

# Tertulia: Presente, pasado y futuro de la Medicina Oncológica

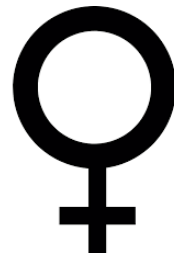


**Ramon Salazar**  
Institut Català d'Oncologia

# International Agency for Research on Cancer

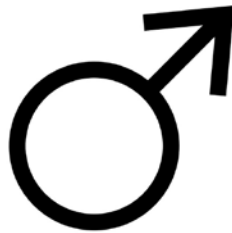


**1** 23

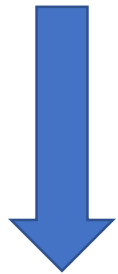


**1** 2

**1** 2



**2** 3



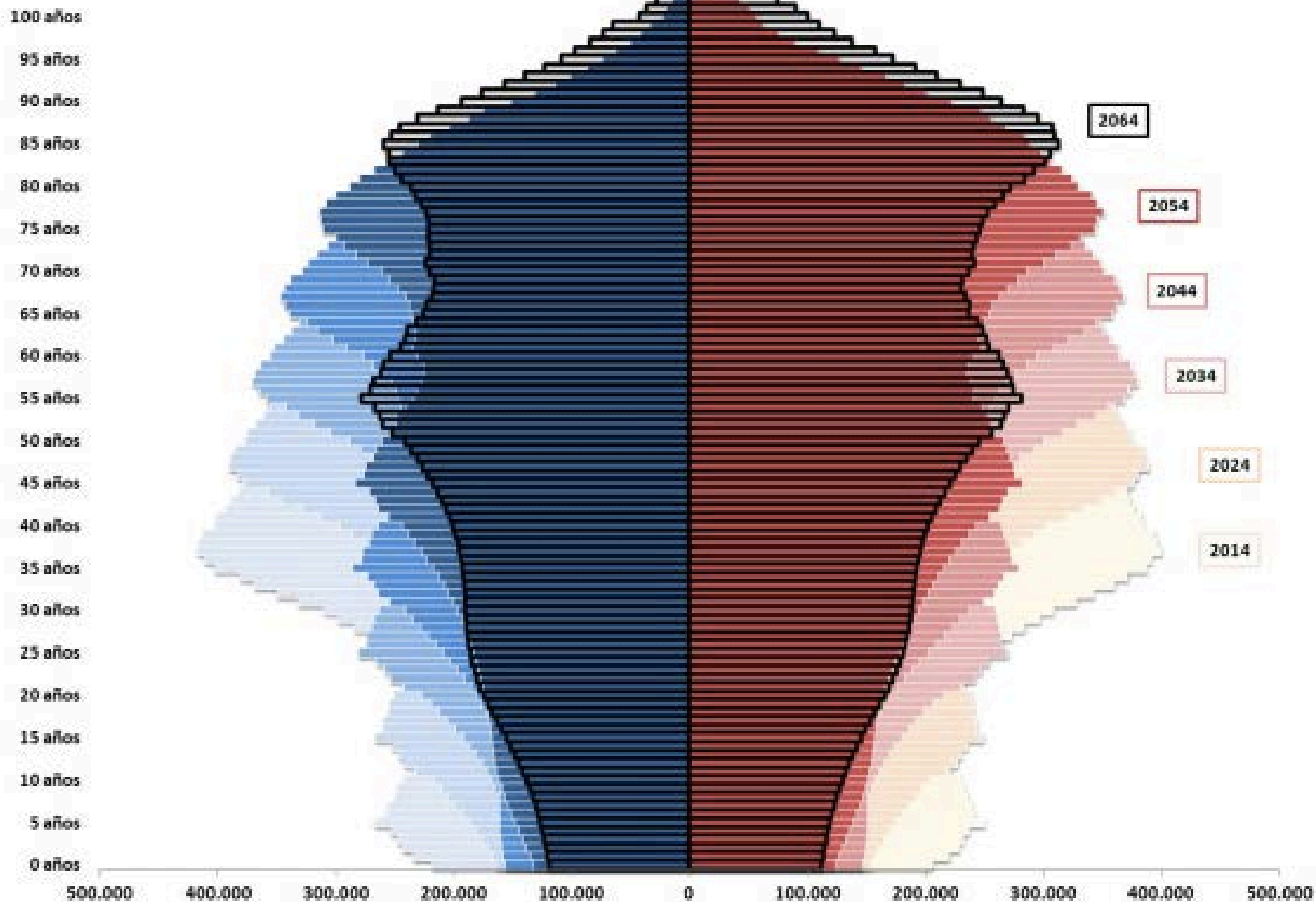
**2018**

IARC Global Cancer  
Observatory, 2018



**2040**

# Proyecciones de población por sexo y edad. España 2014-2064

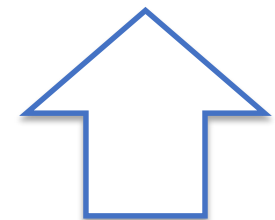


200 NEJM ANNIVERSARY ARTICLE

# Two Hundred Years of Cancer Research

Vincent T. DeVita, Jr., M.D., and Steven A. Rosenberg, M.D., Ph.D.

	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010	2020
Incidence per 100,000 (age-adjusted)									400		511	473	444	
Mortality per 100,000 (age-adjusted)									200		215	178	151	



# Claves en la lucha contra el cáncer

PREVENCIÓN

TRATAMIENTO

Medicina 1.0

Medicina 2.0

medicina 3.0

...in his  
...in his  
...in his

The doctor is a doctor,  
a diplomat, and a friendly  
sympathetic friend being  
all in one, no matter how  
long and hard his schedule.



*According to a recent Nationwide survey:*

# MORE DOCTORS SMOKE CAMELS THAN ANY OTHER CIGARETTE

**D**OCTORS smoke a brand of medicine — CAMELS. In all-over opinion on the trademark quality of cigarette packages, these leading medical professionals made the survey. The gist of the query was: What cigarette do you smoke, Doctor?  
The brand named was our Camel!  
The why, all favor and good evidence of Camel's expert blend of superior tobacco, more to have the more appeal to the smoking sense of doctors as to others of other smokers. If you are a Camel



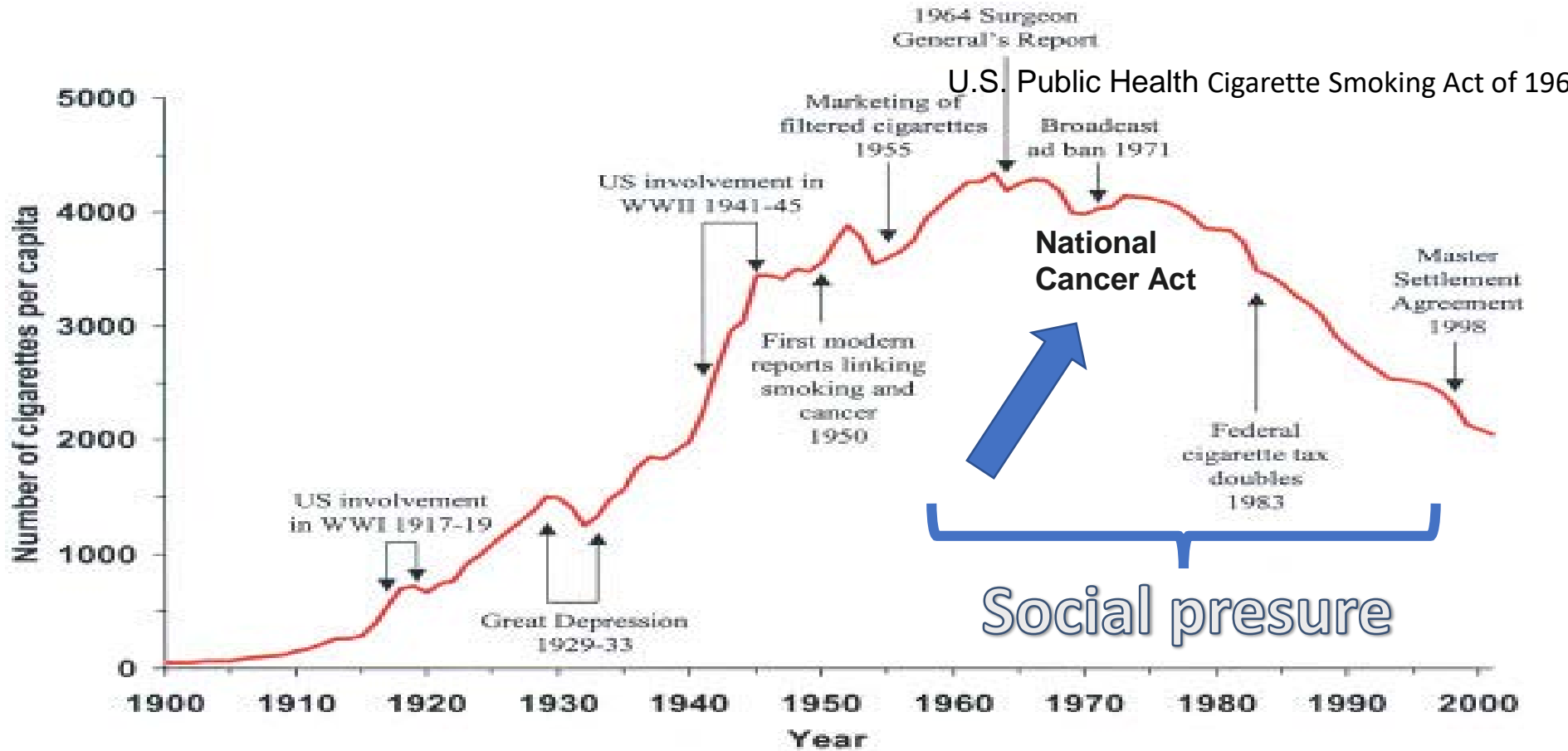
Your "T-Zone" Will Tell You...

1. The Taste ...  
2. The Throat ...  
3. The ...  
4. The ...  
5. The ...

There's good  
growing ground  
for any cigarette  
but it's Camels.

## Medicina 1.0

# Adult (age 18 years) per capita cigarette consumption and major smoking and health events, USA, 1900-2001.



Adapted from MMWR, 1999: 48(43): 986-993.

## PREVENCIÓN PRIMARIA ¿Factores de riesgo HOY?

- Tabaco
- Alcohol
- Sobrepeso
  - Sedentarismo/Dieta
- Radiaciones UV (protección solar)
- Exposición química (anilinas, amianto, gas radón)
- Exposición RX ionizantes..
- HPV y HBV (Vacunación)

Codigo Europeo del Cancer.  
IARC.



## PREVENCIÓN PRIMARIA

### ¿Nuevos factores de riesgo?

- Tabaco
- Alcohol
- Sobrepeso
  - Actividad física/Dieta
- Radiaciones UV (protección solar)
- Exposición química (anilinas, amianto, gas radón, cadmio)
- **Sueño (alteraciones ritmo circadiano)**

Carcinogenicity of night shift work. *IARC Monographs Vol 124 group.*  
*Lancet Oncol.* 2019 Aug; 20(8):1058-1059.

# PREVENCIÓN PRIMARIA

## Cáncer Hereditario

### APC

Voghelstein,  
Gesteland & White  
(the Rays)  
1991



MMR  
1993



Perucho, Voghelstein & Kolodener. H. Lynch.1966

### BRCA1

### 1994

### A Strong Candidate for the Breast and Ovarian Cancer Susceptibility Gene *BRCA1*

Yoshio Miki, Jeff Swensen, Donna Shattuck-Eidens, P. Andrew Futreal, Keith Harshman, Sean Tavtigian, Qingyun Liu, Charles Cochran, L. Michelle Bennett, Wei Ding, Russell Bell, Judith Rosenthal, Charles Hussey, Thanh Tran, Melody McClure, Cheryl Frye, Tom Hattier, Robert Phelps, Astrid Haugen-Strano, Harold Katcher, Kazuko Yakumo, Zahra Gholami, Daniel Shaffer, Steven Stone, Steven Bayer, Christian Wray, Robert Bogden, Priya Dayananth, John Ward, Patricia Tonin, Steven Narod, Pam K. Bristow, Frank H. Norris, Leah Helvering, Paul Morrison, Paul Rosteck, Mei Lai, J. Carl Barrett, Cathryn Lewis, Susan Neuhausen, Lisa Cannon-Albright, David Goldgar, Roger Wiseman, Alexander Kamb, Mark H.



