

# Homus Endoscopicus

Alessandro Repici, MD  
Professor of Gastroenterology  
Humanitas University, Humanitas Research  
Hospital

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# My Research Fellowship in Canada 1997



# How scopes have changed over last 25 y

**Fiberscopes**

*70's*

**Video Scopes**

*Early 90's*



**High Definition**

*Late 90's*

**NBI**

*2005*

**FICE – iScan - Lumos**

*2006*

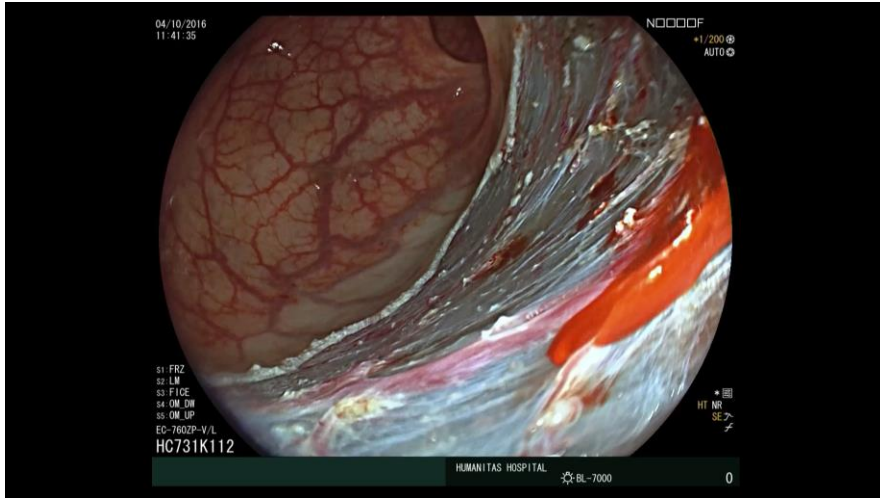
**Blu Light Imaging – Linked Color Imaging**

*2016*

# Conventional Chromoendoscopy



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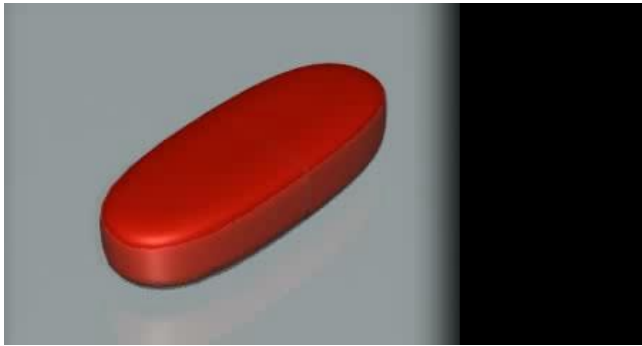






# Development of new drug – LumeBlue

MMX technology delivering Methylene Blue



**PATENT FILING**

2011



2010 - 2011

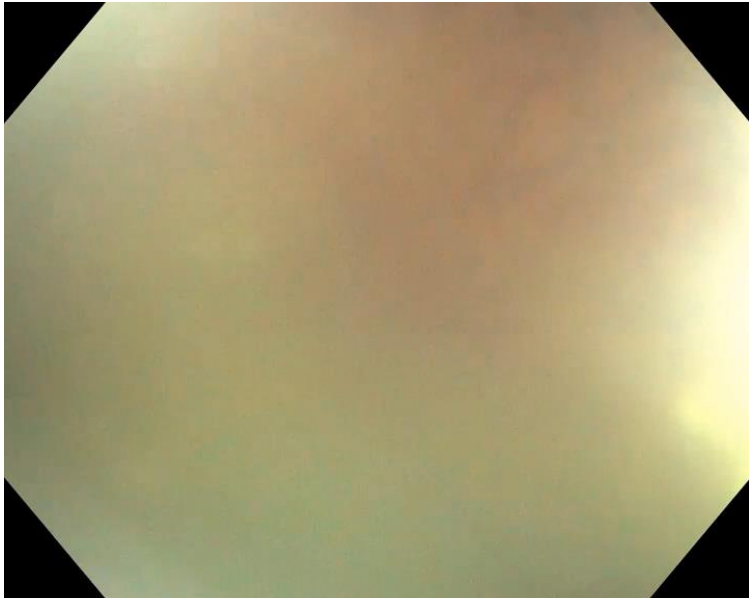
**CONCEPT  
FORMULATION**



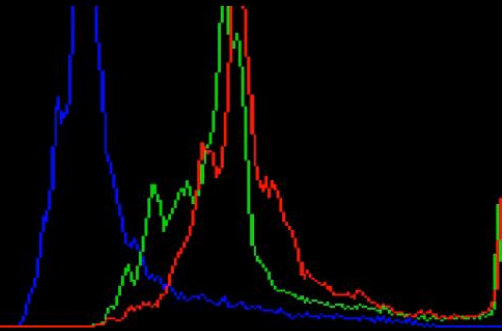
2017

**End of Phase III  
FDA submission**

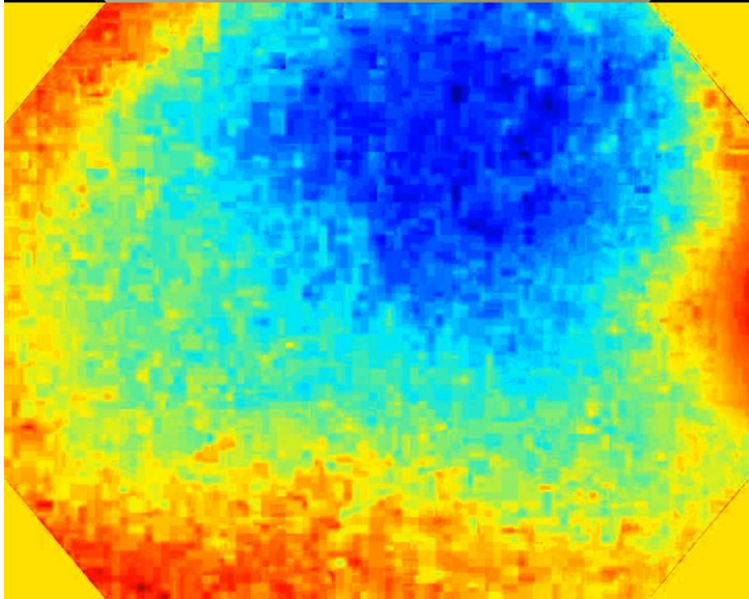
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PRIMAGA



No Lesion Detected





# Endoscopy middle 90's

Gastro

Surgeons

Rest of the world



# Endoscopy middle 90's

- Ancillary discipline
- Mostly diagnostic (my first PEG in 1991)
- Little EUS (in 1991, 4 systems in Italy)
- ERCP was the dream

# The Discipline of Gastroenterology

- ▶ Hepatology
- ▶ Peptic diseases/Hp

# ENDOSCOPY

- ▶ Neoplasia
- ▶ Endoscopy

# The Big Changes

- Awareness
- US studies/Research
- Technology improvement
- Proper development of knowledge
- Invasion of the surgical space
- Multidisciplinary approach
- Quality metrics
- Training and educational attitude

## Clinics Review Articles

GASTROINTESTINAL ENDOSCOPY  
CLINICS OF NORTH AMERICA

# Advances in Colonoscopy

### EDITORS

Charles J. Kahi  
Douglas K. Rex

### CONSULTING EDITOR

Charles J. Lightdale

APRIL 2015



Charles J. Kahi, MD, MSc



Douglas K. Rex, MD

Editors

*Colonoscopy is the medical procedure  
with the most profound and lasting  
impact on patients' lives.*

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# Gastroenterology and Cancer Prevention

- Colon

## ENDOSCOPY

- IBD-related dysplasia

- IPMN

**PREVENTION OF COLORECTAL CANCER BY COLONOSCOPIC POLYPECTOMY**

SIDNEY J. WINAWER, M.D., ANN G. ZAUBER, PH.D., MAY NAH HO, M.S., MICHAEL J. O'BRIEN, M.D.,  
LEONARD S. GOTTLIEB, M.D., STEPHEN S. STERNBERG, M.D., JEROME D. WAYE, M.D.,  
MELVIN SCHAPIRO, M.D., JOHN H. BOND, M.D., JOEL F. PANISH, M.D., FREDERICK ACKROYD, M.D.,  
MOSHE SHIKE, M.D., ROBERT C. KURTZ, M.D., LYNN HORNSBY-LEWIS, M.D., HANS GERDES, M.D.,  
EDWARD T. STEWART, M.D., AND THE NATIONAL POLYP STUDY WORKGROUP\*

The New England  
Journal of Medicine

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VOLUME 342

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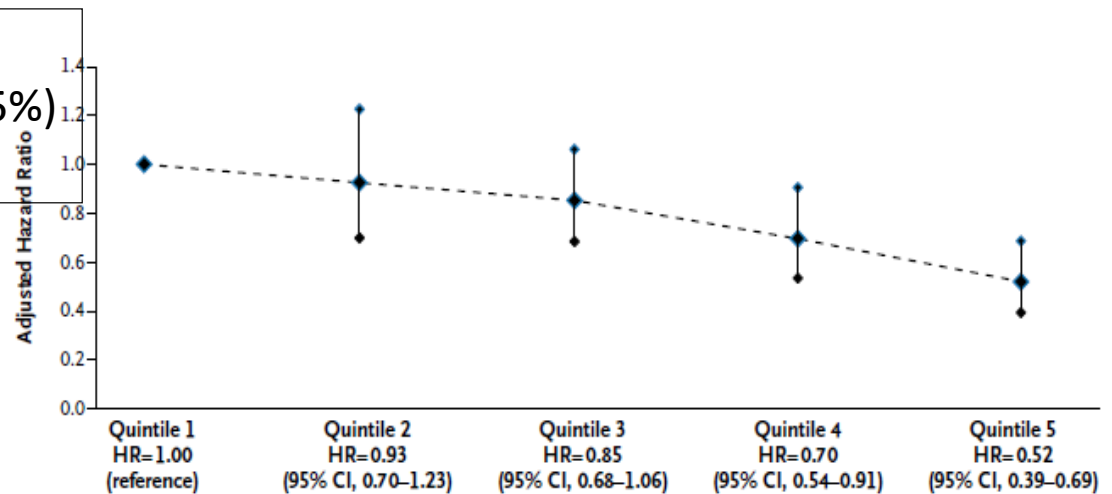
**A COMPARISON OF COLONOSCOPY AND DOUBLE-CONTRAST BARIUM ENEMA  
FOR SURVEILLANCE AFTER POLYPECTOMY**

