



## **CURRICULUM VITAE**

### **Soehartati Gondhowiardjo, MD. PhD**

- Born** : Jakarta, September 1955
- Education**
1. GP : Faculty of Medicine Univ of Indonesia, 1980
  2. Radiologist : Faculty of Medicine Univ of Indonesia, 1987
  3. Radiation Oncologist : Faculty of Medicine Univ of Indonesia, Muenster Universiteit, 1990
  4. PhD : FKUI, 1998  
(EBV LMP1 and Proliferation in NPC)

#### **Current Positions :**

Chairperson of Indonesian National Cancer Control Committee (KPKN), Ministry of Health Rep. Indonesia

President of Indonesian Radiation Oncology Society (PORI)

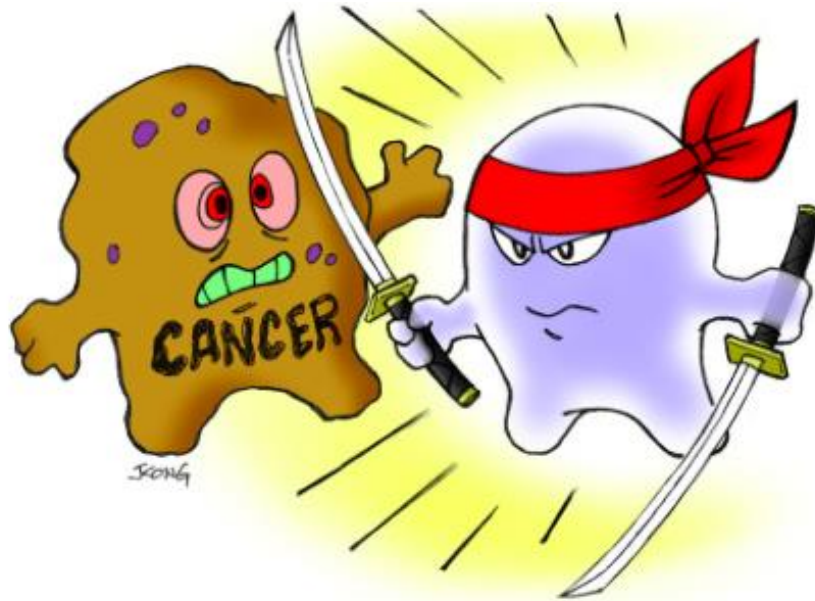
President of Federation of Asian Organizations on Radiation Oncology (FARO)

National Project Coordinator for IAEA

Past President of South East Asia Radiation Oncology Group (SEAROG)

Senior Medical Staff, Radiotherapy Department CiptpMangunkusumo Hospital, Fac of Medicine Universitas of Indonesia

# Multidisciplinary Approach in Cancer Management



Soehartati Gondhowiardjo, MD, PhD

Henry Kodrat, MD

Presented at: Manado Cancer Update Symposium  
Saturday, 27<sup>th</sup> January 2018



UNIVERSITAS  
INDONESIA

*Veritas, Probitas, Justitia*



# Disclosure

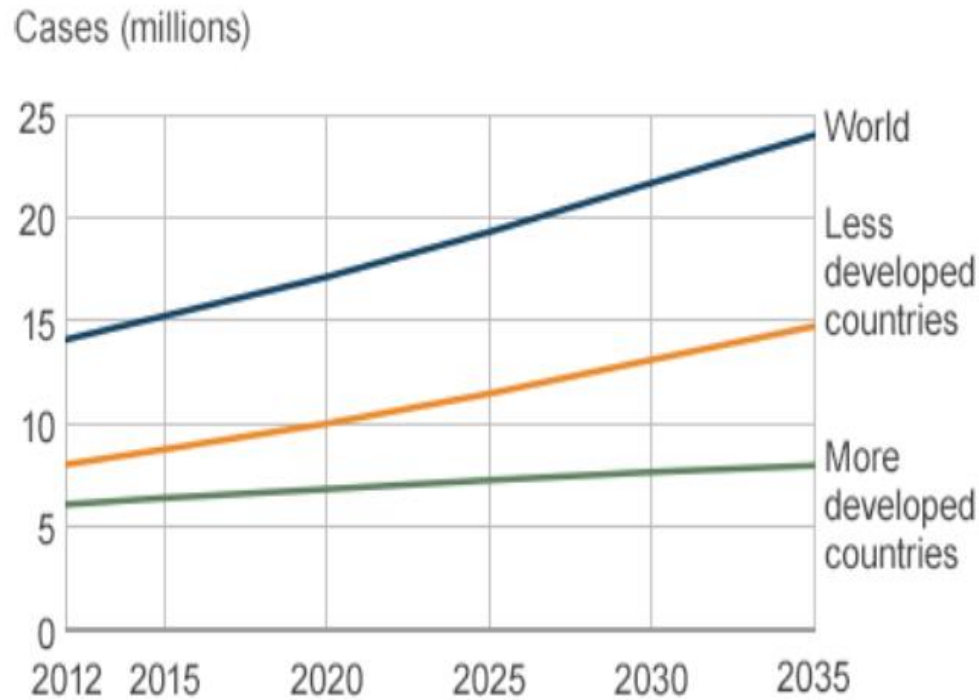
I have no conflict of interest to disclose.

# Overview

- **Cancer care workflow**
- Cancer treatment modalities
- Multidisciplinary tumor board (MDT)
- Take home messages

# Why Do We Need To Talk About Cancer?

## Predicted global cancer cases



Source: WHO GloboCan

BBC, Feb 4<sup>th</sup>, 2014

International Agency for Research on Cancer



GLOBOCAN 2012: Estimated Cancer Incidence, Mortality and Prevalence Worldwide in 2012

Cancer is one of the Leading cause of dead in the population :

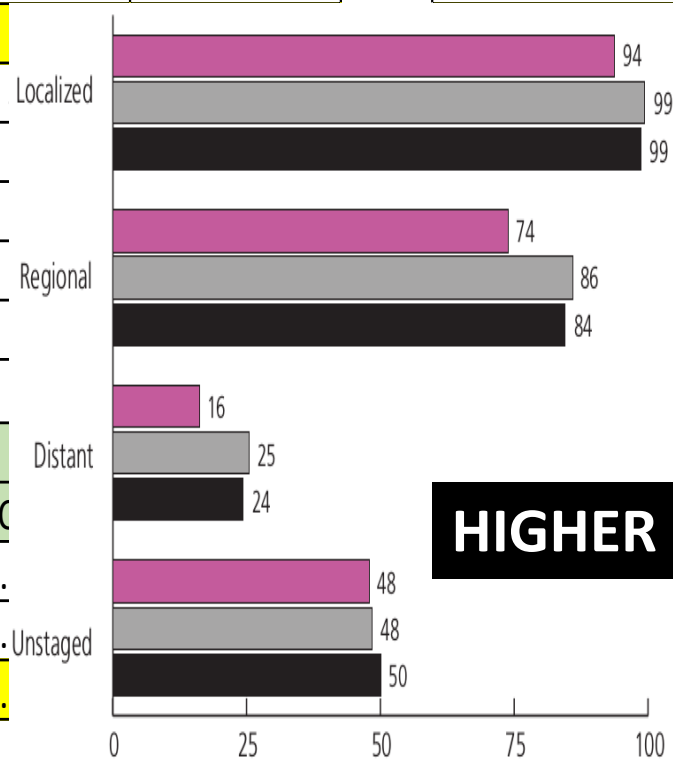
- Cancer Kills more **than Heart Disease and Stroke.**
- Cancer Kills more than the **total cause of dead from TBC + Malaria + HIV**

This number is continue to increase until more than two times in twenty years! 70% occurred in **Developing Countries.**

Catastrophic	2014	
	Cases	Cost \$
Heart Disease	3.417.806	330.826.016
Renal Failure	1.151.501	122.031.377
Cancer		
Stroke	Localized	
Thalassemia		
Cirrhosis Hepatis		
Leukemia	Regional	
Haemophilia		

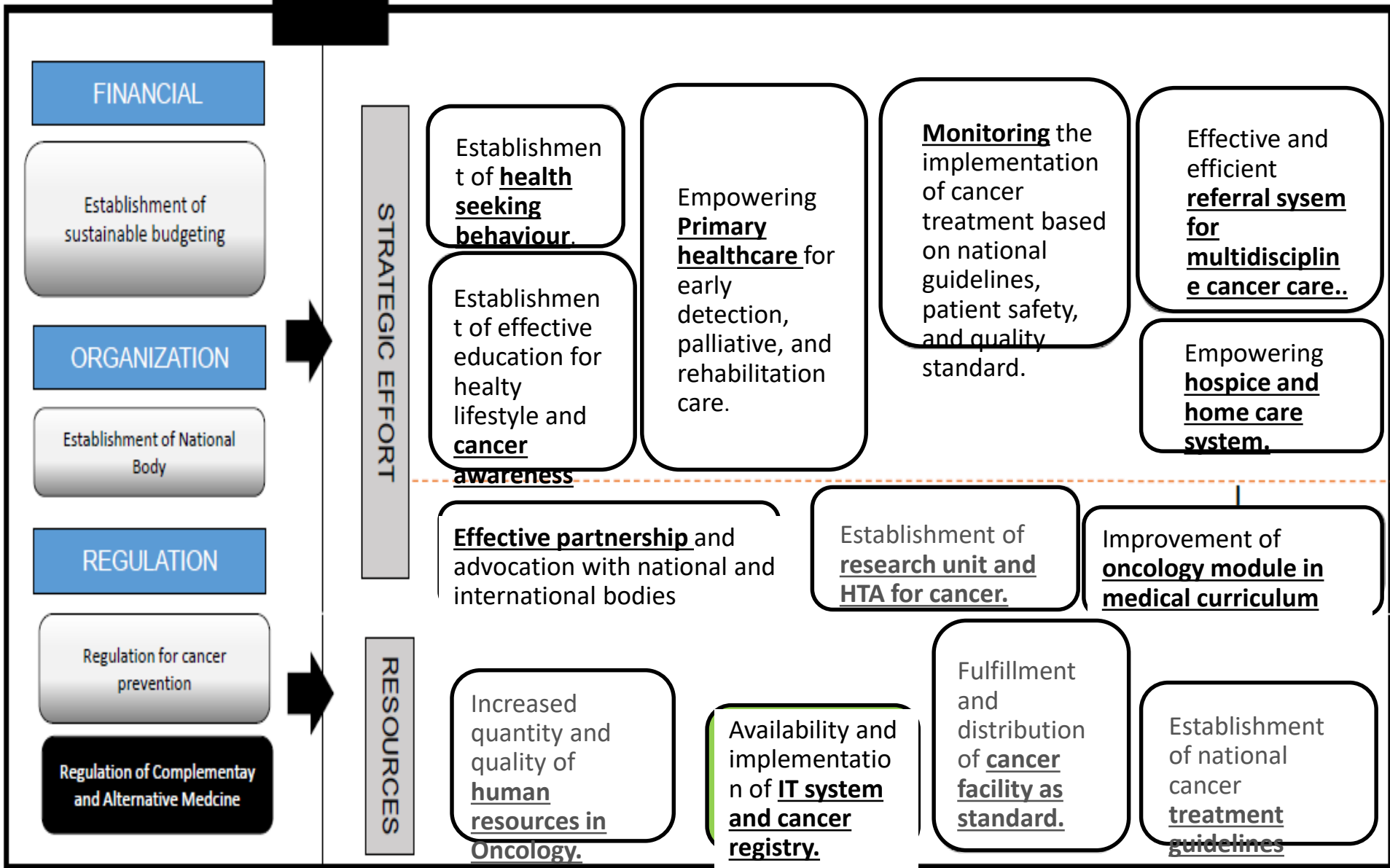
Catastrophic	2015	
	Cases	Cost \$
Heart Disease	6.158.157	495.841.536
Renal Failure	2.164.058	201.558.976
Cancer	1.325.776	172.171.861
Stroke	839.373	83.257.885
Thalassemia	108.451	31.203.008
Cirrhosis Hepatis	124.118	18.128.932
Leukemia	62.712	12.987.315
Haemophilia	26.665	7.005.453

Catastrophic	C	to September 2017	
		Cases	Cost \$
Heart Disease	5.	5.027.165	482.891.661
Renal Failure	1.	1.292.195	157.440.930
Cancer	1.	955.575	102.696.644
Stroke		1.098.307	96.748.634
Thalassemia		105.316	30.522.289
Cirrhosis Hepatis		104.072	14.769.056
Leukemia		55.681	11.419.555
Haemophilia		31.563	9.452.116

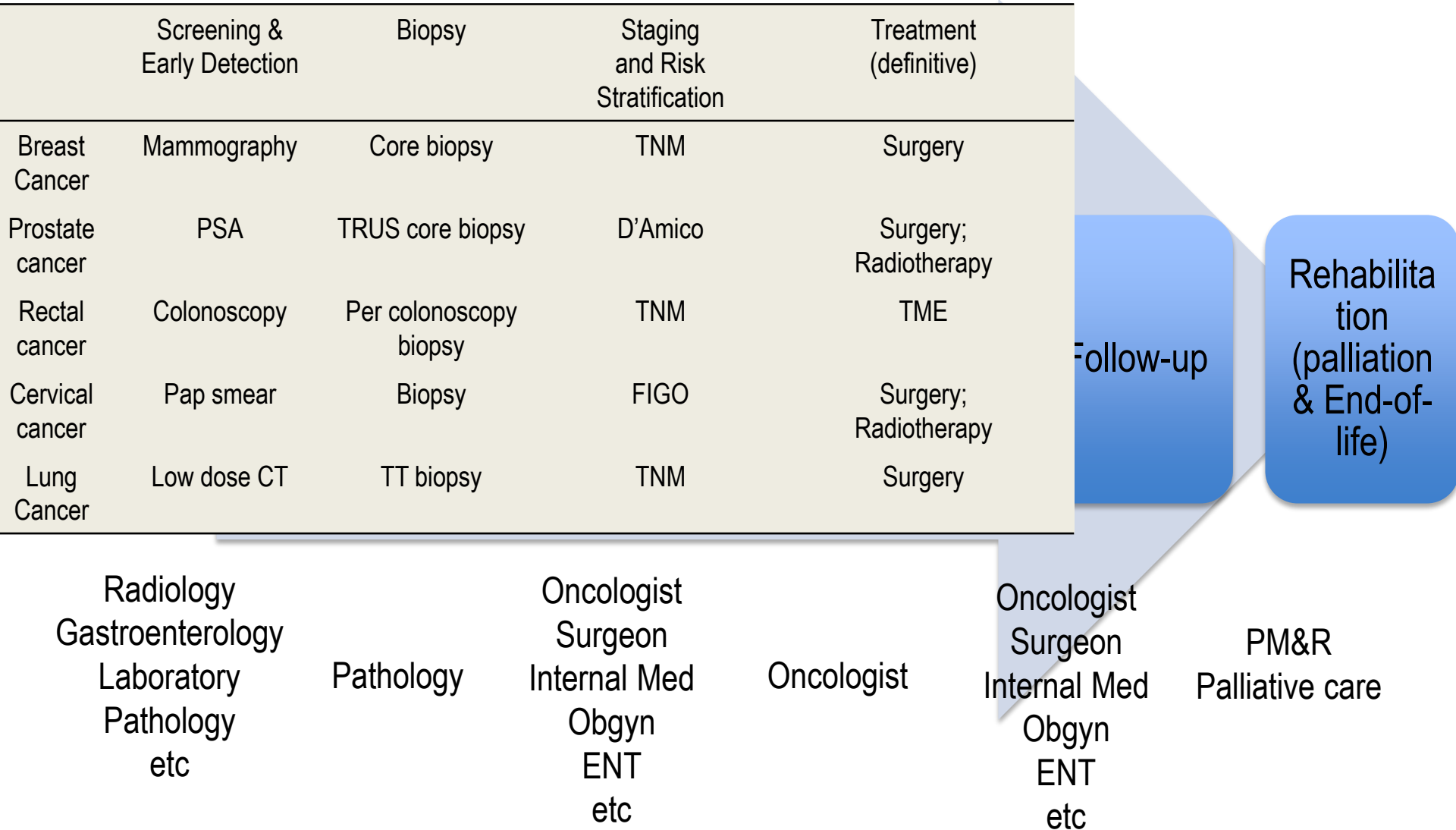


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Renal Failure	1.	1.292.195	157.440.930
Cancer	1.	955.575	102.696.644
Stroke		1.098.307	96.748.634
Thalassemia		117.984	27.811.582
Leukemia		66.892	15.726.252
Cirrhosis Hepatis		106.653	15.127.401
Haemophilia		30.020	12.263.858

