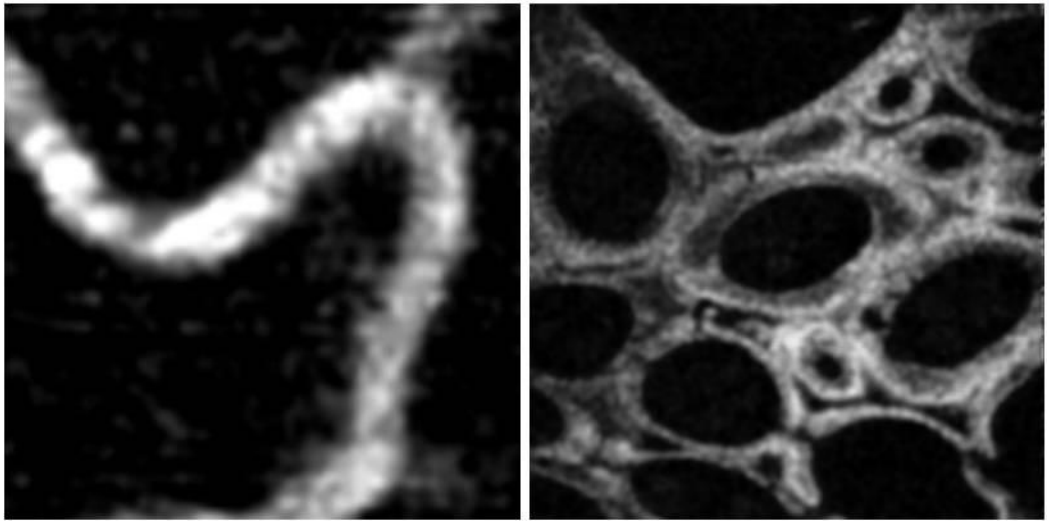
Image Processing Smoothes Appearance of Bundle Images

Raw



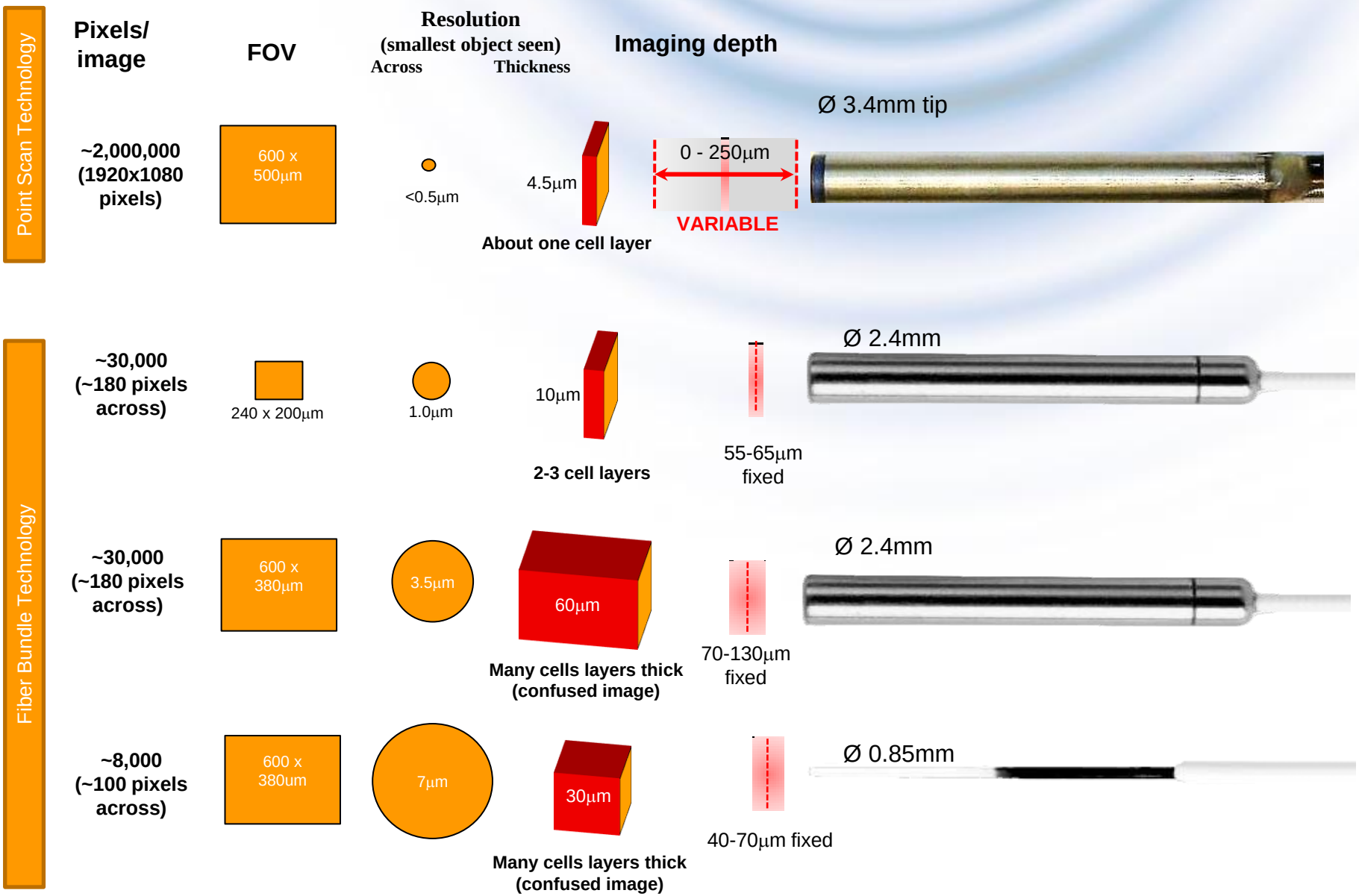
The individual fibers in the bundle are clearly visible as distinct points

