The NCI's Rapid Access to Intervention Development Program

"RAID"

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RAID Program Timeline

- December 1997 - NCAB
  - Bob Wittes announces concept for the program
- February 1998 - BSA
  - RAID Program creation approved
- March 2000 - BSA
  - RAID program continuation endorsed
- July 2005 – RAID Workshop
- September 2006 – RAID Workshop report and DCTD Action Plan

"RAID" = Rapid Access To Intervention Development

Promote Agents For Academic Center Study

- Provide access to DTP pre-clinical contract research resources to academic/small business community (Managed by DTP Staff)

- Allow studies to occur under investigator or academic center sponsorship instead of NCI

- <u>Examples of RAID tasks</u>:
  - Acquire / Formulate bulk drug
  - Produce biologicals
  - Test efficacy of agent in animals
  - Pharmacology / Toxicology studies

- Bridge the gap between a LEAD DISCOVERY and a DRUG

RAID: Unique Features - Philosophy

- Partner NCI internal and contract R&D resources with extramural academic scientist need
- Allow facile access to NCI in-house expertise
- Output is tangible:
  - Data suitable for IND submission
  - Data for licensing to 3RD parties
  - Products for clinical trial
- Goal: $10-15M/yr of contract research from existing budget

RAID: Eligibility

- Only academic or non-profit investigators may apply
  It is expected that most applicants for activities funded by RAID will have an appointment in an institution with an NIH-assured Institutional Review Board, or have formal collaborations with a staff member of such an institution

- Research collaborations between academic and any size corporate partner acceptable as long as the technology is not yet licensed

- Technology can be licensed to a small business (SBIR)

RAID

Examples of Approved Projects

Example 1: Dr. Elizabeth Jaffee, Johns Hopkins. Allogeneic Pancreatic Cancer Cell Vaccine

Background:

Preclinical models have demonstrated that tumor cells genetically modified to secrete the cytokine granulocyte macrophage colony stimulating factor GM CSF will generate potent T cell dependent systemic antitumor immunity. It is not technically feasible to adapt an autologous vaccine approach for treatment of most patients with pancreatic adenocarcinoma. Therefore an allogeneic vaccine strategy was developed. A Phase I was just completed with an allogeneic tumor vaccine genetically modified to secrete GM CSF in patients with stage 1 2 and 3 pancreatic adenocarcinoma..

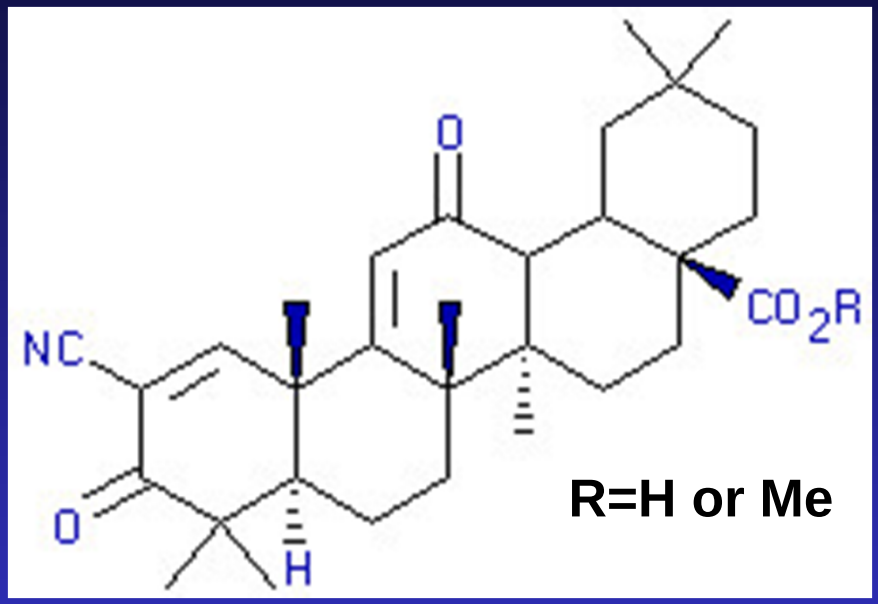
RAID Request:

Production of two clinical grade allogeneic GM-CSF-secreting cells lines, Panc 6.03 and 10.05 for treatment of pancreatic adenocarcinoma patients.

Jaffee Pancreatic Vaccine

- Production conditions were established to produce sterile cell lines suitable for human use.
- ~240 vials of each cell line was produced in 6-12 separate lots.
- Switched to a DDG project to produce sufficient material to conduct a Phase II trial in 60 patients
- Preliminary analysis: the one and two year survival rates are 88% and 76%, respectively.

Example 2: Dr. Michael Sporn, Dartmouth Medical School. Bulk Synthesis of the Triterpenoids, CDDO and CDDO Methyl Ester



Background:

Synthetic triterpenoids CDDO and CDDO methyl ester bind to PPAR-γ, and induce differentiation in several tumor types *in vitro* and suppression of *de novo* synthesis of COX-2 and iNOS.

Dr. Michael Sporn, CDDO

RAID Request:

Bulk synthesis of CDDO and CDDO methyl ester to allow *in vivo* pre-clinical testing.

RAID Timeline:

- Application submitted February 1999, reviewed April 1999
- Project assigned to NCI contractor May 1999
- 25 grams of each compound delivered to Dr. Sporn October 1999

Progress:

PI completed *in vivo* studies with both agents and returned to NCI in April 2001 for further preclinical and clinical development through the Drug Development Group (DDG).

CDDO: Current Status

- NCI IND Approved April 2006
- 2 Phase I Clinical Trials Open
  - MD Anderson
  - NIH Clinical Center
- 10 Patients treated thus far

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Program Status

NCI RAID Program Output

- 16 Cycles
- 336 Applications
- 119 Approved
- 81 Projects complete
- 35 INDs filed
- >1600 Patients treated
- 28 Agents licensed
- Total Cost ~$91,000,000

Next Speaker

Dr. John Mendelsohn