

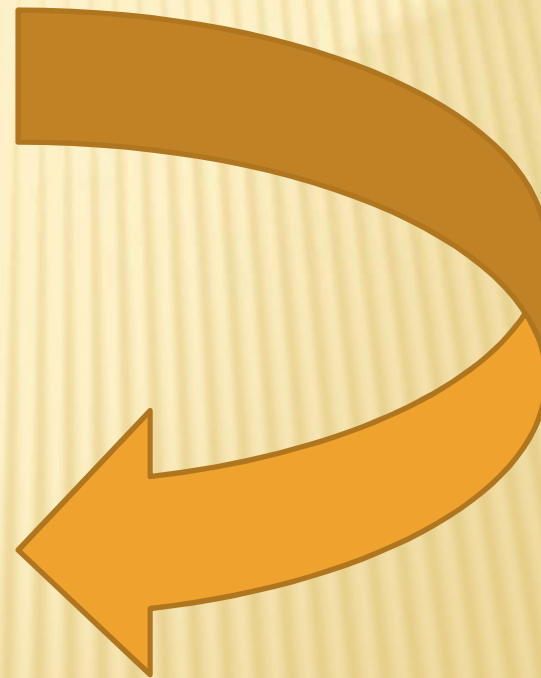


P.L. Hunst
AEIC Secretary

AEIC: THE FIRST 20 YEARS



Environmental Immunochimistry



Bioanalytical Tests for
Agricultural Biotechnology

THE BEGINNING



- ✖ 1992: EPA Immunochemistry Summit (Las Vegas, NV)

- + Discussion of the use of immunoassays for regulatory testing of new chemical products for EPA registrations
- + Discussion brought forward several critical issues which needed to be addressed for immunoassays to gain widespread acceptance:



- ✖ Better communication among kit developers, users and regulators
- ✖ Development of standards and regulatory guidelines for acceptance of immunoassay data
- ✖ Educational programs for regulators and new users of the technology
- ✖ Policies to safeguard the quality of commercial immunoassay kits, as well as the applications which were being developed that utilized the kits

THE BEGINNING (CONT'D)



- ✘ EPA suggested that industry take on these issues
- ✘ **1992: First organizational meeting of industry group held in Midland, MI (Dow Chemical)**
- ✘ **1993: First official meetings of AEIC started**
 - + American Cyanamid (NJ)
 - + First meetings were used to develop the by-laws and incorporate the organization
 - + First Board elected and dues collected to fund activities

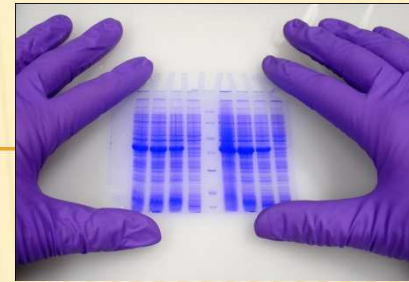
1993 - 1998



- ✗ AEIC focused on immunoassays for environmental applications
 - + Immunoassay and kit insert guidelines published
 - + Workshops were hosted for EPA-Office of Pesticides Programs, EPA-Office of Solid Waste and EPA-Office of Water
 - ✗ Educational efforts to familiarize government scientists/regulators with immunoassay technology
 - ✗ Workshops coordinated by AEIC members and hosted in Washington, DC

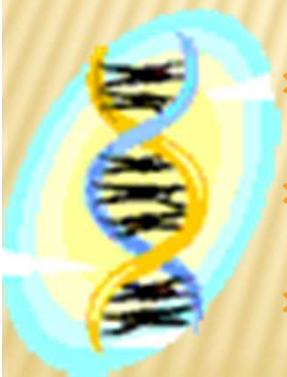


1999



✗ 1999: AEIC and Biotechnology

- + Agricultural biotechnology was developing quickly in the U.S.
- + Some of AEIC member companies were biotechnology trait providers
 - ✗ Other AEIC member companies supported the trait providers by providing immunoassay technology for the proteins expressed by the GM crops
- + AEIC incorporated a Biotech Initiative:
 - ✗ Develop performance-based method validation guidelines for proteins in GM plants, food commodities and derived products;
 - ✗ Serve as an educational resource to regulatory bodies and end-users (food processors, food companies, seed companies, etc)
 - ✗ Engage in industry-wide effort of cooperation to obtain consensus on guidelines for the proper use of immunoassay methods; and
 - ✗ Remain abreast of industry developments of other methods/technologies for quantitative/qualitative detection of GM crops



2000



- ✗ AEIC sponsored a joint workshop with USDA GIPSA

- + “Grains Biotechnology Methods Validation”

- ✗ Objectives were:

- ✗ Discuss the validation and application of detection methods for GM grains

- + Workshop was well attended and feedback given was:

