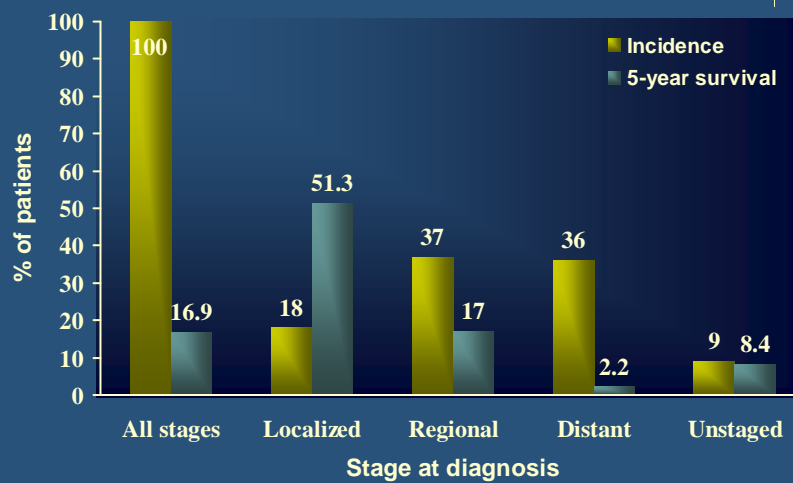


Individualizing Treatment Recommendations for Non-Small Cell Lung Cancer Based on Molecular Factors

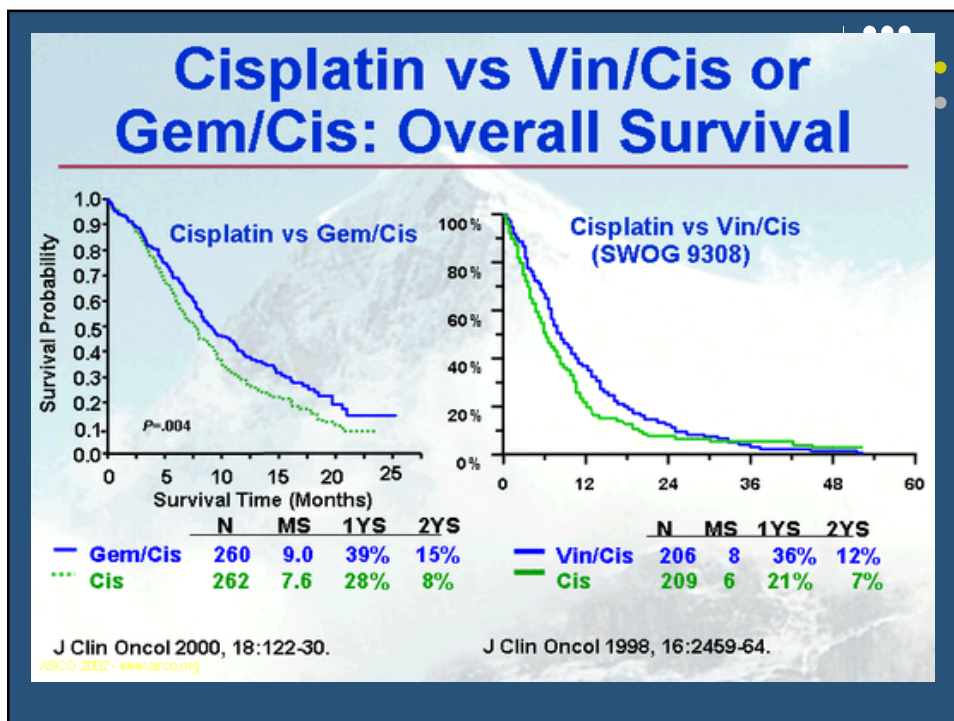
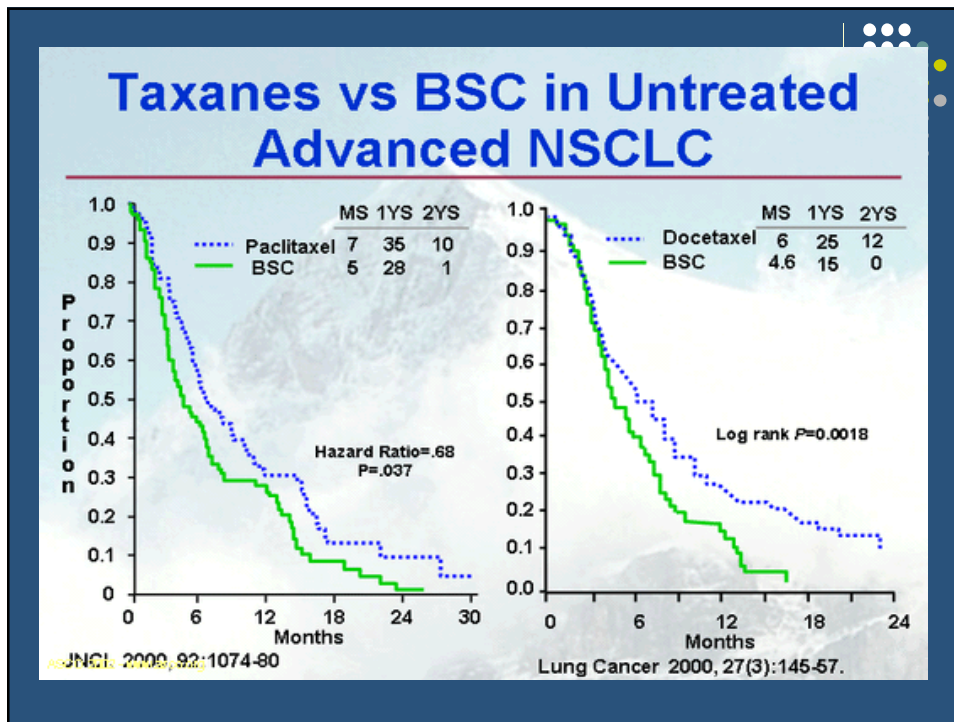
George R. Simon,
 Director, Thoracic Oncology Program
 Fox Chase Cancer Center
 Philadelphia, PA



