

Theophilus S. Painter: 1889-1969)



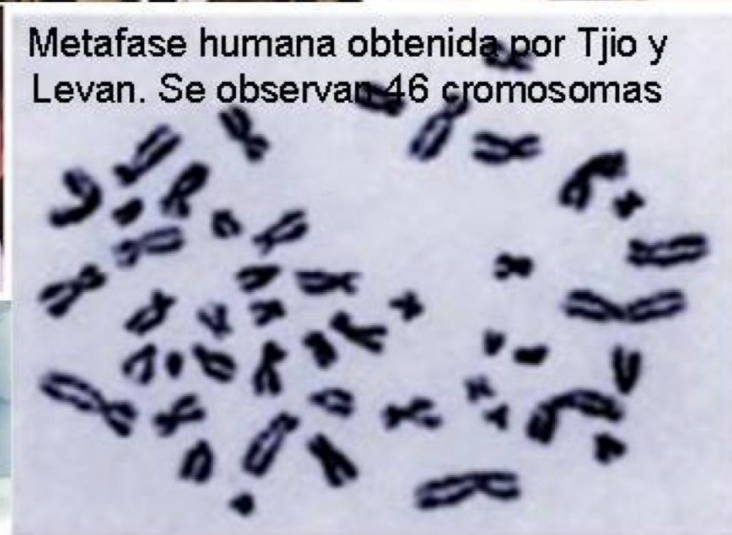
Albert Levan (1905-1998) y Joe Hin Tjio (1919-2001)