- ✗ Working groups should be created to deal with grain testing issues
 - ✗ A strategic plan should be developed for testing GM grains
 - ✗ Communication must be maintained between all groups
 - ✗ Harmonize the efforts of organizations such as GIPSA, AACC, JRC, etc
 - ✗ Address the need for rapid action on standardization of testing



2000 ONWARD



- ✖ 2005: AEIC was renamed
 - + “Analytical Excellence through Industry Collaboration”
- ✖ AEIC has focused more on biotechnology detection methodologies
 - + Member companies now include analytical labs involved in both protein-based and DNA-based testing, equipment manufacturers for both protein- and DNA-based testing, food/mycotoxin testing companies and GM trait providing companies



AEIC PUBLICATIONS

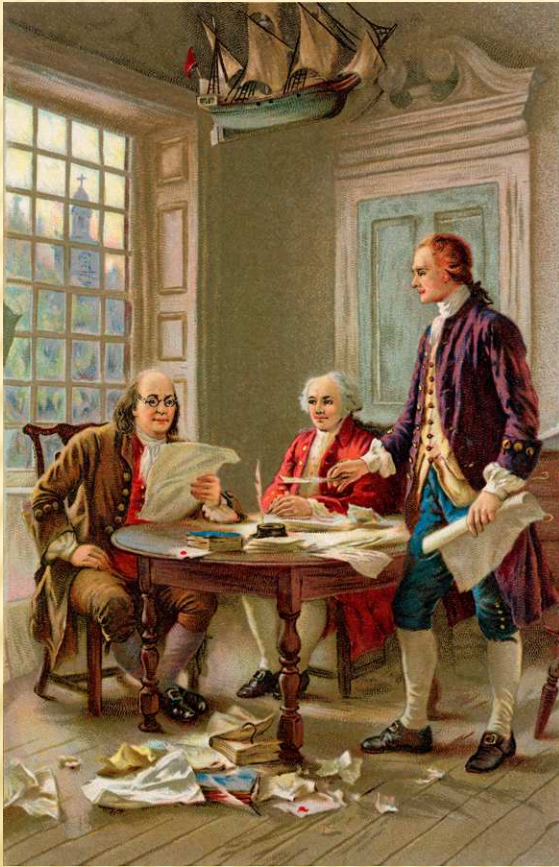
- ✗ Grothaus, et al., 2006. Immunoassay as an Analytical Tool in Agricultural Biotechnology. J. AOAC 89(4): 913-928.
- ✗ Lipp, et al., 2005. Polymerase Chain Reaction Technology as an Analytical Tool in Agricultural Biotechnology. J. AOAC 88(1): 136-155.
- ✗ Lipton, et al., 2000. Guidelines for the Validation and Use of Immunoassays for Determination of Introduced Proteins in Biotechnology Enhanced Crops and Derived Food Ingredients. Food & Agric. Chem. 12: 153-164.
- ✗ A User's Guide to Environmental Immunochemical Analysis.

TODAY



✖ AEIC MISSION

- + To advance and support all bioanalytical technologies through:
 - ✖ Providing a consensus voice for applications to agricultural, biotechnology and environmental industries
 - ✖ Developing educational programs
 - ✖ Furnishing scientific expertise
 - ✖ Establishing performance standards for immunochemical, nucleic acid and bioanalytical methods
- ✖ Education is still a pillar of AEIC's mission
 - + 3 Publications in drafting phase
- ✖ Bringing “one voice” to regulatory authorities is also still important
 - + AEIC funding of ANSI ISO
 - + AEIC values the continued participation of government agencies (USDA GIPSA, USDA AMS, EPA)



HISTORY & FUN FACTS

AEIC BOARD



American Cyanamid



MONSANTO



Elf Atochem



PIONEER
A DUPONT BUSINESS

*Science with Service
Delivering Success™*



AEIC BOARD HISTORY



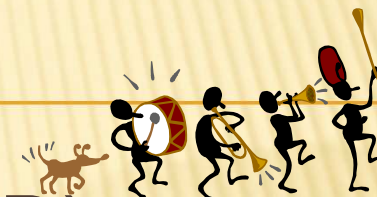
Year	President	Vice President	Secretary	Treasurer	Past President
1992	Organizational year				
1993	Jim Rittenburg (AgriDiagnostics)	Brinton Miller (Neogen)	Pat Nugent (Dow Chemical)	Larry Miller (Battelle)	
1994	Chuck Mihaliak (Dow Elanco)	Cindy Lipton (Zeneca Ag. Products)	Pat Nugent (Dow Chemical)	Larry Miller (Battelle)	Jim Rittenburg (AgriDiagnostics)
1995	Joe Dautlick (SDI)	Rosie Wong (AmCy)	Pat Nugent (Dow Chemical)	Larry Miller (Battelle)	Chuck Mihaliak (Dow Elanco)
1996	Sharon Berberich (Monsanto)		Jan Sharp (Elf Atochem)	Larry Miller (Battelle)	Joe Dautlick (SDI)
1997	Dave Grothaus (Pioneer)	Chris Rankin (DuPont)	Jan Sharp (Elf Atochem)	Rosie Wong (AmCy)	Sharon Berberich (Monsanto)
1998	Chris Rankin (DuPont)	Jim Brady (Novartis)	Penny Hunst (Pioneer)	Rosie Wong (AmCy)	Dave Grothaus (Pioneer)