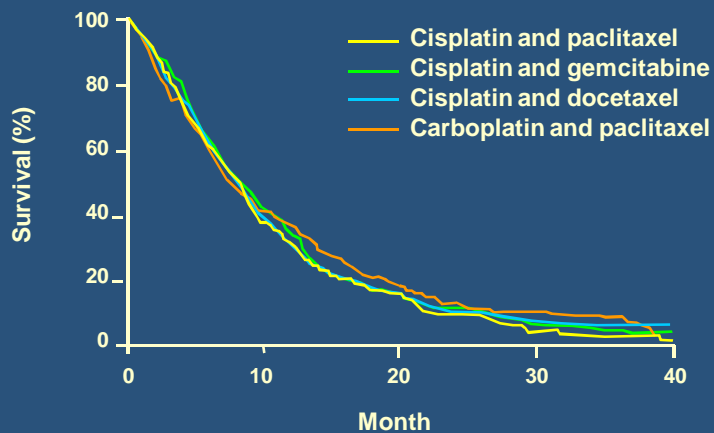
NSCLC: United States Incidence and 5-Year Survival by Stage at Diagnosis 1995-2000



SEER Cancer Statistics Review, 1975-2001. At: http://seer.cancer.gov/csr/1975_2001/. Accessed October 22, 2004.