Reducing Cancer Morbidity and Mortality in Indonesia



# Cancer Care Workflow



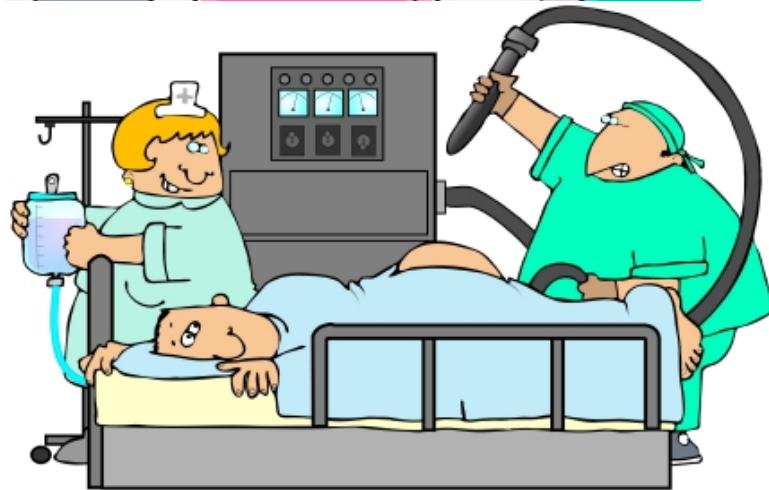
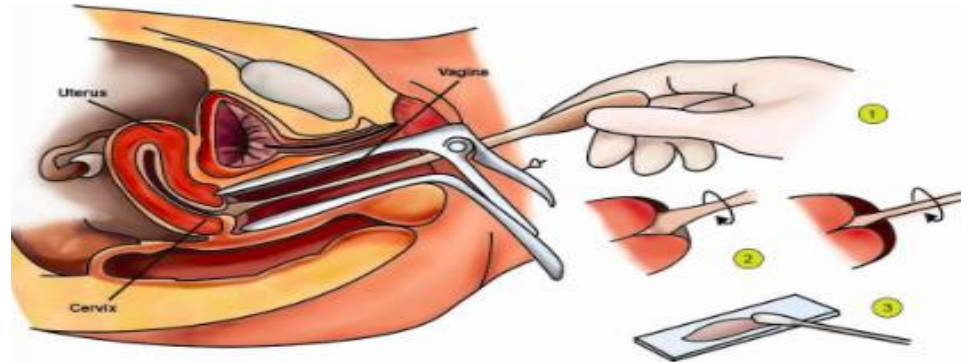


# Cancer Prevention



"How much longer do I have before I have to change to a healthy lifestyle?"

# Early Detection



My bottom is bleeding

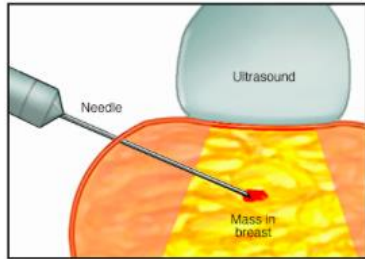
I've got a lump in my breast

I can't get rid of this cough

Get checked

A graphic with a dark grey background. It features four stylized female icons at the bottom, each with a different color: green, pink, orange, and white. Above each icon is a speech bubble containing a symptom or instruction. The green bubble says 'My bottom is bleeding', the pink bubble says 'I've got a lump in my breast', the orange bubble says 'I can't get rid of this cough', and the white bubble says 'Get checked'.

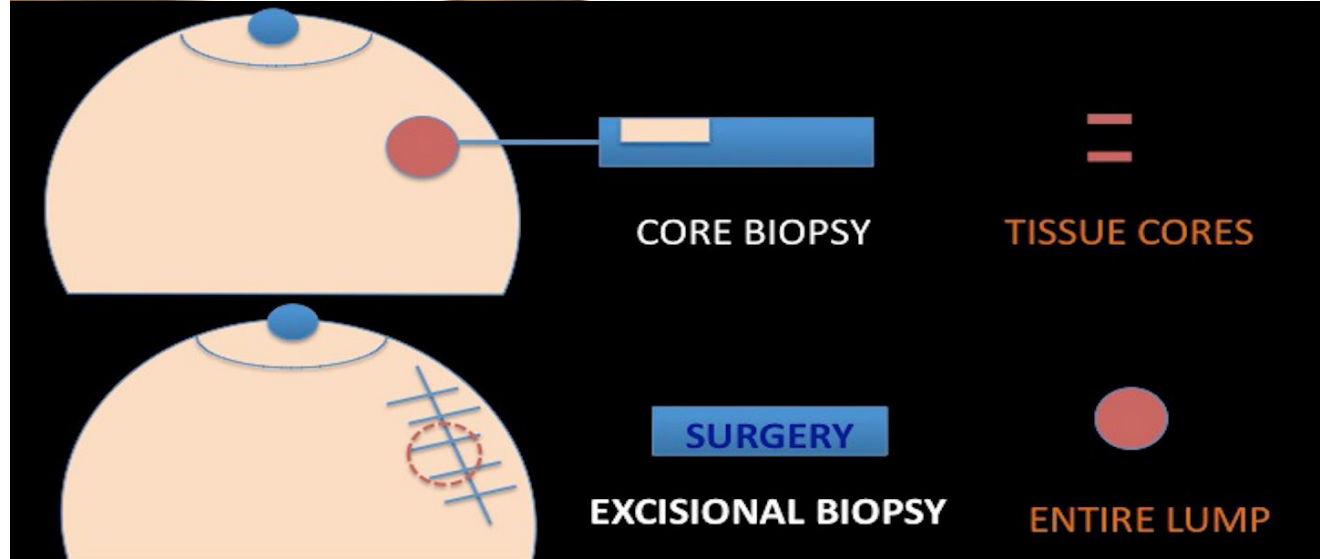
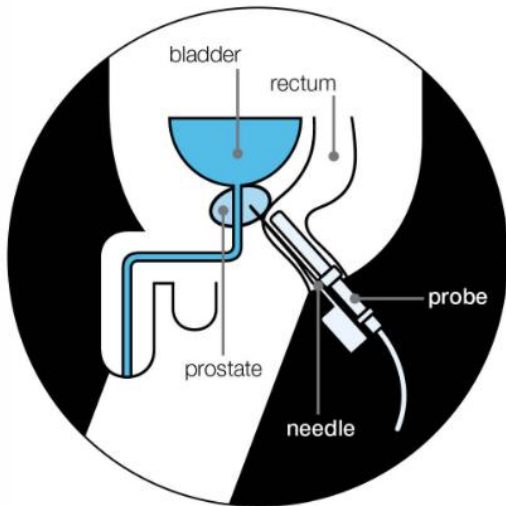
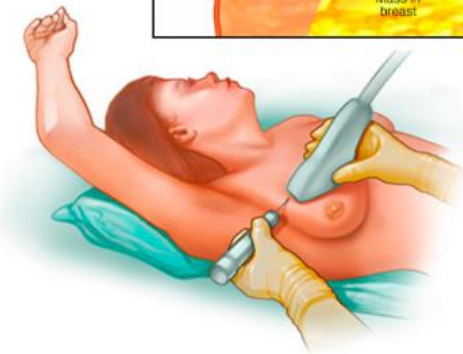
# Biopsy



Cervical biopsy ("punch"): small tissue samples are taken from the cervix and examined for disease or other problems



Cervix viewed through speculum with patient in lithotomy position



CORE BIOPSY

TISSUE CORES

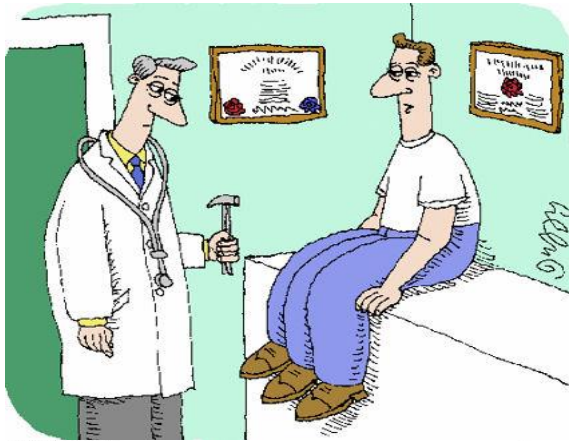
SURGERY

EXCISIONAL BIOPSY

ENTIRE LUMP

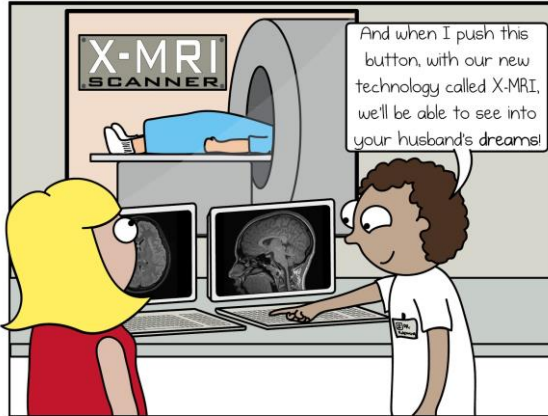
# Staging and risk stratification

## “Triple Diagnosis”



POORMD.COM

J. CHANG MD



AND JUST LIKE THAT, JASON SOLVED THE MYSTERY OF NOCTURNAL ERECTIONS WHILE DESTROYING A ONCE HAPPY MARRIAGE.



# What role do these modality have in the management of cancer?

Medical Treatments  
Well-established **standard**  
**Evidence-based**



**Chemotherapy**  
Few of targeted



**Surgery**



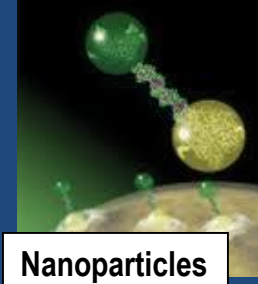
**Radiotherapy**



**TCM, CAM**

Non-medical treatments  
Unclear evidence  
Unclear efficacy **?**

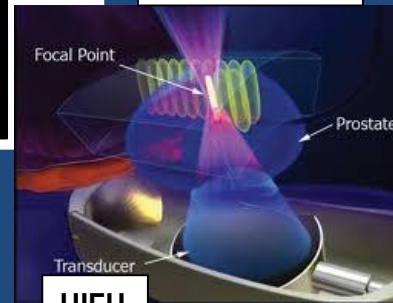
Medical Treatments  
**Novel & Promising**  
Still accumulating Evidence



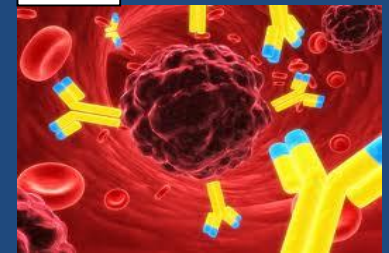
**Nanoparticles**



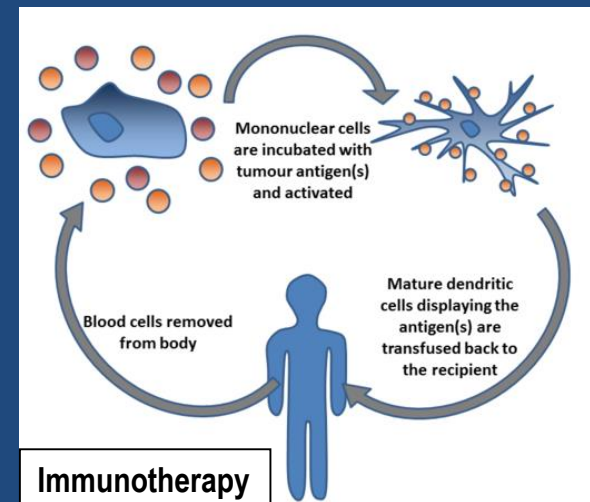
**Cryo**



**HIFU**



**Radioimmunotherapy**

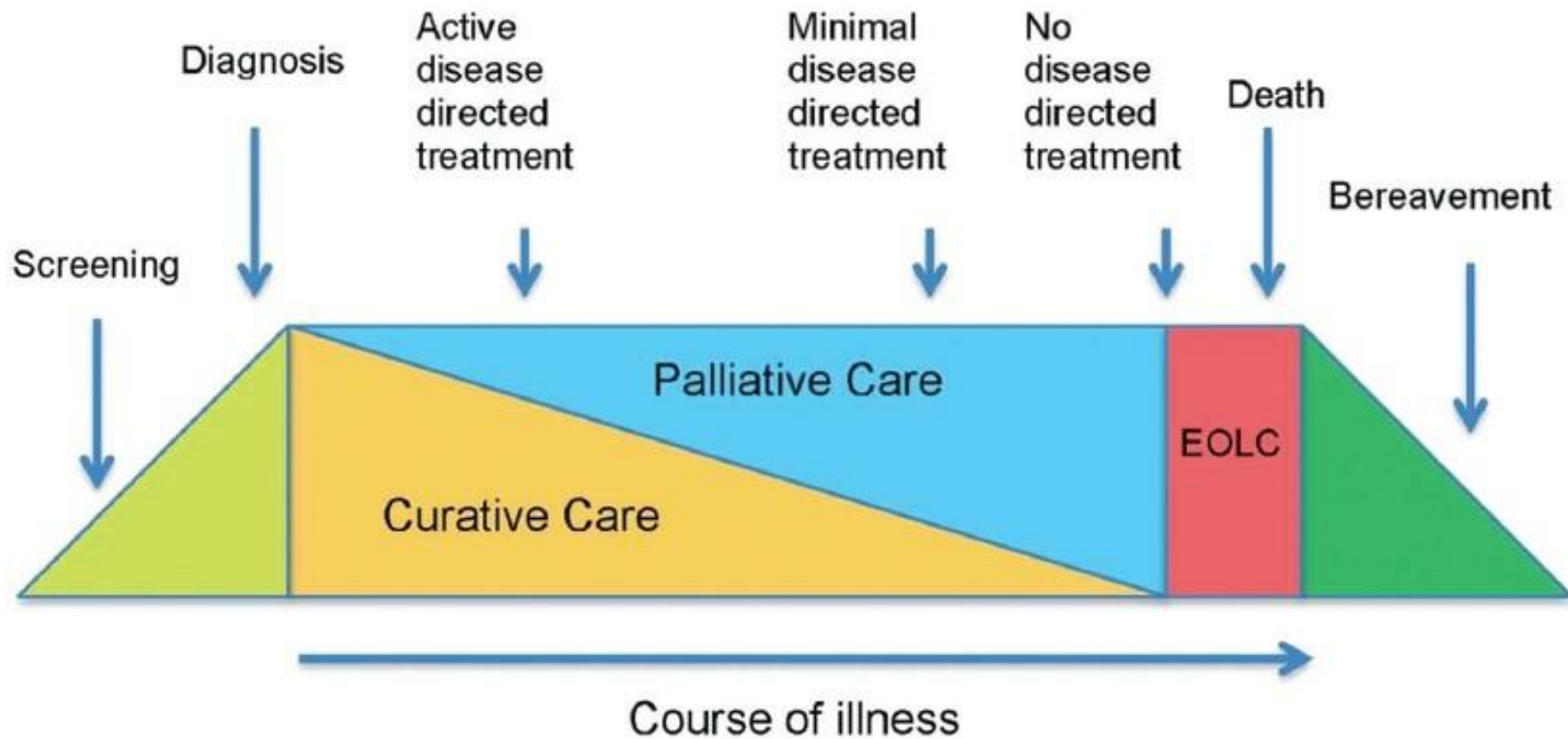


# Follow-up & rehabilitation



Search ID: mben3032

"Removing the phone is easy. Getting your head and arms to their original positions will take weeks of physical therapy."