AEIC BOARD HISTORY (CONT'D)

1999	Jim Brady (Novartis)	Brian Skoczinski (Millipore)	Penny Hunst (AgrEvo)	Kim Magin (Monsanto)	Chris Rankin (DuPont)
2000	Chuck Mihaliak (Dow AgroSciences)	Jan Sharp (Elf Atochem)	Penny Hunst (Dow AgroSciences)	Kim Magin (Monsanto)	Jim Brady (Novartis)
2001	Dave Grothaus (Pioneer)	Jim Stave (SDI)	Penny Hunst (Dow AgroSciences)	Kim Magin (Monsanto)	Chuck Mihaliak (Dow AgroSciences)
2002	Jim Stave (SDI)	Stacy Charlton (Syngenta)	Penny Hunst (Dow AgroSciences)	Dean Layton (EnviroLogix)	Dave Grothaus (PHI)
2003	Stacy Charlton (Syngenta)	Marcus Lipp (Monsanto)	Penny Hunst (Dow AgroSciences)	Dean Layton (EnviroLogix)	Jim Stave (SDI)
2004	Marcus Lipp (Monsanto)	Randy Giroux (Cargill)	Penny Hunst (Dow AgroSciences)	Dean Layton (EnviroLogix)	Stacy Charlton (Syngenta)
2005	Randy Giroux (Cargill)	Ray Shillito (Bayer CropScience)	Penny Hunst (Dow AgroSciences)	Dean Layton (EnviroLogix)	Marcus Lipp (Monsanto)
2006	Ray Shillito (Bayer CropScience)	Doris Dixon (Monsanto)	Penny Hunst (Dow AgroSciences)	Dean Layton (EnviroLogix)	Randy Giroux (Cargill)



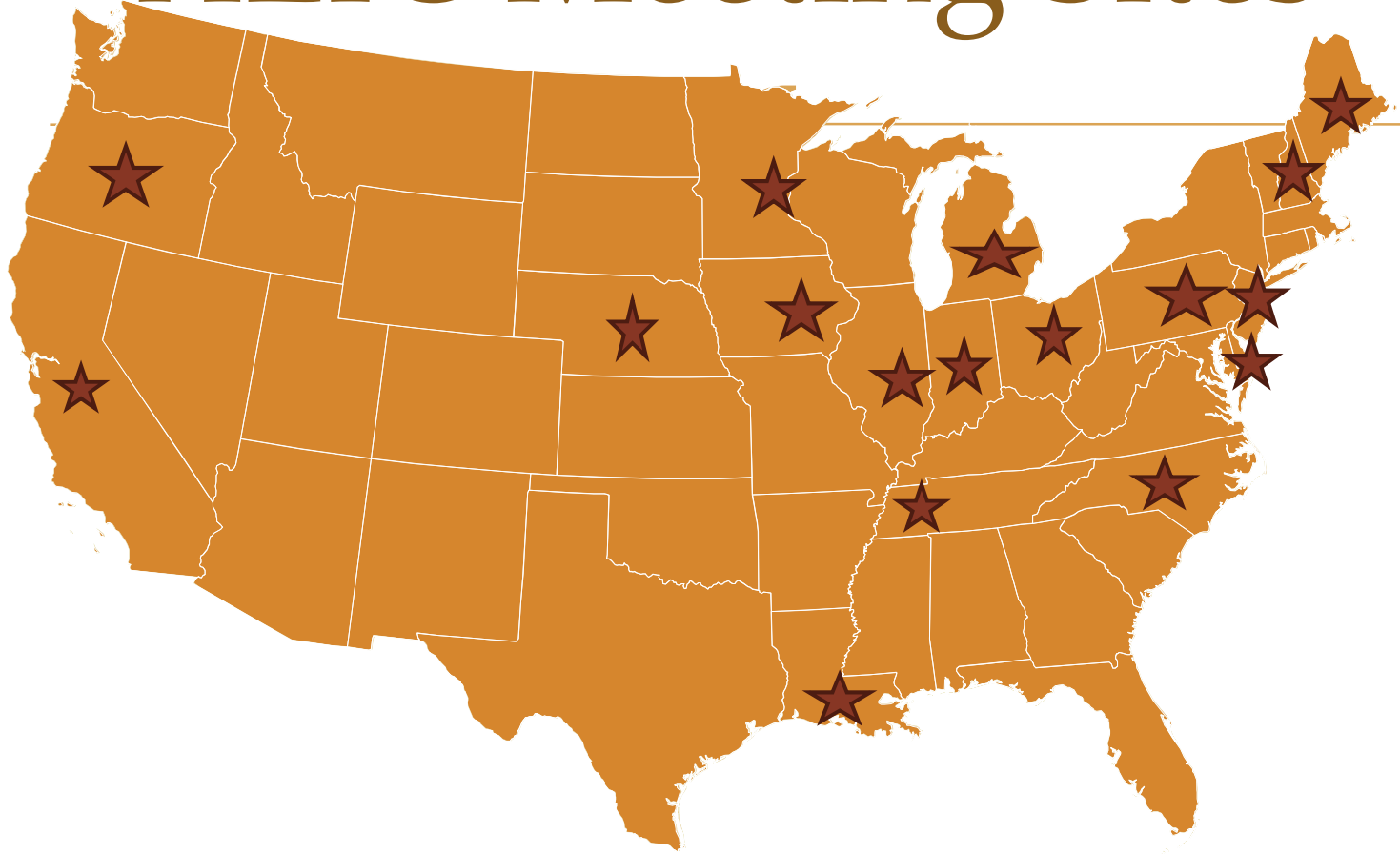
AEIC BOARD HISTORY (CONT'D)



