

Presentation to the USDA Food Allergy Meeting

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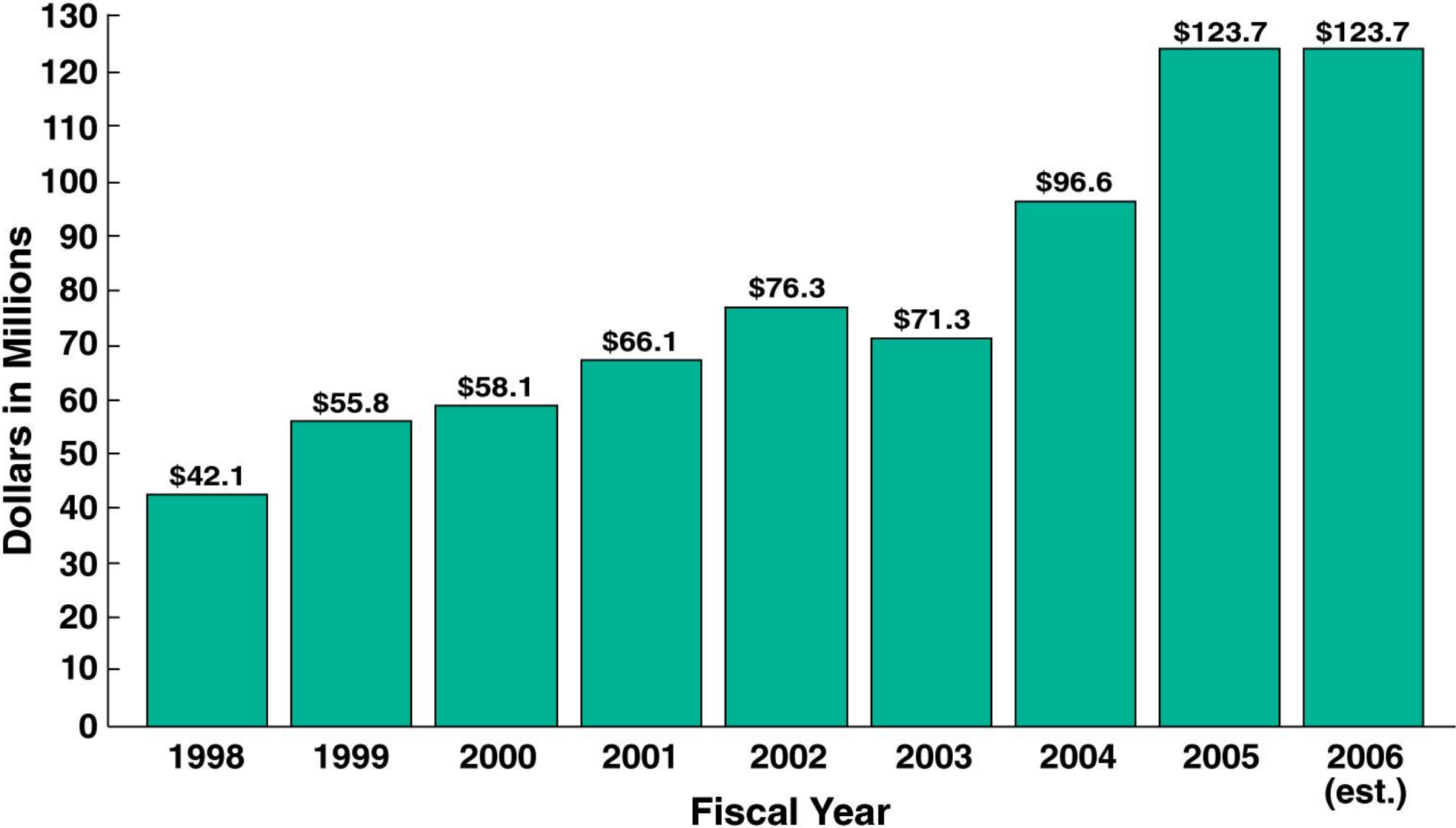
2003 Expert Panel on Food Allergy Research Recommendations

- **Molecular characterization of food allergens**
- **Pathophysiology of food allergy and food-induced anaphylaxis, including animal models**
- **Long-term follow up of food-allergic children to identify immune mechanisms underlying**
 - **Emergence of oral tolerance**
 - **Development of new food allergies**
- **Immune intervention strategies to prevent and treat food allergy**