SIDNEY J. WINAWER, M.D., EDWARD T. STEWART, M.D., ANN G. ZAUBER, PH.D., JOHN H. BOND, M.D.,  
HOWARD ANSEL, M.D., JEROME D. WAYE, M.D., DEBORAH HALL, M.D., J. ANDREW HAMLIN, M.D.,  
MELVIN SCHAPIRO, M.D., MICHAEL J. O'BRIEN, M.D., M.P.H., STEPHEN S. STERNBERG, M.D.,  
AND LEONARD S. GOTTLIEB, M.D., M.P.H., FOR THE NATIONAL POLYP STUDY WORK GROUP\*

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# ADR and risk of interval cancer

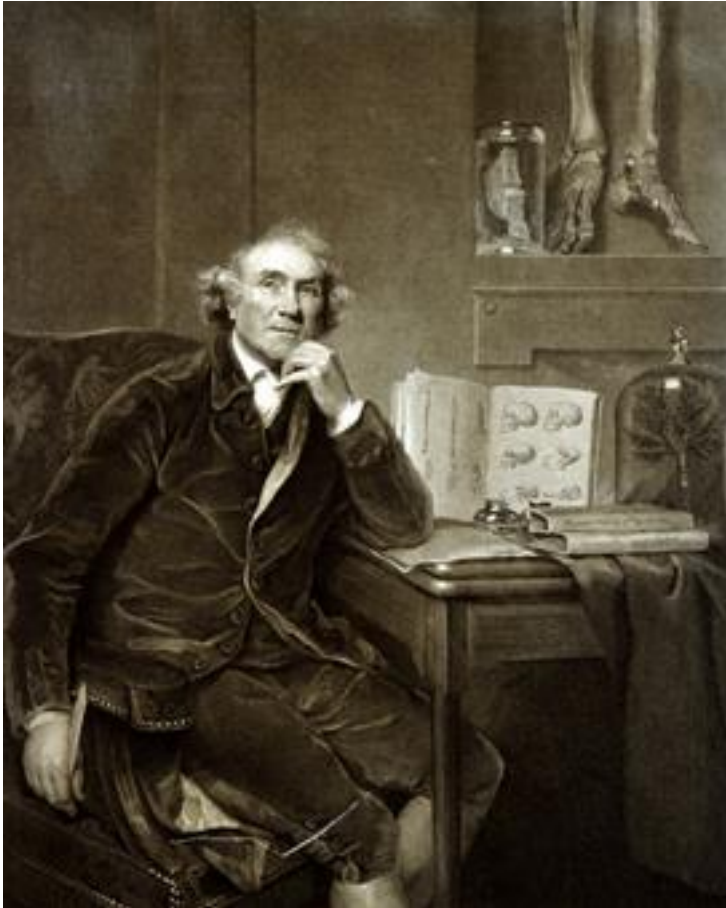
USA  
136 endoscopists (ADR 7.3% - 55.5%)  
712 interval cancer



**+ 1% ADR → 3% reduction of CCR risk**

**+ 1% ADR → 5% reduction of CCR mortality risk**

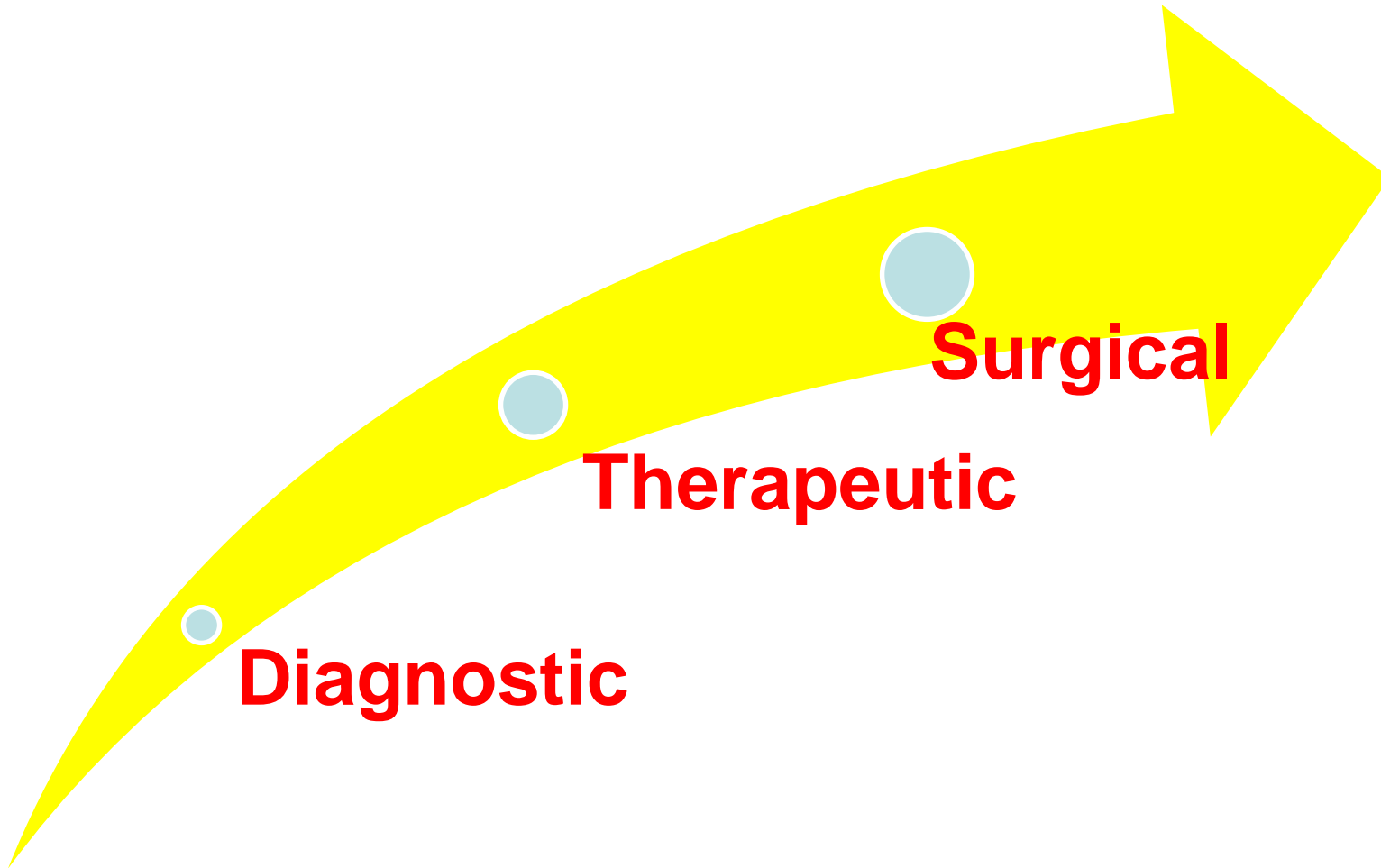
# The Hunter's Prophecy



*“Surgery, gaining much from the general advance of knowledge, will be rendered both knifeless and bloodless.”*

London, 1762

# The evolution of Endoscopy



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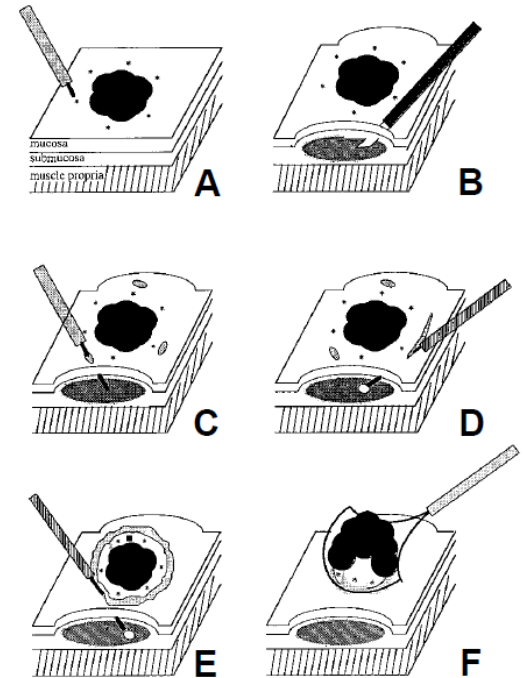


# «...a new EMR »

## CASE REPORTS

A new endoscopic mucosal resection procedure using an insulation-tipped electro-surgical knife for rectal flat lesions: report of two cases

Takuji Gotoda, MD, Hitoshi Kondo, MD, Hiroyuki Ono, Yutaka Saito, MD, Hajime Yamaguchi, MD, Daizo Saito, MD, Toshihiro Yokota, MD



First case in a 75-year-old man 20 mm flat rectal lesion (tubular adenoma ) treated by using the IT knife and electro-surgical snare loop.