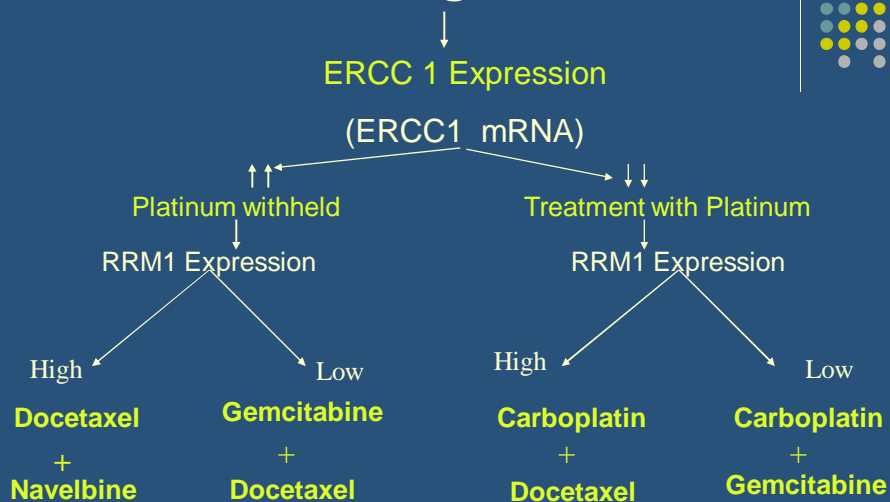


ECOG 1594: Kaplan-Meier Estimates of Overall Survival



Schiller et al. *N Eng J Med*; 2002; 346:92-8

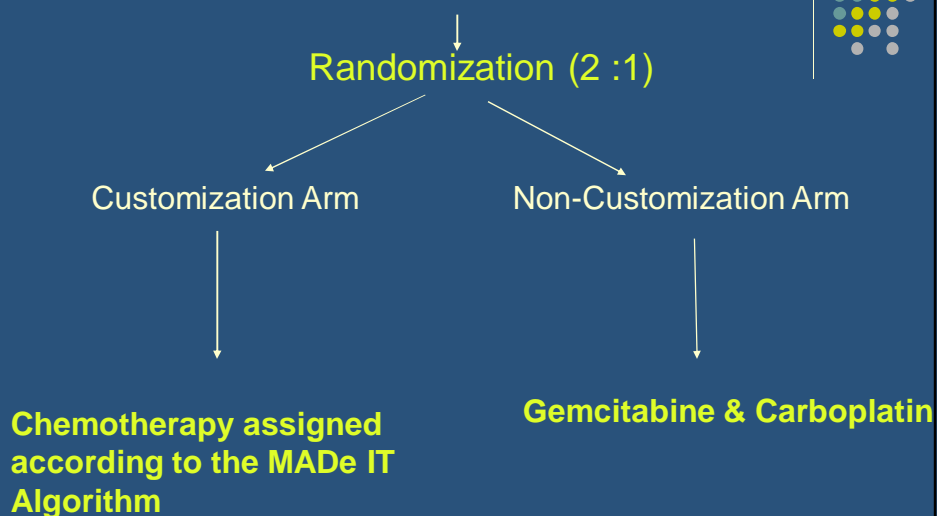
The Algorithm



Results:

Disease Response: N (%)	
CR	0 (0%)
PR	23 (44%)
SD	23 (44%)
PD	6 (12%)
Overall Survival (95% CI)	
Median (months)	13.3 (11.5 - ∞)
12 month	59% (42 - 72%)
24 month	37% (21 - 54%)
Progression-Free Survival (95% CI)	
Median (months)	6.6 (4.7 to 8.8)
12 month	14% (5 - 27%)
24 month	7% (1 - 19%)

The Phase III Design

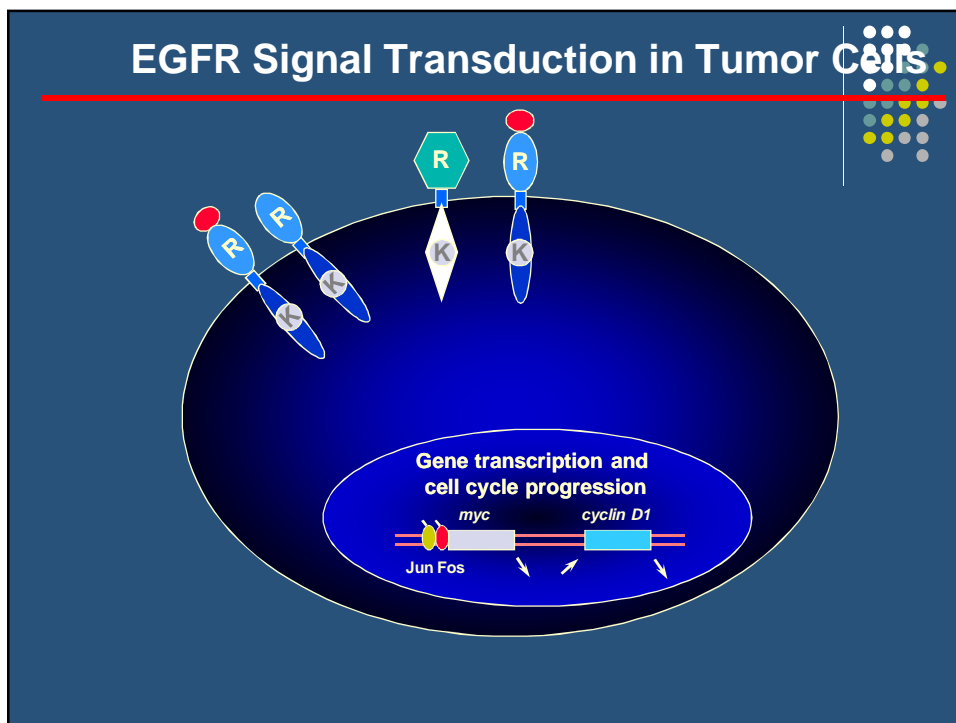
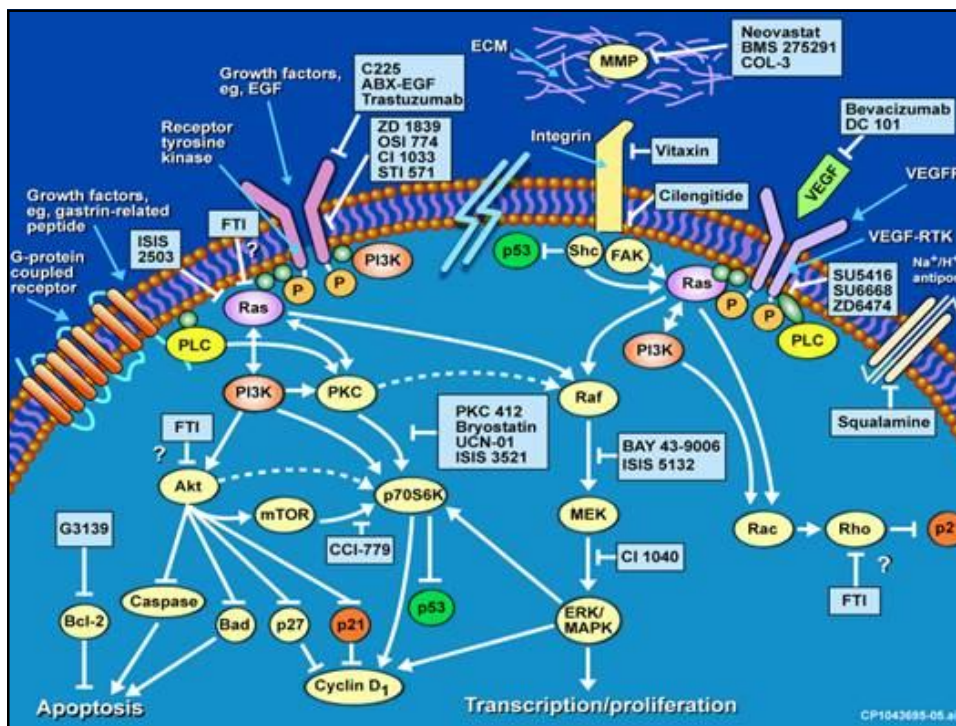