# Portadores de mutaciones de Cáncer Hereditario

## **PREVENCIÓN PRIMARIA** **¿Intervención terapéutica HOY?**



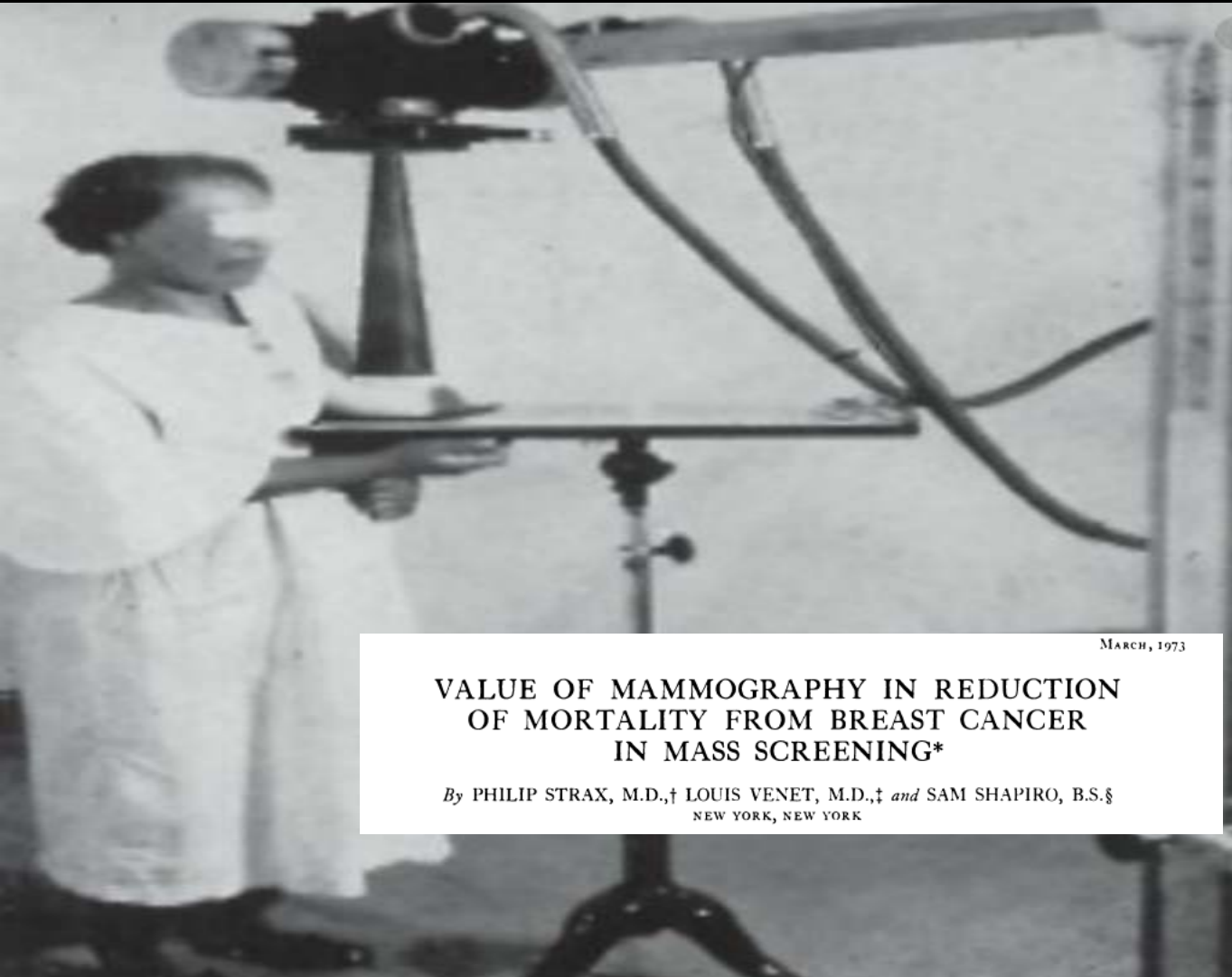
- Cirugías preventivas
- Fármacos preventivos ¿?

## **PREVENCIÓN SECUNDARIA**

- Cribados intensivos

# PREVENCIÓN SECUNDARIA

## Primer estudio Cribado por Mamografía 1960



MARCH, 1973

### VALUE OF MAMMOGRAPHY IN REDUCTION OF MORTALITY FROM BREAST CANCER IN MASS SCREENING\*

By PHILIP STRAX, M.D.,† LOUIS VENET, M.D.,‡ and SAM SHAPIRO, B.S.§  
NEW YORK, NEW YORK



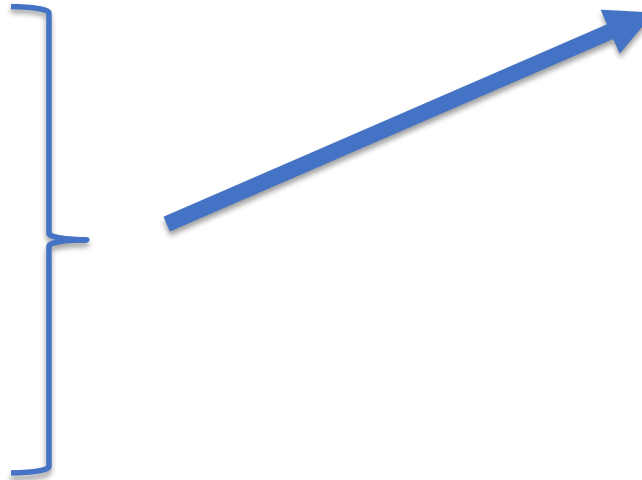
**Figure 20.** Self-contained mobile mammographic unit used by Strax in the late 1960s. (Courtesy of Philip Strax, MD, Lauderdale, Fla.) (a) Mammograms could be obtained in 70 women per day. (b) The unit contained facilities for obtaining a medical history and performing physical examination, mammography, and thermography.

# Medicina 1.0

# PREVENCIÓN SECUNDARIA: Hoy

## Población general

- Mamografía
- Test de sangre oculta en heces & Colonoscopia
- Citología + HPV



Supervivencia

Est 1: 95%

Est 2: 80%

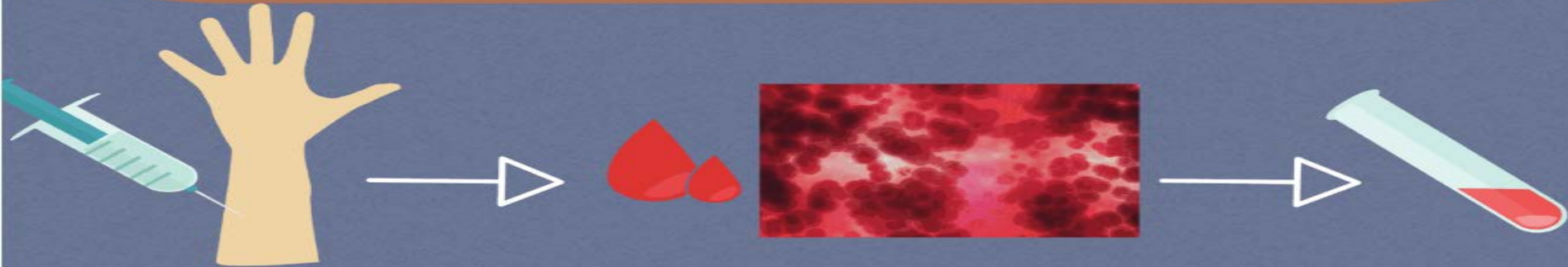
Est 3: 55%

Est 4: 10%

Codigo Europeo del Cancer.  
IARC.

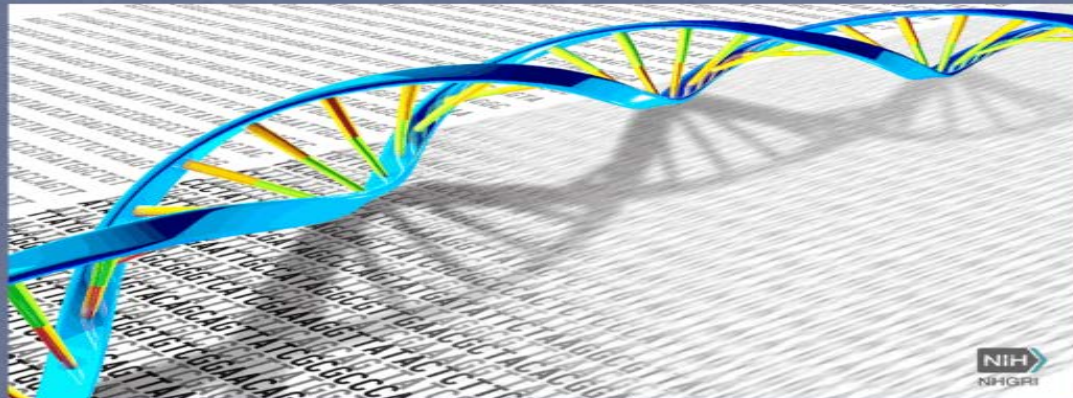
# PREVENCIÓN SECUNDARIA: Mañana

## Biopsia Líquida



Análisis ADN

Secuenciación Masiva



PCR digital



# Claves en la lucha contra el cáncer

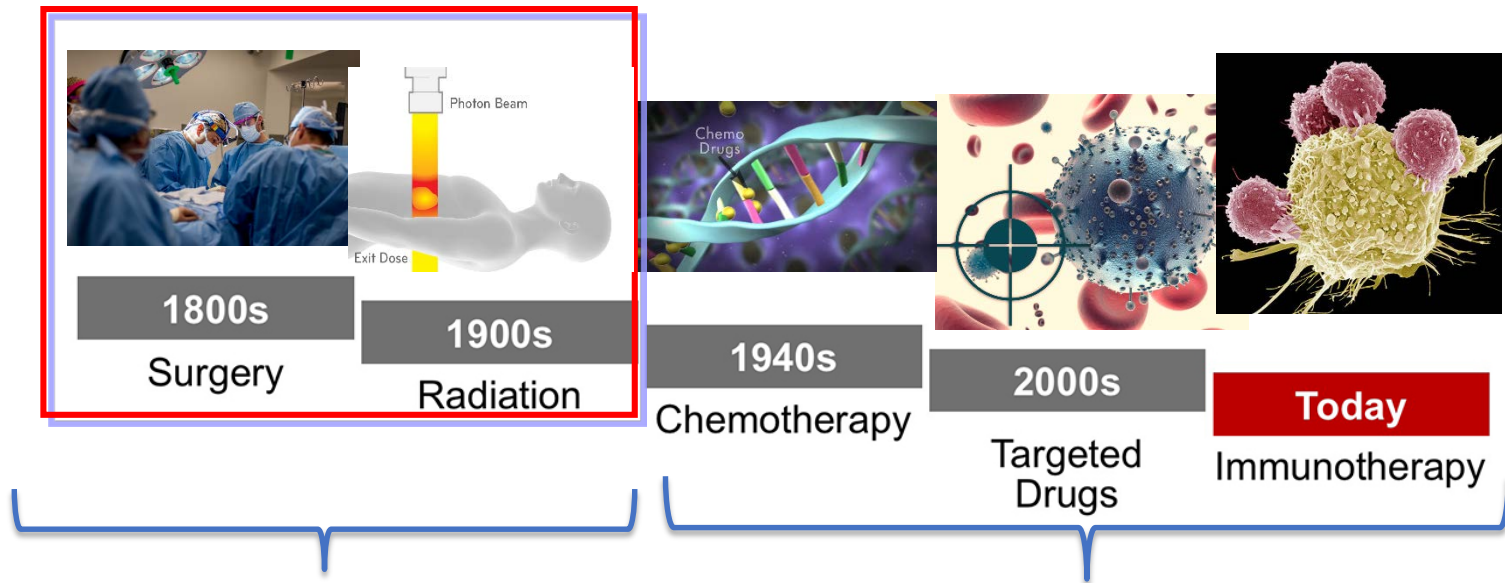
TRATAMIENTO

Medicina 1.0

Medicina 2.0

medicina 3.0

# Avances en el tratamiento

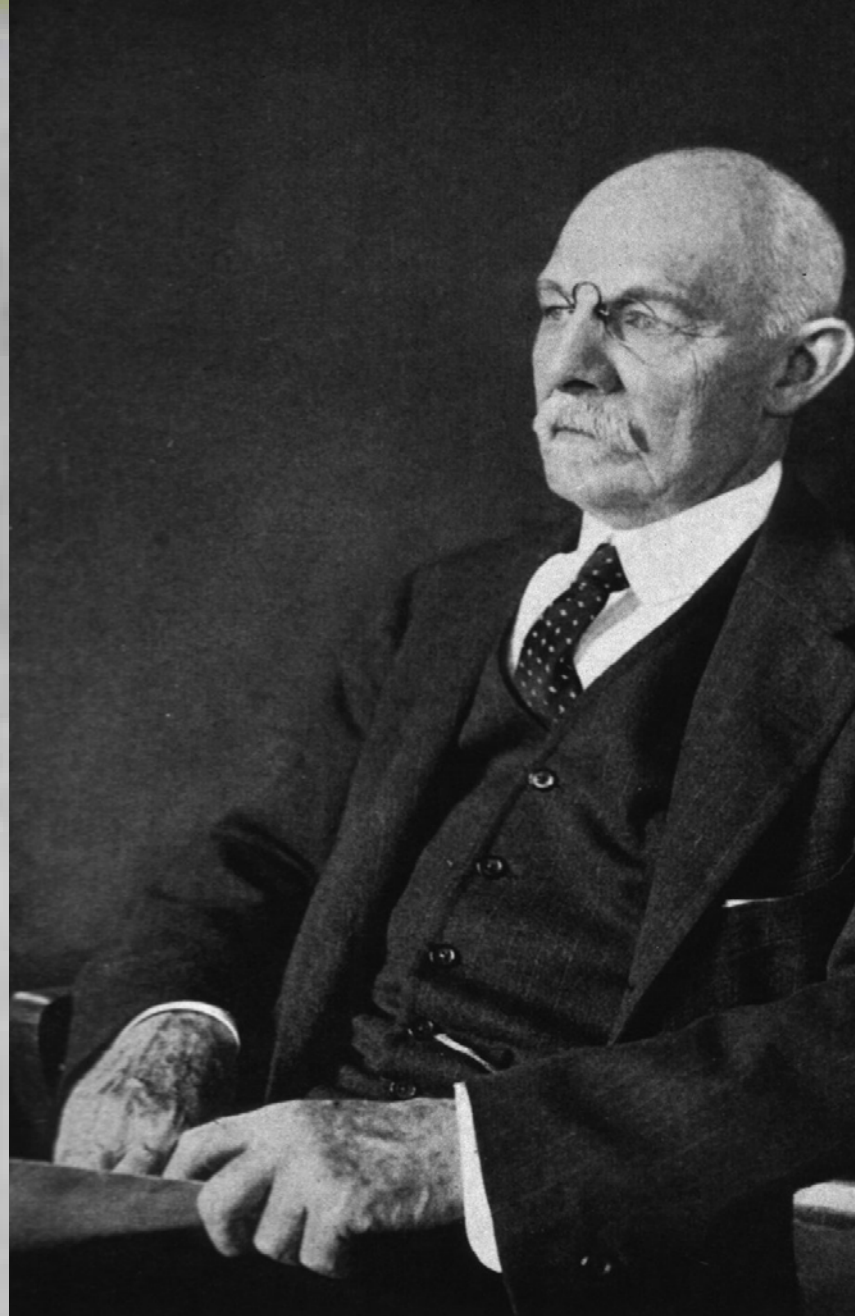


Tratamientos  
Locales

Tratamientos  
Sistémicos



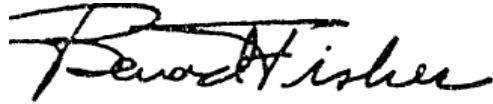
Halsted hypothesis leads to radical mastectomy and en bloc resection, 1894



