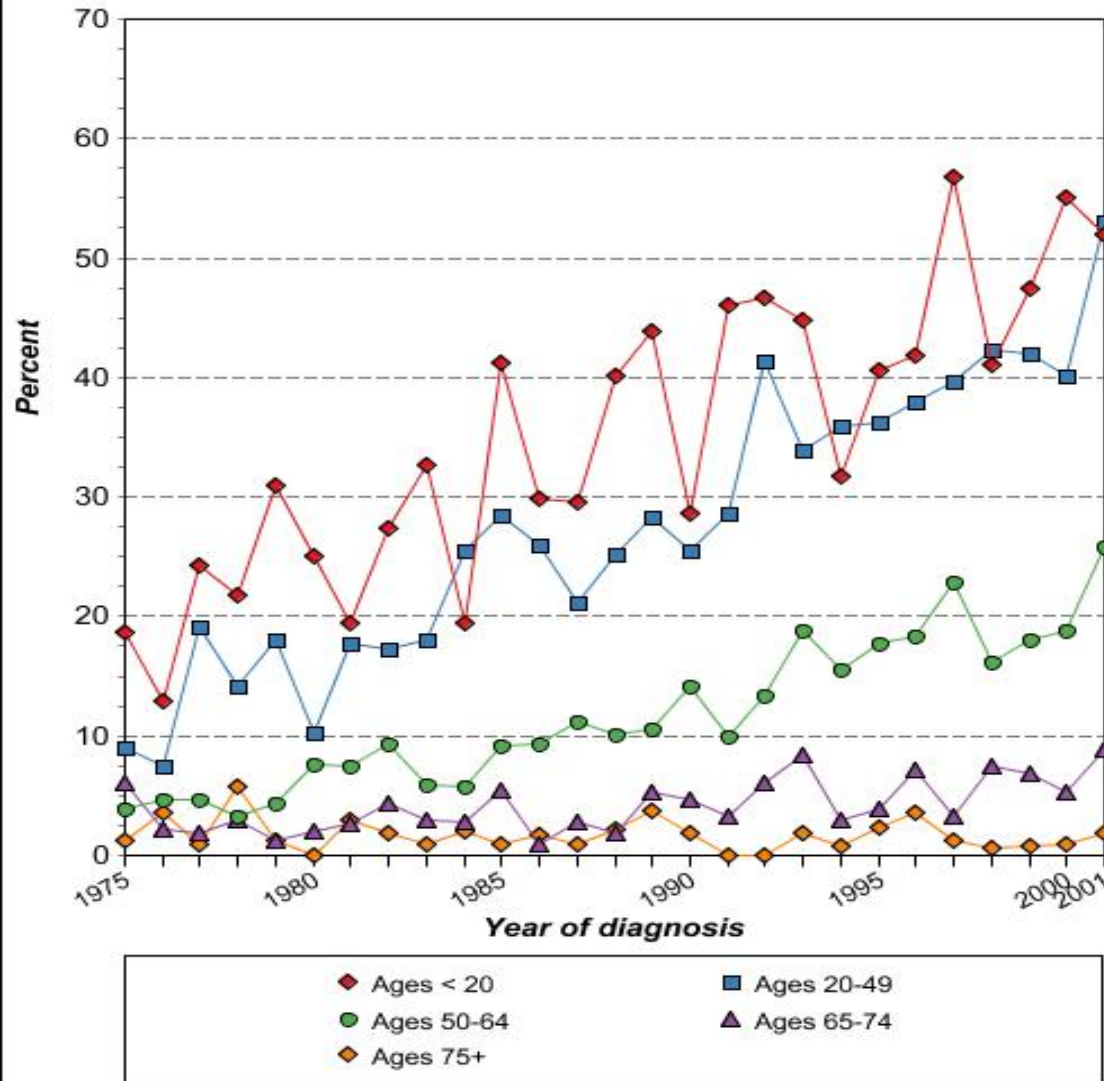# Moffitt Aging/inflammation research
February 2016

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5-Year Relative Survival Rates By Year Dx
By Age At Diagnosis/Death
Acute Myeloid Leukemia, All Races, Both Sexes
1975-2001

Cancer sites include invasive cases only unless otherwise noted.
Survival source: SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).
Survival rates are relative rates expressed as percents. The 5-year survival estimates are calculated using monthly intervals.

Our hypothesis

- Although part of the lack of progress in the elderly is due to changes in AML biology and unavailability of transplant, a significant part is due to suboptimal use of currently available treatments

- Progress could be made if the available treatments were better applied. Data suggest a potential to triple the 2-year survival.