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- Multidisciplinary tumor board (MDT)
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**Surgery**



**Radiotherapy**

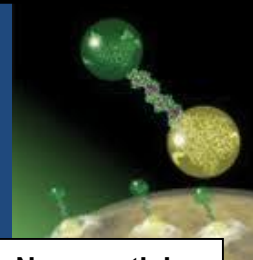


**TCM, CAM**

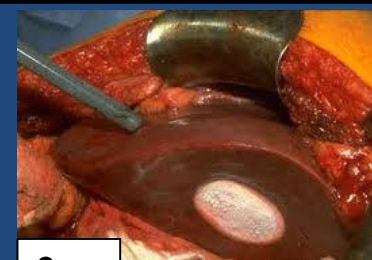
Non-medical treatments  
Unclear evidence  
Unclear efficacy

?

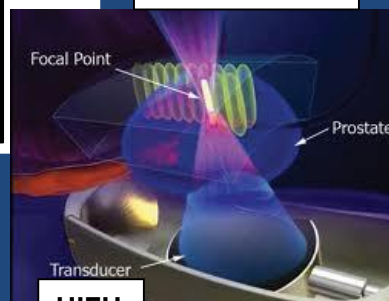
Medical Treatments  
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Still accumulating Evidence



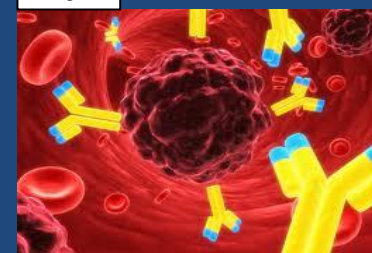
**Nanoparticles**



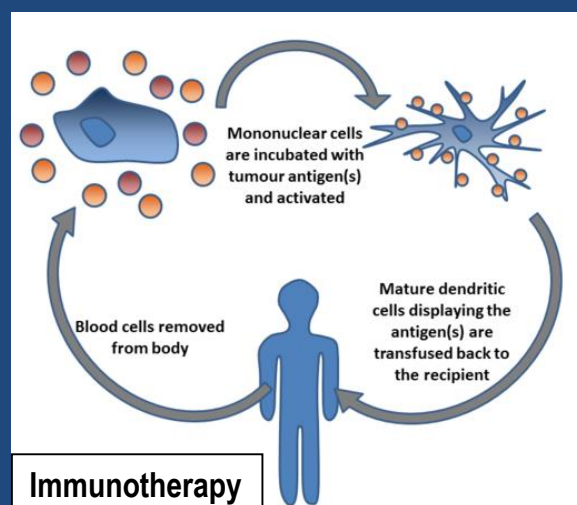
**Cryo**

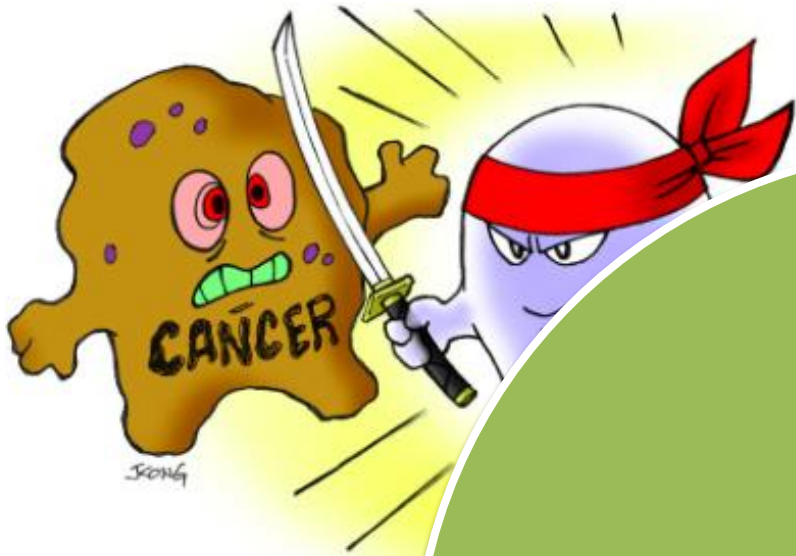


**HIFU**



**Radioimmunotherapy**



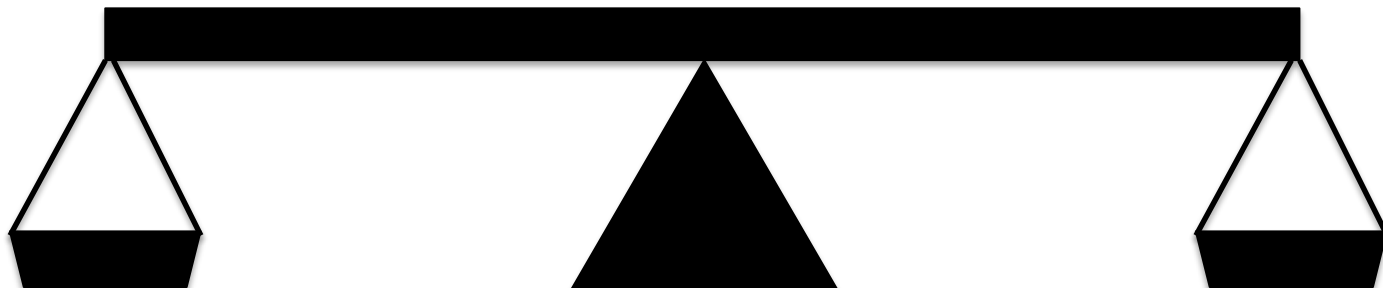
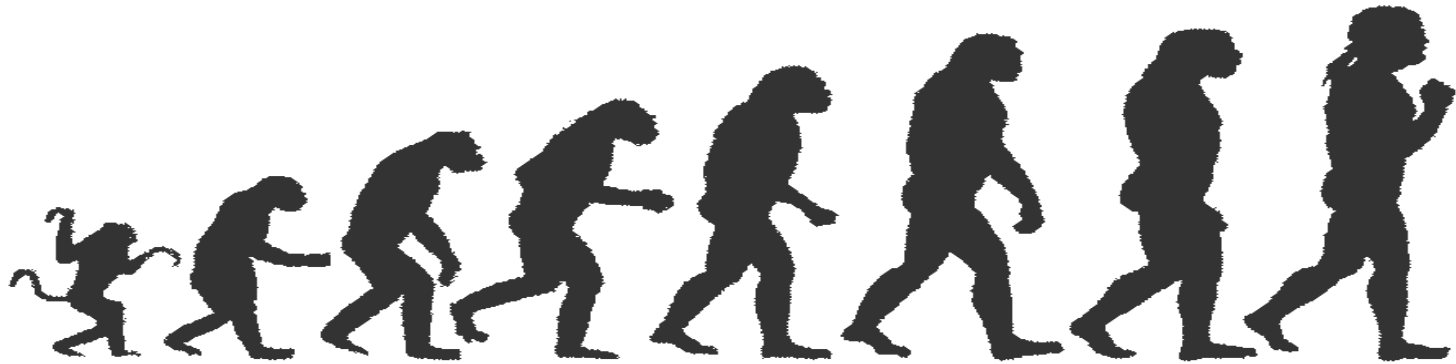


Multi  
Disciplinary



# Cancer Management Really Evolution?

## Or survival of the fittest !! .....



Tumor Control

Toxicity



Survival

Good QoL



# SURGERY EVOLUTION

Mutilating/Radical surgery

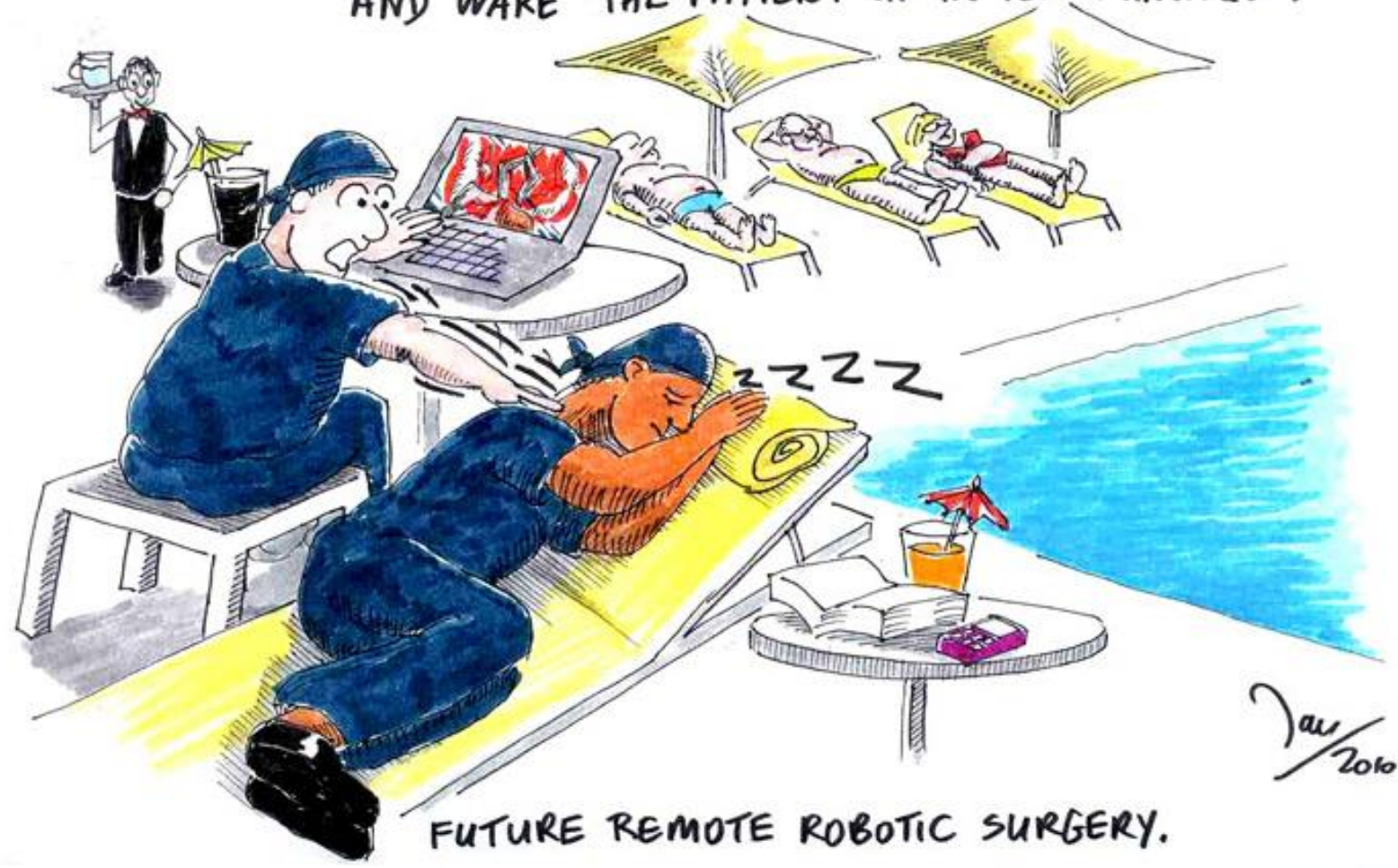


Organ preservation surgery



Oncoplasty surgery

"IM CLOSING UP NOW. CAN YOU GO TO THE THEATRE AND WAKE THE PATIENT UP IN TEN MINUTES?"



FUTURE REMOTE ROBOTIC SURGERY.



Tissue containing lymph nodes



Valves allow fluid to flow in one direction only

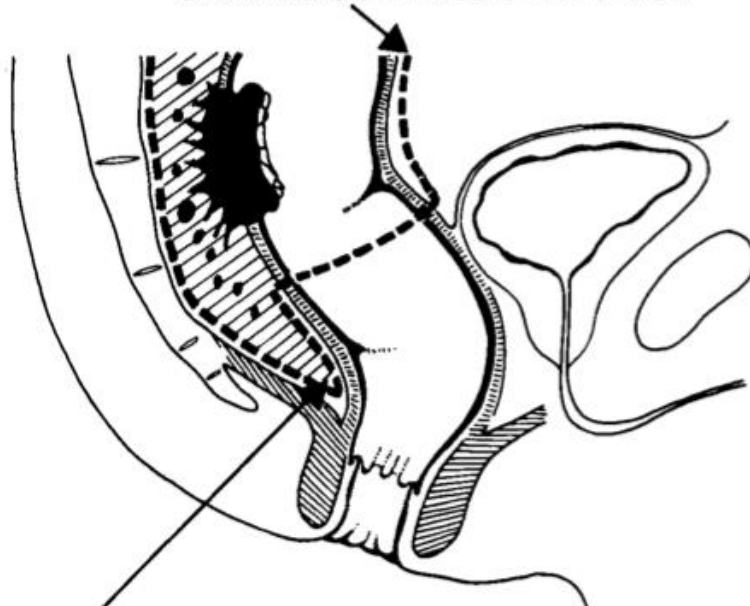
ADAM



# The mesorectum in rectal cancer surgery—the clue to pelvic recurrence?

*Five cases are described where minute foci of adenocarcinoma have been demonstrated in the mesorectum several centimetres distal to the apparent lower edge of a rectal cancer. In 2 of these there was no other evidence of lymphatic spread of the tumour. In orthodox anterior resection much of this tissue remains in the pelvis, and it is*