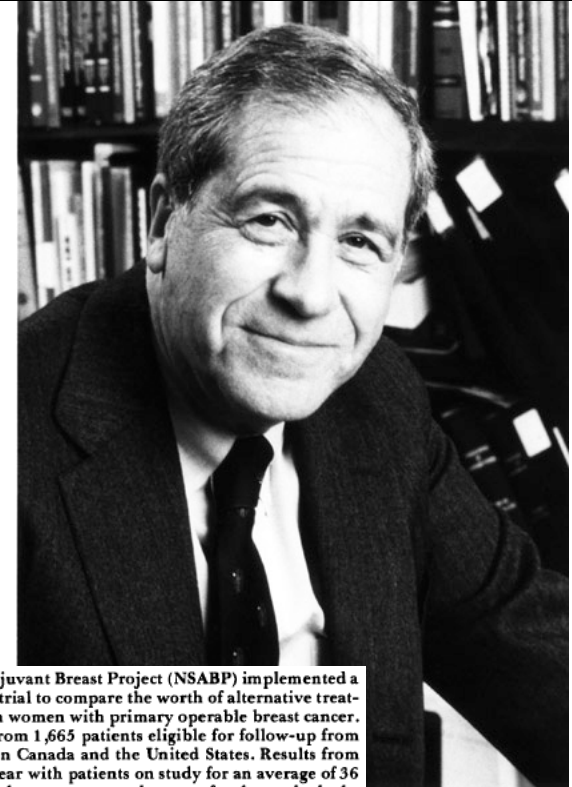
Medicina 1.0

# Cirugía: 80s & 90s-

## Fisher hypothesis, 1968



is a Professor of Surgery at the University of Pittsburgh School of Medicine, where he earned his M.D. degree. Part of his surgical training was at the University of Pennsylvania, during which time his interest in surgical research was stimulated by Drs. Isidore S. Ravdin and Jonathan E. Rhoads. For 15 years he has been involved with research relative to tumor biology, particularly that related to metastases. He has more than 200 publications to his name. Presently, Doctor Fisher is Chairman of the National Surgical Adjuvant Breast Project and serves as a consultant to the National Cancer Institute as a member of the Breast Cancer Task Force.



### COMPARISON OF RADICAL MASTECTOMY WITH ALTERNATIVE TREATMENTS FOR PRIMARY BREAST CANCER

*A First Report of Results from a Prospective Randomized Clinical Trial*

BERNARD FISHER, MD, ELEANOR MONTAGUE, MD, CAROL REDMOND, ScD,  
BRUCE BARTON, MS, DONNA BORLAND, RN, EDWIN R. FISHER, MD,  
MELVIN DEUTSCH, MD, GEORGE SCHWARZ, MD, RICHARD MARGOLESE, MD.,  
WILLIAM DONEGAN, MD, HERBERT VOLK, MD, CARL KONVOLINKA, MD,  
BERNARD GARDNER, MD, ISIDORE COHN, JR, MD, GERSON LESNICK, MD,  
ANATOLIO B. CRUZ, MD, WALTER LAWRENCE, MD, THOMAS NEALON, MD,  
HARVEY BUTCHER, MD, RICHARD LAWTON, MD, (and other NSABP investigators)\*  
*Cancer* 39:2827-2839, 1977.

In 1971, the National Surgical Adjuvant Breast Project (NSABP) implemented a prospective randomized clinical trial to compare the worth of alternative treatments with radical mastectomy in women with primary operable breast cancer. Information has been obtained from 1,665 patients eligible for follow-up from 34 NSABP member institutions in Canada and the United States. Results from that trial, at present in its sixth year with patients on study for an average of 36 months, (26 to 62 months), fail to demonstrate an advantage for those who had a radical mastectomy. No significant difference in the treatment failure or sur-

### TOTAL MASTECTOMY VERSUS LUMPECTOMY

### RADICAL VERSUS TOTAL MASTECTOMY

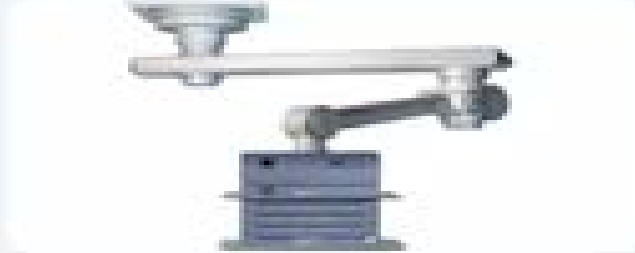
TWENTY-FIVE-YEAR FOLLOW-UP OF A RANDOMIZED TRIAL COMPARING  
RADICAL MASTECTOMY, TOTAL MASTECTOMY, AND TOTAL MASTECTOMY  
FOLLOWED BY IRRADIATION

TWENTY-YEAR FOLLOW-UP OF A RANDOMIZED TRIAL COMPARING TOTAL  
MASTECTOMY, LUMPECTOMY, AND LUMPECTOMY PLUS IRRADIATION  
FOR THE TREATMENT OF INVASIVE BREAST CANCER

BERNARD FISHER, M.D., STEWART ANDERSON, Ph.D., JOHN BRYANT, Ph.D., RICHARD G. MARGOLESE, M.D.,  
MELVIN DEUTSCH, M.D., EDWIN R. FISHER, M.D., JONG-HYEON JEONG, Ph.D., AND NORMAN WOLMARK, M.D.

N Engl J Med 2002;347:1233-41. Copyright © 2002 Massachusetts Medical Society.

# Medicina 2.0



Consola (teaching)

- Colocación de torre -

Multi-input display

medicina 3.0

# RT: 1900s-

Descubrimiento Rx 1895



Descubrimiento Radium 1898



## PRINCIPLES OF X RAY THERAPY OF MALIGNANT DISEASES \*

BY HENRI COUTARD, M.D.

CHIEF OF THE DEPARTMENT OF X RAY THERAPY FOR CANCER, RADIUM INSTITUTE OF THE UNIVERSITY OF PARIS (FONDATION CURIE)

(WITH ILLUSTRATIVE PLATES)

THE discussion of the principles of X ray therapy of malignant tumours will be divided into four parts

(a) Some results of sufficiently long standing to show that the cure of cancer by X ray therapy is possible.

(b) The physical and clinical technique by means of which

Head and neck cancer cured

(c) by fractionated radiotherapy,

1928 Its of X Ray Therapy of Cancer

It is certain that some cancers can be cured by X rays, but the proportion of cures is at present rather small and local and general accidents, early or late, are not infrequent.

In Tables I., II., and III. we reproduce the results obtained by X ray treatment in some cases specially studied at the Fondation Curie.

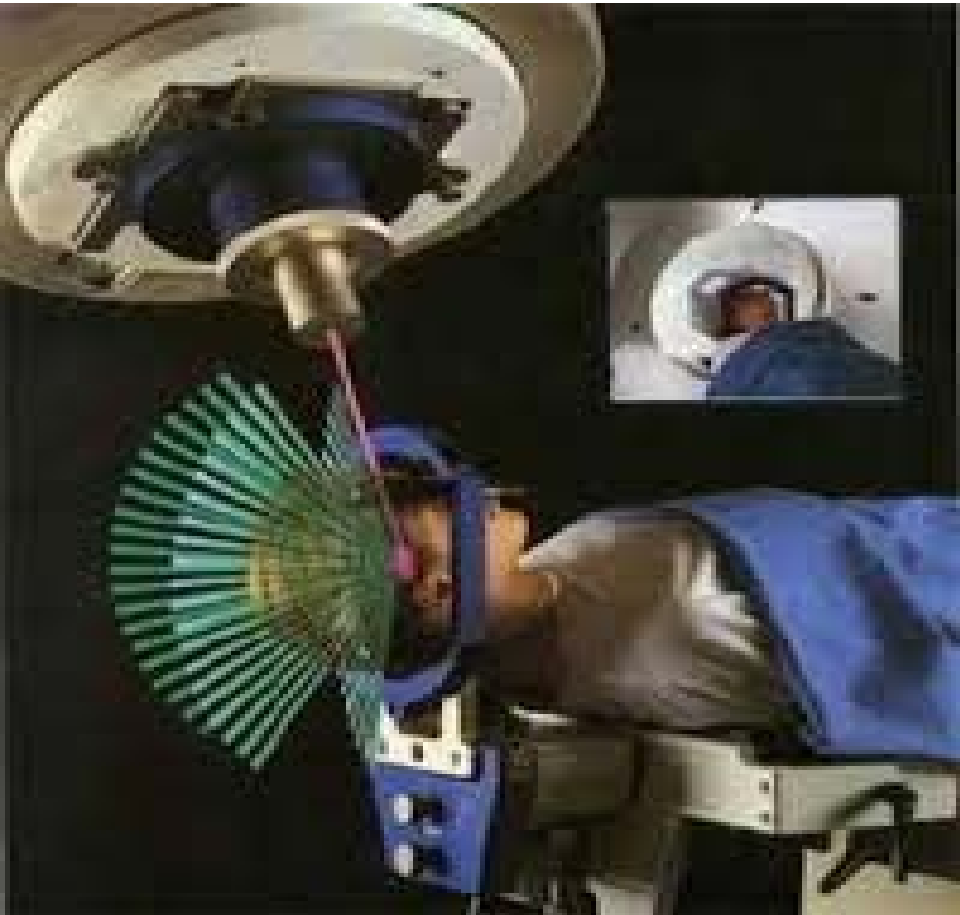
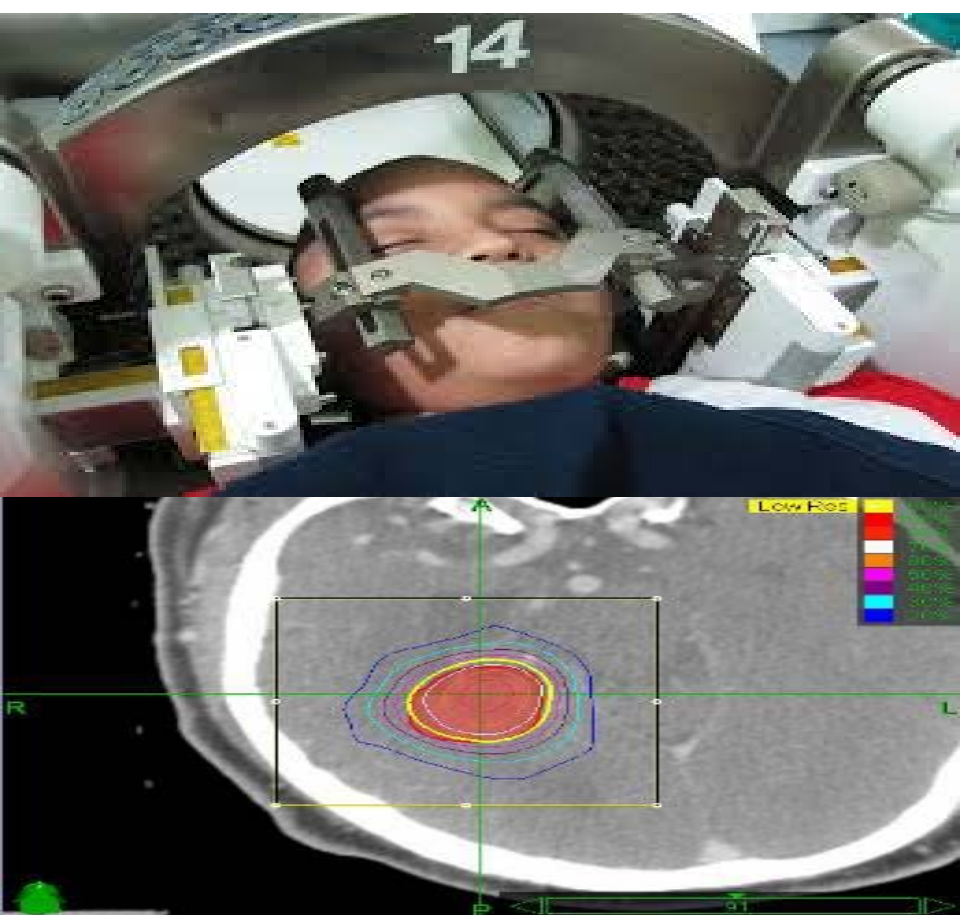
TABLE I

*Lymphosarcoma of the mouth, tongue, and nasopharynx*

Cases treated from 1920 to 1926.	Survivals	
	after 5 years.	after 7 years.
45 .. ..	8 (17%)	8 (17%)

In lymphosarcoma, lymphatic metastases are generally frequent, especially during the first years. The cure cases remained in good health, without metastases, from between 5 and 7 years.