NIAID Food Allergy Research Following the 2003 Expert Panel

- **Clinical Trials in the Immune Tolerance Network (Ongoing)**
- **Consortium of Food Allergy Research (2005)**
- **Allergen and T Cell Reagent Resources for the Study of Allergic Diseases (2007)**
- **Conferences on Definition and Management of Anaphylaxis (NIAID/FAAN) (2004 and 2005)**

NIAID Allergy and Asthma Funding



NIAID Food Allergy Research Number of Awards, By Fiscal Year

Mechanism	2003	2004	2005
“R” Series Grant	2	5	3
Program Project	1	1	1
Coop. Agreement	0	0	2
Training (K)	2	1	1
Intramural	0	1	1
Total	5	8	8

NIAID Food Allergy Research Funding (Millions), By Fiscal Year

Mechanism	2003	2004	2005
“R” Series Grant	0.4	1.1	0.9
Program Project	0.5	1.1	1.2
Coop. Agreement	0	0	4.7
Training (K)	0.2	0.1	0.1
Intramural	0	0.5	0.8
Total	1.2	2.9	7.7

NIAID Food Allergy Research Funded Grants (FY 2005)

- **Consortium of Food Allergy Research**
- **Immunological Response to Cow's Milk Proteins**
- **Immunotherapy for Peanut Allergy**
- **Redefining the Major Peanut Allergens**
- **Immunological Basis of Egg Allergy**
- **Regulation of Gastrointestinal Eosinophils**
- **Developmental Immunotherapeutics for Allergy**
- **Unconventional T Cell Activities in Animals**

NIAID Food Allergy Research Consortium of Food Allergy Research

- **Hugh Sampson, MD, Mount Sinai School of Medicine**
- **\$16 million over five years – CoFAR**
- **\$5 million over five years – SAC (EMMES)**

- **Interventional Project**
 - **Clinical trial of a new food allergy immunotherapy**

- **Observational Project**
 - **Natural history study correlating new food allergy and tolerance to food with immunologic events**

- **Basic Immunology Project**
 - **Mouse model of mechanisms of potential immune-based peanut allergy intervention**

NIAID Food Allergy Research Consortium of Food Allergy Research

- **Mount Sinai School of Medicine**
- **Duke University School of Medicine**
- **Johns Hopkins University School of Medicine**
- **National Jewish Medical and Research Center**
- **University of Arkansas Children's Hospital
Research Institute**
- **Yale University School of Medicine**

Non-NIAID, NIH Food Allergy Research for FY 2005 Number of Awards

- National Institute of Diabetes and Digestive and Kidney Diseases 3**
- National Center for Complementary and Alternative Medicine 2**
- National Center for Research Resources 1**

Non-NIAID, NIH Food Allergy Funded Grants (FY 2005)

- **Mechanisms of Eosinophilic Esophagitis**
- **Food Proteins and Enteric Infections**
- **Gut Dendritic Cells and Sensitization**
- **Chinese Herbal Medicine - Food Allergy**
- **Sublingual Immunotherapy for Peanut Allergy**

Prevention of Allergy/Asthma by Oral Mucosal Immunoprophylaxis (OMIP)

- **Patrick Holt, P.I.**
- **200 high risk children age 18-30 months (FH of atopy, personal history of food allergy or atopic dermatitis)**
- **Children not sensitized to allergens in mix receive daily, for 1 year, OMIP with high dose house dust mite, cat and timothy grass; or placebo.**
- **Expected outcomes after 3 years**
 - **Decreased sensitization to allergen(s) in mix**
 - **Decreased incidence of asthma**
 - **Decreased sensitization to bystander allergens**

Tolerance to Peanut in High-Risk Children

- **Gideon Lack, P.I.**
- **>400 children age 4-10 months at high risk for peanut allergy (egg allergy and/or atopic dermatitis)**
- **Children with negative SPT to peanut randomized to either 6 grams/ week peanut snack (bamba) or peanut avoidance, until age 5.**
- **Expected outcomes:**
 - **Lesser incidence of peanut allergy at age 5**
 - **Decreased sensitization to ingested and inhaled allergens**
 - **Decreased incidence of rhinitis and asthma**