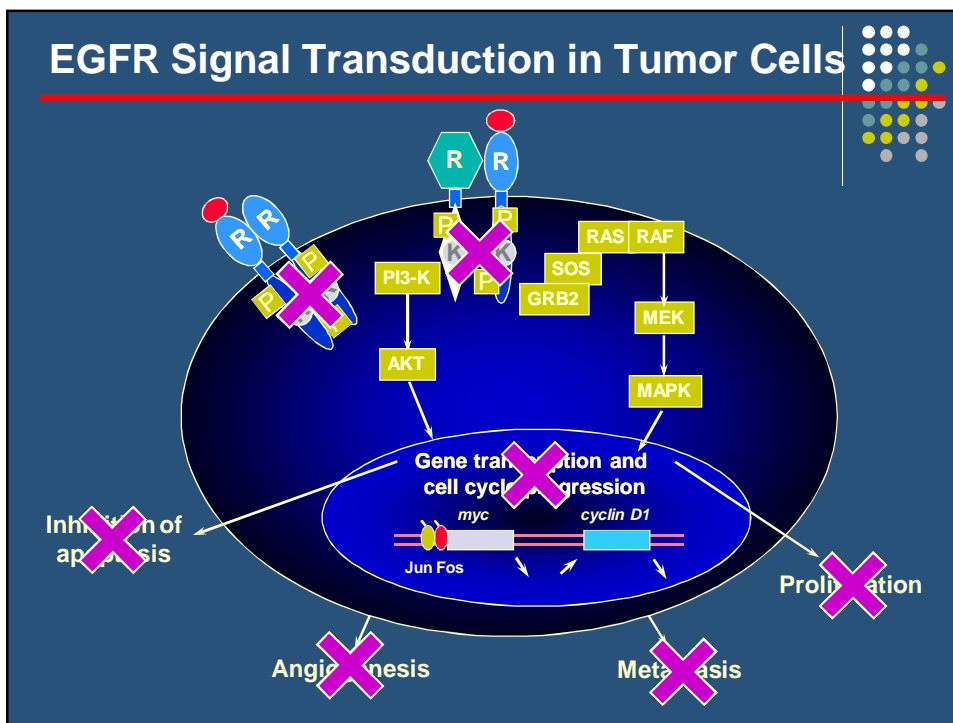
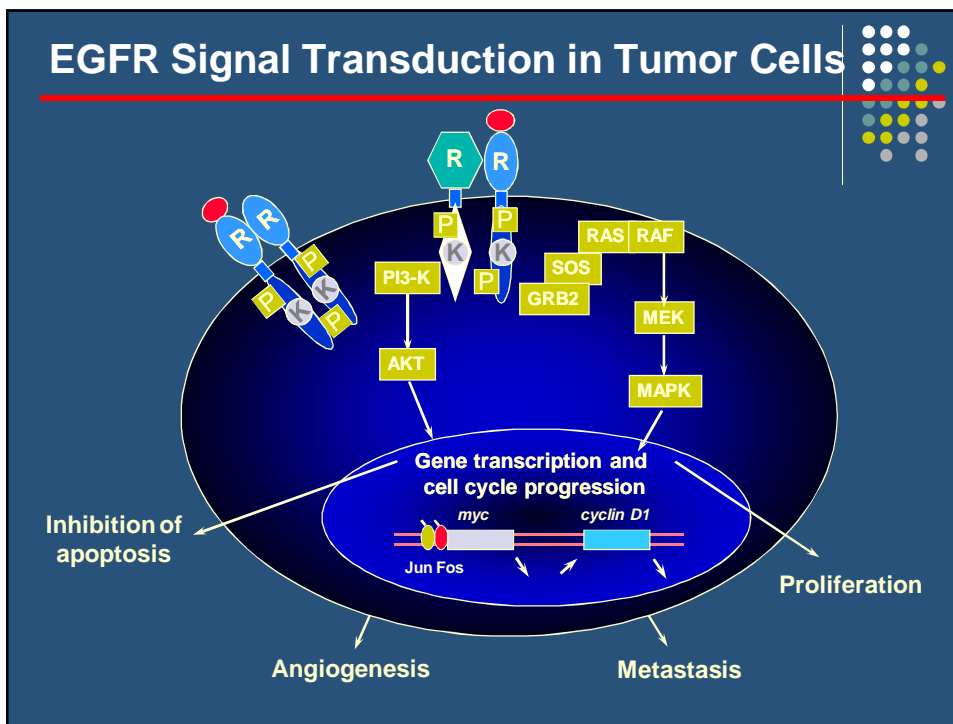
Targeted Therapies