Processed



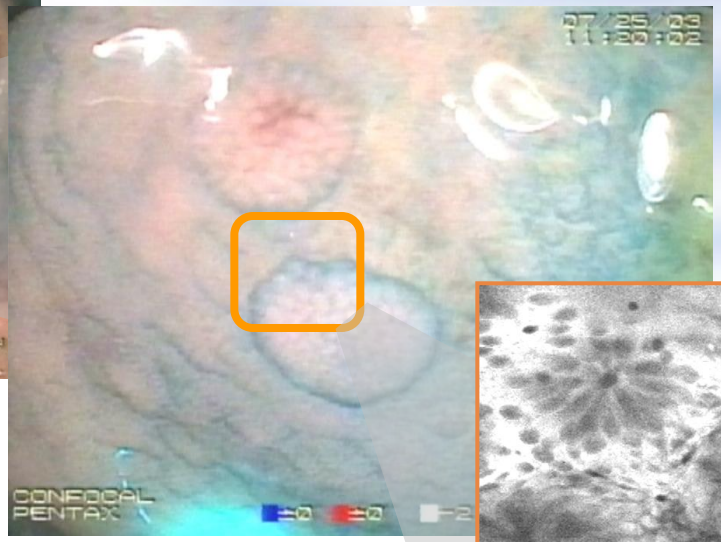
The image appears smoother but the structure resolved are only those resolved in the raw data above.