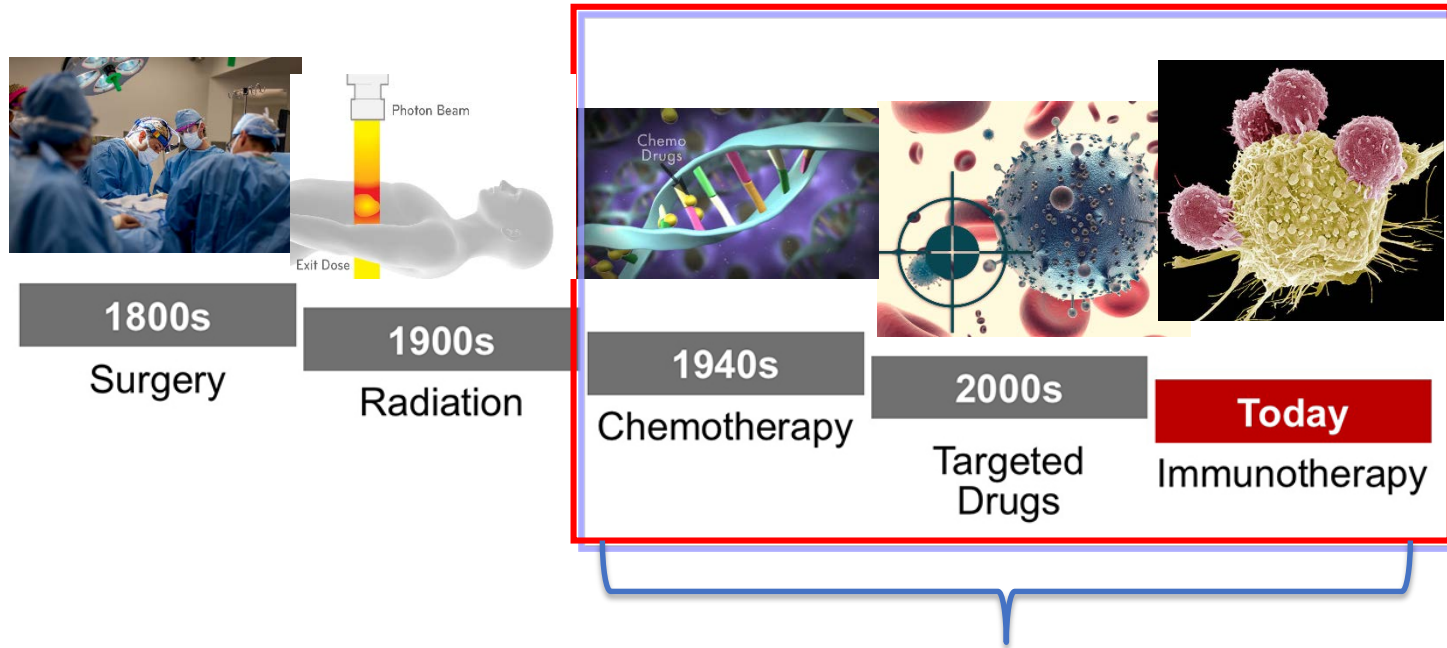
# 50s-2000s: Cobalto/Aceleradores, IMRT-SBRT-IGRT 2020s: Protones



Medicina 2.0

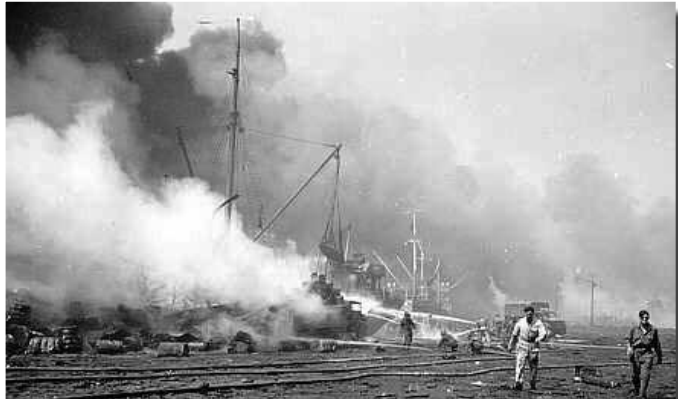
medicina 3.0

# Avances en el tratamiento



Tratamientos  
Sistémicos

# QT: 40s & 50s



Puerto de Bari 1943

## NITROGEN MUSTARD THERAPY

Use of Methyl-Bis(Beta-Chloroethyl)amine Hydrochloride and Tris(Beta-Chloroethyl)amine Hydrochloride for Hodgkin's Disease, Lymphosarcoma, Leukemia and Certain Allied and Miscellaneous Disorders

LOUIS S. GOODMAN, M.D., Salt Lake City  
MAXWELL M. WINTROBE, M.D., Salt Lake City  
WILLIAM DAMESHEK, M.D., Boston  
MORTON J. GOODMAN, M.D., Portland, Ore.  
MAJOR ALFRED GILMAN  
Medical Corps, Army of the United States  
and  
MARGARET T. McLENNAN, M.D., Salt Lake City

In a recent report the historical aspects of the use of  $\beta$ -chloroethyl amines (halogenated alkyl amines, nitrogen mustards) in the treatment of certain diseases of the blood-forming organs were presented and the chemical, pharmacologic, toxicologic and animal experimental aspects of these compounds reviewed.<sup>2</sup> The interested reader is referred to that report for orientation.

JAMA: Sept 21, 1946, 132, N°3, Page 126



## The New England Journal of Medicine

Copyright, 1948, by the Massachusetts Medical Society

Volume 238

JUNE 3, 1948

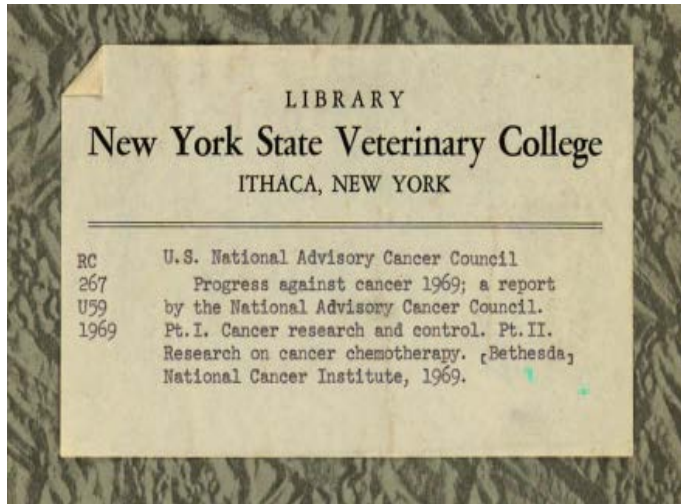
Number 23

TEMPORARY REMISSIONS IN ACUTE LEUKEMIA IN CHILDREN PRODUCED BY FOLIC ACID ANTAGONIST, 4-AMINOPTEROYL-GLUTAMIC ACID (AMINOPTERIN)\*

SIDNEY FARDER, M.D.,† LOUIS E. DIAMOND, M.D.,‡ ROBERT D. MERCER, M.D.,§

ROBERT F. SILVESTER, JR., M.D.,¶ AND JAMES A. WOLFF, M.D.‡

# Medicina 1.0



**1967. Frei, De Vita et al. (NCI) :**

Curaciones en Hodgkin y leucemias  
pediátricas.



# Curing metastatic testicular cancer

Lawrence H. Einhorn\*

Indiana University Medical Center, 535 Barnhill Drive, RT 473, Indianapolis, IN 46202-5289

Contributed by Lawrence H. Einhorn, February 5, 2002

Higby, D. J., Wallace, H. J., Albert, D. J. & Holland, J. F. (1974) *Cancer* 33, 1219–1225. 5.  
Einhorn, L. H. & Donohue, J. P. (1977) *Ann. Int. Med.* 87, 293–298

ORIGINAL ARTICLE [FREE PREVIEW](#) [ARCHIVE](#)

## Combination Chemotherapy as an Adjuvant Treatment in Operable Breast Cancer

Gianni Bonadonna, M.D., Ercole Brusamolino, M.D., Pinuccia Valagussa, B.S., Anna Rossi, M.D., Luisa Brugnattelli, M.D., Cristina Brambilla, M.D., Mario De Lena, M.D., Gabriele Tancini, M.D., Emilio Bajetta, M.D., Renato Musumeci, M.D., and Umberto Veronesi, M.D.

*The NEW ENGLAND JOURNAL of MEDICINE*

February 19, 1976

*N Engl J Med* 1976; 294:405-410

DOI: 10.1056/NEJM197602192940801

### Abstract

Prolonged cyclic combination chemotherapy with cyclophosphamide, methotrexate and fluorouracil was evaluated as adjuvant treatment to radical mastectomy in primary breast cancer with positive axillary lymph nodes.

[Purchase this article](#)

[Print Subscriber? Activate your online access.](#)

QT: 80s & 90s



Medicina 1.0

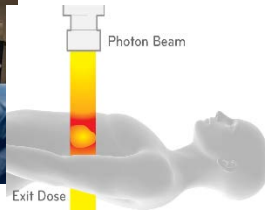
Medicina 2.0

## Avances en el tratamiento

# Nueva Medicina Oncológica



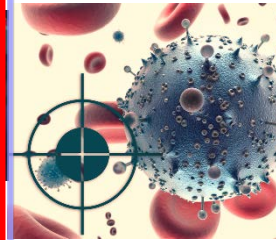
1800s  
Surgery



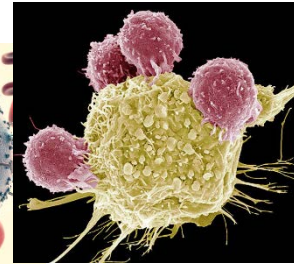
1900s  
Radiation



1940s  
Chemotherapy



2000s  
Molecular



**Today**  
Immunotherapy

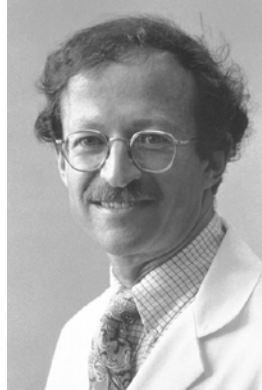
## Medicina 2.0

medicina 3.0

# 1980-1990's descubrimiento de 100 oncogenes y genes supresores tumorales



**SRC  
1976**



Varmus



Wigler, Weinberg, Barbacid

**RAS  
1982**

Bishop

**A human DNA segment with properties of the gene that predisposes to retinoblastoma and osteosarcoma**

**Stephen H. Friend\*†, Rene Bernards\*, Snezna Rogelj\*, Robert A. Weinberg\*‡, Joyce M. Rapaport§, Daniel M. Albert§ & Thaddeus P. Dryja§**

NATURE VOL. 323 16 OCTOBER 1986

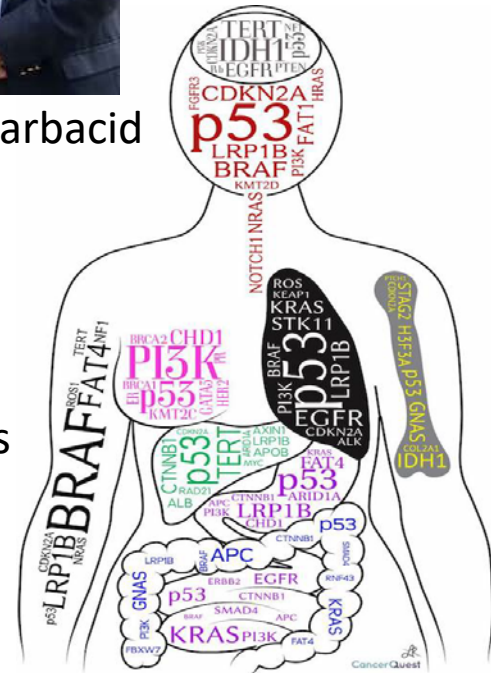
LETTERSTONATURE

**RBL  
1986**



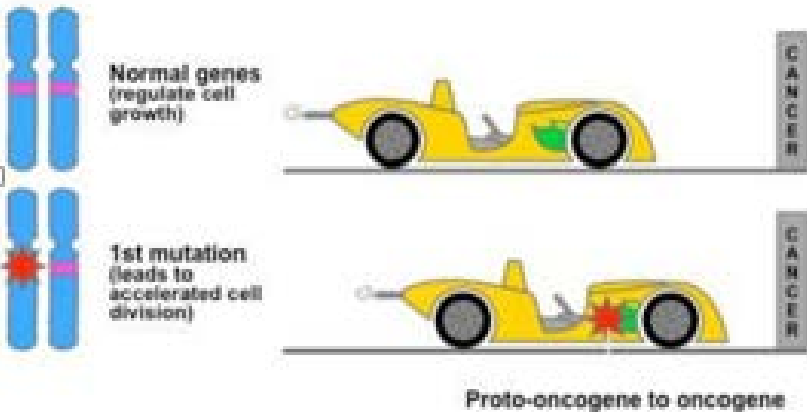
Friend, Bernards

**HER2  
-NEU  
1986**

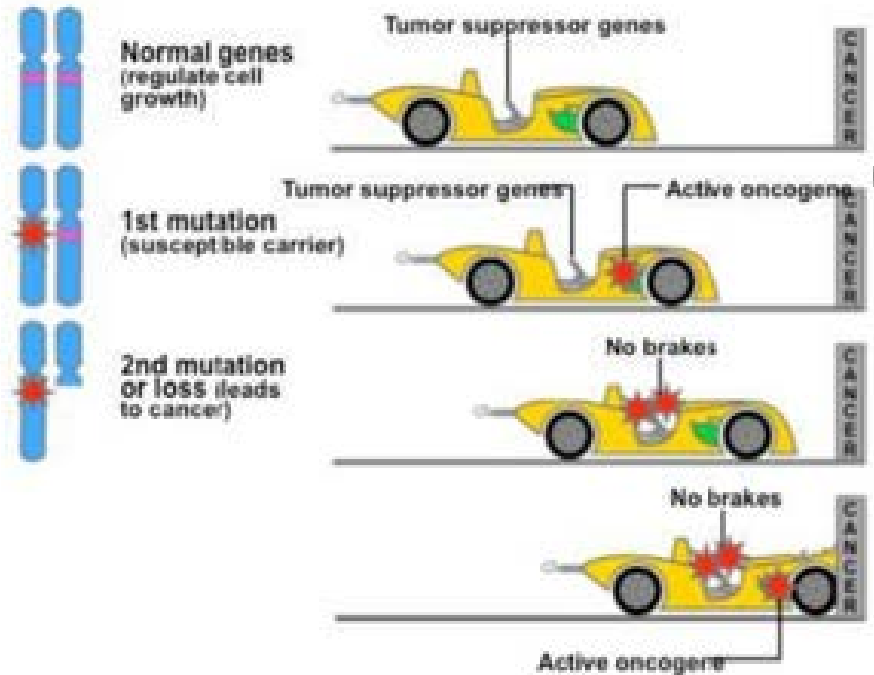


# El cáncer es una enfermedad genética:

The **bad** guys, turn abnormal cell growth on  
(go/gas pedal)