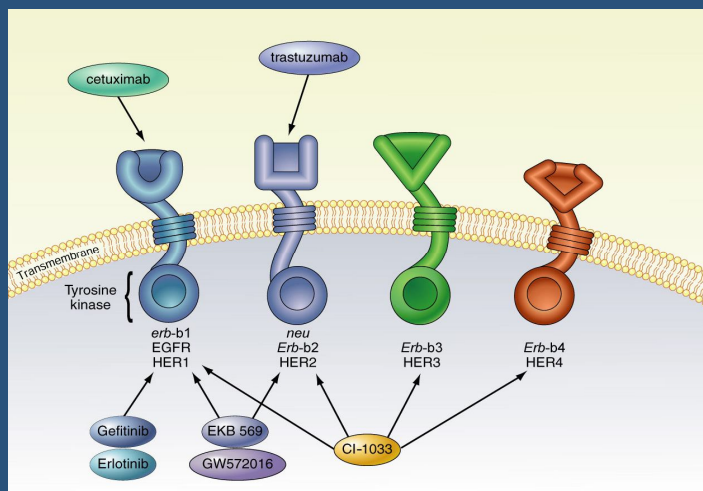
European Yew: *Taxus baccata*







Targets of Therapeutic Small-Molecule TKIs



Study design

Conducted in China, Japan, Thailand, Taiwan, Indonesia, Malaysia, Philippines, Hong Kong and Singapore

Patients

- Chemo-naïve
- Age ≥ 18 years
- Adenocarcinoma histology
- Never or ex-light smokers*
- Life expectancy ≥ 12 weeks
- WHO PS 0-2
- Measurable stage IIIB / IV disease

Gefitinib
(250 mg / day)

Carboplatin
(AUC 5 or 6) /
paclitaxel
(200 mg / m²)
3 weekly[#]

End points

Primary

- Progression-free survival (non-inferiority)

Secondary

- Objective response rate
- Overall survival
- Quality of life
- Disease-related symptoms
- Safety and tolerability

Exploratory

- Biomarkers
 - EGFR mutation
 - EGFR-gene-copy number
 - EGFR protein expression

*Never smokers, <100 cigarettes in lifetime; ex-light smokers, stopped ≥ 15 years ago and smoked ≤ 10 pack years; [#]limited to a maximum of 6 cycles. Carboplatin/paclitaxel was offered to gefitinib patients upon progression
WHO, World Health Organization; PS, performance status; AUC, area under the curve; EGFR, epidermal growth factor receptor

Mok et al 2008