Fiber Bundles vs. OptiScan's Point Scan Technology

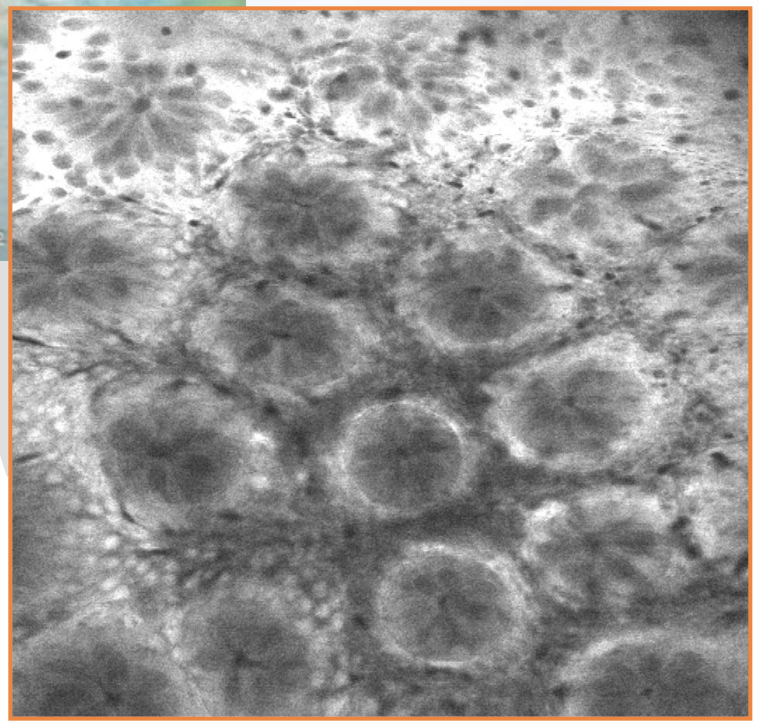


Imaging Workflow During Endoscopy

Far-field macroscopic view
(low magnification)



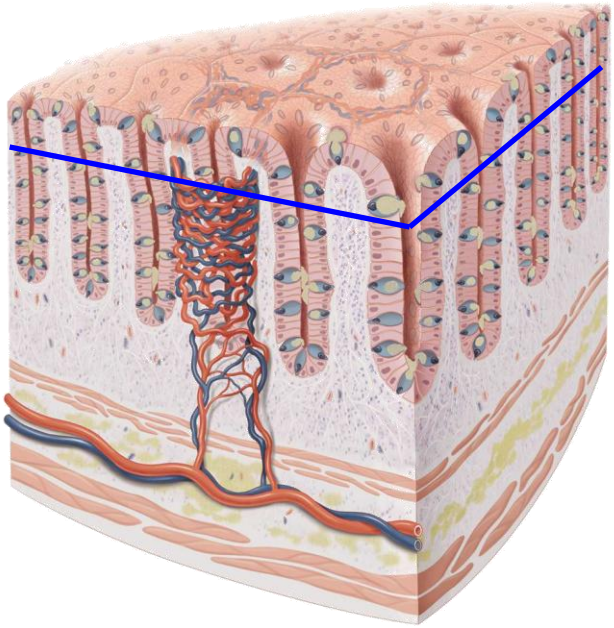
"Close up" macroscopic view
(medium magnification)



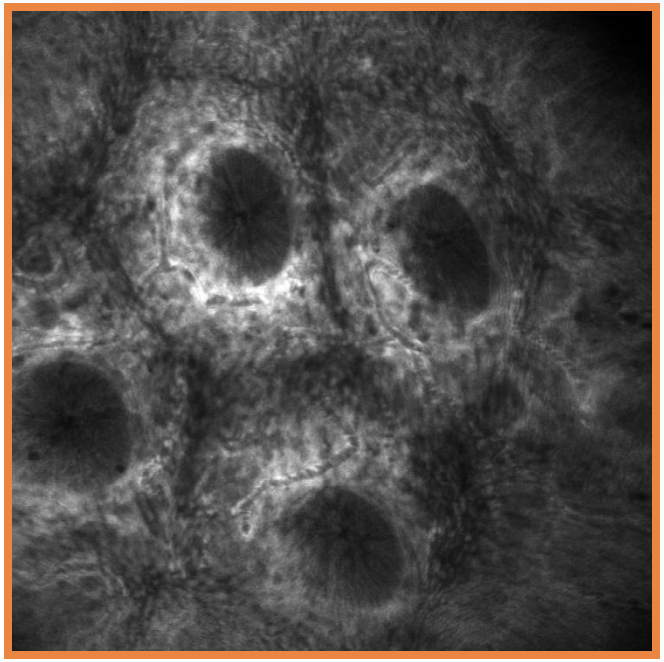
Confocal in vivo histology:
Fluorescein sodium (intravenous)