NO000F

\*1/200  
AUTO

HT NR  
SE  
3.2  
11.7  
11.8  
EC-760ZP-V/M  
1C730K012  
BL-7000  
HUMANITAS HOSPITAL

S1: F/T
S2: LM
S3: FICE
S4: OM_DW
S5: OM_UP

# New Platforms

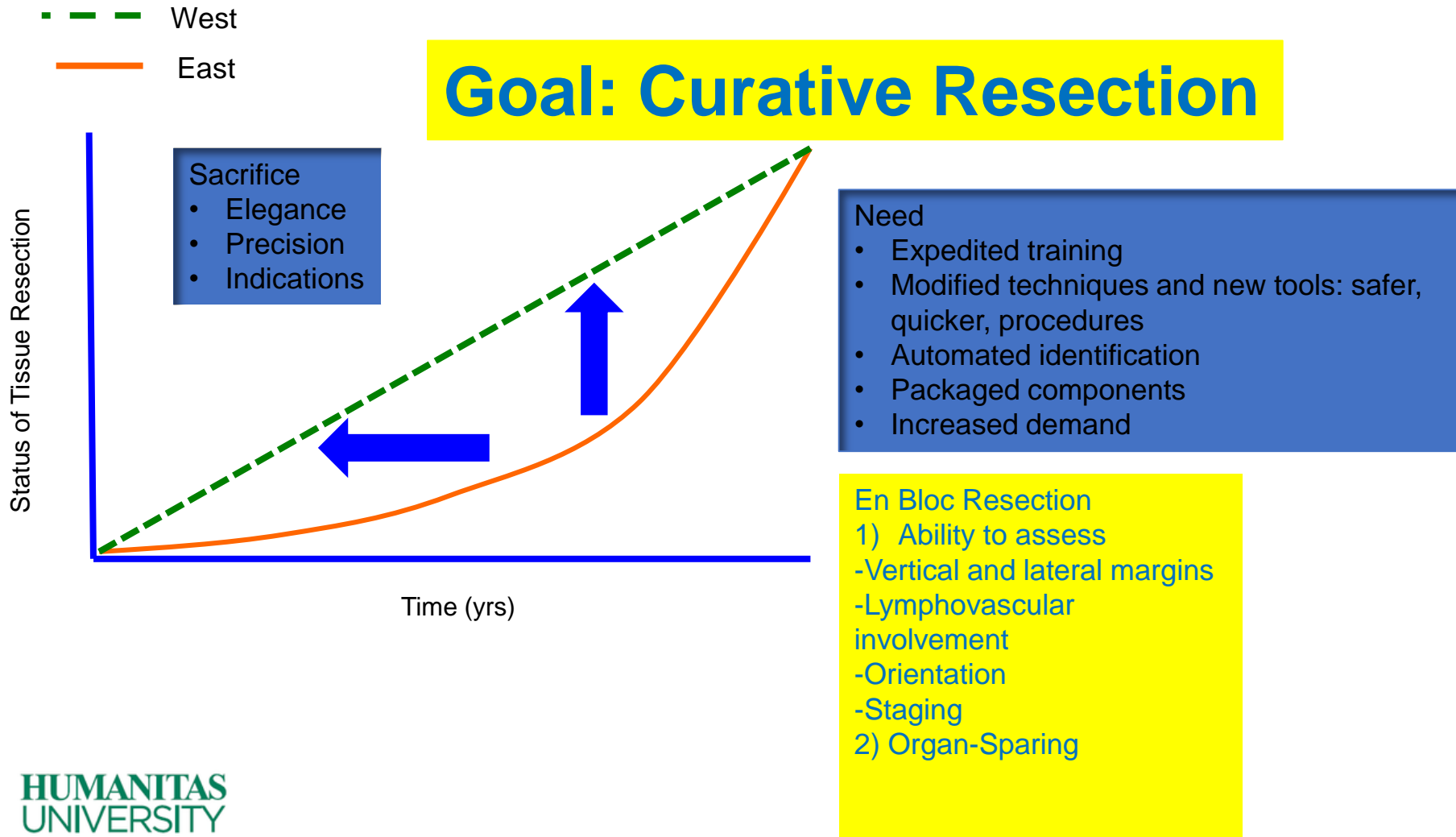




to E311

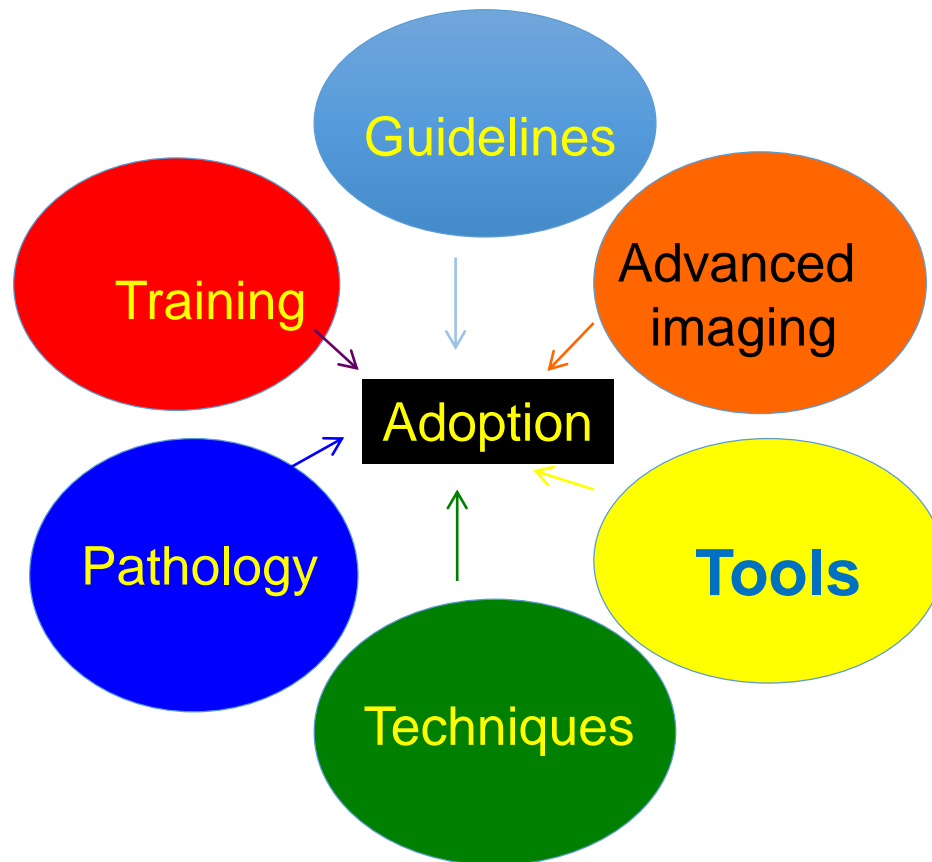
# Evolution of Tissue Resection

## Goal: Curative Resection





# Endoscopic oncologic resection platform



ID paziente:  
Nome paziente:

Gen: Età:  
DDN:  
09/02/2015  
13:51:05

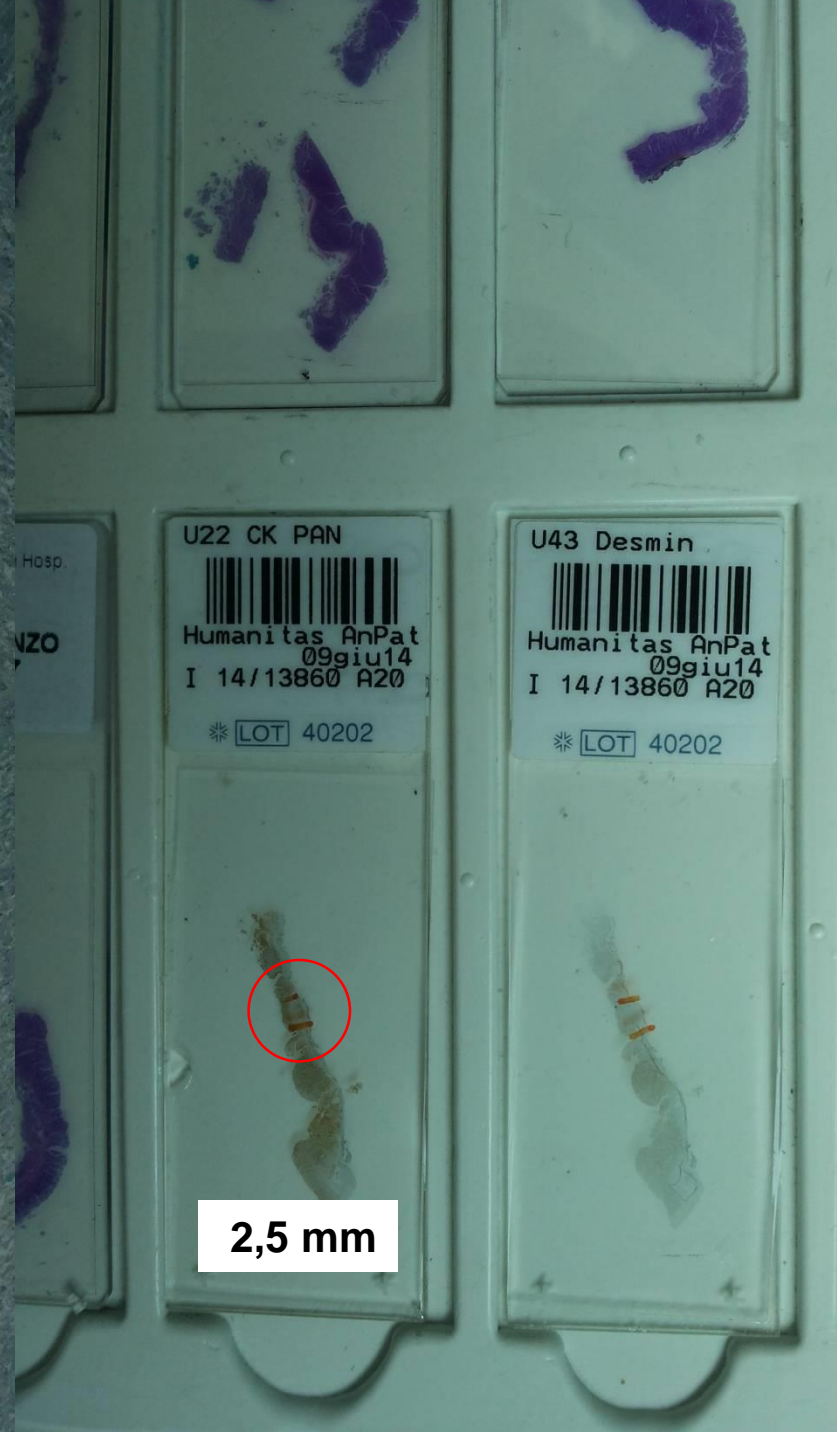
■■■/---(0/1)  
Ch:A4 Cm:1

Commento:



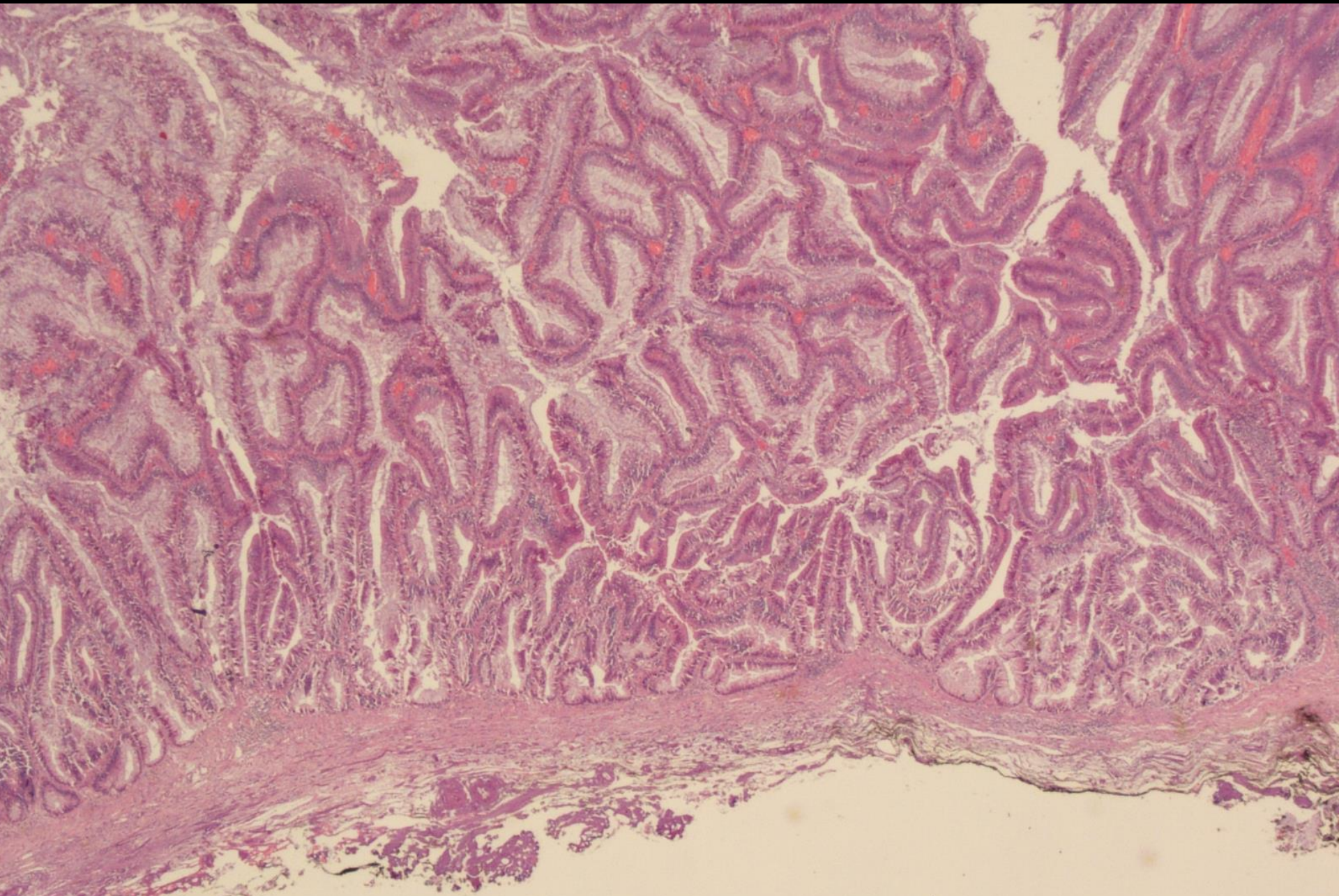
Near  
Focus





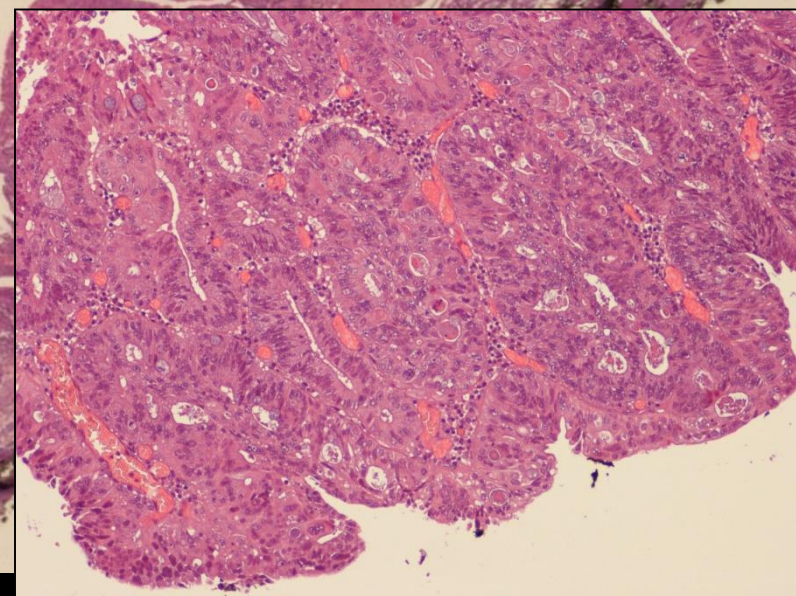
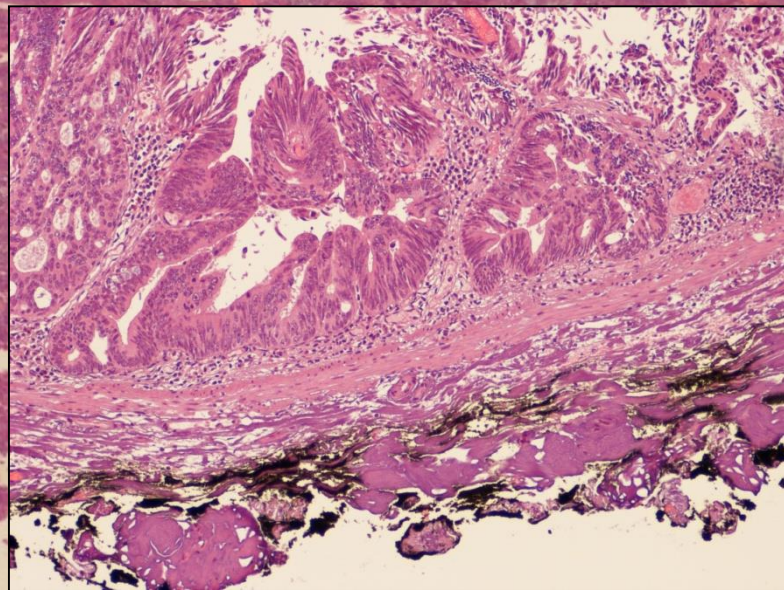
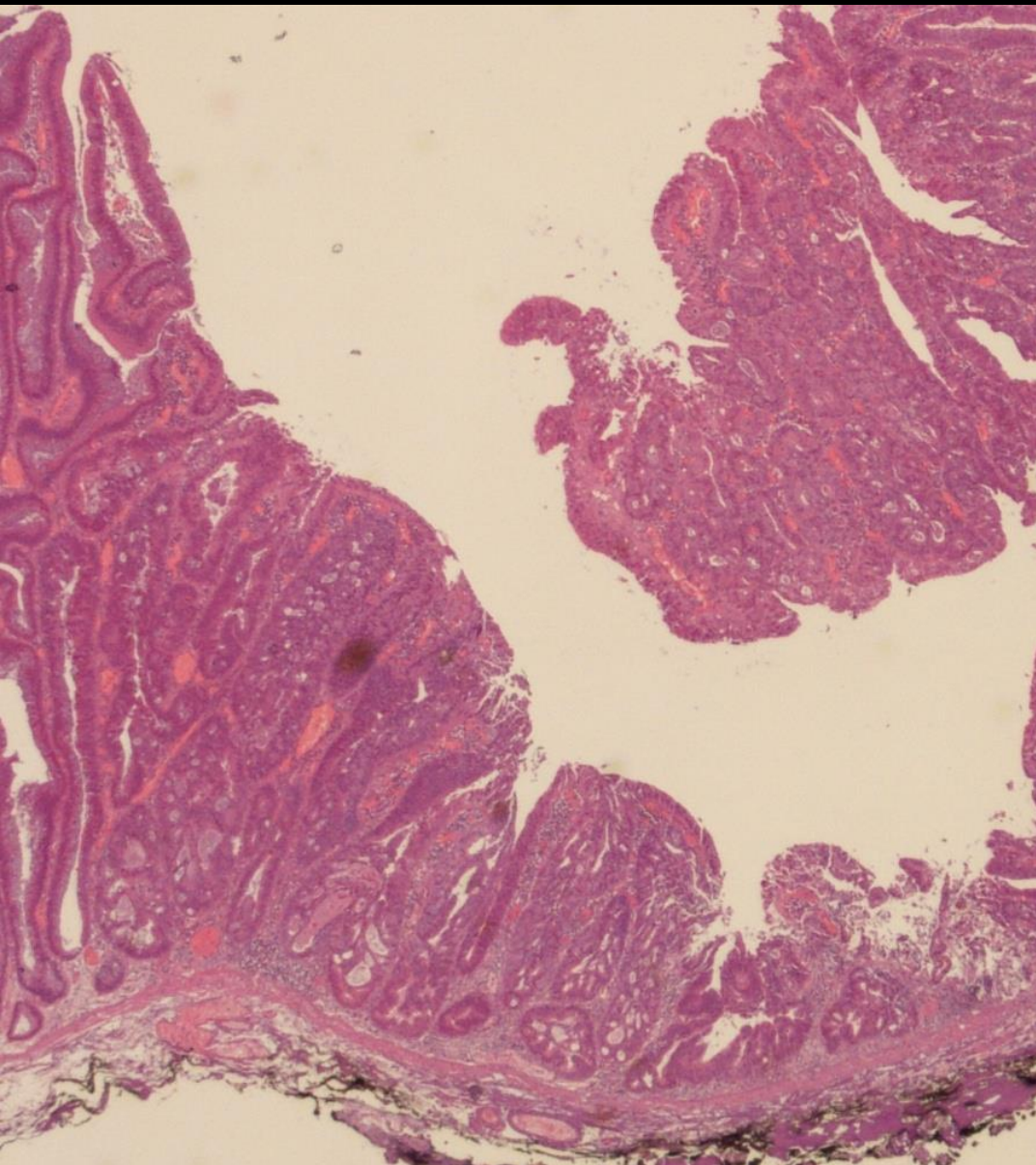