Jerôme Lejeune: 1926 -1994



Metafase humana obtenida por Tjio y Levan. Se observan 46 cromosomas

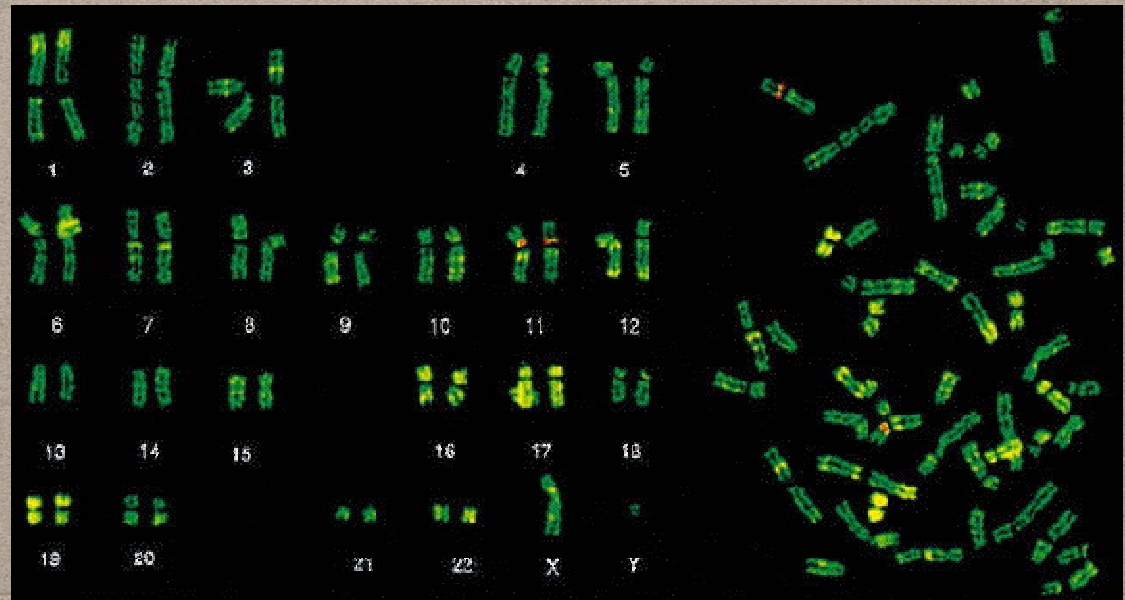


50 Years of Chromosome Banding

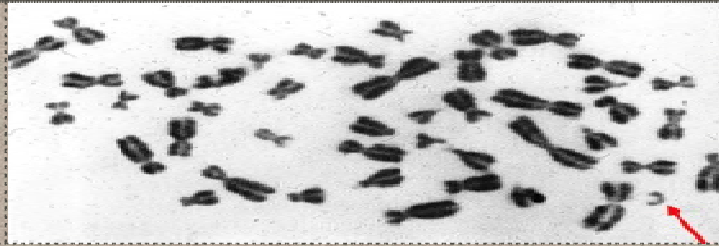
Torbjorn Caspersson



Lore Zech

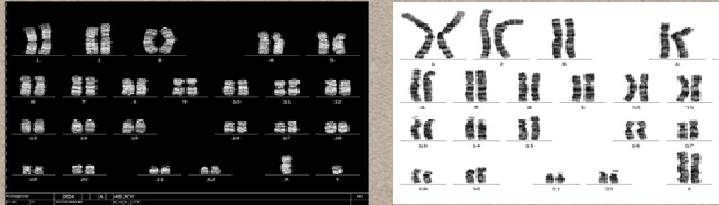


1952



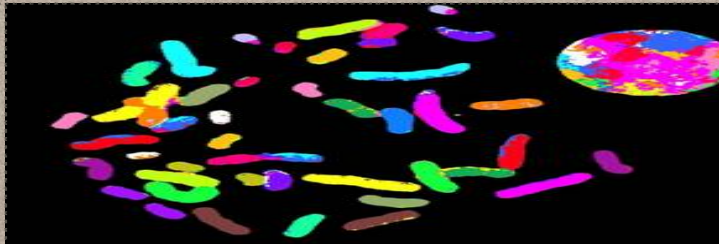
Chromosome spreading

1970



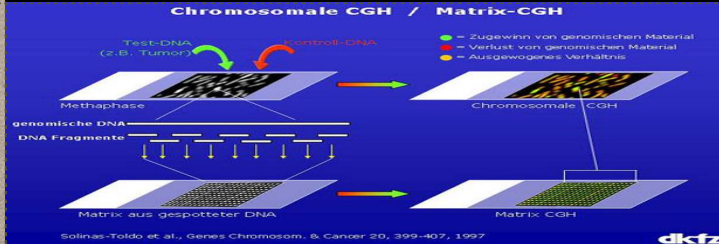
Q-banding

1986



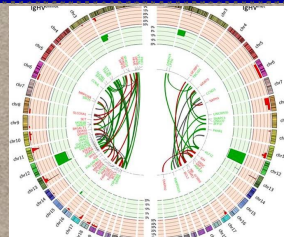
Chromosome painting

1997



CGH array

2004



Cytogenomics

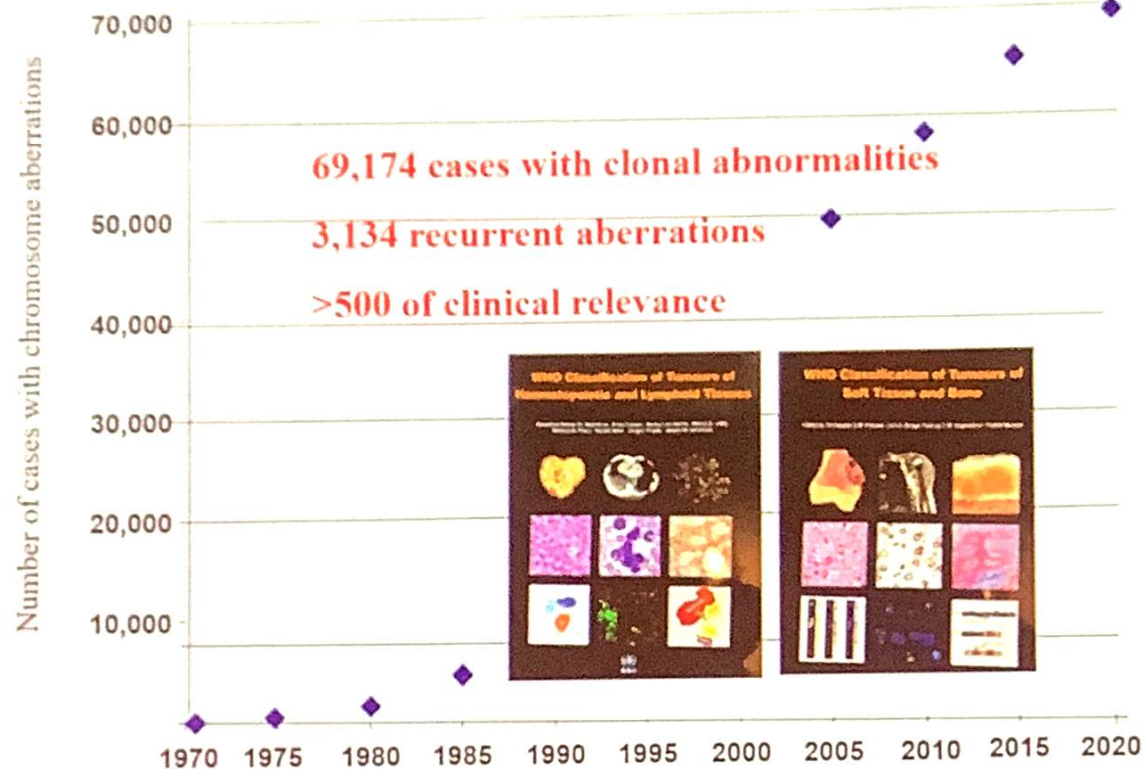