Adjuvant! Online

Decision making tools for health care professionals

Adjuvant! for Breast Cancer (Version 8.0)

Patient Information

Age:	72
Comorbidity:	Major Prob. (+10)
ER Status:	Positive
Tumor Grade:	Grade 3
Tumor Size:	2.1 - 3.0 cm
Positive Nodes:	1 - 3
Calculate For:	Mortality
10 Year Risk:	45 Prognostic

Adjuvant Therapy Effectiveness

Horm:	Aromatase Inhibitor for 5 yrs
Chemo:	3rd Generation Regimens
Hormonal Therapy:	32
Chemotherapy:	40
Combined Therapy:	59

No additional therapy:

- 18.1 alive in 10 years.
- 29.9 die of cancer.
- 52.0 die of other causes.

With hormonal therapy: Benefit = 4.4 alive.

With chemotherapy: Benefit = 5.7 alive.

With combined therapy: Benefit = 8.9 alive.

Print Results PDF   Access Help and Clinical Evidence

Images for Consultations

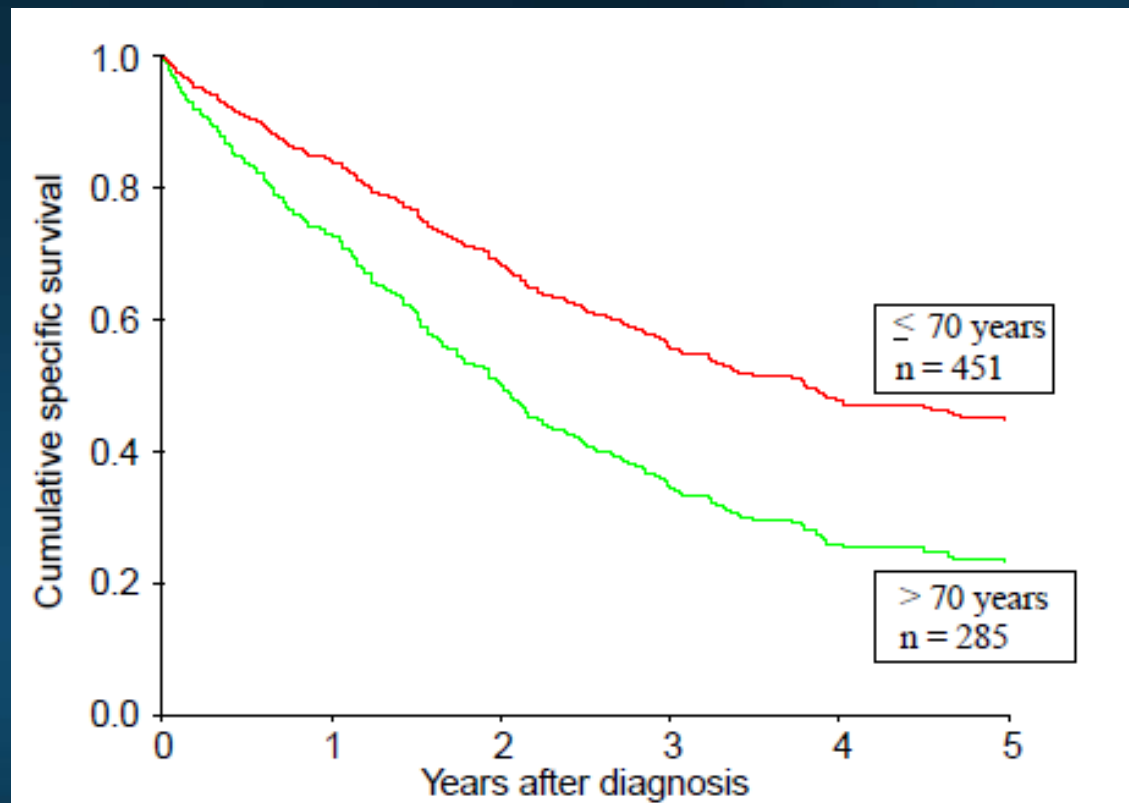© 2003-2011 Adjuvant! Inc.

Ovarian cancer and age

Fig. 1. Ovarian cancer survival by age groups. Mortality curves are derived from Cox model after accounting for patient's, characteristics, grade, histology, stage, type of surgery and chemotherapy.