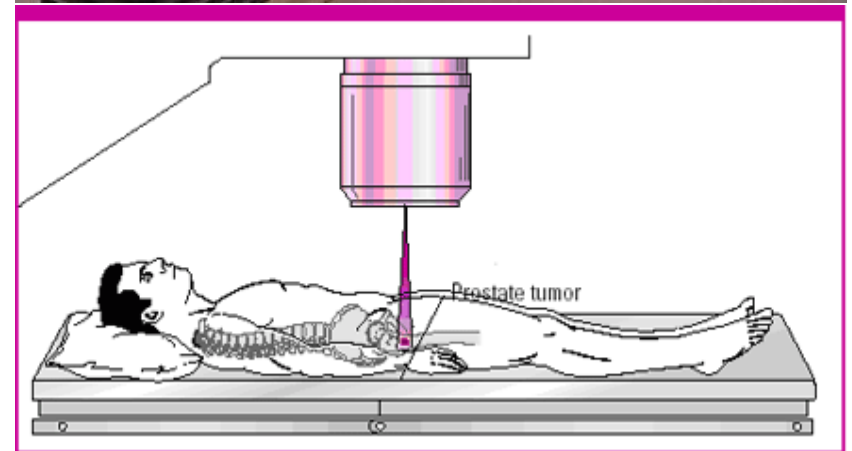
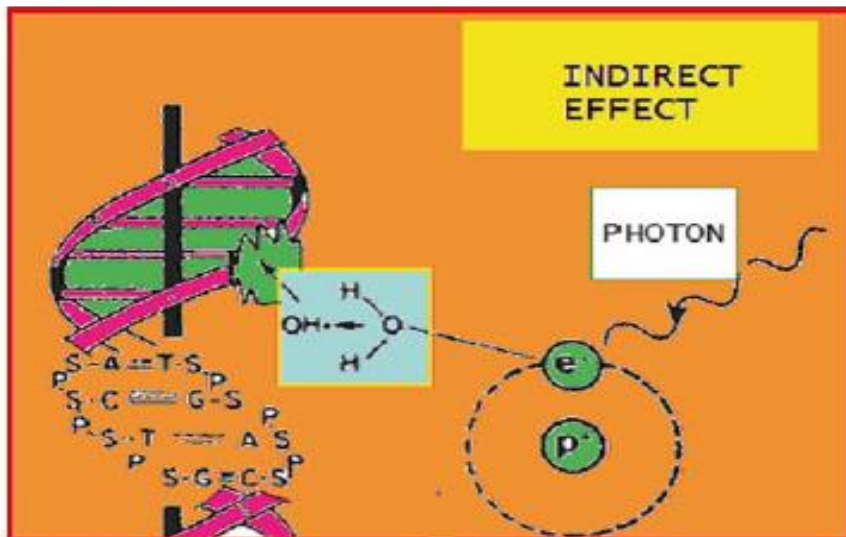
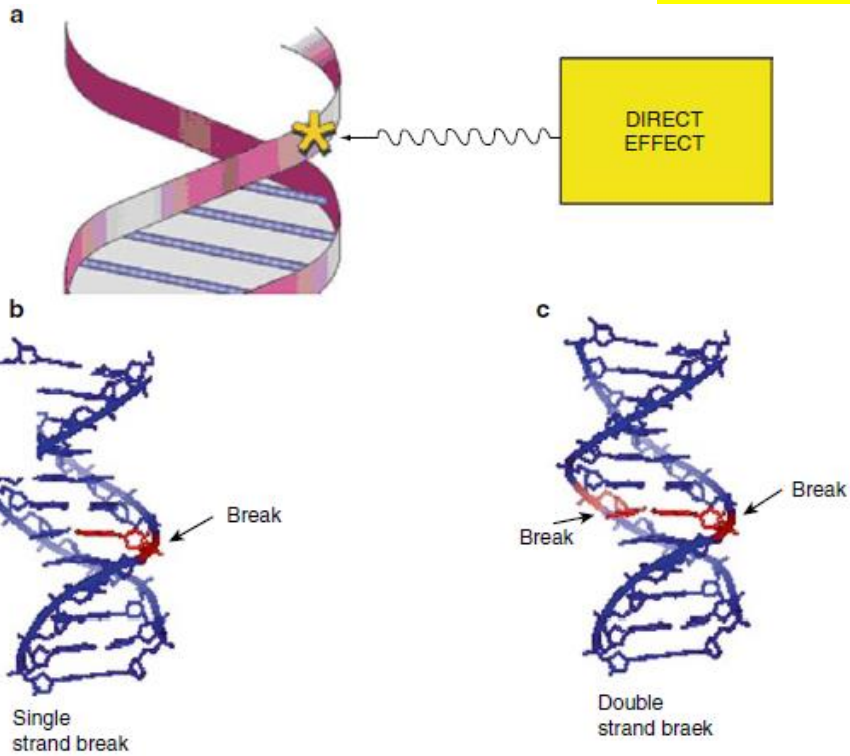
Line of excision includes mesorectum



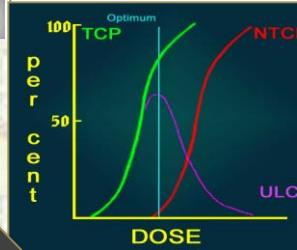
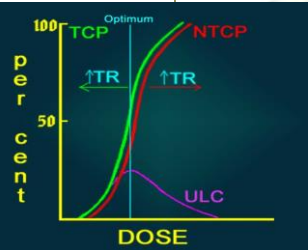
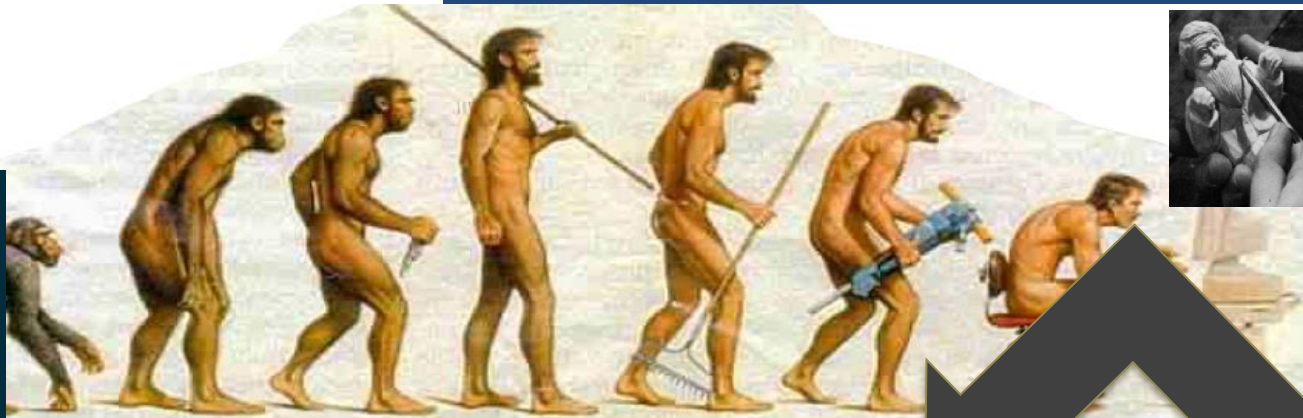
Site of tumour deposits in Case 6

*foci might lead to suture-line or pelvic  
recurrence. Division of the mesorectum has, therefore, been  
performed in over 100 consecutive anterior resections.  
These were classified as 'curative' or 'conceivably  
curative' and have now been followed for over 2 years with no  
recurrence.*

# RADIOTHERAPY



# MILESTONES IN RADIOTHERAPY



2D-  
Conventional



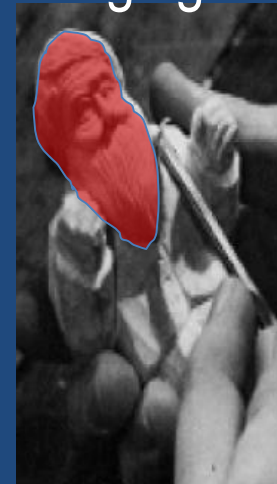
3D-  
Conformal



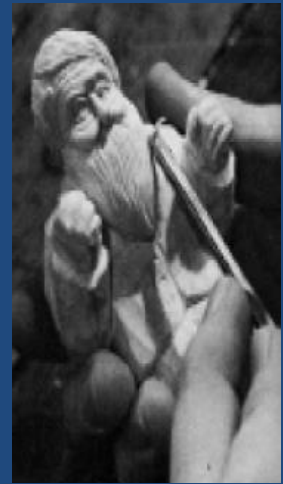
IMRT



Theranostic  
Imaging



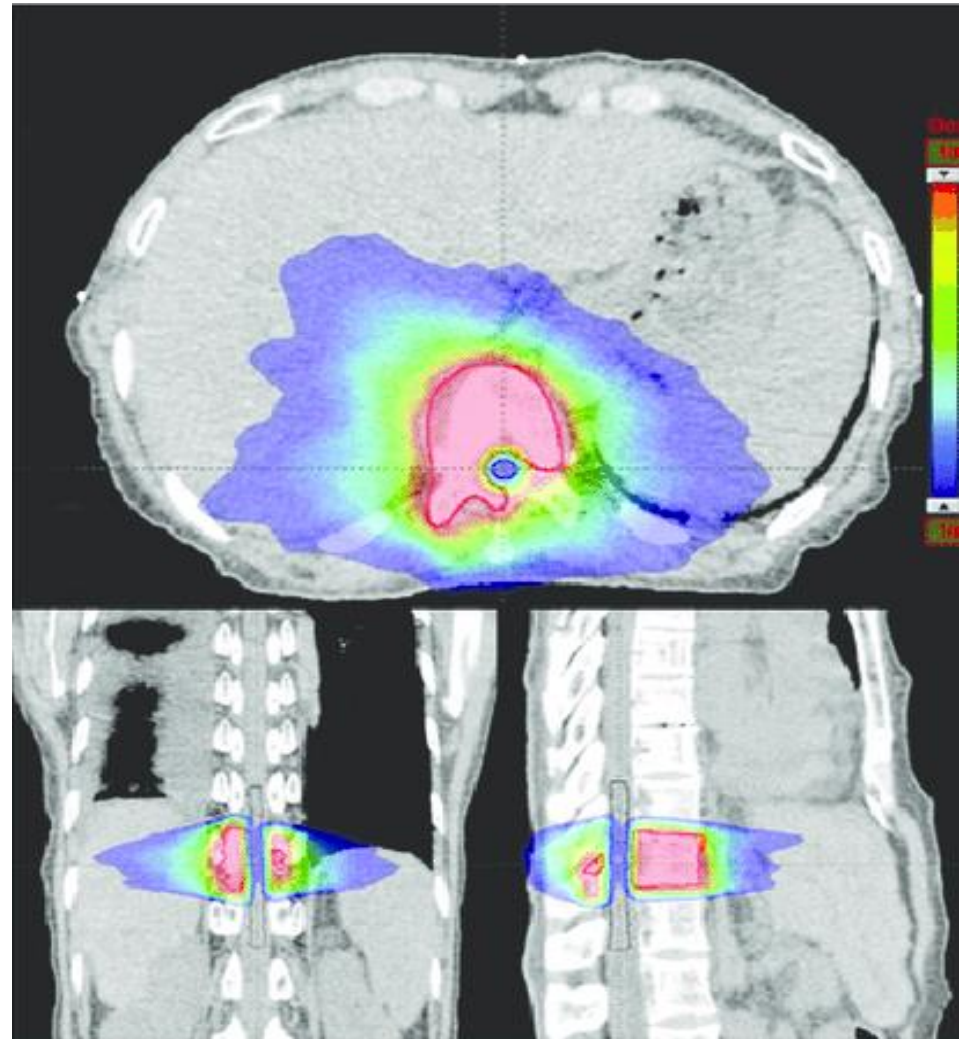
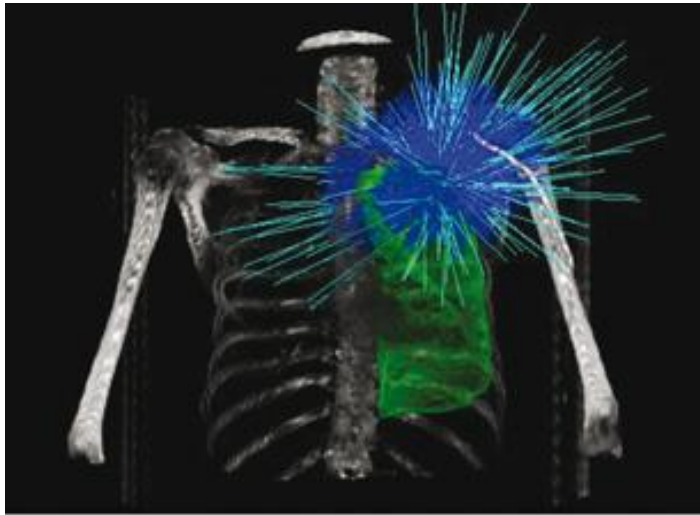
IGRT



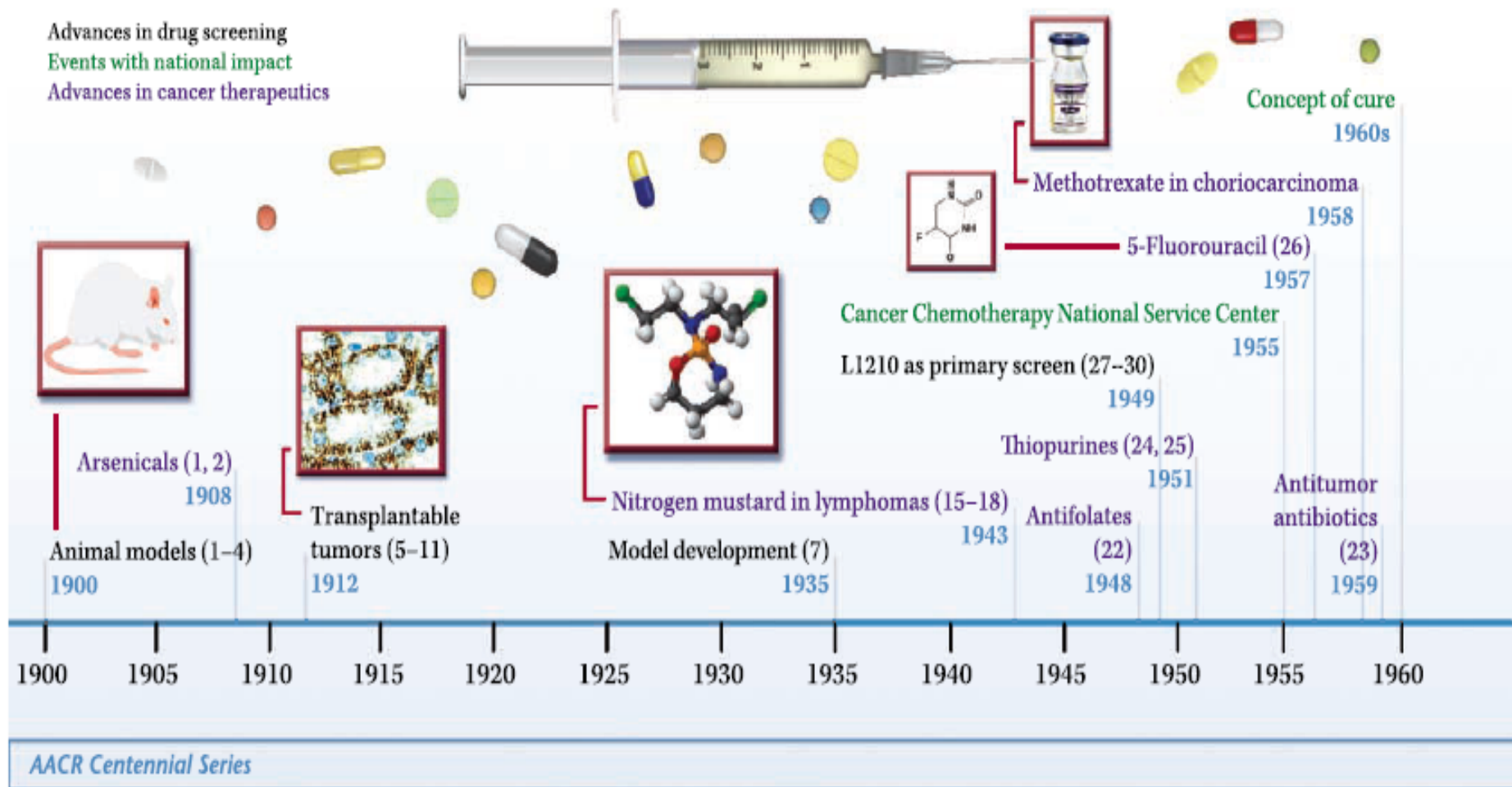
- Reduced Toxicity
- Improved Efficacy



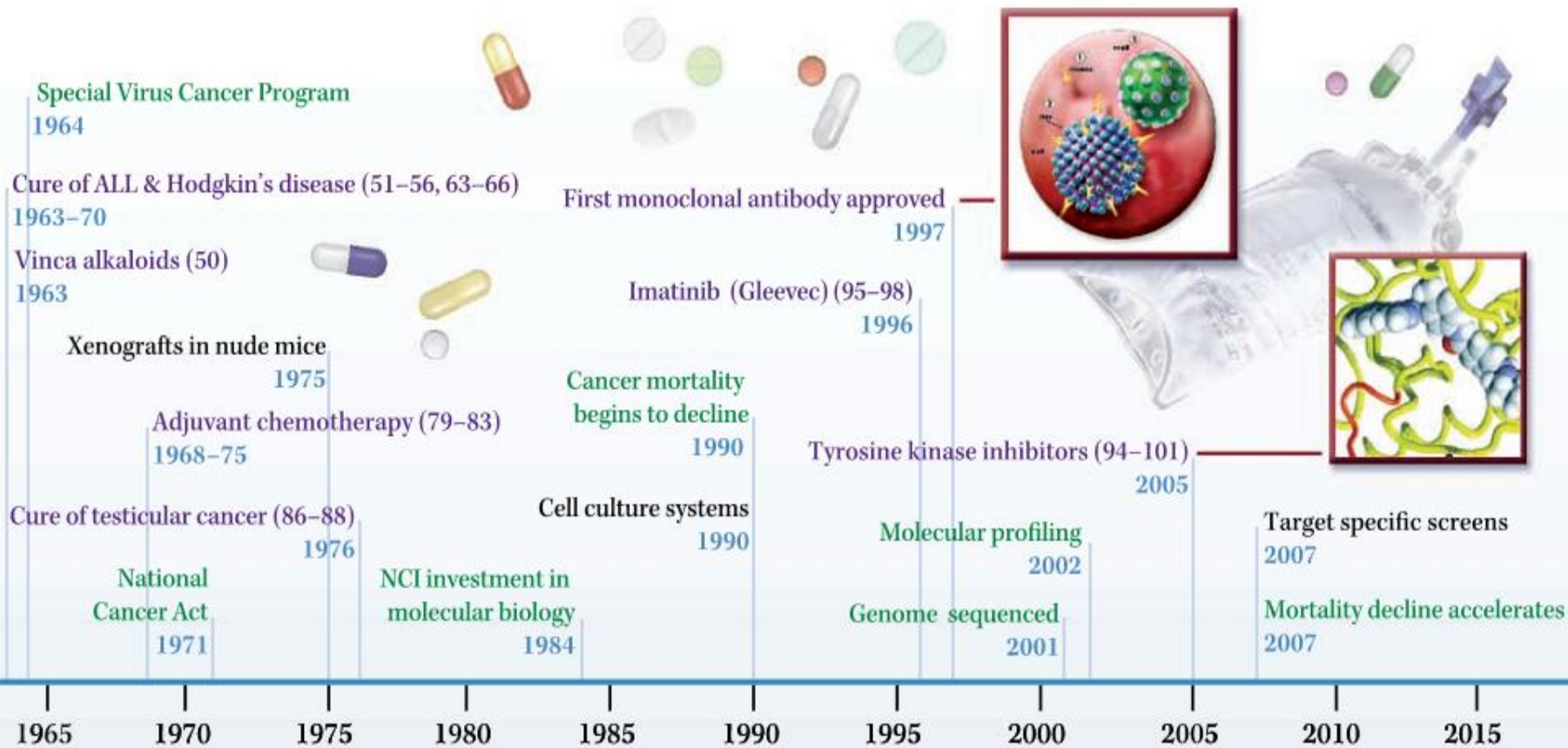
# Stereotactic ablative body radiotherapy (SABR)