Low grade dysplasia (all blocks)



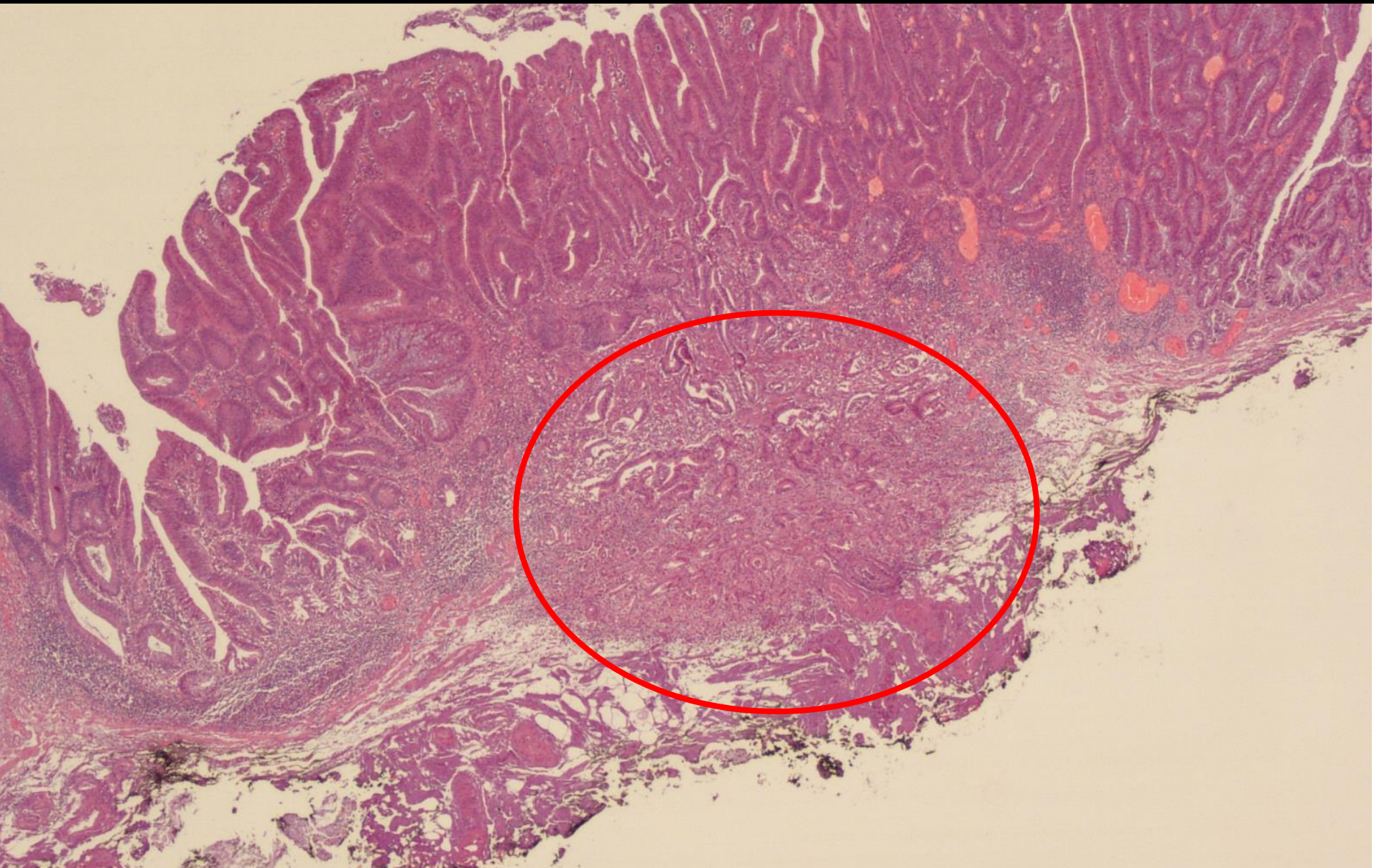


# High grade dysplasia (one of 37 blocks)



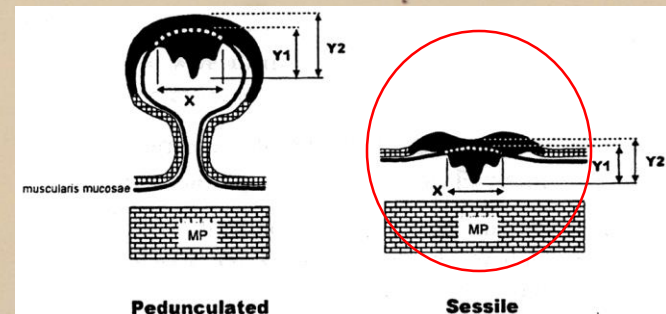
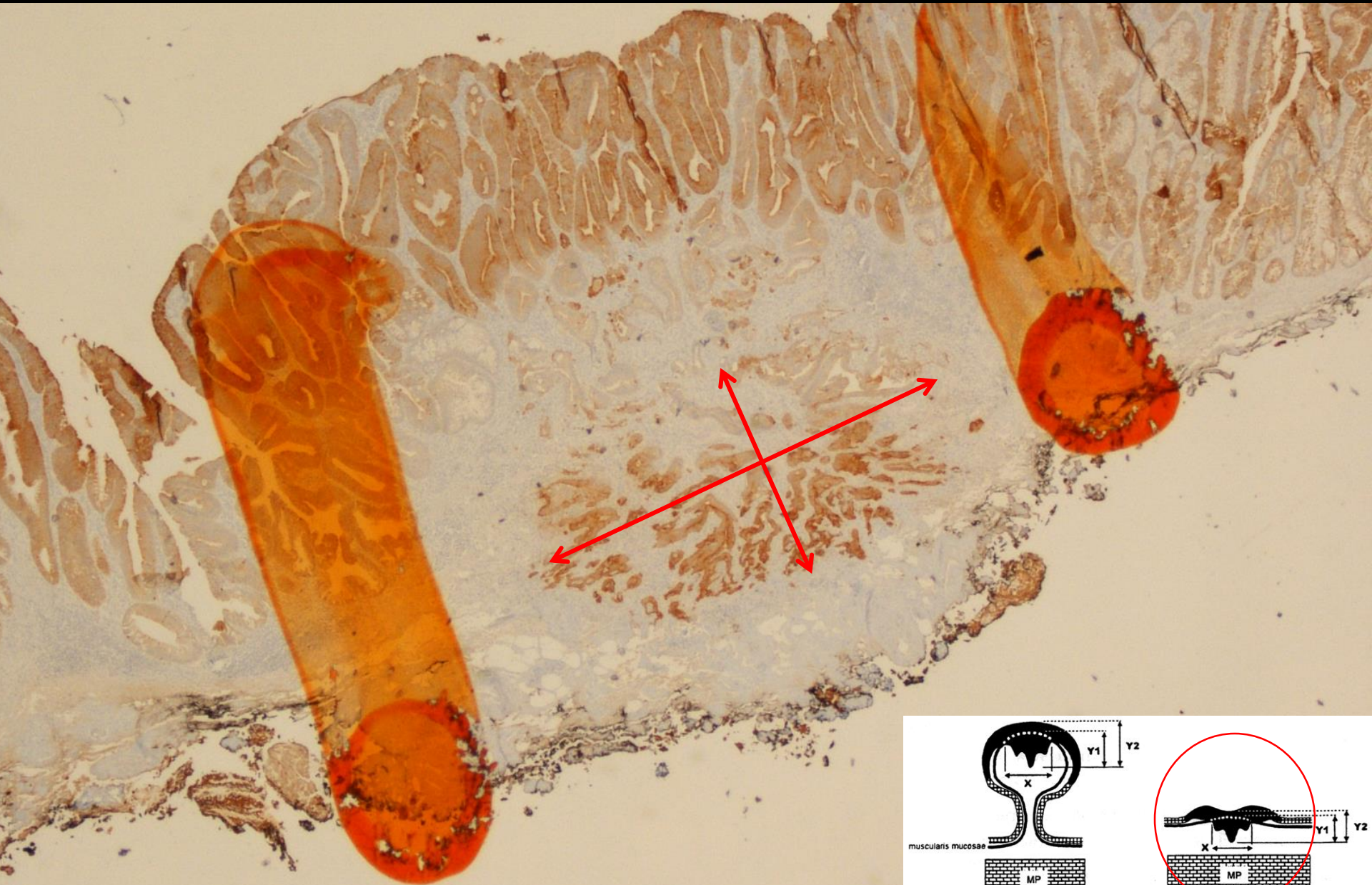