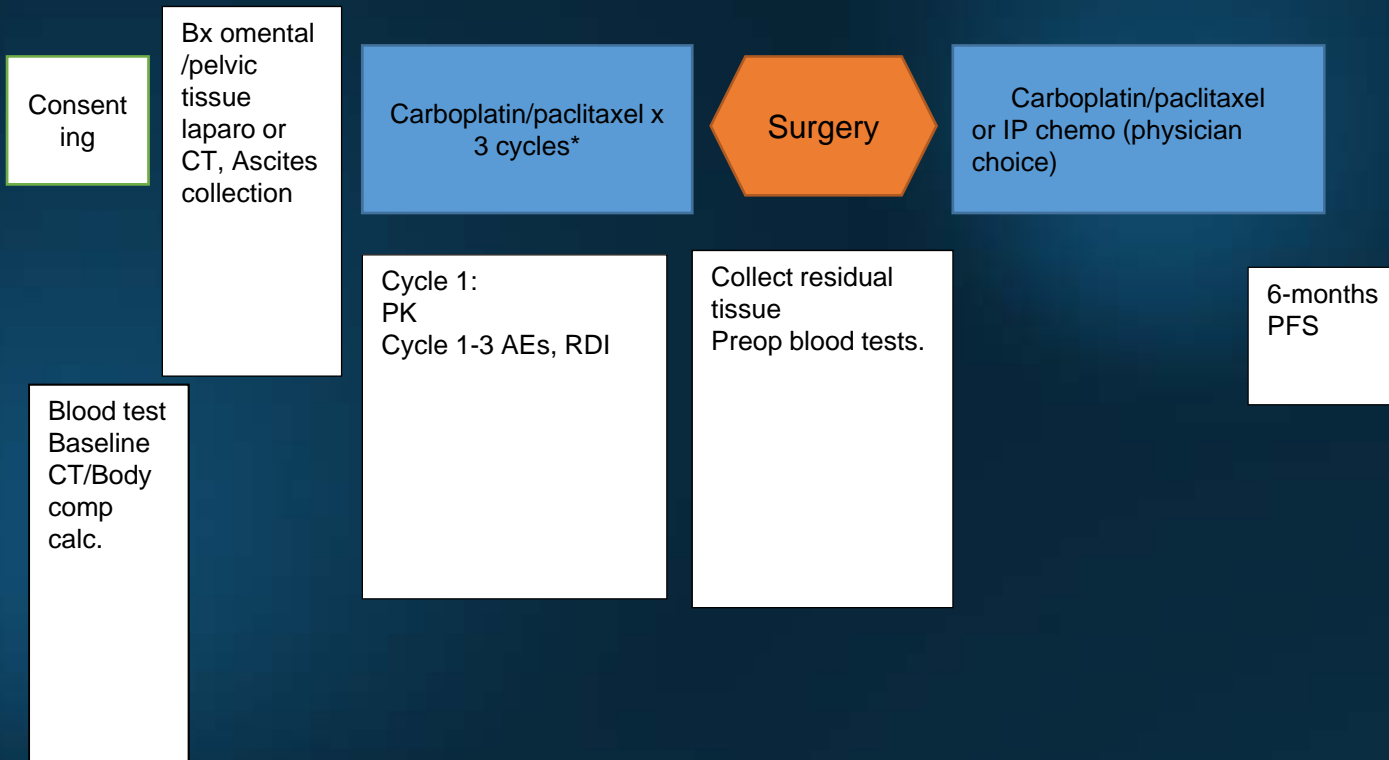Petignat et al., Surg Oncol, 2004

Hypotheses

- Poorer prognosis is due to a combination of two things:

- Suboptimal delivery of chemo
  - This could be improved by body-composition adjusted dosing

- Age-related changes in tumor or host/tumor biology
  - This could be improved by targeted therapies

4-5 year grant from Kay Yow

- Step 1: review Moffitt gene array data set to identify age/prognosis related genes

- Step 2: Design a prospective study in patients receiving neo-adjuvant chemo to assess impact of body composition and how molecular profiles change after chemo

- Step 3: Design a phase II study with a targeted drug added to chemo and a body-composition-adjusted dosing

Step 2: Prospective study

Consent ing

Bx omental /pelvic tissue laparo or CT, Ascites collection

Carboplatin/paclitaxel x 3 cycles*

Surgery

Carboplatin/paclitaxel or IP chemo (physician choice)

Blood test Baseline CT/Body comp calc.

Cycle 1:
PK
Cycle 1-3 AEs, RDI

Collect residual tissue
Preop blood tests.

6-months PFS

Opportunities for partnerships

Collaboration with UF Aging group

- Comparison of physical function between older breast cancer patients who had adjuvant chemotherapy vs not.

- 1-2 years after surgery

- Physical performance tests

- Function questionnaires

- Accelerometry

- Inflammation markers

Results

- 53 patients
- No difference between chemo and non-chemo
- TNF alpha associated with worse function.

- Support: State of Florida grant

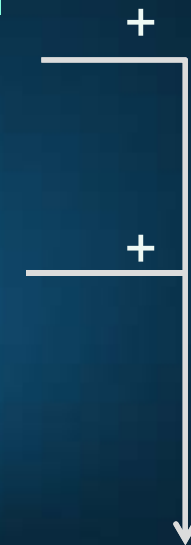# Pilot with Lynn Cancer Institute

- 31 patients
- Found an average of 9 matching patients in TCC
- Feasible within 3 working days
- Considered helpful/very helpful 40% of the time, somewhat helpful 40% of the time.

- Seeking partners for a larger scale study