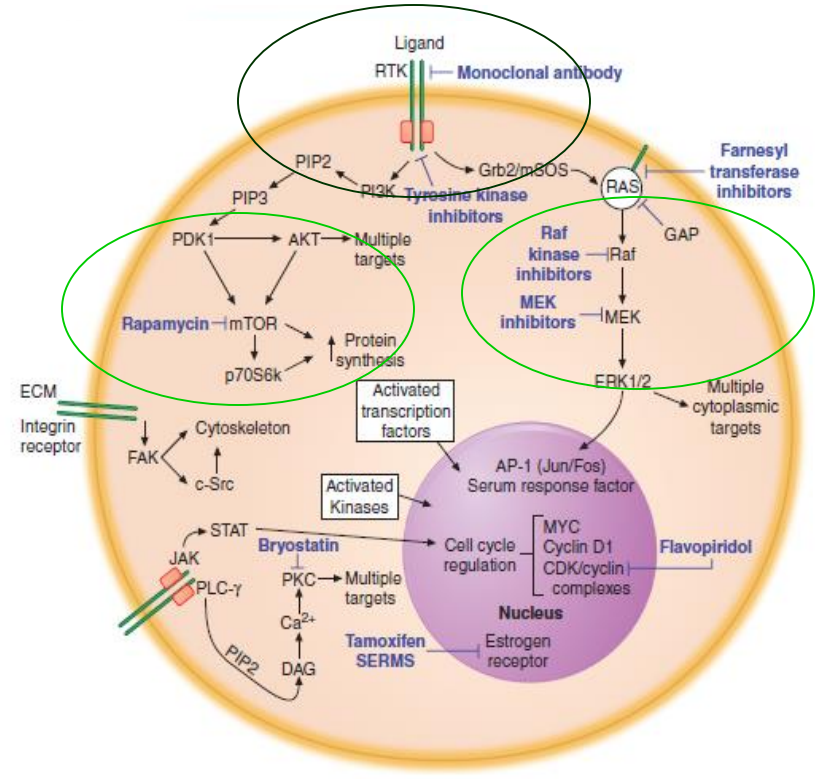
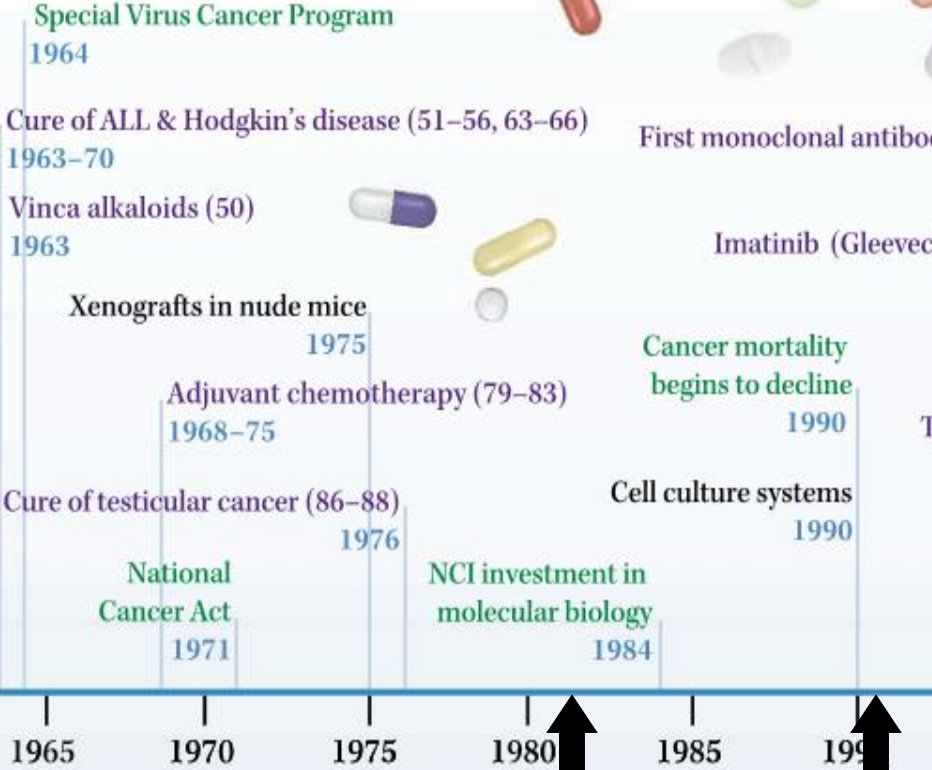
# CHEMOTHERAPY DEVELOPMENT



# CHEMOTHERAPY DEVELOPMENT

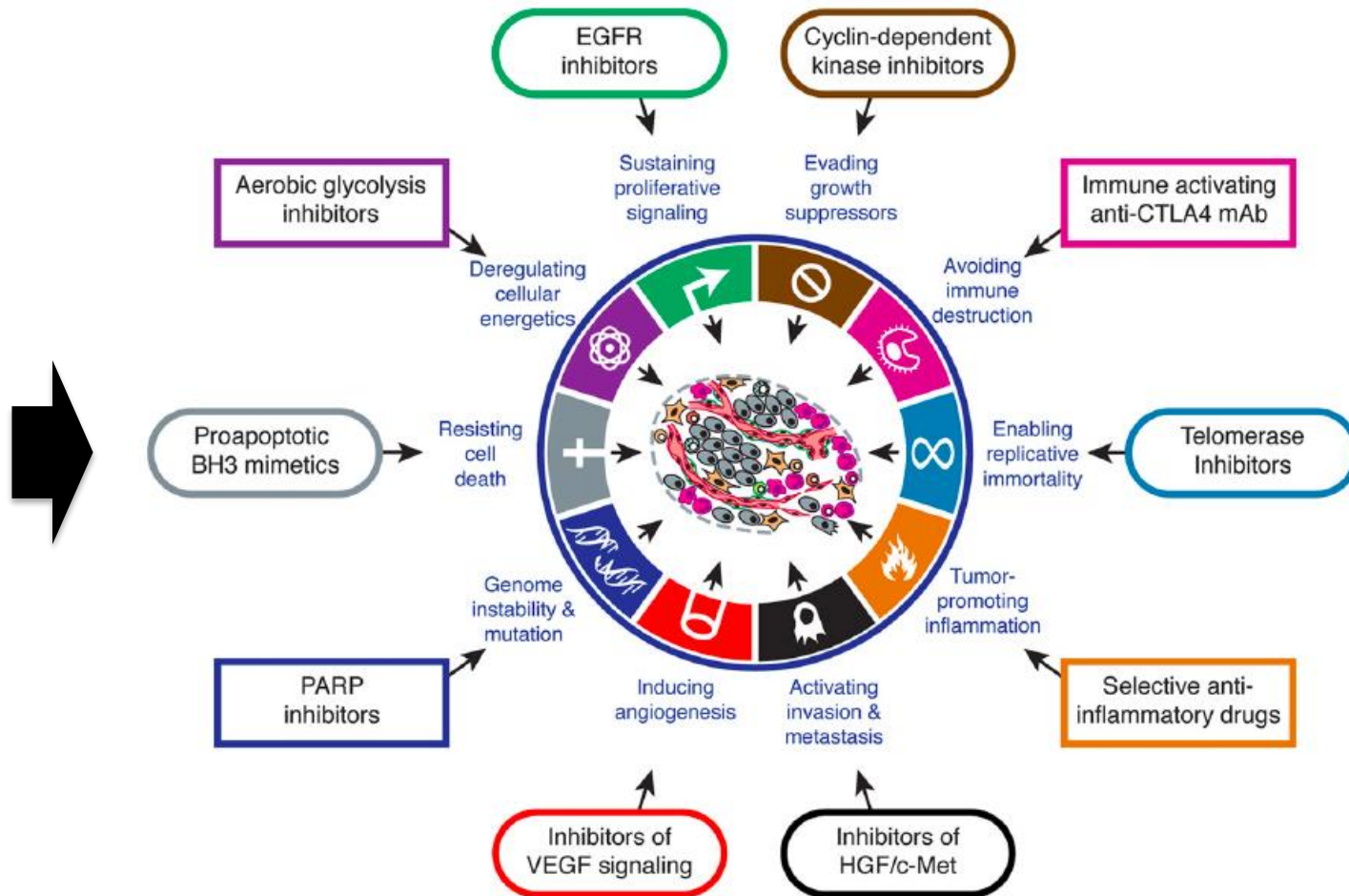


# CHEMOTHERAPY DEVELOPMENT



Time, effort , financial support .....