2007	Doris Dixon (Monsanto)	Gina Clapper (AOCS)	Penny Hunst (Dow AgroSciences)	Dean Layton (EnviroLogix)	Ray Shillito (Bayer CropScience)
2008	Gina Clapper (AOCS)	Mike Thompson (Illumina)	Penny Hunst (Dow AgroSciences)	Dean Layton (EnviroLogix)	Doris Dixon (Monsanto)
2009	Mike Thompson (Illumina)	Frank Spiegelhalter (Eurofins GeneScan)	Penny Hunst (Bayer CropScience)	Dean Layton (EnviroLogix)	Gina Clapper (AOCS)
2010	Frank Spiegelhalter (Eurofins GeneScan)	Laura Privalle (BASF)	Penny Hunst (Bayer CropScience)	Dean Layton (EnviroLogix)	Mike Thompson (Illumina)
2011	Laura Privalle (BASF)	Clara Alarcon (Pioneer)	Penny Hunst (Bayer CropScience)	Dean Layton (EnviroLogix)	Frank Spiegelhalter (Eurofins GeneScan)
2012	Clara Alarcon (Pioneer)	Yelena Dudin (Monsanto)	Penny Hunst (Bayer CropScience)	Dean Layton (EnviroLogix)	Laura Privalle (BASF)



AEIC Meeting Sites

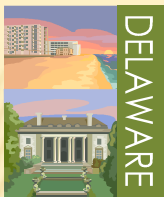


AEIC MEETING LOCATIONS



Year	Spring	Fall
1992		Midland, MI
1993	Wayne, NJ	Portland, ME
1994	Indianapolis, IN	Palo Alto, CA
1995	Wilmington, DE	St. Louis, MO
1996	East Lansing, MI	Kansas City, MO
1997		Durham, NH
1998	Valley Forge, PA	Greensboro, NC
1999	Princeton, NJ	Des Moines, IA
2000	Painesville, OH	Portland, ME
2001	Indianapolis, IN	New Orleans, LA





MEETING LOCATIONS



2002	Raleigh, NC	Minneapolis, MN
2003	Wilmington, DE	East Lansing, MI
2004	Memphis, TN	Champaign, IL
2005	Gastonia, NC	South Bend, IN
2006	Kansas City, MO	Portland, ME
2007	Durham, NC	Portland, OR
2008	New Orleans, LA	St. Paul, MN
2009	St. Louis, MO	RTP, NC
2010	Gastonia, NC	Lincoln, NE
2011	Indianapolis, IN	Des Moines, IA
2012	Durham, NC	



Portland, OR - 2007

FUN FACTS

- ✗ First official meeting was held at American Cyanamid (Am Home Products → BASF)
- ✗ AEIC Board has had representatives from 16 different companies
- ✗ Treasury resided in Ohio and post box resided in Indianapolis
 - + Treasury accounts now in Maine and post box eliminated
- ✗ AEIC has met 6 times in North Carolina
- ✗ Only one group dinner was a fondue dinner (Wilmington, DE)
- ✗ Most expensive meeting venue was the Peabody Hotel in Memphis
- ✗ One meeting was held at a country club (DuPont Country Club)
- ✗ One of most memorable group dinners was the Carolina BBQ hosted by Bayer
 - + BBQ dinner and bluegrass band
- ✗ Most scenic meeting venue was the Black Point Inn in Prouts Neck, Maine





Merci

Obrigado!