The **good** guys, turn cell growth off  
(stop/brake pedal)





## Ciba-Geigy

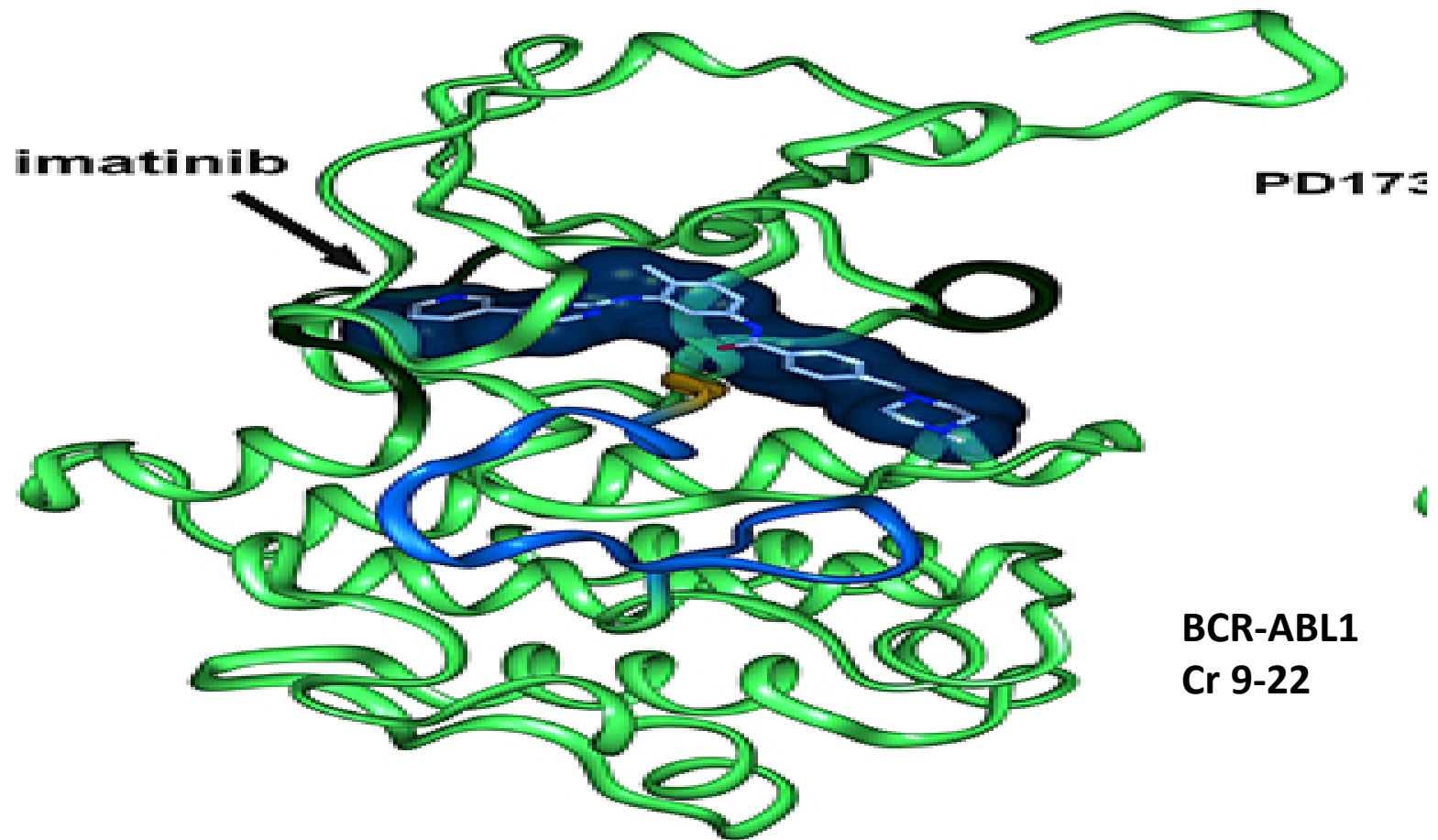
- 1980s-  
tecnología DNA recombinante:  
proteínas (Ac)
- 1990s-Ac humanizados
- 1980s-1990  
Inhibidores de Kinasas

Medicina 1.0

Medicina 2.0

## 2000: Imatinib o Glivec

a



## Otros ejemplos de éxito de la Medicina Molecular Oncológica 2.0

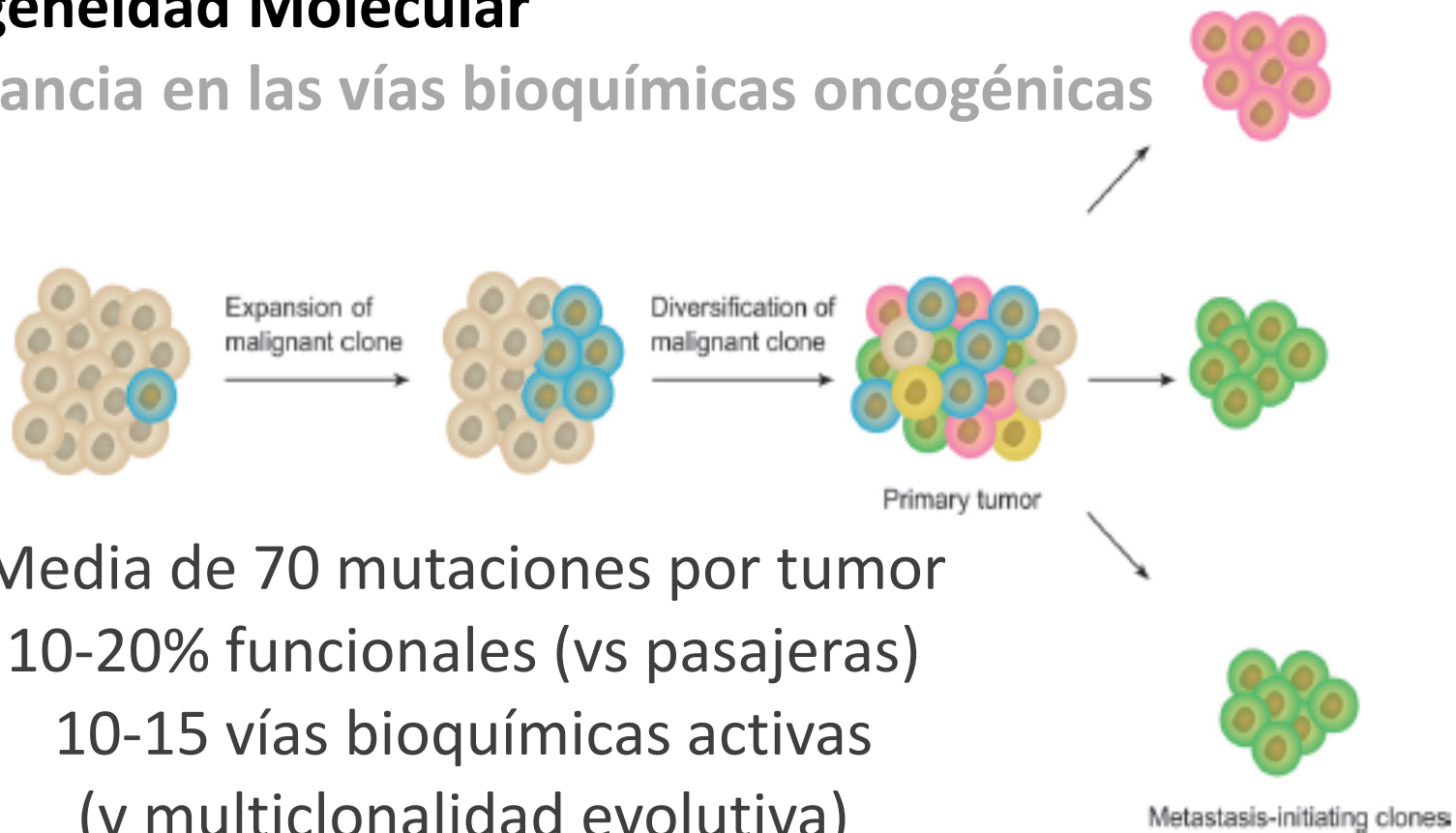
• CD20	Linfomas B
• Transretinoico	LAP
• Bruton	LLC
• Proteasoma	MM
• HER2*, CDK2-4	Mama
• BRAF*	Melanoma, tiroides
• Lu177-octrotate	TNE
• EGFR, ALK, ROS	Pulmón
• NTRK, RET	Varios

\* Beneficio importante demostrado también en adyuvancia



# Retos de la nueva medicina molecular oncológica genómica o de “precisión”

- Heterogeneidad Molecular
- Redundancia en las vías bioquímicas oncogénicas



Media de 70 mutaciones por tumor  
10-20% funcionales (vs pasajeras)  
10-15 vías bioquímicas activas  
(y multiclonalidad evolutiva)

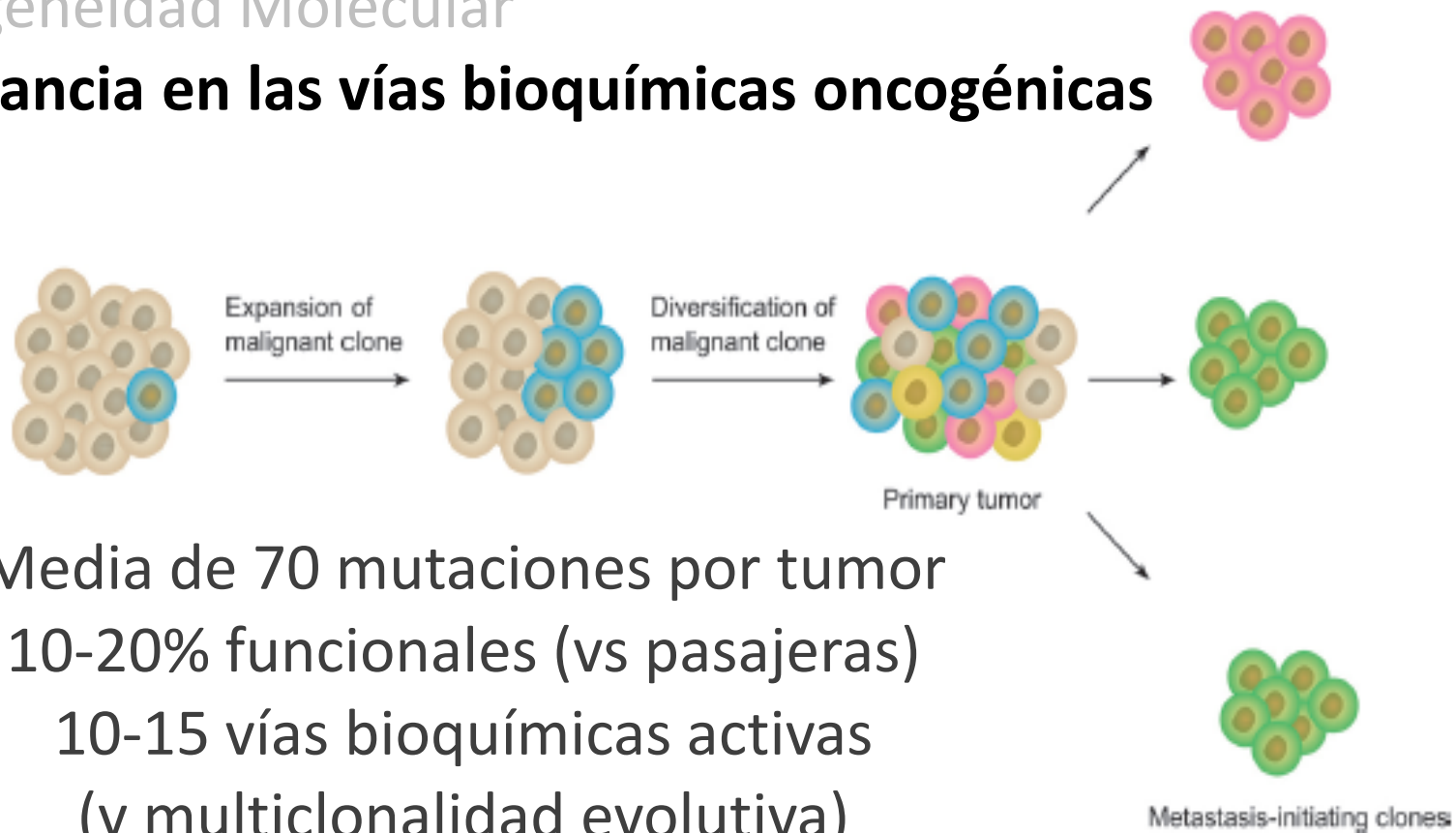
*Science* 2013:  
339,1546-1558

**Medicina 2.0**

medicina 3.0

# Retos de la nueva medicina molecular oncológica genómica o de “precisión”

- Heterogeneidad Molecular
- **Redundancia en las vías bioquímicas oncogénicas**



Media de 70 mutaciones por tumor  
10-20% funcionales (vs pasajeras)  
10-15 vías bioquímicas activas  
(y multiclonalidad evolutiva)