Images courtesy of Dr Ralf Kiesslich, Mainz University Hospital, Germany

Optical Sectioning In Living Human Mucosa

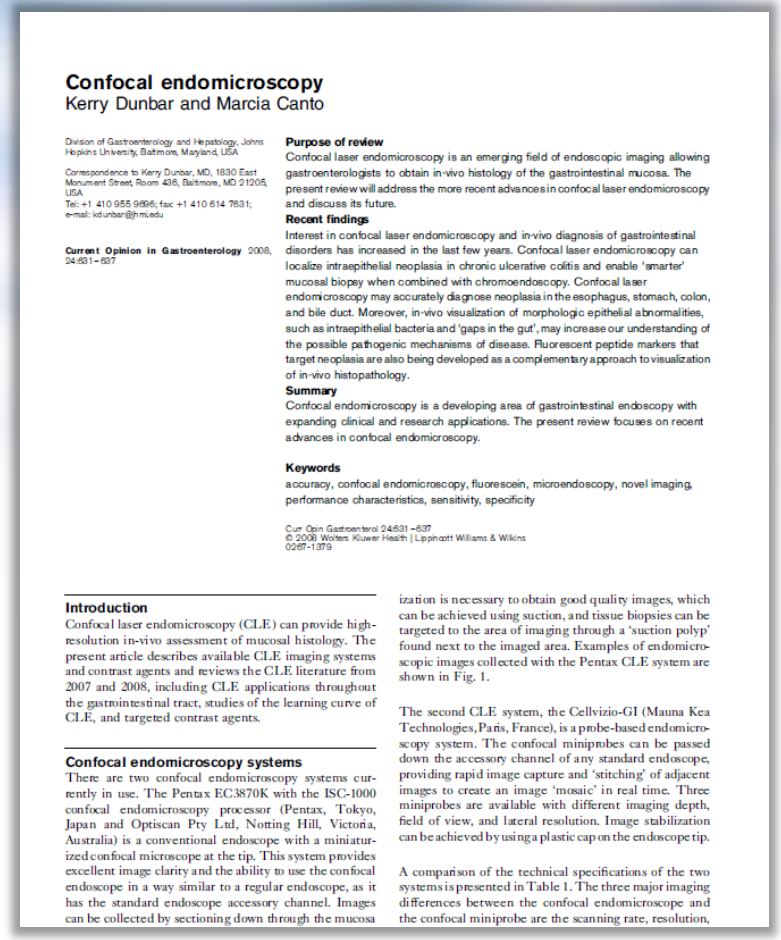


Confocal Image Plane



Flexible Applications Now Cover Most Major Gastrointestinal Disorders

- Barrett's esophagus and Barrett's Cancer
- Oesophageal squamous cell carcinoma
- Non-erosive reflux disease
- Reflux esophagitis
- H. pylori
- Gastritis
- Gastric intestinal metaplasia
- Gastric cancer
- Celiac disease
- Ulcerative Colitis
- Colorectal cancer surveillance
- Microscopic colitis
- Graft Versus Host Disease (GVHD)
- Pouchitis (in colectomy patients)
- Paediatrics



Confocal endomicroscopy
Kerry Dunbar and Marcia Canto

Division of Gastroenterology and Hepatology, Johns Hopkins University, Baltimore, Maryland, USA

Correspondence to Kerry Dunbar, MD, 1830 East Monument Street, Room 436, Baltimore, MD 21205, USA
Tel: +1 410 955 9696; fax: +1 410 614 7631;
e-mail: kdunbar@jhmi.edu