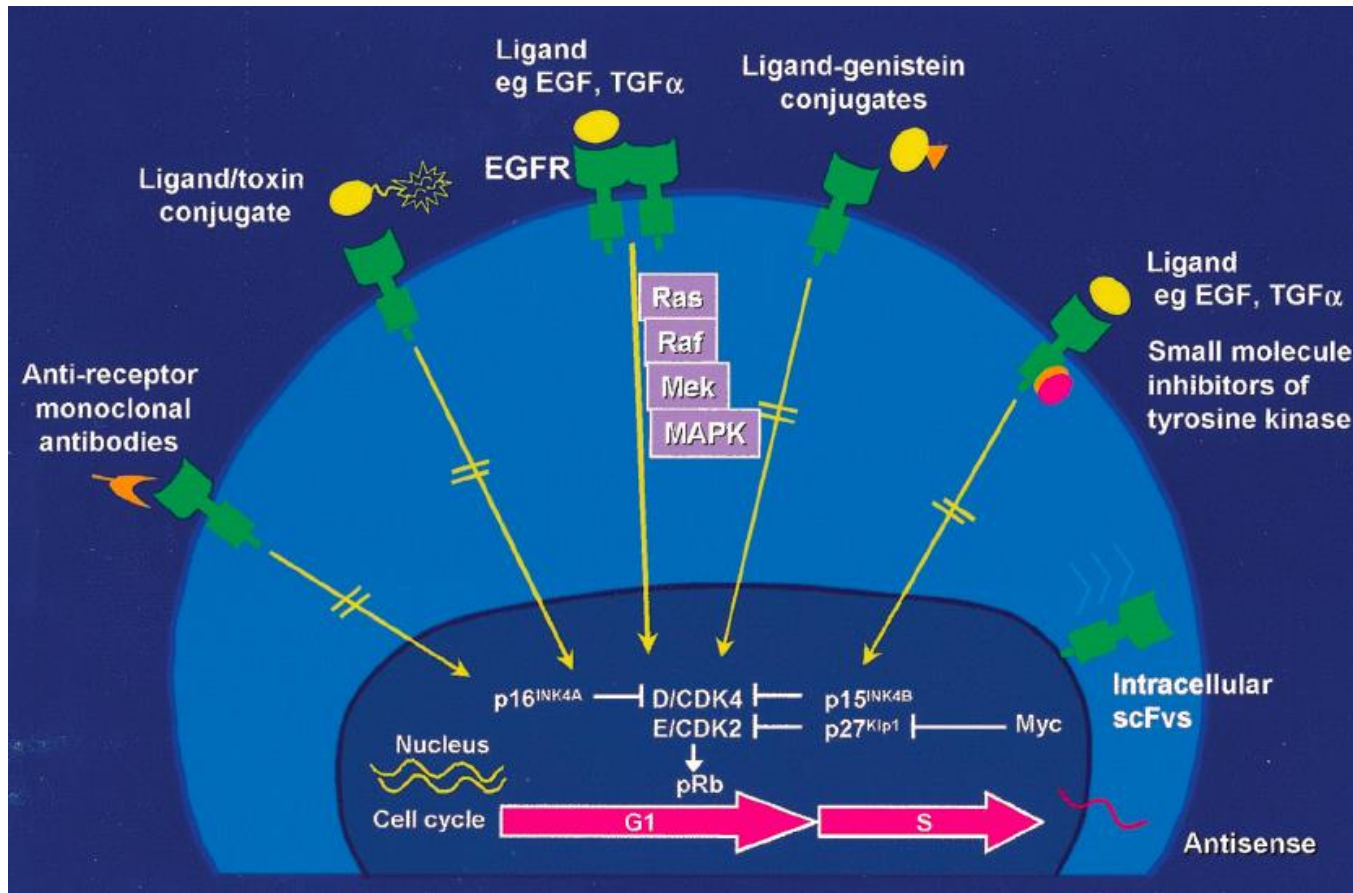
# BIO-THERAPY/TARGETED THERAPY



# A Novel Approach in the Treatment of Cancer: Targeting the Epidermal Growth Factor Receptor<sup>1</sup>

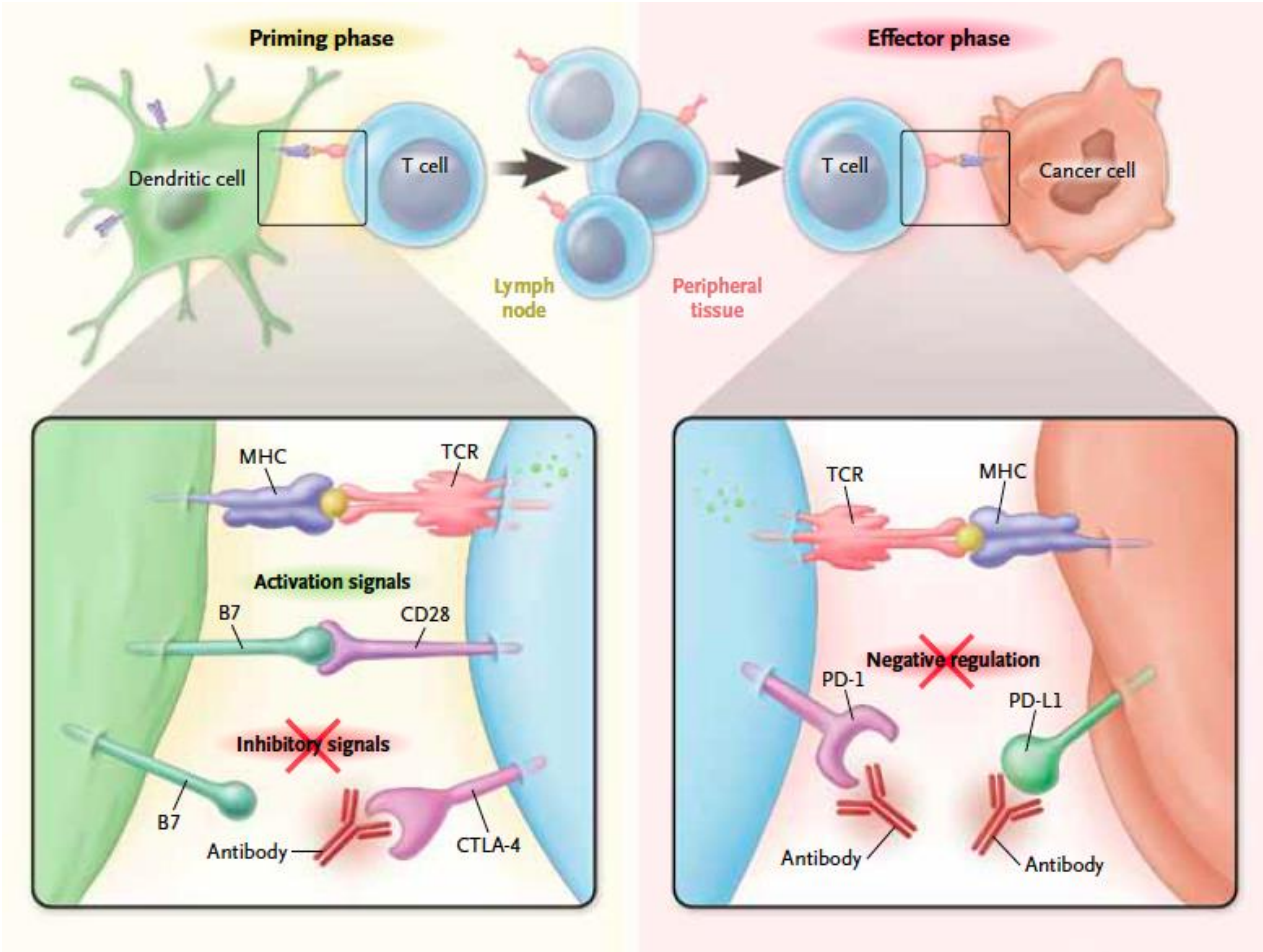
Fortunato Ciardiello<sup>2</sup> and Giampaolo Tortora

Cattedra di Oncologia Medica, Dipartimento di Endocrinologia e Oncologia Molecolare e Clinica, Università di Napoli "Federico II," 80131 Napoli, Italy



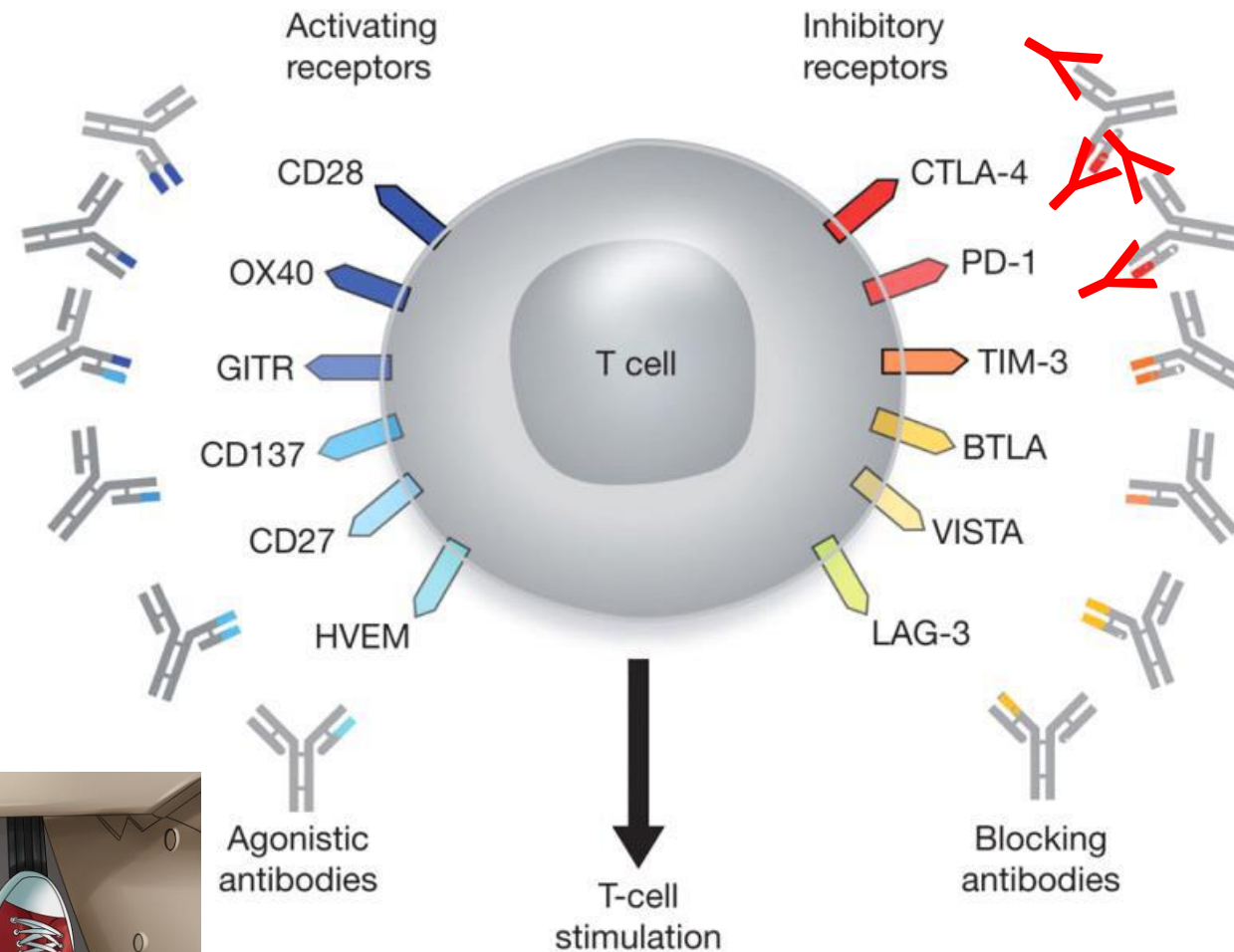
## Tumor Immunotherapy Directed at PD-1

Antoni Ribas, M.D., Ph.D.



Blockade of PD-1 or CTLA-4 Signaling in Tumor Immunotherapy.

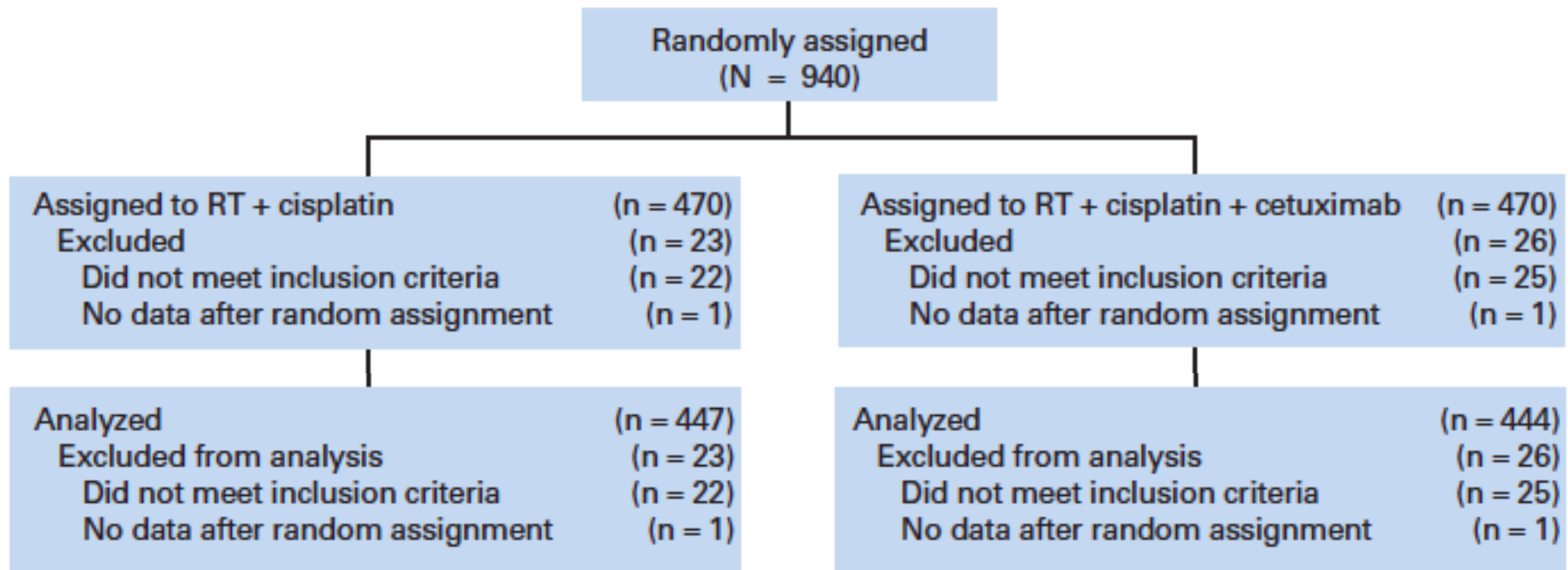
# Future therapeutics targets in the immunoglobulin receptor family





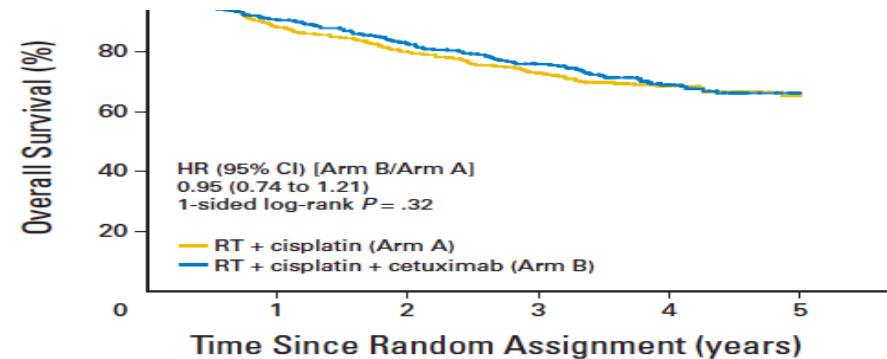
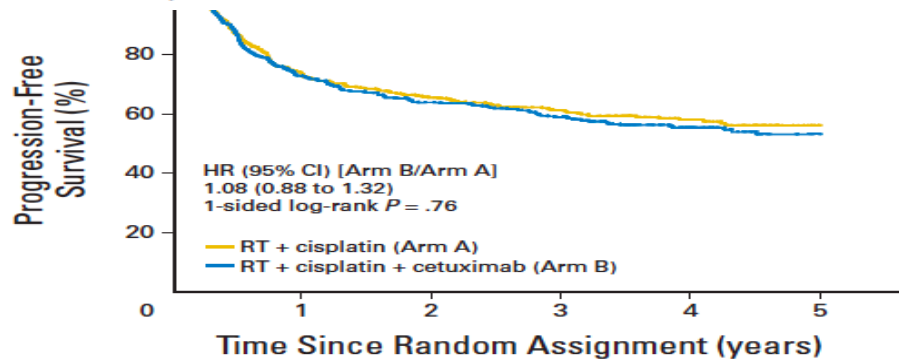
# Randomized Phase III Trial of Concurrent Accelerated Radiation Plus Cisplatin With or Without Cetuximab for Stage III to IV Head and Neck Carcinoma: RTOG 0522

*K. Kian Ang,† Qiang Zhang, David I. Rosenthal, Phuc Felix Nguyen-Tan, Eric J. Sherman, Randal S. Weber, James M. Galvin, James A. Bonner, Jonathan Harris, Adel K. El-Naggar, Maura L. Gillison, Richard C. Jordan, Andre A. Konski, Wade L. Thorstad, Andy Trotti, Jonathan J. Beitler, Adam S. Garden, William J. Spanos,† Sue S. Yom, and Rita S. Axelrod*



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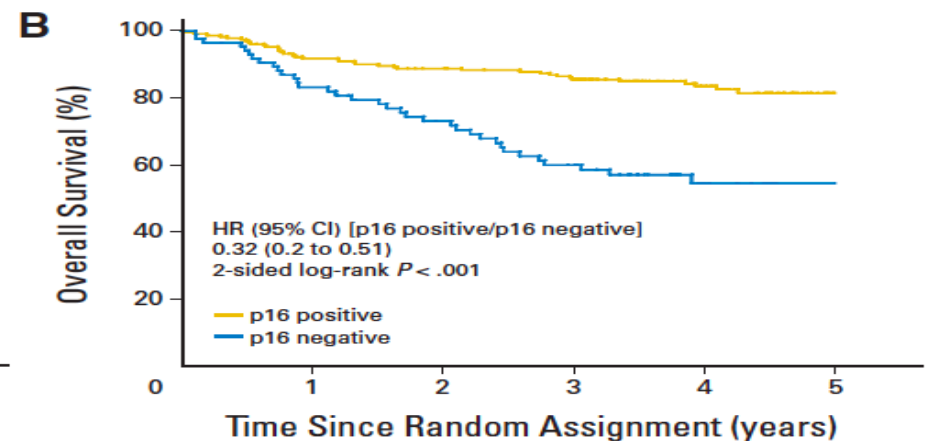
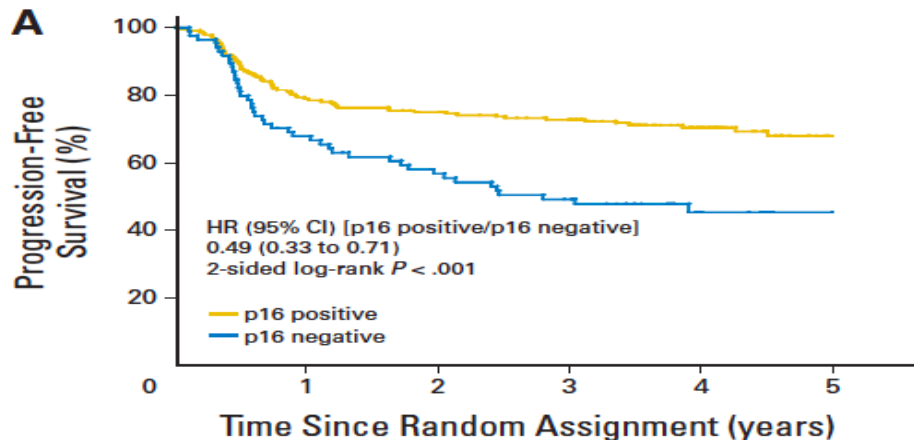
- The 3-year PFS probabilities were 61.2% (95% CI, 56.7% to 65.8%) for arm A and 58.9% (95% CI, 54.2% to 63.6%) for arm B ( $P = .76$ ).
- The 3-year probabilities for OS were 72.9% (95% CI, 68.7% to 77.1%) for arm A and 75.8% (95% CI, 71.7% to 79.9%) for arm B ( $P = .32$ ).