*Science* 2013:  
339,1546-1558

**Medicina 2.0**

medicina 3.0

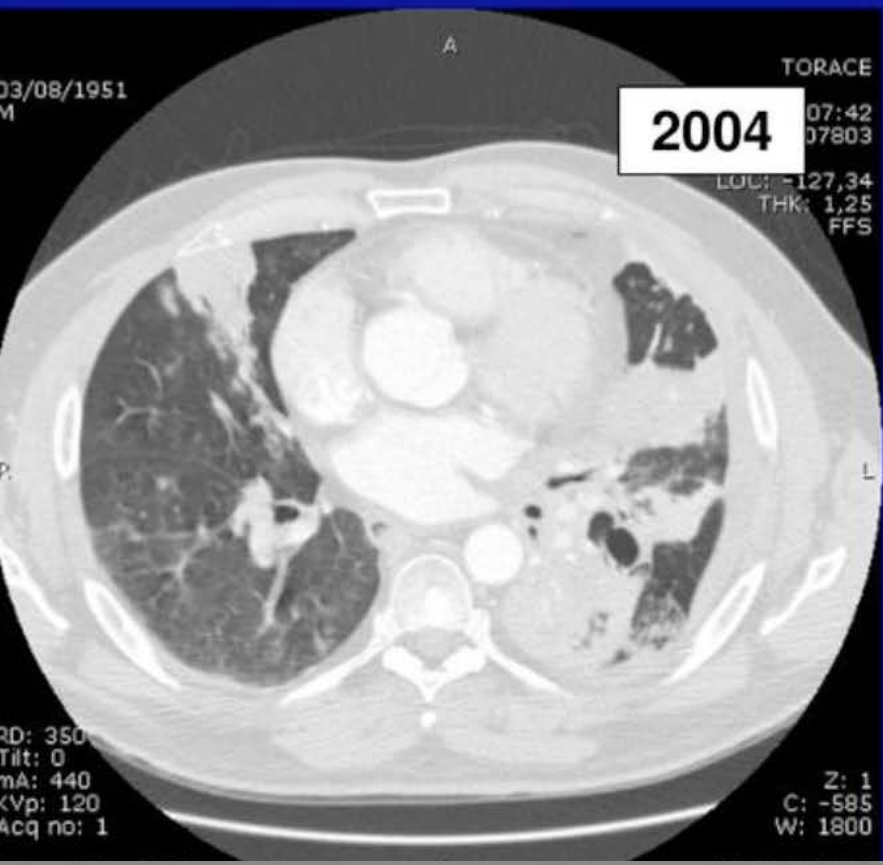
# “Lazarus-like response to EGFR TKI in lung cancer”

• Gefitinib

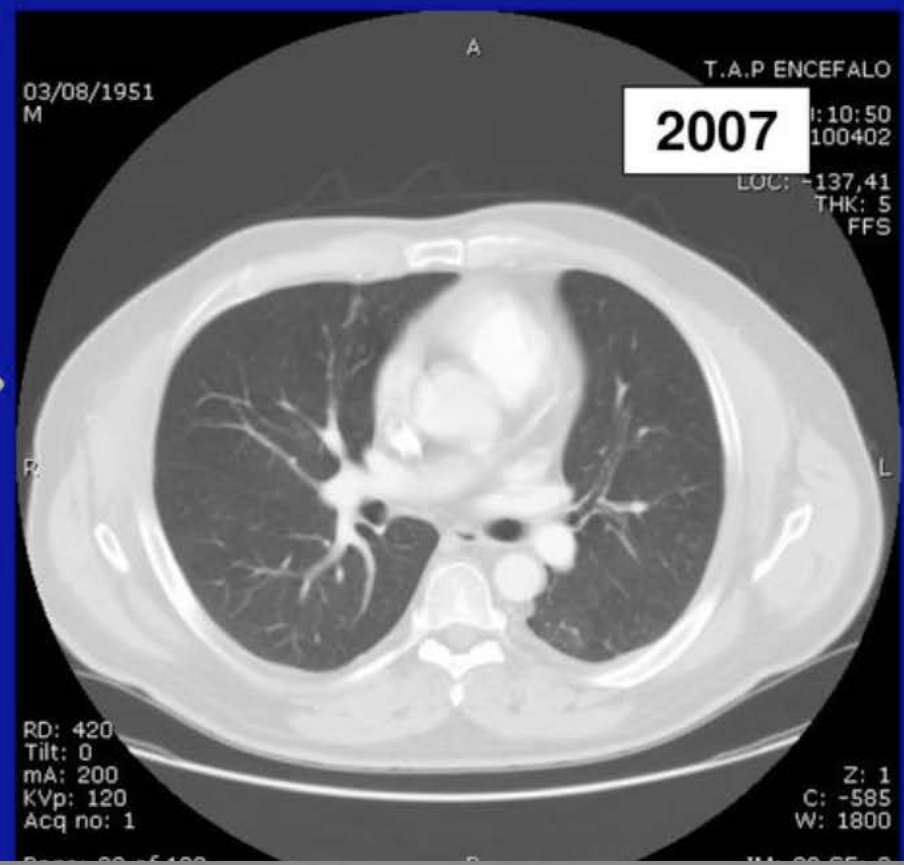


Advanced NSCLC therapy in II-III line

**EGFR exon 19 del E746-A750**



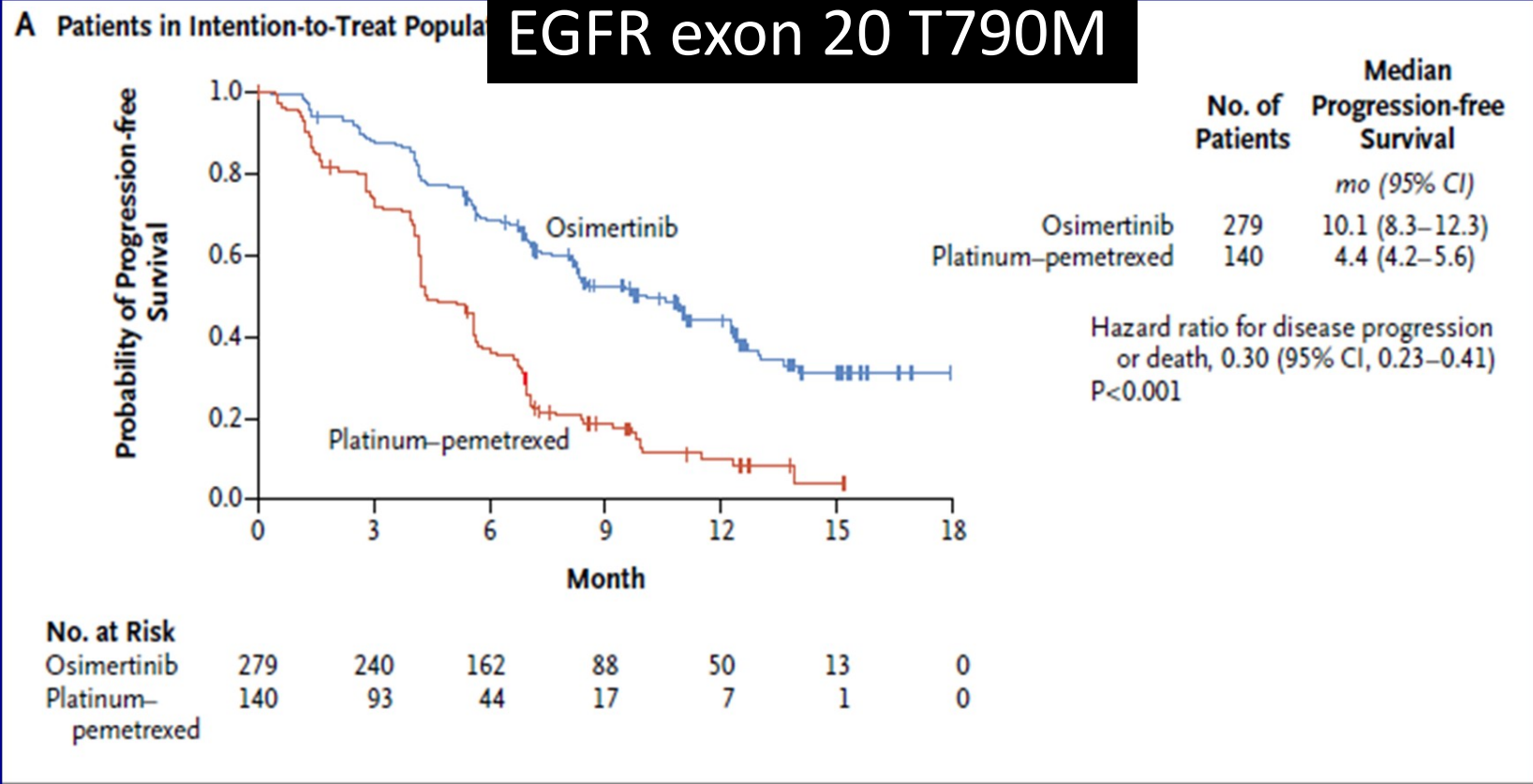
**2004**



**2007**

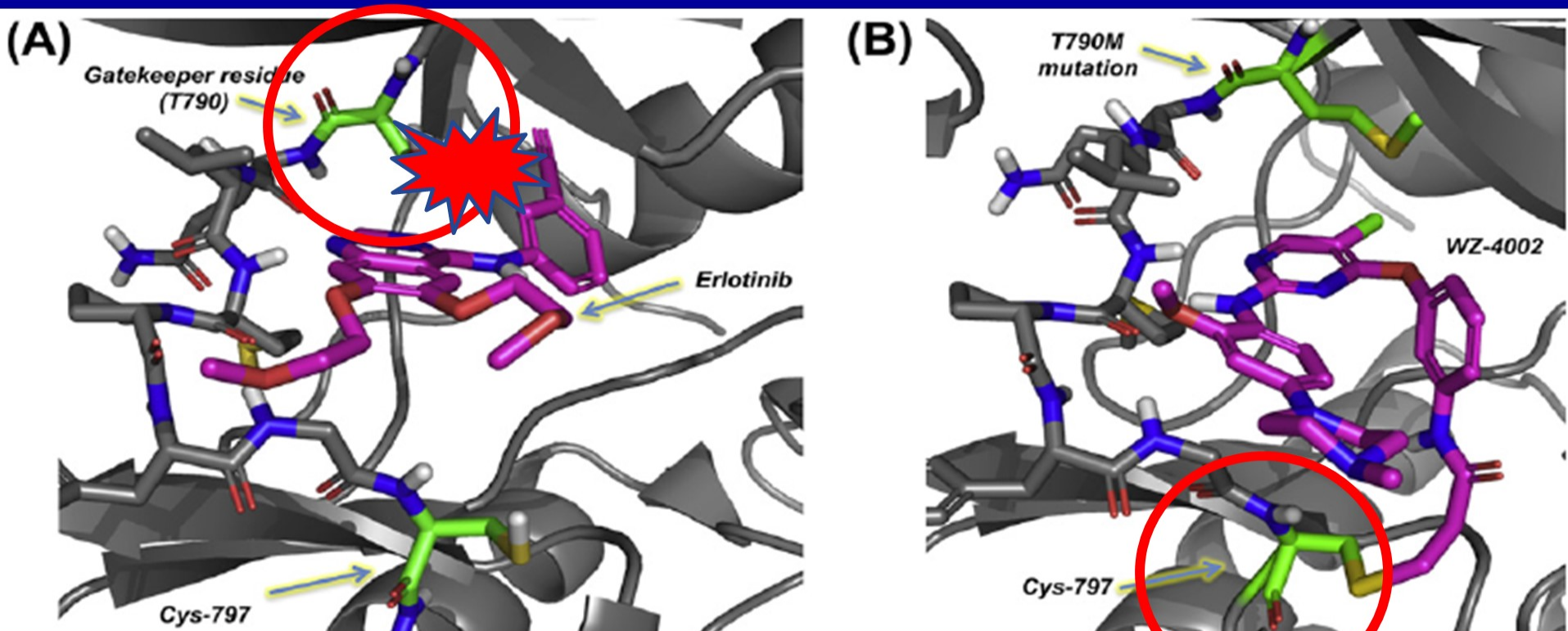
# AURA3 primary endpoint: osimertinib Improvement in PFS

EGFR exon 20 T790M



- Analysis of PFS by BICR was consistent with the investigator-based analysis: **HR 0.28** (95% CI 0.20, 0.38), p<0.001; median PFS 11.0 vs 4.2 months.

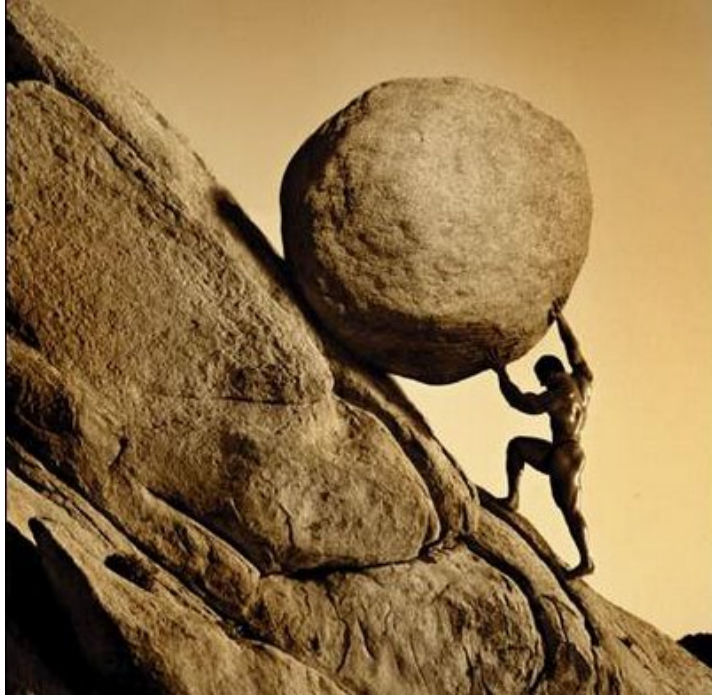
# EGFR exon 20 C797S



**Irreversible binding occurs due to covalent bond with C797.**

Mutation selective + irreversible binding + EGFR WT sparing  
(30–100 × more potent against T790M and 100 × less potent against EGFR WT)

Cross D, et al. *Cancer Discov.* 2014;4:1046-1061.



