3/16/15 Plenary General Remarks

Group I: Exposure Assessment.

Exposure assessment yes/no.
Few to individual pesticides
Questionnaires
Except for the Ag Health Study.

Used most: glyphosate low production for many
banned: malathion

Group II: Epidemiology.

Ag. Health Study: 2 case-control
Midwest Canadian

Exposure Assessments

TCVP - inadequate for carcinogenicity
Paraquat - excess risk for melanoma - limited
Other inadequate
Malathion - limited
DDT - more evidence for cancer
limited NHL, leukemia, lung

Glyphosate - limited NHL
Inadequate MM

Dewayne Johnson v. Monsanto Company
Defendant's Exhibit 2580
Case No: CGC-16-550128
**Group III - Animal Studies**

- **Early-mid 70s Animal bioassay**
  - Limited # of animals
  - Number of limited factor

- All studies were considered adequate
- FOAs - EPA documents - studies submitted for registration purposes to EPA from Ag, comp
- TCVP: liver tumors mice } sufficient
  - Renal carcinoma } insufficient
  - A switch from limited } sufficient

**Group III**

- 10 key classes of agents that cause cancer
- TCVP: genotoxic - moderate
**Group I**

Parathion

**Group II**

Parathion - Epi. not a lot in humans

originally: **Group III**

→ Lung cancer  
Prostate < some signals  
or 1/5

**Group III**

Parathion  
Sufficient evidence for animal carcinogenicity

Mouse adenoma  
Lymphoma  
Rat adrenal  
Mammary  
Pancreatic

**Group IV**

Parathion

Group I  
Malathion - exposure

Group II  
Malathion - prostate, NHL

Group III  
Malathion - mouse liver (M, F)  
rat liver  
rat mammary

Sufficient in animals
FolA-Malathion \( \overset{\text{MAL/IBN/GLY}}{\rightarrow} \text{mechanism operable in humans} \)

Group IV
Malathion Mechanism Upgrade

Group II
Diazinon

Group III
Diazinon - NHL | Lung cancer limited.

Group III
Diazinon 1 study: Mouse - HE 
NTP: Rat - leukemias 
Inadequate evidence in animals

Group II
Greysatal - detectable in water & food.

Group II
Greysatal negative NHL 
Case-control study: NHL 
NHSC negative data

Group III
Greysatal - limited to inadequate,

Group I
Greysatal

4.3
FIV data or 80s