Superficially Invasive carcinoma (pT1), one of 37 blocks



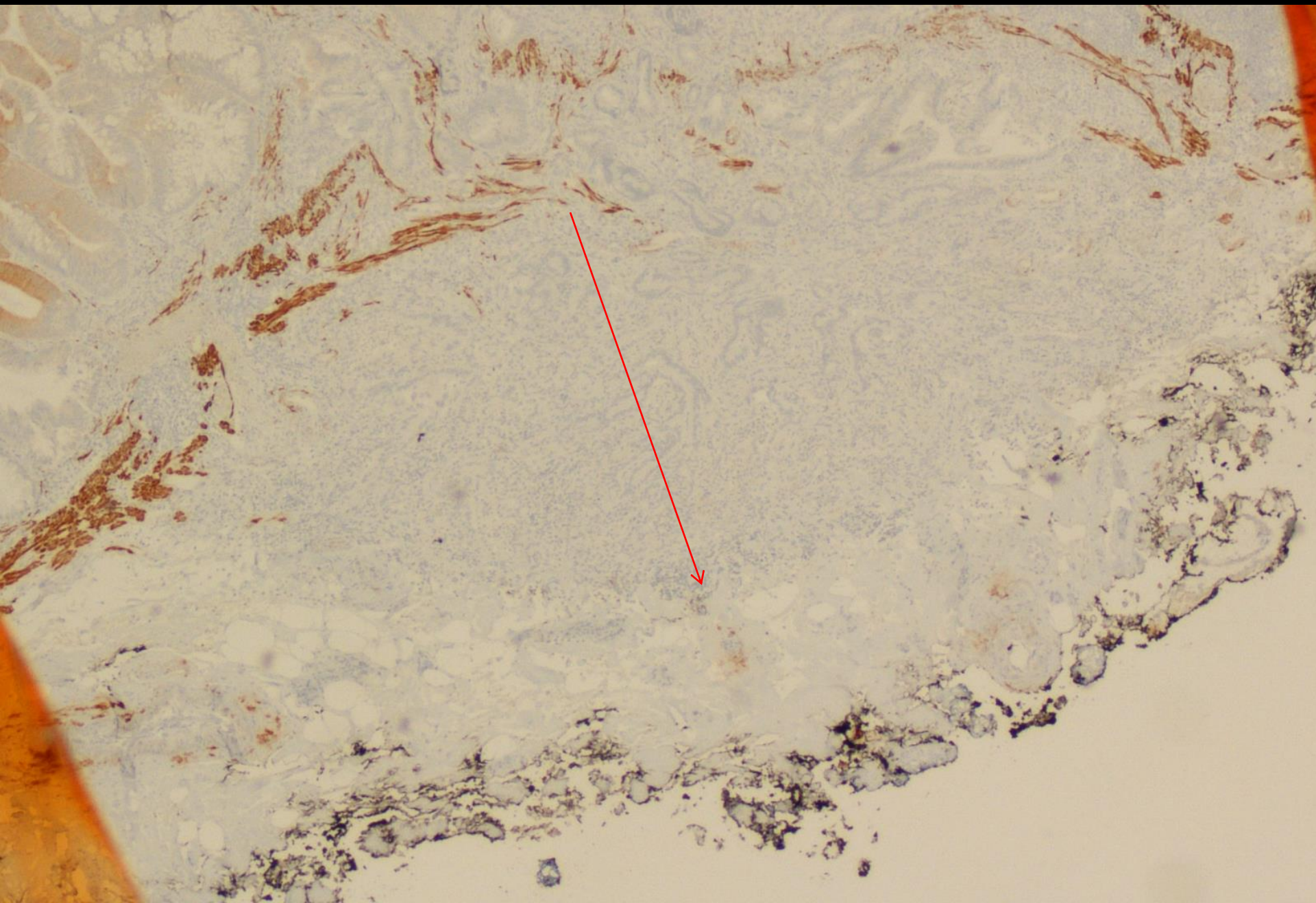


width < mm 4, depth < mm 2, Ueno 2004





depth 540 micron, sm1



# The Evolution of Therapeutic endoscopy Replacing Surgery

- Luminal Space
- Extraluminal space
- Third Space





ID:  
NOME:

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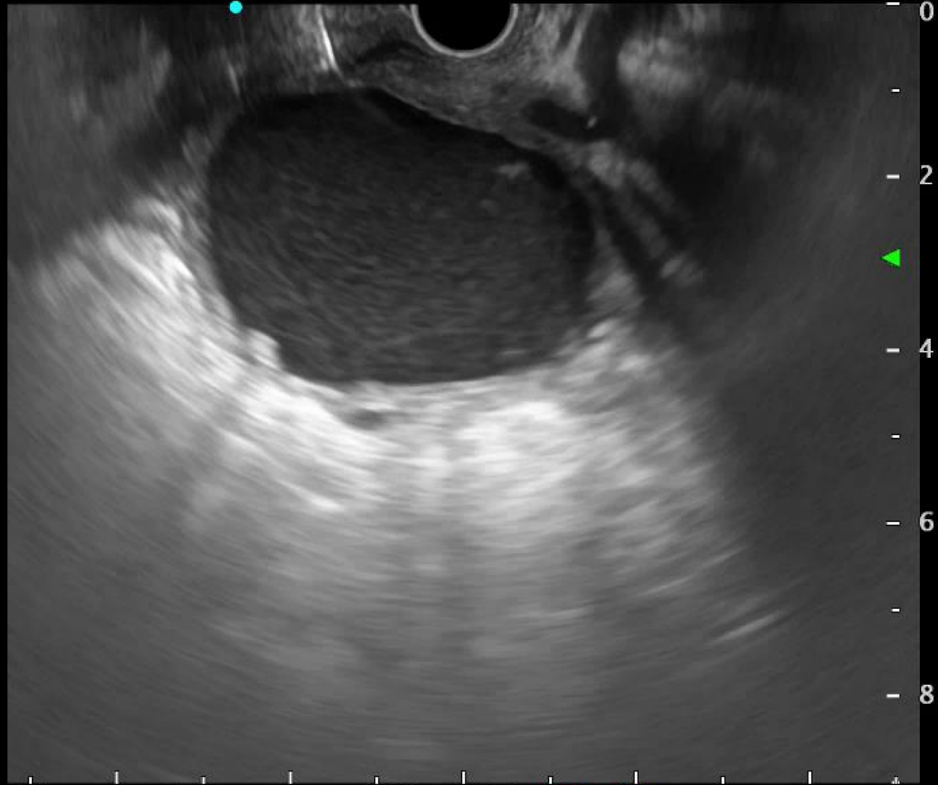
DDN:

ETÀ: SEX: 24/02/2015 11:14:13

TX :100%  
MI :0.6  
TIS:<0.4

7.5MHZ

G :19  
C : 4



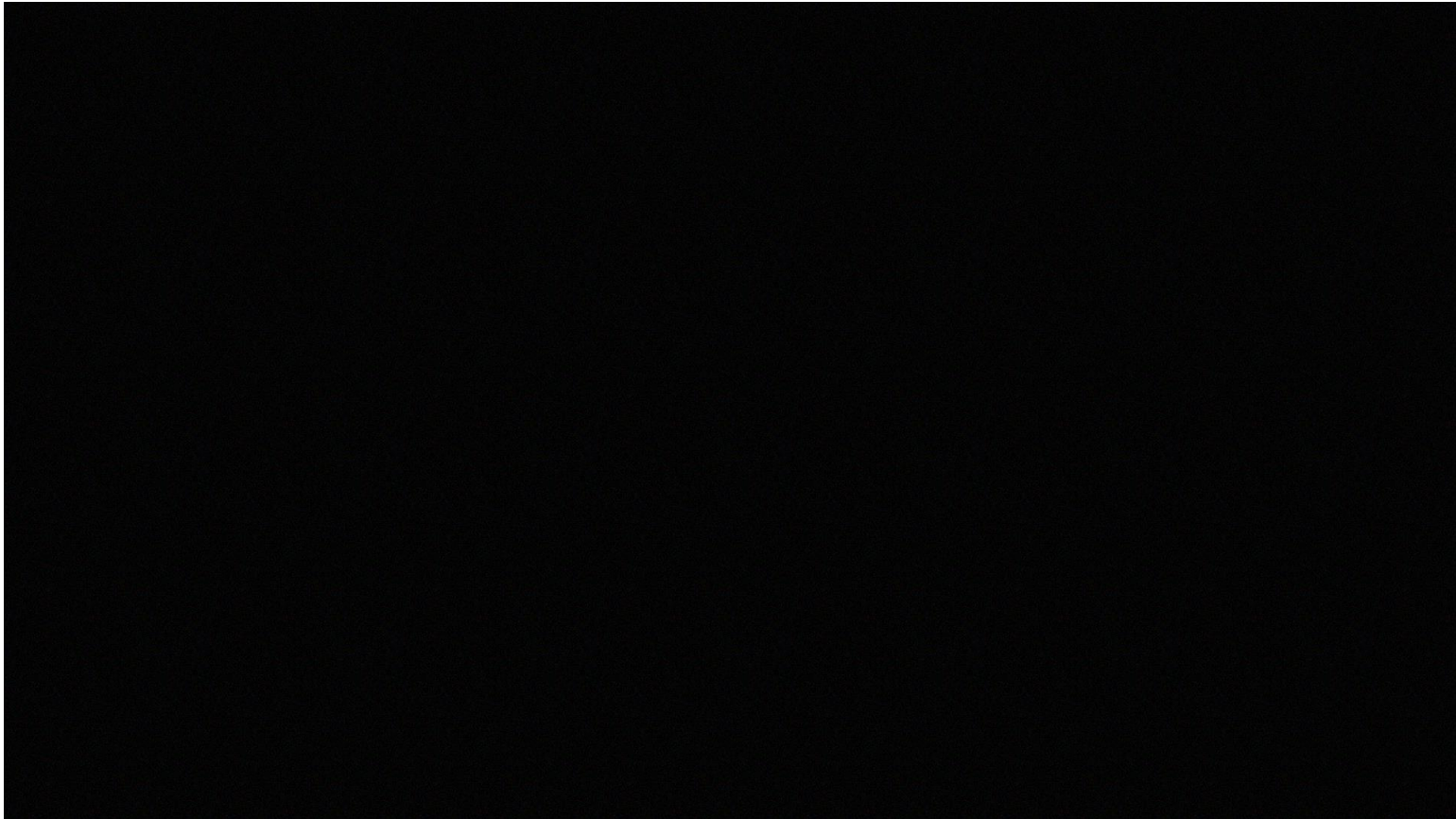
MEDIA

CV: 1

US

R



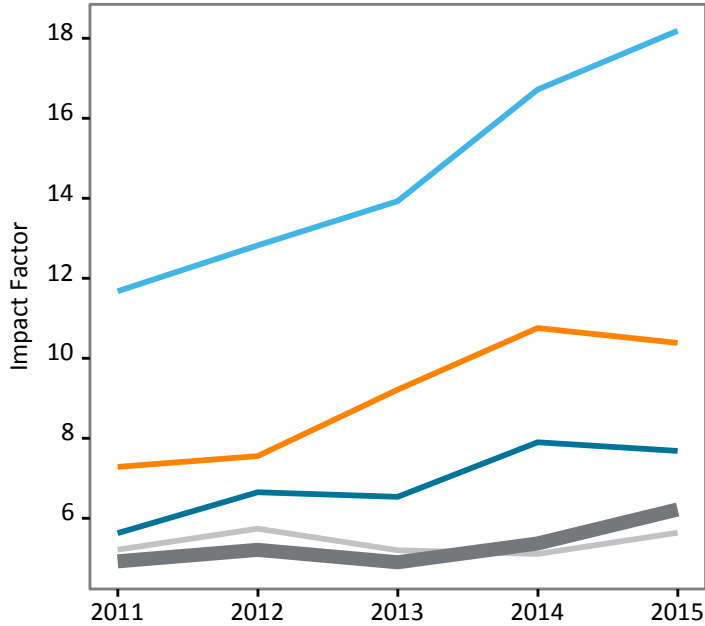


# Research – Education - Quality

- Rigorous Studies
- Prospective evidence
- Dedicated training program
- Auditing process for quality metrics

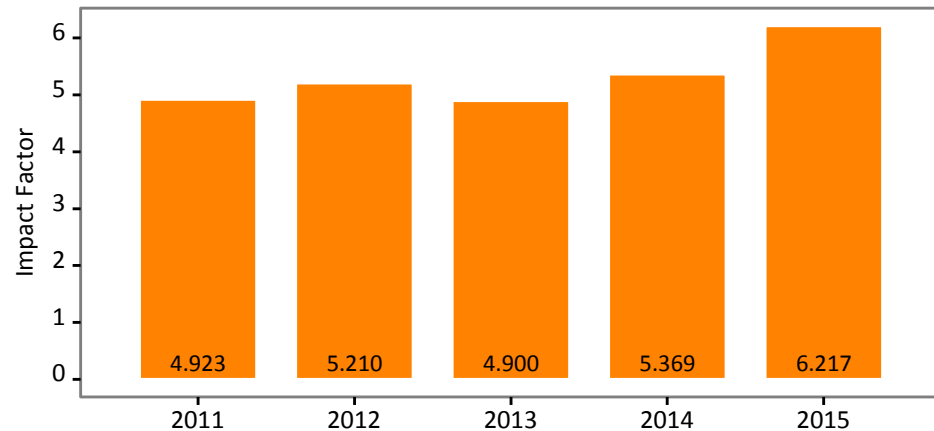


# Impact Factors for Endoscopy Journals




Category	Rank	Total Journals	Ranking %
Gastroenterology & Hepatology	10	78	Q1

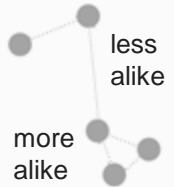
Gastrointestinal Endoscopy

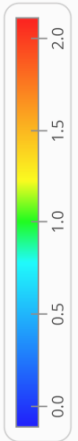


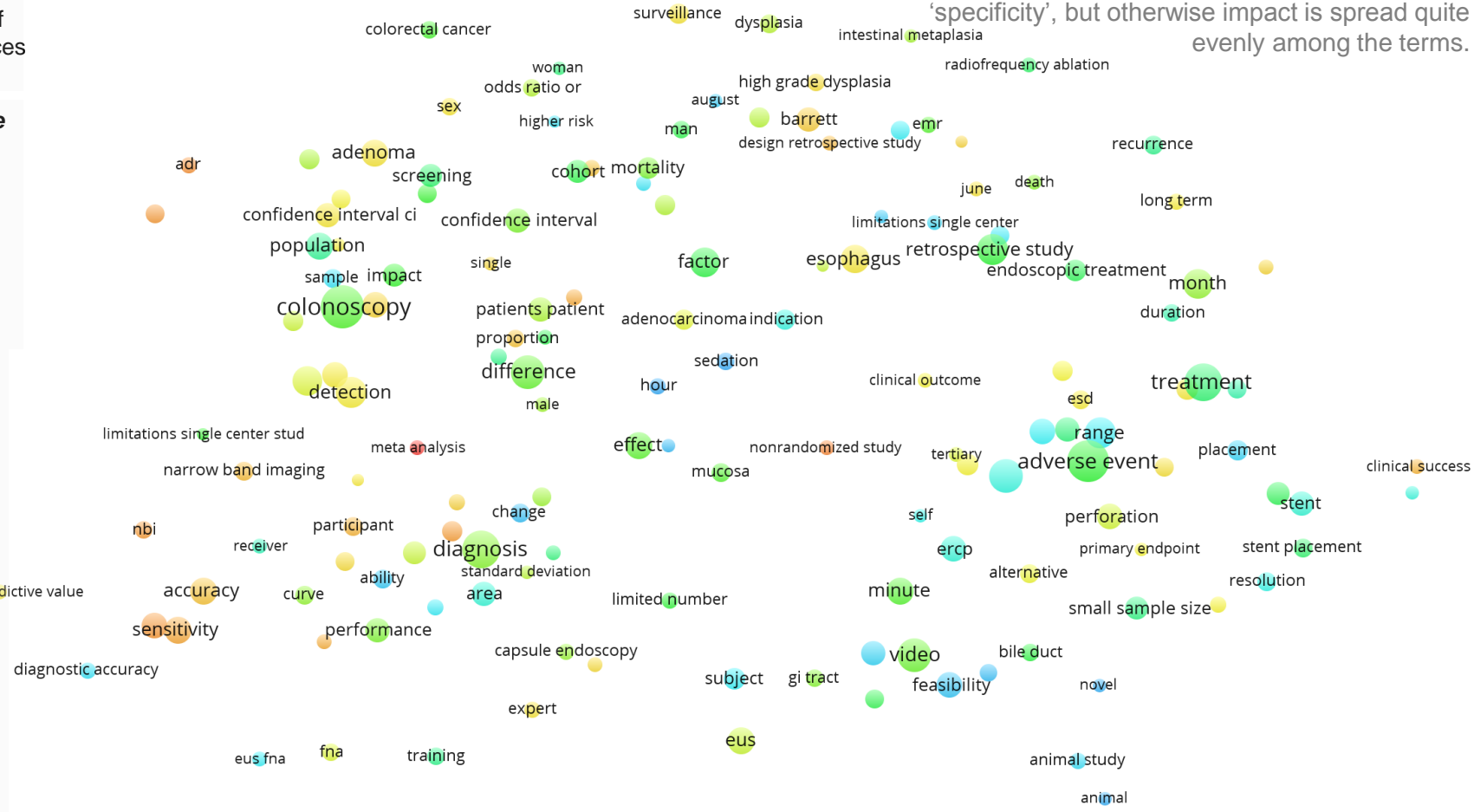
# Endo 2015 IF window Term Map

A term map for Endo 2015 IF window articles, reviews and proceedings papers show that the relatively more highly cited content is in the lower left hand section, and includes terms such as 'sensitivity', 'accuracy', and 'specificity', but otherwise impact is spread quite evenly among the terms.