Cetuximab plus cisplatin-radiation, versus cisplatin-radiation alone, resulted in more frequent interruptions in radiation therapy (26.9% v 15.1%), and more grade 3 to 4 radiation mucositis (43.2% v 33.3%)

Adding cetuximab to radiation-cisplatin did not improve outcome

# Randomized Phase III Trial of Concurrent Accelerated Radiation Plus Cisplatin With or Without Cetuximab for Stage III to IV Head and Neck Carcinoma: RTOG 0522

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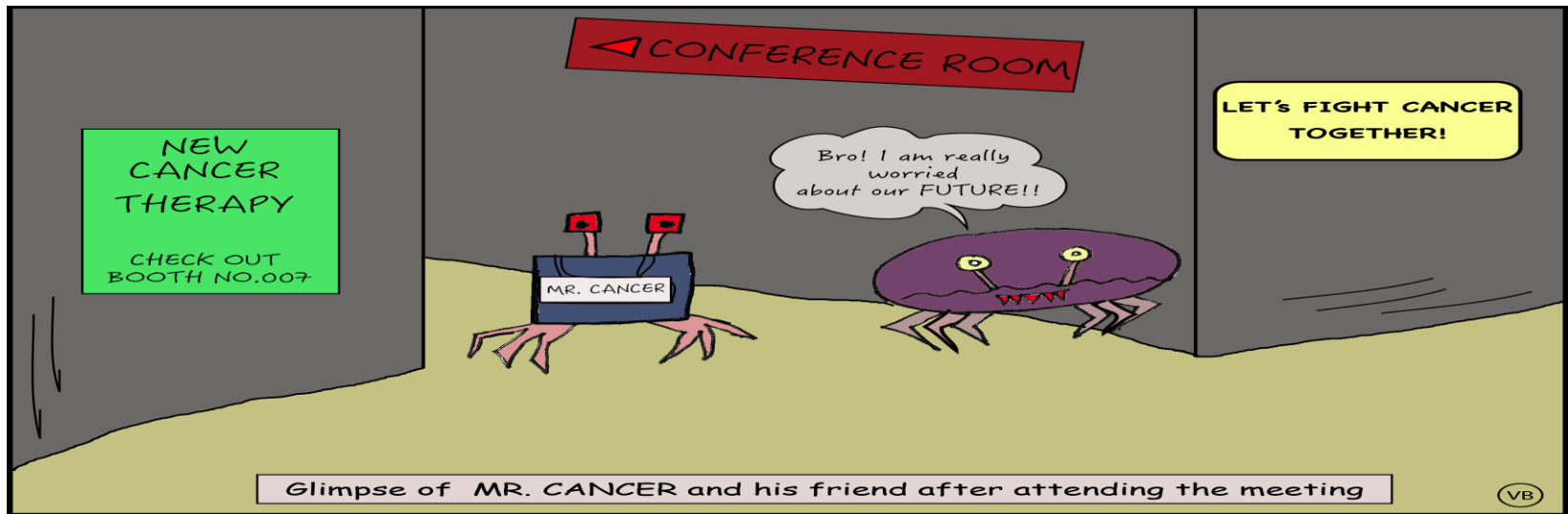


Patients with p16-positive OPCs, compared with patients with p16-negative OPCs, had significantly better

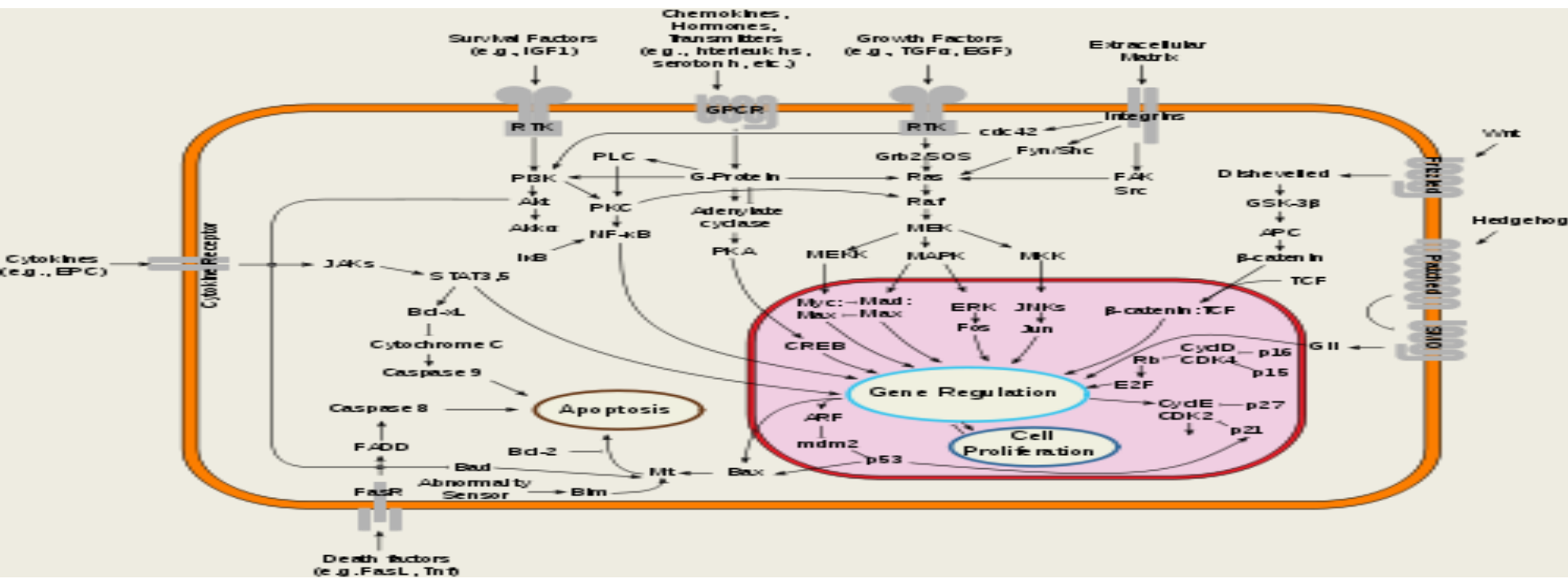
- PFS (3-year probability, 72.8% v 49.2%, respectively;  $P < .001$ ) and
- OS (3-year probability, 85.6% v 60.1%, respectively;  $P < .001$ )

PFS and OS were higher in patients with p16-positive OPC.

**New biomarker in cancer ??**



- Novel cancer treatment to inhibit cancer treatment resistance.



# So, ..... Cancer management IS an evolution !!

The image is a collage illustrating the evolution of cancer management. It features a background geological timeline with various stages and events:

- volcanoes, molten rock, 5 bya
- polymerization, 4 bya
- bacteria, 3.2 bya
- bacterial colonies, 2 bya
- dinosaurs, birds, insects, 240 mya
- Key millions of billions of years ago

Overlaid on this timeline are several images:

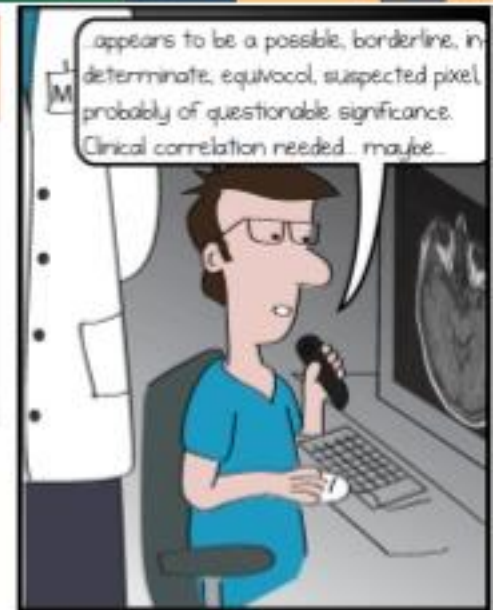
- A surgical procedure showing hands in blue scrubs performing an operation.
- A close-up of a chemotherapy bottle with a label that includes "CAUTION CHEMOTHERAPY".
- A patient lying on a table inside a linear accelerator (LINAC) machine, highlighted with a red border.
- A diagram of a prostate treatment showing a "Focal Point" and a "Transducer".
- A diagram of a cell with yellow and blue structures, possibly representing a virus or a specific cellular component.
- A diagram of a globe with green and yellow spheres, possibly representing a virus or a specific cellular component.

# Overview

- **Cancer care workflow**
- **Cancer treatment modalities**
- **Multidisciplinary tumor board (MDT)**
- Take home messages

# Comprehensive Cancer Care/ Multidisciplinary tumor board

**No Offense to any Specialty!**



"Cat scans are for felines. I will give your dog a pet scan."

# Effects of a multidisciplinary team on colorectal cancer treatment



Yuan-Tzu Lan <sup>a,b</sup>, Jen-Kou Lin <sup>a,b</sup>, Jeng-Kai Jiang <sup>a,b,\*</sup>

- An MDT is defined as “a group of people of different healthcare disciplines, which meets together at a given time (whether physically in one place, or by video or teleconferencing) to discuss a given patient and who are each able to contribute independently to the diagnostic and treatment decisions about the patient”.
- The composition of an MDT for cancer care includes specialists from medical oncology, surgical oncology, radiation oncology, pathology, diagnostic and interventional radiology, palliative care, nursing professionals, nutritionists, and social workers.



# Preoperative decision making for rectal cancer

Panagiotis Taflampas, M.D.<sup>a,\*</sup>, Manousos Christodoulakis, M.D.<sup>b</sup>,  
Eelco de Bree, M.D.<sup>b</sup>, John Melissas, Ph.D.<sup>b</sup>, Dimitris D.A. Tsiftsis, Ph.D.<sup>b</sup>

A 6-stage process for the management of rectal cancer after establishing its diagnosis and excluding systemic disease

1. A phased-array-coil, fine slice, pelvic MRI is performed, which provides the essential elements for the preoperative decision making for rectal cancer.
2. The MDT discusses the patient's case and the overall treatment plan is formed.
3. Preoperative CRT is administered when indicated. Selection for preoperative CRT principally is according to preoperative MRI.
4. A detailed precise surgical procedure is performed according to TME concept.
5. Pathologic audit of the specimen based on the Quirke protocol is performed postoperatively.
6. The case is evaluated thoroughly within the MDT and decisions regarding postoperative treatment are made along with surgical audit and feedback from the pathologists.

1. Am J Surg 2010; 200(3): 426-32.

2. Br J Radiol 2005; 78:S128-30.

**The effect of multidisciplinary teams for rectal cancer on delivery of care and patient outcome: has the use of multidisciplinary teams for rectal cancer affected the utilization of available resources, proportion of patients meeting the standard of care, and does this translate into changes in patient outcome?**

**Bradford Richardson, M.D., M.P.H.<sup>a</sup>, John Preskitt, M.D.<sup>a</sup>,  
Warren Lichliter, M.D.<sup>a</sup>, Stephanie Peschka, R.N.<sup>a</sup>,  
Susanne Carmack, M.D.<sup>b</sup>, Gregory de Prisco, M.D.<sup>c</sup>,  
James Fleshman, M.D.<sup>a,\*</sup>**

We examined the data from rectal cancer patients from 2 years before the adoption of MDT and the 2 years after MDT adoption. In addition, we examined the evolution over time from the beginning of MDT use by examining these 2 years separately.

**Table 2** Staging

	Pre-MDT n = 42 (%)	MDT 2013 n = 41 (%)	MDT 2014 n = 47 (%)	P value
MDT before surgery	n/a	17 (41)	25 (53)	.2719
CEA measured preop	29 (69)	30 (73)	37 (79)	.5800
Imaging				
ERUS or MRI	11 (26)	33 (80)	38 (81)	<.0001*
ERUS	5	7	7	
MRI	6	35	38	
Rigid proctoscope	14 (33)	21 (51)	24 (51)	.1624
Chest	17 (40)	26 (63)	37 (79)	.0010*
Colonoscopy	40 (95)	41 (100)	45 (96)	.3828
All 4 <sup>†</sup>	3 (7)	12 (29)	11 (23)	.0320*
Distance from anal verge evaluated				.0096*
By rigid proctoscope	11 (26)	18 (44)	20 (43)	
By other modality	20 (48)	19 (46)	26 (55)	
Not documented	11 (26)	4 (10)	1 (2)	
Operation type				.0018*
Local (TAE or TAMIS)	9 (22)	7 (18)	4 (9)	
LAR	29 (69)	25 (63)	17 (40)	
TATA	0 (0)	1 (3)	3 (7)	
APR	4 (10)	7 (18)	18 (43)	
Appropriate APR	2 (50)	5 (71)	14 (78)	.1912
Appropriate local excision	2 (22)	2 (29)	3 (75)	.1664
Proper neoadjuvant	35 (83)	40 (98)	45 (96)	.0282*
Restaging after neo	7 (29)	22 (65)	31 (78)	.0005*
Complete pathology report	33 (79)	36 (92)	37 (90)	.1381
Proper adjuvant	35 (84)	32 (82)	29 (71)	.4342

\*P &lt; .05.

APR = abdominoperineal resection; CEA = carotid endarterectomy; CT = computed tomography; DRE = Digital rectal exam; ERUS = endorectal ultrasound;

LAR = low anterior resection; MDT = multidisciplinary team; MRI = magnetic resonance imaging; TAE = transanal excision; TAMIS = transanal minimally invasive surgery; TATA = transanal transabdominal low anterior resection.

<sup>†</sup>For example, MRI, CT, DRE, and flexible sigmoidoscopy.

**Table 3** Quality of surgery

	Pre-MDT n = 42 (%)	MDT 2013 n = 39 (%)	MDT 2014 n = 41 (%)	P value
TME				<.0001*
Complete/nearly	2 (6)	20 (61)	29 (76)	
Incomplete	0 (0)	10 (30)	8 (21)	
Not stated	31 (94)	3 (9)	1 (3)	
Negative distal margin	32 (97)	30 (91)	37 (97)	.3784
Negative CRM	29 (88)	28 (85)	33 (87)	.9348
≥ 12 RLNs	24 (71)	27 (82)	36 (95)	.6534

\*P &lt; .05.

CRM = circumferential resection margins; MDT = multidisciplinary team; RLM = regional lymph node; TME = total mesorectal excision.

**Table 4** Outcomes

	Pre-MDT n = 42 (%)	MDT 2013 n = 39 (%)	MDT 2014 n = 41 (%)
Persistent local tumor	2 (5)	2 (5)	0 (0)
Persistent distant tumor	7 (17)	1 (3)	0 (0)
Recurrence, local only	4 (10)	0 (0)	0 (0)
Recurrence, distant only	2 (5)	0 (0)	1 (2)
Recurrence, local and distant	2 (5)	0 (0)	0 (0)
Mean time to recurrence (months)	27.0		3.0
Mean time from resection (months)	30.7	14.5	6.5

MDT = multidisciplinary team.

# Evaluation of the benefit and use of multidisciplinary teams in the treatment of head and neck cancer



Lisa Licitra<sup>a</sup>, Ulrich Keilholz<sup>b</sup>, Makoto Tahara<sup>c</sup>, Jin-Ching Lin<sup>d</sup>, Pauline Chomette<sup>e</sup>, Philippe Ceruse<sup>f</sup>, Kevin Harrington<sup>g</sup>, Ricard Mesia<sup>h,\*</sup>

## What has been the main benefit to patients?

- A full team of allied healthcare professionals with access to appropriate diagnostic and therapeutic equipment provides a holistic treatment plan based on scientific evidence and adapted to the individual patient
- The time from first visit to diagnosis and to treatment can be shorter for patients who are seen by a well-organized MDT
- Patient and family satisfaction increase when they are immersed in a good organization
- Patients receive increased discussion of treatment options and access to innovative clinical trials
- Patients may trust a proposed treatment based on the collective recommendation of the MDT without the need to request a second opinion

# Evaluation of the benefit and use of multidisciplinary teams in the treatment of head and neck cancer



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What has been the main benefit to **clinicians**?