## **A propósito de Sísifo**

**“Zeus condenó a Sísifo a empujar eternamente una roca hasta lo alto de una pendiente.**

**En cuanto la roca llegaba a la cumbre, volvía a caer por su propio peso y Sísifo tenía que volver a comenzar”.**

# Biopsia Líquida

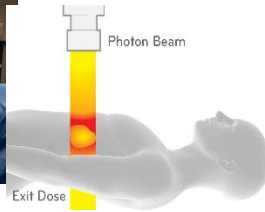


## Avances en el tratamiento

# Nueva Medicina Oncológica



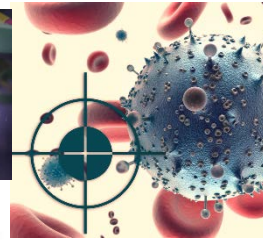
1800s  
Surgery



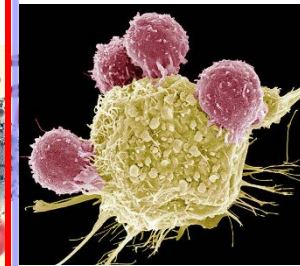
1900s  
Radiation



1940s  
Chemotherapy



2000s  
Targeted  
Drugs



Today  
Immunotherapy

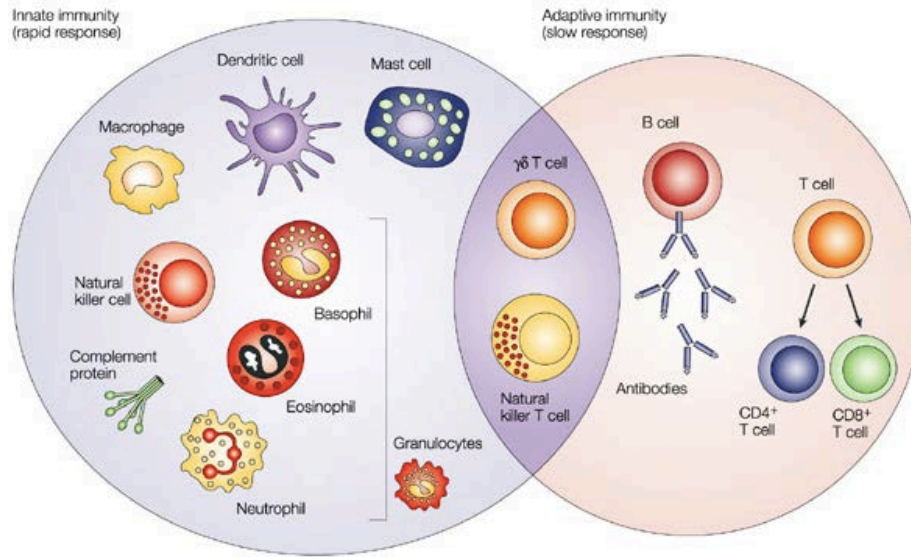
## Medicina 2.0

medicina 3.0

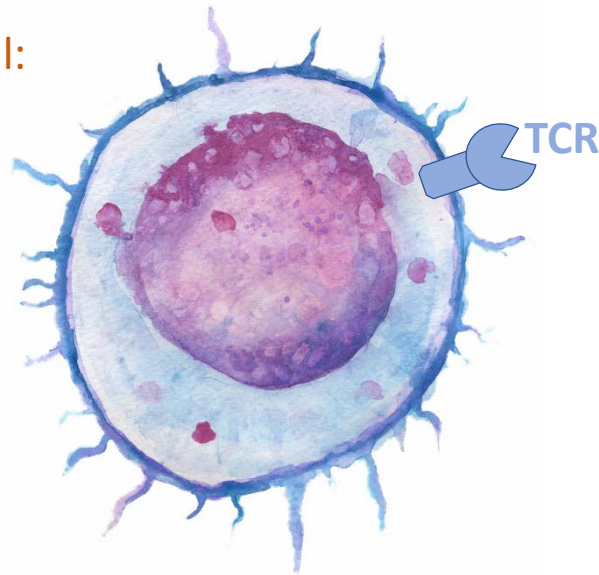


# Key Players

## Immune cells:



## $CD8^+$ T cell:



# Inmunoterapia sigo XX

## **The Classic: The Treatment of Malignant Tumors by Repeated Inoculations of Erysipelas With a Report of Ten Original Cases**

COLEY, WILLIAM, B.

Section Editor(s): ROBERTSON, WILLIAM W. JR. M.D.



Toxinas de Cooley  
1900

| Journal of Urology | 1 Aug 1976

## **Intracavitary Bacillus Calmette-guerin in the Treatment of Superficial Bladder Tumors**

A. Morales, D. Eidinger, and A.W. Bruce



## **High-Dose Recombinant Interleukin 2 Therapy for Patients With Metastatic Melanoma: Analysis of 270 Patients Treated Between 1985 and 1993**

By Michael B. Atkins, Michael T. Lotze, Janice P. Dutcher, Richard I. Fisher, Geoffrey Weiss, Kim Margolin, Jeff Abrams, Mario Sznol, David Parkinson, Michael Hawkins, Carolyn Paradise, Lori Kunkel, and Steven A. Rosenberg

*J Clin Oncol* 17:2105-2116. © 1999 by American Society of Clinical Oncology.

Medicina 1.0

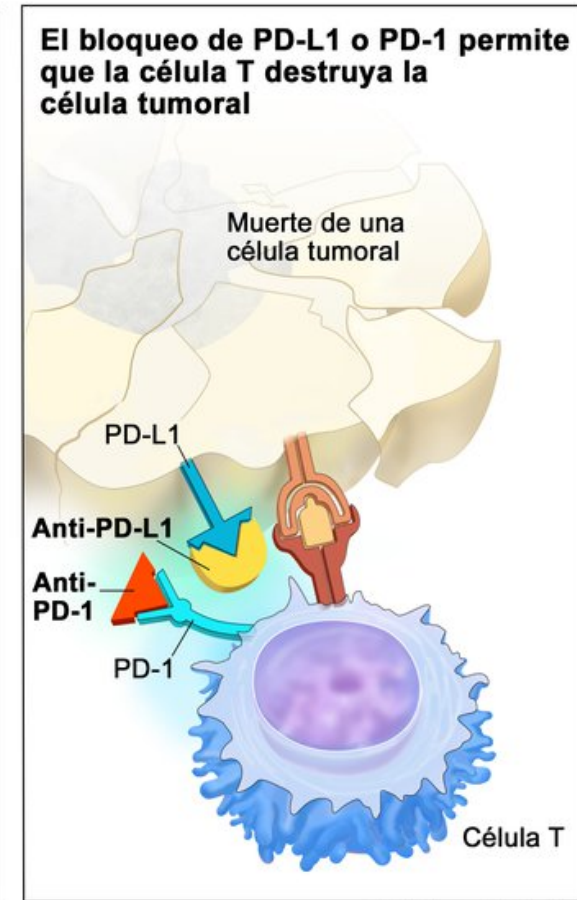
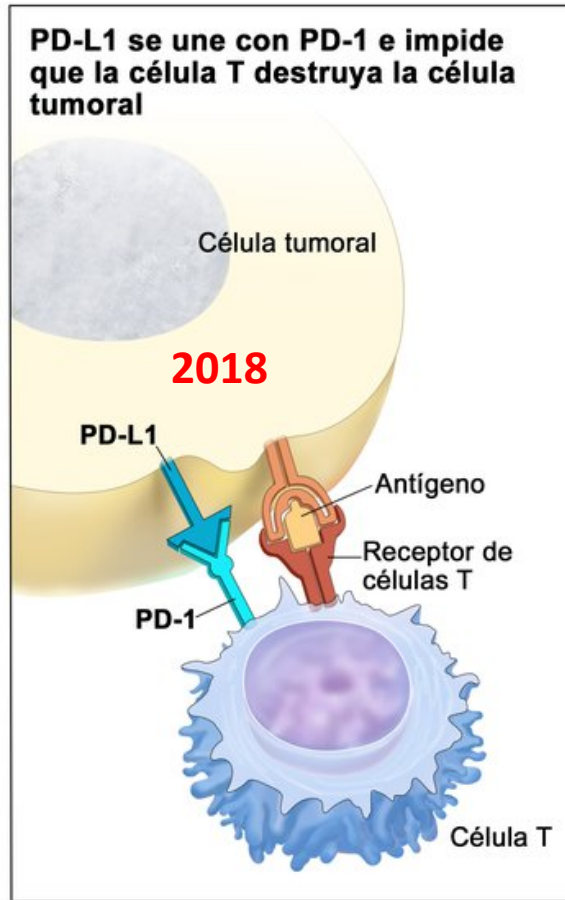
# 2010s: CTLA4 & PD1

## Ejes de control autoinmunidad de la célula T



James P. Allison

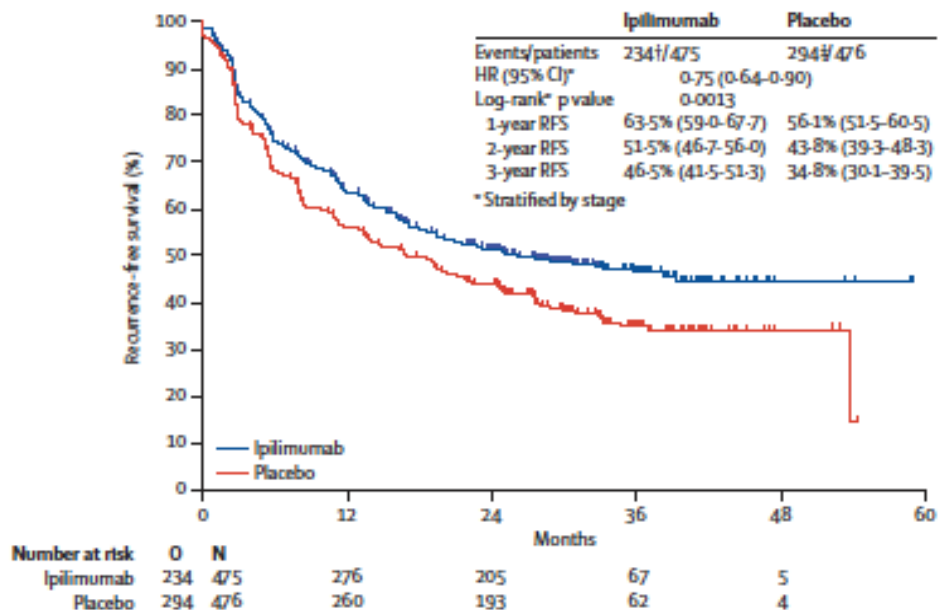
Tasuku Honjo



© 2015 Terese Winslow LLC  
U.S. Govt. has certain rights

# Adjuvant ipilimumab versus placebo after complete resection of high-risk stage III melanoma (EORTC 18071): a randomised, double-blind, phase 3 trial

Alexander M M Eggermont, Vanna Chiarion-Sileni, Jean-Jacques Grob, Reinhard Dummer, Jedd D Wolchok, Henrik Schmidt, Omid Hamid



*Lancet Oncol* 2015; 16: 522-30

IASLC 2019, Congreso Mundial de Cáncer de Pulmón

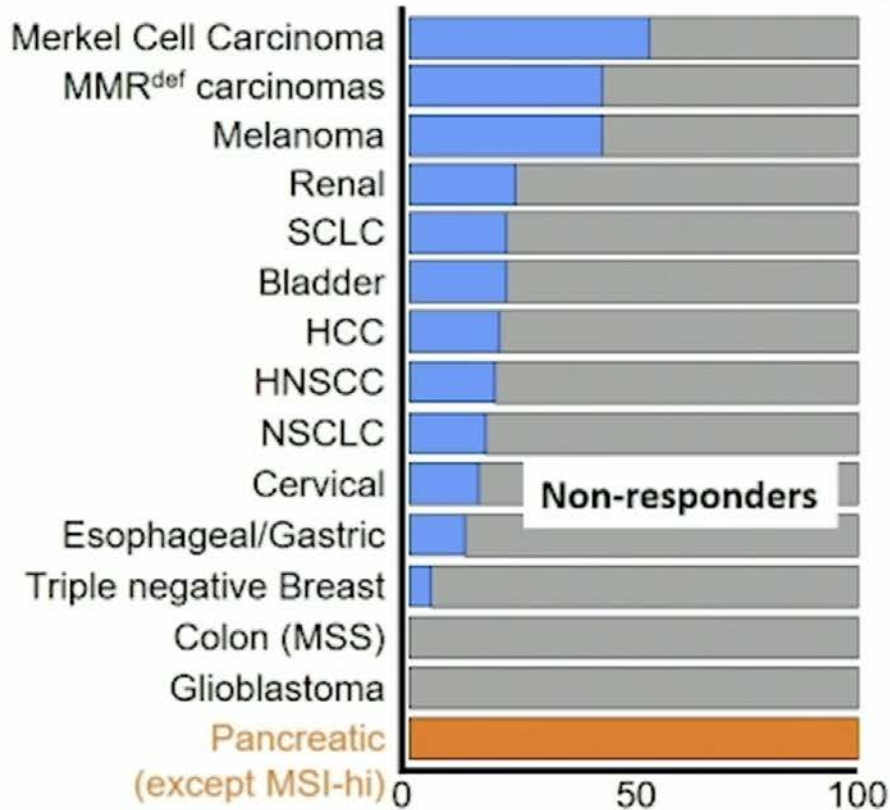
## Remisiones del 80% antes de cirugía en fase precoz con quimio-inmunoterapia

■ El Grupo Español de [Cáncer de Pulmón](#) avanza resultados del ensayo Nadim en pacientes en estadios 3A

