

AEIC: You've come a long way!

Dave Grothaus

Strategic Regulatory Solutions

Founding

- Based on discussions at EPA Sponsored Summit in Las Vegas in 1992 to discuss Immunoassay methods for detection of pesticides/chemicals in food and environment
- Officially Founded in 1993
- Objective was to gain acceptance of immunoassay methods as equal to traditional GC and LCMS methods as official methods

Initial Methods

- First methods were simple classic ELISA format with readers
- Some work on more rapid methods such as dot blots
- Objective was to gain acceptance of immunoassay methods as equal to traditional GC and LCMS methods as official methods

Founding

- Original Name Analytical Environmental Immunochemical Consortium (AEIC)
- “Founding fathers” met several times to draft by laws etc.
- Representatives from over 25 industrial, academic and government organizations subsequently met several times to address the issues identified during the EPA Summit.

Founding Principles

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

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)



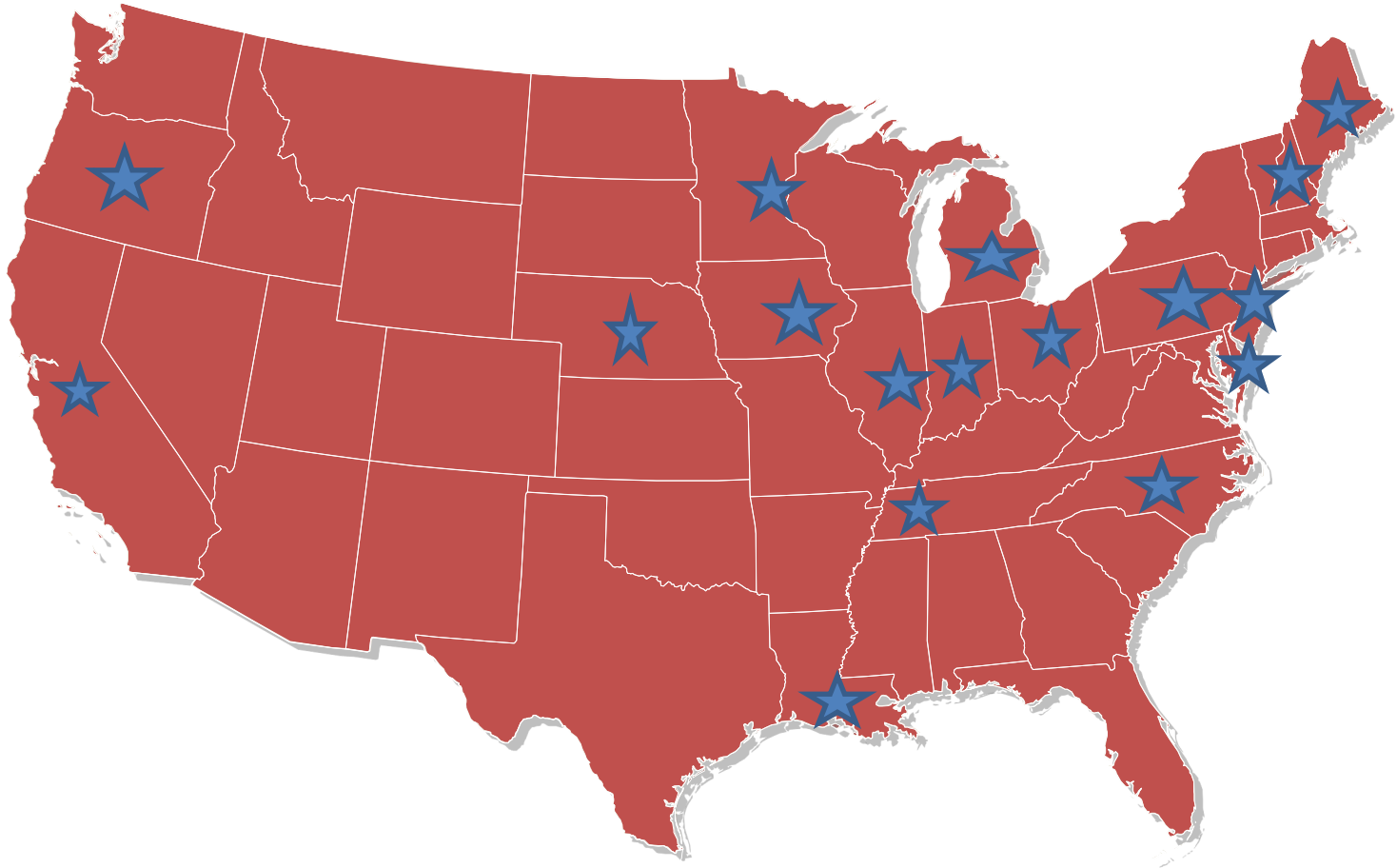


AEIC Board History (cont'd)

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)



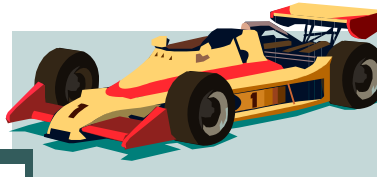
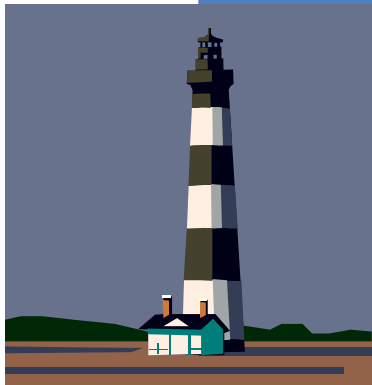
AEIC Meeting Sites

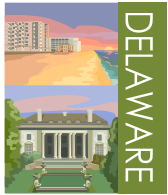


AEIC Meeting Location



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





AEIC 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

Evolution/Agility Membership

- Research consultants
- Equipment manufacturers
- Testing Labs
- Other testing organizations,
- Food/mycotoxin companies
- Due to this shift in focus, AEIC was renamed “Analytical Excellence through Industry Collaboration” in 2005.

Evolution/Agility Technologies

- Agricultural Biotechnology
- Nucleic Acid detection in addition to protein detection
- Rapid, in field detection in addition to laboratory detection
- Food/mycotoxin testing
- Other biotechnology, other analytes

Key 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.

Why is AEIC Unique?

- Based on science
- Not political or industry driven
- High credibility
- Organically driven initiatives
- Volunteers
- Good track record of publications and white papers with broad support
- Great people make a great organization!

Social activities

- Established optional host sponsored group dinner
 - Great food and drink
- Gaming activity
 - Darts
 - Pool
- Strong networking opportunity
- Very focused to our industry

Vision-Future Membership

- Always looking to change
- Number of Members
 - Diversity vs focus
- Type and balance of sectors
- Technologies and Applications
 - Diversity vs focus

Vision-Future Technologies

- Rapid, Onsite multi-analyte, quantitative detection
 - nucleic acid and protein
 - variety testing
- Digital PCR

Vision-Future Technologies

- Very high throughput analysis- focus of this meeting
- Microfluidics
- High throughput genotyping
- Sequencing
- Extraction technologies for genotyping
- Composite liquid cell technologies
- Sequencing for Molecular Characterization

Vision-Future Technologies

- DETECTION METHODS -ALWAYS A NEED FOR EASIER, QUICKER, MORE PRECISE, MORE INFORMATION AND LESS EXPENSIVE EQUIPMENT AND DISPOSABLES