National Cancer Institute

CANCER GENOME ANATOMY PROJECT

Database of Chromosome Aberrations in Cancer

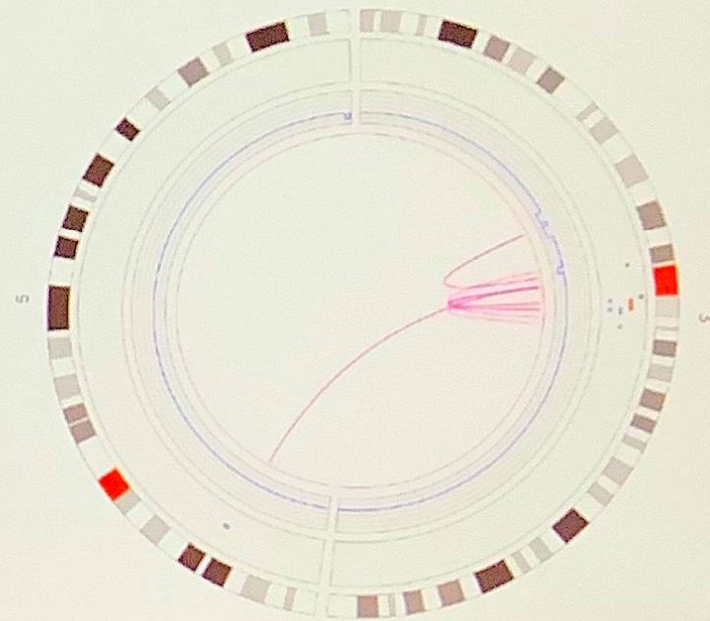
<https://cgap.nci.nih.gov/Chromosomes/Mitelman>



Mitelman et al., June 2019

Some examples – 3

■ Bionano Results



	Chromosome analysis	FISH	Genomic arrays	WES	WGS
Genome wide	Yes	No	Yes	Yes	Yes
Gains and losses	Yes	Yes	Yes	yes	Yes
Balanced translocation	Yes	Yes	No	No	Yes
CN-LOH	No	No	Yes	Yes	Yes
resolution	Low	High	Very high	Highest	Highest
Cell population evaluated	Dividing cells	All cells	All cells	All cells	All cells