# Medicina 2.0

# Retos de la Inmuno-Oncología

Treatment Responses to anti-PD1/PDL1 therapy



## 1. Combinations

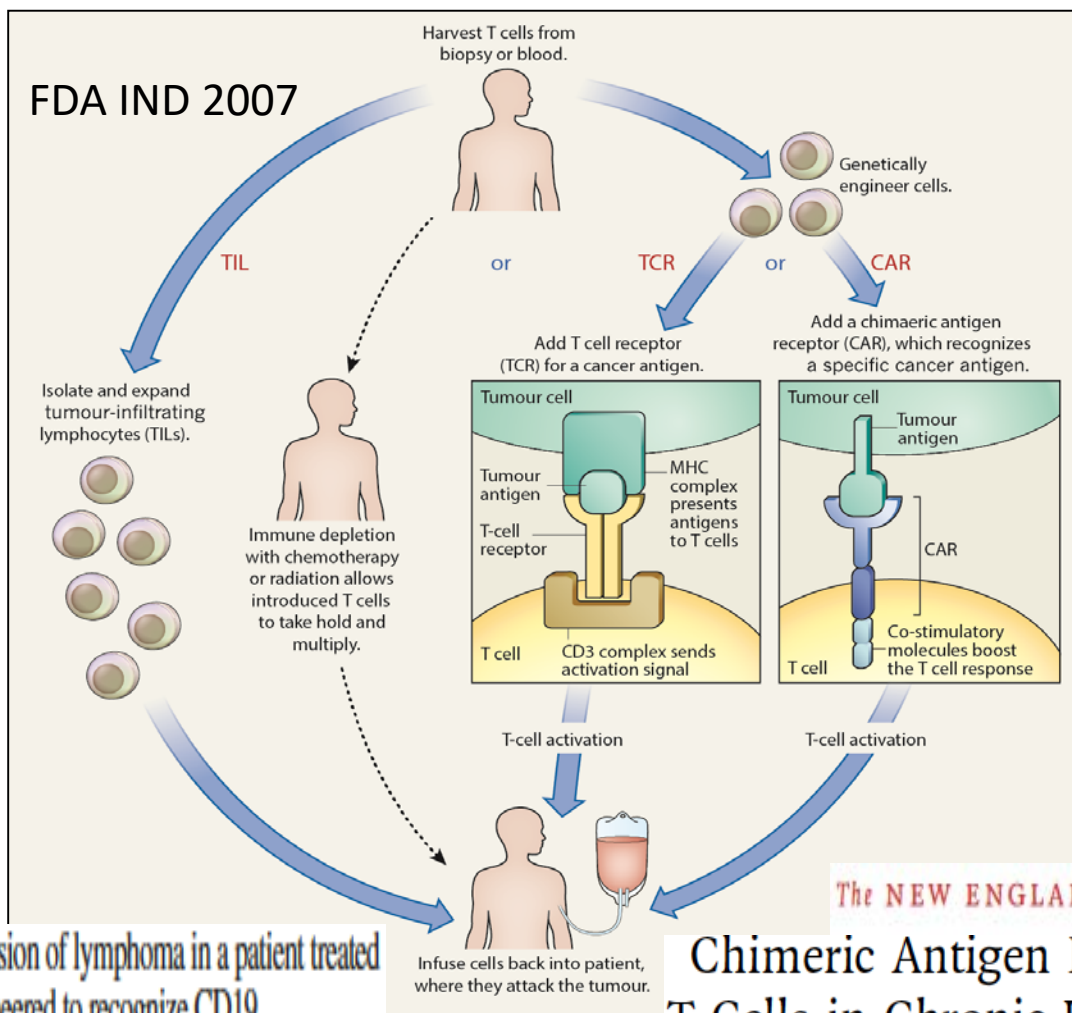


PD1/PDL1 inhibitor + Drug X

Chemotherapy + Drug X

Topalian NEJM 2012  
Patnaik Clin Can Res 2015  
Herbst R ASCO 2013

# 2010s-2020s- Terapia Celular Adoptiva (CARTs & TCRs)



Stephen A  
Rosenberg  
NCI



Carl June.  
UPENN

Eradication of B-lineage cells and regression of lymphoma in a patient treated with autologous T cells genetically engineered to recognize CD19

James N. Kochenderfer,<sup>1</sup> Wyndham H. Wilson,<sup>2</sup> John E. Janik,<sup>2</sup> Mark E. Dudley,<sup>1</sup> Maryalice Stetler-Stevenson,<sup>3</sup> Steven A. Feldman,<sup>1</sup> Irina Maric,<sup>4</sup> Mark Raffeld,<sup>2</sup> Debbie-Ann N. Nathan,<sup>1</sup> Brock J. Lanier,<sup>1</sup> Richard A. Morgan,<sup>1</sup> and Steven A. Rosenberg<sup>1</sup>

(*Blood*. 2010;116(20))

The NEW ENGLAND JOURNAL of MEDICINE

Chimeric Antigen Receptor–Modified T Cells in Chronic Lymphoid Leukemia

David L. Porter, M.D., Bruce L. Levine, Ph.D., Michael Kalos, Ph.D., Adam Bagg, M.D., and Carl H. June, M.D.

N Engl J Med 2011;365:725-33.

Copyright © 2011 Massachusetts Medical Society.

# Emily Whitehead



## Resumen

Avances lucha contra el cáncer	Vulnerabilidad del cáncer
Prevención (Primaria)	Factores de riesgo
Prevención (Secundaria)	Evolución por estadios
Cirugía	Evolución por estadios
Radioterapia	Evolución por estadios
Quimioterapia	Alta proliferación
Medicina Molecular	Dependencia oncogénica
Inmunoterapia	Inmunogenicidad

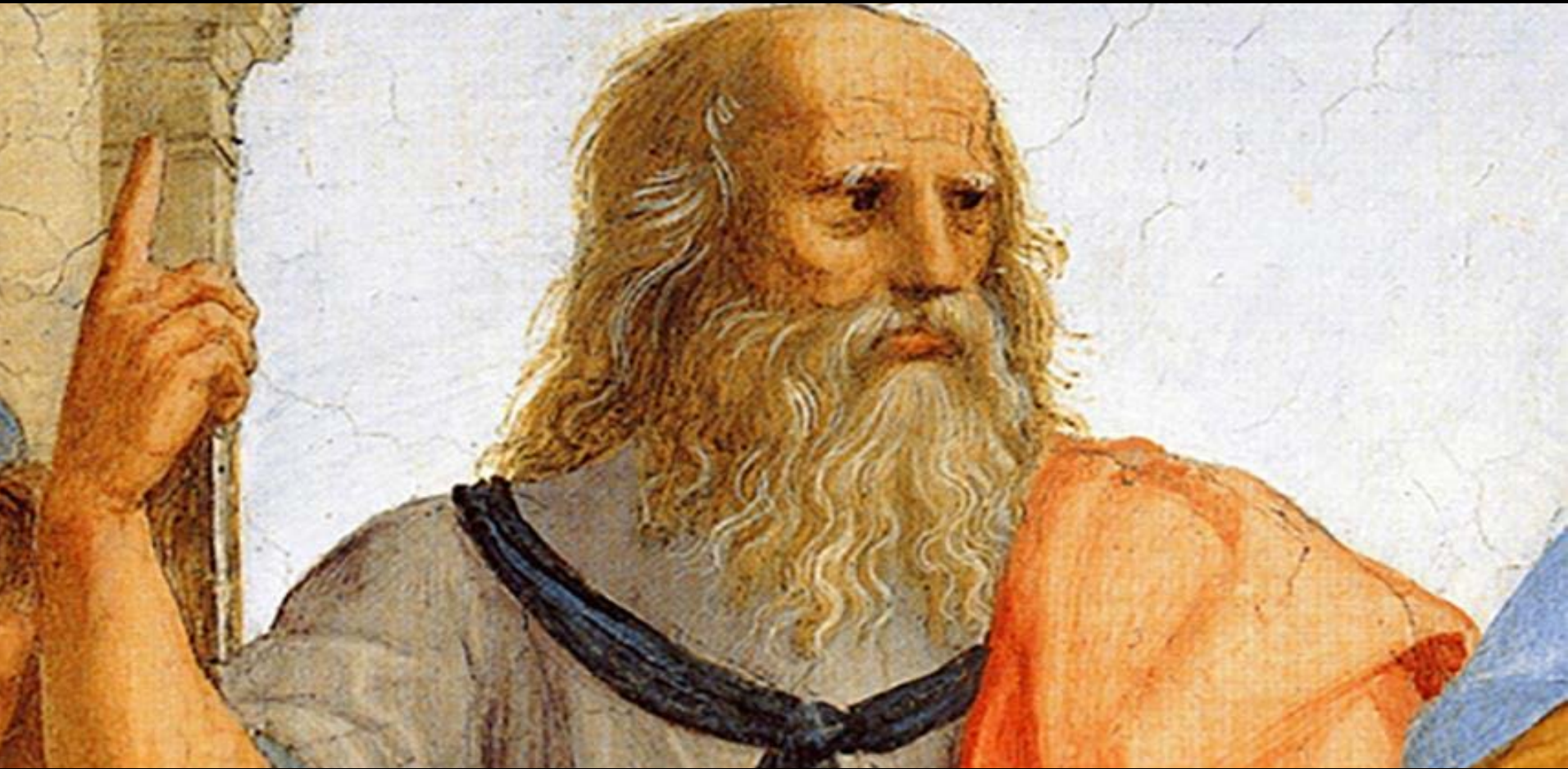
Medicina 1.0

Medicina 2.0

medicina 3.0

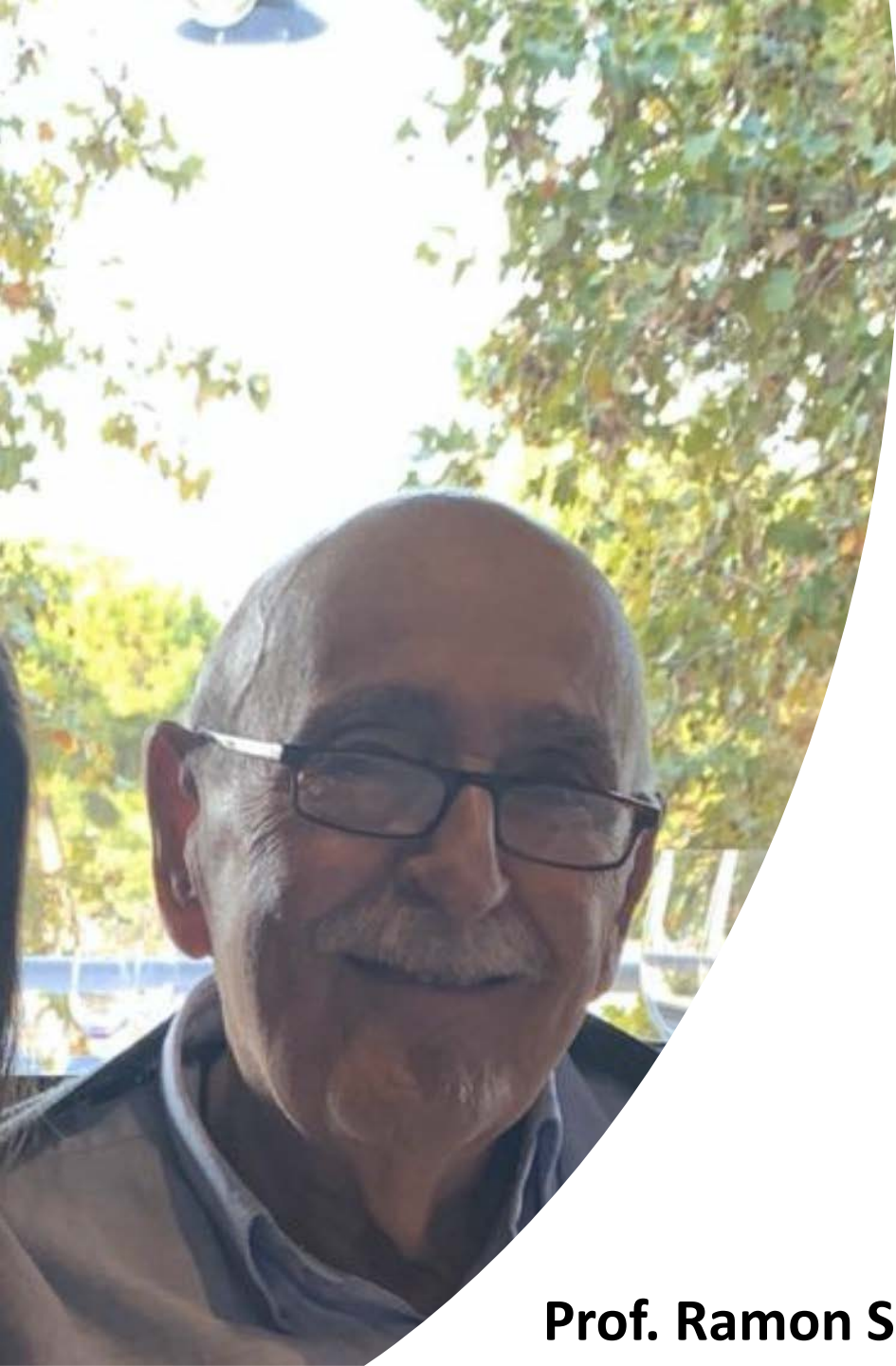


“Todo fluye, todo cambia, nada permanece”



Heráclito

"Estudiante  
es el que  
estudia"



"Estudiante  
es el que  
estudia"

GRACIAS

[ramonsalazar@iconcologia.com](mailto:ramonsalazar@iconcologia.com)



**Prof. Ramon Salazar Macián**



# GRACIAS

[ramonsalazar@iconcologia.com](mailto:ramonsalazar@iconcologia.com)

[www.tertuliasoncologicas.com](http://www.tertuliasoncologicas.com)