**Node size**  
 count of occurrences

**Co-occurrence clustering**  
 less alike  
more alike

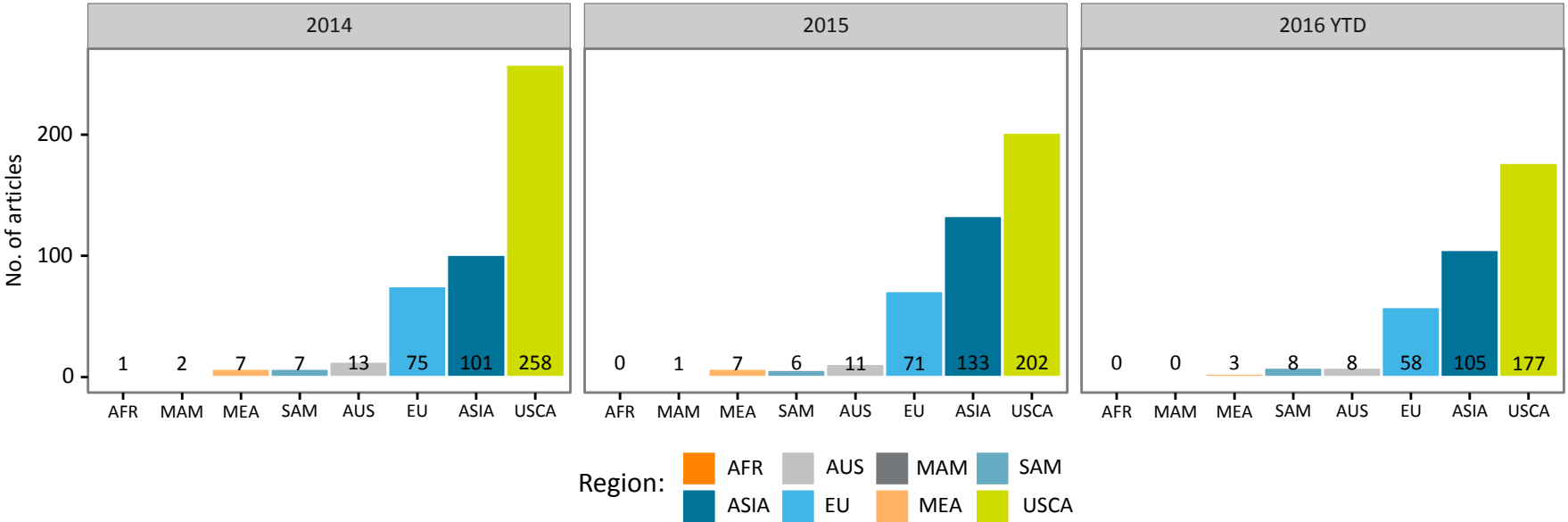
**Node colours**  
 Relative citation impact  
 0.0 0.5 1.0 1.5 2.0



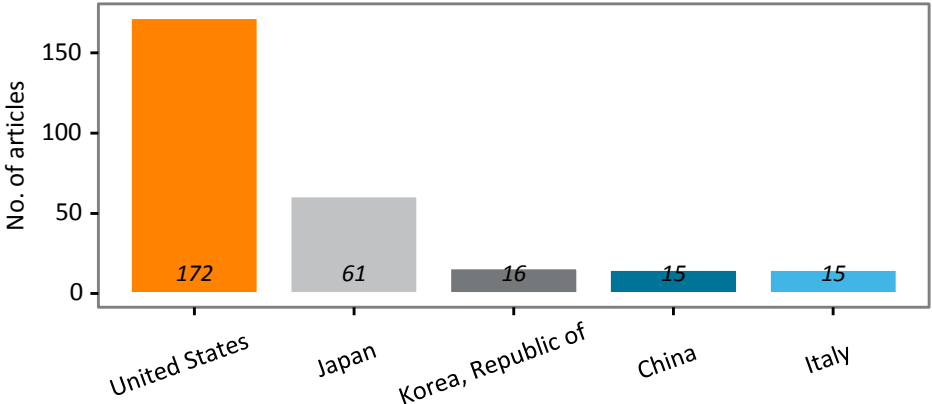
# Self Citations 2015 IF

<b>Title</b>	<b>N° of self citations</b>	<b>IF without Journal Self Cites</b>
<b>GIE</b>	15.715	5.239
<b>Endoscopy</b>	12.484	4.93
<b>CGH</b>	8.237	7.047
<b>Gastro</b>	4.221	17.419
<b>AJG</b>	4.351	9.931
<b>Nat Rev G /H</b>	1.955	14.153

# GIE - Number of accepted articles by region & country



## Top 5 countries (2016)



AFR = Africa; ASIA = Asia; AUS = Australia and Oceania; EU = Europe; MAM = Middle America; MEA = Middle East; ROW = rest of the world; SAM = South America; USCA = United States and Canada

# Top 10 Institutes Worldwide in GIE by number of publications (2011 – 2015)

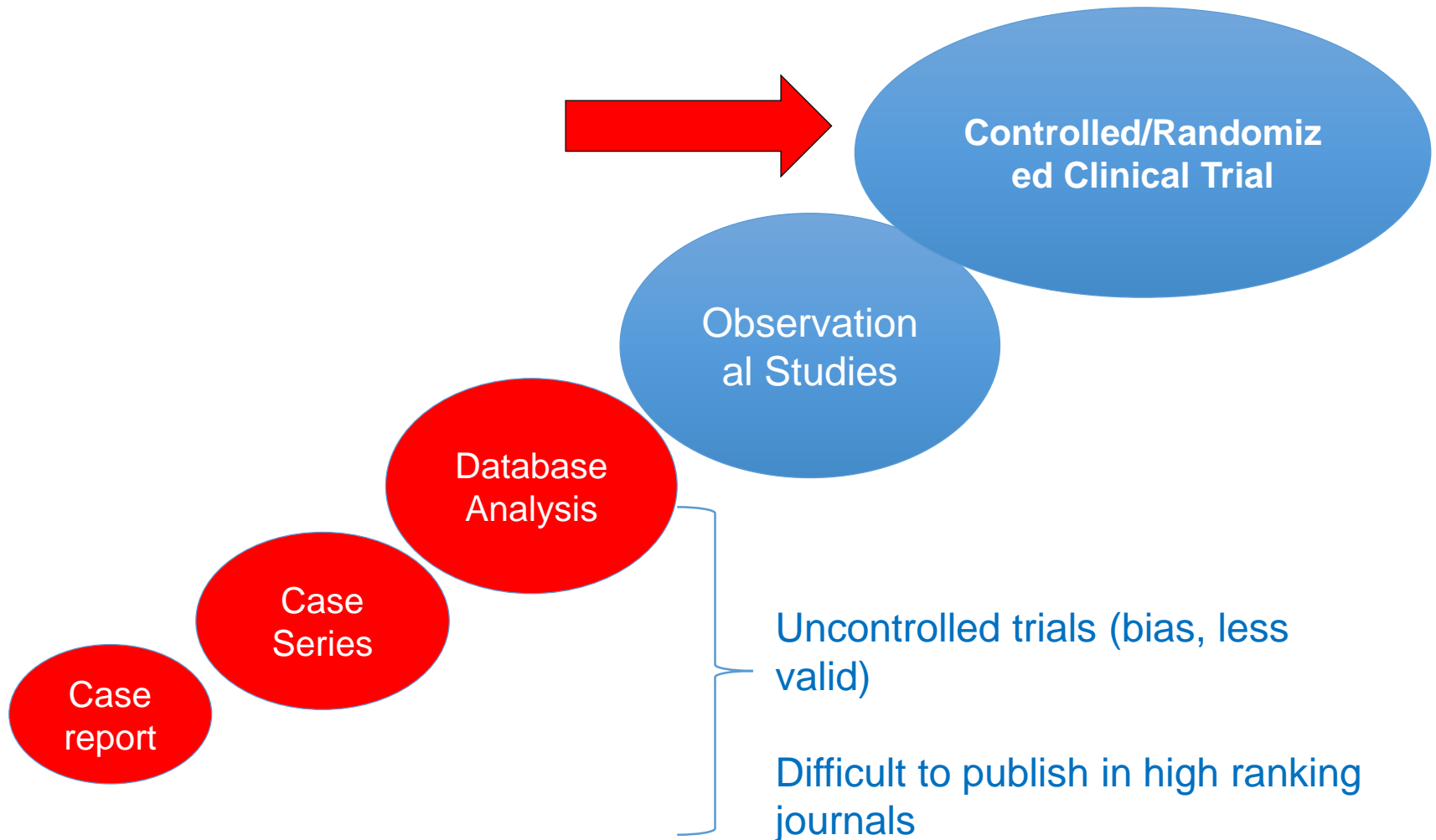
Institution	Publications ▼	Authors	Citations ▼
1.  Harvard University	137 ▼	237 ▼	1,832
2.  VA Medical Center	101 ▼	145 ▼	1,959
3.  Mayo Clinic Rochester MN	98 ▼	188 ▲	1,653
4.  University of Ulsan	91 ▲	185 ▲	1,094
5.  Soonchunhyang University	84 ▼	130 ▼	786
6.  Yonsei University	80 ▲	157 ▲	720
7.  University of Amsterdam	78 ▲	109 ▲	1,771
8.  Cleveland Clinic Foundation	71 ▲	108 ▲	827
9.  University of Tokyo	70 ▲	126 ▲	594
10.  Indiana University-Purdue	69 ▲	77 ▲	1,328

# Top 100 authors worldwide in Gastrointestinal Endoscopy

2011 – 2015

Name	Publications ▼	Most recent publication	Citations ▼	h-Index
1. Hassan, Cesare	44	2015	963	43
2. Dumonceau, Jean Marc	40	2015	1,607	36
3. Kolke, Kazuhiko	36	2015	348	48
4. Kuipers, Ernst Johan	34	2015	906	78
5. Costamagna, Guido	33	2015	960	45
6. Rex, Douglas Kevin	33	2015	711	69
7. Vargo, John J.	32	2015	349	48
8. Baron, Todd H.	28	2015	635	74
9. Fockens, Paul A.	28	2015	870	58
10. Dinis-Ribeiro, Mário Dinis	26	2015	548	26
11. Ponchon, Thierry	26	2015	927	41
12. Kahaleh, Michel	24	2015	321	34
13. Kleßlich, Ralf	24	2015	288	48
14. Sharma, Prateek	24	2015	741	52
15. Wallace, Michael B.	24	2015	494	54

# Study designs & Endoscopy





# Where we are with Education and Training?

- Still a relevant issue not properly addressed
- Society Responsibilities
- Academic Responsibilities
- Institutional Responsibilities

# Alliance for Gastroenterology