- Information is shared quickly and easily, and communication between specialists is improved. Clinicians can focus on their specialties and not have to manage issues outside of their competence, resulting in increased professional satisfaction
- MDT meetings provide a continuous learning environment that improves the training of fellows and the overall competence of the team; sharing of experience is especially helpful for difficult cases whereby team members can learn from their colleagues
- The experience of shared responsibility, knowledge, and skills for the care of patients with a difficult-to-treat disease gives reassurance to the clinician; sharing of the final treatment outcome for interesting cases aids learning
- The newest treatments and protocols can be discussed and proposed to our patients
- The organization decreases the inappropriate consumption of health resources
- The implementation of an MDT approach may improve patient recruitment to trials

# Is it worth reorganising cancer services on the basis of multidisciplinary teams (MDTs)? A systematic review of the objectives and organisation of MDTs and their impact on patient outcomes

Joan Prades<sup>a,\*</sup>, Eline Remue<sup>b</sup>, Elke van Hoof<sup>c</sup>, Josep M. Borrás<sup>a,d</sup>

## A B S T R A C T

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Multidisciplinary teams (MDTs) are considered the gold standard of cancer care in many healthcare systems, but a clear definition of their format, scope of practice and operational criteria is still lacking. The aims of this review were to assess the impact of MDTs on patient outcomes in cancer care and identify their objectives, organisation and ability to engage patients in their care. We conducted a systematic review of the literature in the Medline database. Fifty-one peer-reviewed papers were selected from November 2005 to June 2012. MDTs resulted in better clinical and process outcomes for cancer patients, with evidence of improved survival among colorectal, head and neck, breast, oesophageal and lung cancer patients in the study period. Also, it was observed that MDTs have been associated with changes in clinical diagnostic and treatment decision-making with respect to urological, pancreatic, gastro-oesophageal, breast, melanoma, bladder, colorectal, prostate, head and neck and gynaecological cancer. Evidence is consistent in showing positive consequences for patients' management in multiple dimensions, which should encourage the development of structured multidisciplinary care, minimum standards and exchange of best practices.

## Cancer Multidisciplinary Team Meetings: Evidence, Challenges, and the Role of Clinical Decision Support Technology

Vivek Patkar,<sup>1,2</sup> Dionisio Acosta,<sup>2</sup> Tim Davidson,<sup>1</sup>  
Alison Jones,<sup>1</sup> John Fox,<sup>3</sup> and Mohammad Keshtgar<sup>1,2</sup>

Outcomes assessed	Study	E*	Total cases	Cancer type	Difference in MDT meeting arm and control arm with respect to the outcome
Time to intervention	[15]	4	269	Breast	Time to treatment (29.6 versus 42.2 days) <sup>§</sup>
	[16]	4	112	Lung	NSD
	[8]	3b	67	Glioma	NSD
Staging accuracy	[18]	3b	118	Upper GI	MDT improved staging accuracy <sup>§</sup>
Costs per patients	[19]	4	208	Melanoma	MDT saved \$1600 per patient
Decision quality as prediction of accuracy	[20]	4	50	Lung	NSD, Team discussion did not improve the quality of decision making overall.
Psychological morbidity of team members	[21]	5	72	Breast	lower prevalence of psychiatric morbidity (15.7% versus 26.6% $P < 0.005$ )



Summary of empirical evidence on the effectiveness of cancer MDT meetings



# Overview

- Cancer care workflow
- Cancer treatment modalities
- Multidisciplinary tumor board (MDT)
- Take home messages

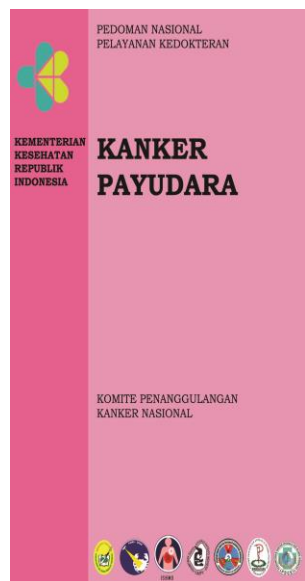
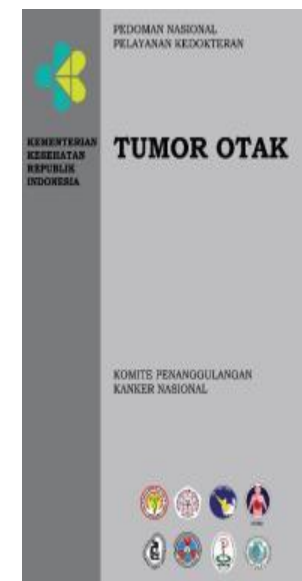
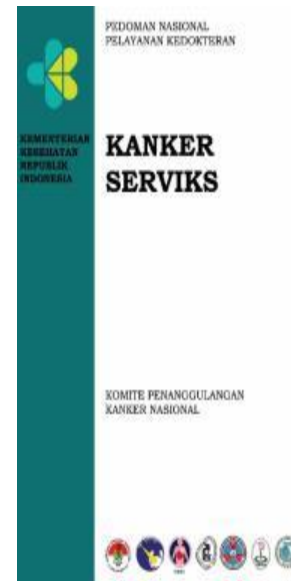
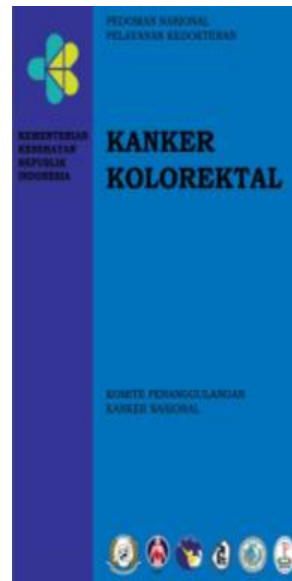
# Take home messages

- Cancer workflow: from prevention to rehabilitation
- Cancer treatment is an evolution
- An MDT is defined as “a group of people of different healthcare disciplines, which meets together at a given time (whether physically in one place, or by video or teleconferencing) to discuss a given patient and who are each able to contribute independently to the diagnostic and treatment decisions about the patient”.
- Benefit of MDT approach
  - improved staging accuracy
  - increased adherence to clinical practice guidelines
  - more cost-effective care
  - Better patient experience and increase patient satisfaction
  - reduce time to treatment
  - improve outcomes



# National cancer Guidelines (PNPK)

<http://www.kanker.kemkes.go.id/guidelines.php?id=2>



Waiting For Confirmation from  
“Konsorsium Pelayanan Kedokteran



# KEMENTERIAN KESEHATAN RI

DIREKTORAT JENDERAL PELAYANAN KESEHATAN  
Jalan H. R. Rasuna Said Blok X5 Kavling 4-9 Kotak Pos 3097, 1196 Jakarta 12950  
Telepon : (021) 5201590 (Hunting) Faksimile : (021) 52611814, 5203872

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Colorectal Cancer



Pharynx Cancer



Breast Cancer



Lung Cancer

Nomor : HK.04.02/I.../3140/2016 28 September 2016  
Hal : Persetujuan Pedoman Penatalaksanaan Kanker

Yang terhormat,  
Direktur Pelayanan Kesehatan Rujukan

Sehubungan dengan surat Saudara Nomor T.../2016 tanggal 18 Juli 2016 tentang Pengantar Panduan Penatalaksanaan Kanker, dengan ini disampaikan bahwa pada prinsipnya... Panduan Penatalaksanaan Kanker yang terdiri dari Kanker... Nasofaring, Osteosarkoma, Tumor Otak, Limfoma Non-H... Kolorektal, Kanker Paru, Kanker Prostat, Dan Kanker Payuda... sebagai acuan dalam Pelatihan (Training Of Trainer) ... Kanker di fasilitas pelayanan kesehatan.

Demikian disampaikan, atas perhatian Saudara diucapkan terima kasih.

Direktur Jenderal,



dr. Bambang Wibowo, Sp. OG (K), MARS  
NIP 196108201988121001

Decree from Director General of Health services MoH material for TOT



Prostate Cancer Osteosarcoma



Breast  
Cancer



Lung  
Cancer



Osteo-  
sarcoma



Colorectal  
Cancer



Cervix  
Cancer



Nasopharynx  
Cancer



Non Hodgkin  
Lymphoma

# In Summary...



**All must join hand in hand...  
To provide best and safe treatment for the patients...**





## The impact of multidisciplinary team meetings on patient assessment, management and outcomes in oncology settings: A systematic review of the literature

Brindha Pillay<sup>a,\*</sup>, Addie C. Wootten<sup>a,b,c</sup>, Helen Crowe<sup>a,b</sup>, Niall Corcoran<sup>a,b</sup>, Ben Tran<sup>d</sup>, Patrick Bowden<sup>e</sup>, Jane Crowe<sup>a</sup>, Anthony J. Costello<sup>a,b,c</sup>

### A B S T R A C T

**Background:** Conducting regular multidisciplinary team (MDT) meetings requires significant investment of time and finances. It is thus important to assess the empirical benefits of such practice. A systematic review was conducted to evaluate the literature regarding the impact of MDT meetings on patient assessment, management and outcomes in oncology settings.

**Methods:** Relevant studies were identified by searching OVID MEDLINE, PsycINFO, and EMBASE databases from 1995 to April 2015, using the keywords: *multidisciplinary team meeting\** OR *multidisciplinary discussion\** OR *multidisciplinary conference\** OR *case review meeting\** OR *multidisciplinary care forum\** OR *multidisciplinary tumour board\** OR *case conference\** OR *case discussion\** AND *oncology* OR *cancer*. Studies were included if they assessed measurable outcomes, and used a comparison group and/or a pre- and post-test design.

**Results:** Twenty-seven articles met inclusion criteria. There was limited evidence for improved survival outcomes of patients discussed at MDT meetings. Between 4% and 45% of patients discussed at MDT meetings experienced changes in diagnostic reports following the meeting. Patients discussed at MDT meetings were more likely to receive more accurate and complete pre-operative staging, and neo-adjuvant/adjuvant treatment. Quality of studies was affected by selection bias and the use of historical cohorts impacted study quality.

**Conclusions:** MDT meetings impact upon patient assessment and management practices. However, there was little evidence indicating that MDT meetings resulted in improvements in clinical outcomes. Future research should assess the impact of MDT meetings on patient satisfaction and quality of life, as well as, rates of cross-referral between disciplines.

# Example

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	Screening & Early Detection	Biopsy	Staging and Risk Stratification	Treatment (definitive)
Breast Cancer	Mammography	Core biopsy	TNM	Surgery
Prostate cancer	PSA	TRUS core biopsy	D'Amico	Surgery; Radiotherapy
Rectal cancer	Colonoscopy	Per colonoscopy biopsy	TNM	TME
Cervical cancer	Pap smear	Biopsy	FIGO	Surgery; Radiotherapy
Lung Cancer	Low dose CT	TT biopsy	TNM	Surgery

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# Chemoradiotherapy with or without panitumumab in patients with unresected, locally advanced squamous-cell carcinoma of the head and neck (CONCERT-1): a randomised, controlled, open-label phase 2 trial

*Ricard Mesía, Michael Henke, Andre Fortin, Heikki Minn, Alejandro Cesar Yunes Ancona, Anthony Cmelak, Avi B Markowitz, Sebastien J Hotte, Simron Singh, Anthony T C Chan, Marco C Merlano, Krzysztof Skladowski, Alicia Zhang, Kelly S Oliner, Ari VanderWalde, Jordi Giralt*

**Interpretation** In patients with locally advanced squamous-cell carcinoma of the head and neck, the addition of panitumumab to standard fractionation radiotherapy and cisplatin did not confer any benefit, and the role of EGFR inhibition in these patients needs to be reassessed.

# Panitumumab plus radiotherapy versus chemoradiotherapy in patients with unresected, locally advanced squamous-cell carcinoma of the head and neck (CONCERT-2): a randomised, controlled, open-label phase 2 trial

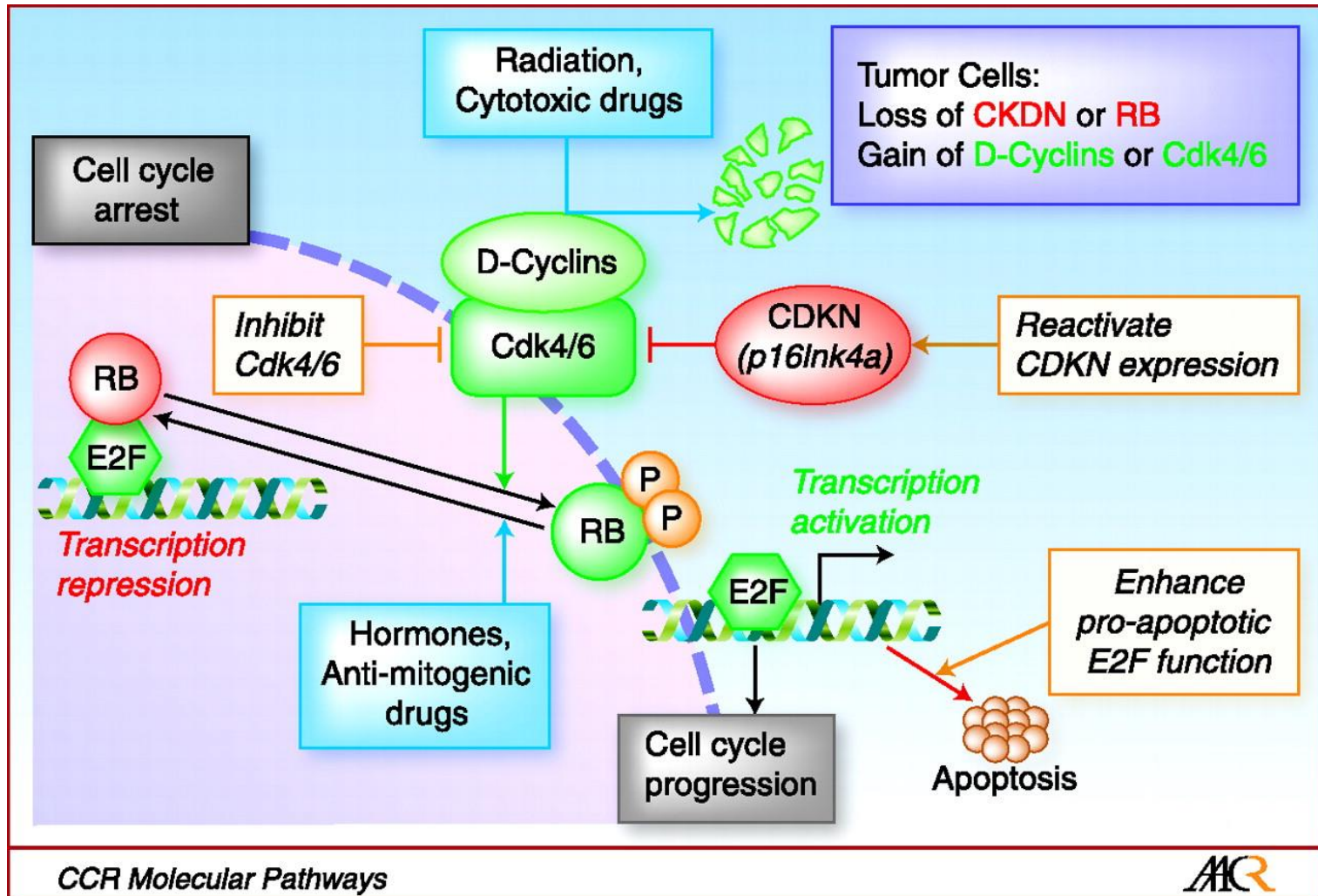


*Jordi Giralt, Jose Trigo, Sandra Nuyts, Mahmut Ozsahin, Krzysztof Skladowski, Georges Hatoum, Jean-Francois Daisne, Alejandro César Yunes Ancona, Anthony Cmelak, Ricard Mesía, Alicia Zhang, Kelly S Oliner, Ari VanderWalde*

**Interpretation** Panitumumab cannot replace cisplatin in the combined treatment with radiotherapy for unresected stage III–IVb squamous-cell carcinoma of the head and neck, and the role of EGFR inhibition in locally advanced squamous-cell carcinoma of the head and neck needs to be reassessed.

1. Lancet Oncol 2015; 16: 208–220.
2. Lancet Oncol 2015; 16: 221–232.

# The RB-pathway in cancer therapy.



Erik S. Knudsen, and Jean Y. J. Wang Clin Cancer Res  
2010;16:1094-1099