Current Opinion in Gastroenterology 2008, 24:631–637

Purpose of review
Confocal laser endomicroscopy is an emerging field of endoscopic imaging allowing gastroenterologists to obtain in-vivo histology of the gastrointestinal mucosa. The present review will address the more recent advances in confocal laser endomicroscopy and discuss its future.
Recent findings
Interest in confocal laser endomicroscopy and in-vivo diagnosis of gastrointestinal disorders has increased in the last few years. Confocal laser endomicroscopy can localize intraepithelial neoplasia in chronic ulcerative colitis and enable 'smarter' mucosal biopsy when combined with chromoendoscopy. Confocal laser endomicroscopy may accurately diagnose neoplasia in the esophagus, stomach, colon, and bile duct. Moreover, in-vivo visualization of morphologic epithelial abnormalities, such as intraepithelial bacteria and 'gaps in the gut', may increase our understanding of the possible pathogenic mechanisms of disease. Fluorescent peptide markers that target neoplasia are also being developed as a complementary approach to visualization of in-vivo histopathology.
Summary
Confocal endomicroscopy is a developing area of gastrointestinal endoscopy with expanding clinical and research applications. The present review focuses on recent advances in confocal endomicroscopy.

Keywords
accuracy, confocal endomicroscopy, fluorescein, microendoscopy, novel imaging, performance characteristics, sensitivity, specificity

Curr Opin Gastroenterol 24:631–637

0267-1379

Introduction
Confocal laser endomicroscopy (CLE) can provide high-resolution in-vivo assessment of mucosal histology. The present article describes available CLE imaging systems and contrast agents and reviews the CLE literature from 2007 and 2008, including CLE applications throughout the gastrointestinal tract, studies of the learning curve of CLE, and targeted contrast agents.

Confocal endomicroscopy systems
There are two confocal endomicroscopy systems currently in use. The Pentax EC3870K with the ISC-1000 confocal endomicroscopy processor (Pentax, Tokyo, Japan and Optiscan Pty Ltd, Notting Hill, Victoria, Australia) is a conventional endoscope with a miniaturized confocal microscope at the tip. This system provides excellent image clarity and the ability to use the confocal endoscope in a way similar to a regular endoscope, as it has the standard endoscope accessory channel. Images can be collected by sectioning down through the mucosa ization is necessary to obtain good quality images, which can be achieved using suction, and tissue biopsies can be targeted to the area of imaging through a 'suction polyp' found next to the imaged area. Examples of endomicroscopic images collected with the Pentax CLE system are shown in Fig. 1.

The second CLE system, the Cellvizio-GI (Mauna Kea Technologies, Paris, France), is a probe-based endomicroscopy system. The confocal miniprobes can be passed down the accessory channel of any standard endoscope, providing rapid image capture and 'stitching' of adjacent images to create an image 'mosaic' in real time. Three miniprobes are available with different imaging depth, field of view, and lateral resolution. Image stabilization can be achieved by using a plastic cap on the endoscope tip.

A comparison of the technical specifications of the two systems is presented in Table 1. The three major imaging differences between the confocal endomicroscope and the confocal miniprobe are the scanning rate, resolution,

Dunbar K, Canto M. Confocal endomicroscopy. Curr Opin Gastroenterol 2008; 24(5): 631-637.

Rigid Endoscope Applications

- Laparoscopy (liver, endometriosis)
- Thoracosopy (pleural malignancy)
- Neurosurgery
- ENT (oral cancers)
- Cervical cancer
- Whipple procedure (duct margin clearance)
- Robot-assisted prostatectomy

CAPPELLO
CAPITAL CORP.

100 Wilshire Blvd., Suite 1200
Santa Monica, CA 90401
Phone: 310-393-6632
Fax: 310-393-4838
www.cappellocorp.com

For more information or if you have any questions, please contact the following:

Paul Hopper
Managing Director
Cappello Group, Inc.
ph@cappellocorp.com

Paul Kromwyk
Senior Vice President
Cappello Capital Corp.
pkromwyk@cappellocorp.com

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