



CHARLES A. FOX, Ph.D.
SENIOR MANAGING CONSULTANT
DIRECTOR, VISUALIZATION PRACTICE GROUP
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Dr. Fox oversees graphics technologists across a number of Engineering Systems Inc. (ESi) offices. His teams work with in-house consultants and ESi clients to visualize data and create demonstrative aids and exhibits. These tools assist experts testifying in high-stakes litigation. He works to integrate data capture technologies with a wide array of visualization tools to produce 3D animations and Virtual Reality applications that are accurate depictions of often unseen events.

Dr. Fox leverages his 20 years of experience in the litigation graphics industry to guide a team of animators and artists that produce teaching tools that are second-to-none. With an academic background in neuroscience, Dr. Fox provides insight into how visual teaching tools can be used most effectively to teach difficult-to-understand concepts.

Before joining ESi, Dr. Fox served as Vice President at Demonstratives, Inc. for 14 years. At DI, he led the Life Sciences Group - a team that focused on biotechnical, pharmaceutical and biomedical litigation services. These services included production of 3D animations, Flash, and PowerPoint presentations. He led graphics development in cases involving high tech patents and trade secrets. The Life Sciences Group developed sophisticated methods for visualizing macromolecules and animating the processes behind much of today's biosciences industry.

Areas of Specialization

The Effectiveness of Visuals
3D Animations
VR Applications
Demonstratives Aids and Exhibits
PowerPoint Presentations
Litigation Graphics

Education

Postdoctoral Fellow, Mental Health Research Institute, University of Michigan, 1991-1995
Ph.D., Molecular Cellular and Developmental Biology, Iowa State University, 1991
B.S., Zoology, Iowa State University, 1987

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Professional Awards

National Institute of Drug Abuse

National Research Service Award, 1994 – 1995

University of Michigan

Endocrinology and Metabolism Postdoctoral Fellow, 1993 – 1994

University of Michigan

Pharmaceutical Manufacturers Association Postdoctoral Fellow, 1991 – 1993

Positions Held

Engineering Systems Inc., Ames, Iowa

Director, Visualization Practice Group, 2015 – Present

Senior Managing Consultant, 2015 – Present

Senior Consultant, 2014 – 2015

Demonstratives, Inc., Ames, Iowa

Vice President, 2001 – 2014

Engineering Animation, Inc., Ames, Iowa

Director of Biotechnical Litigation Services, 1999 – 2000

Director of Production, Interactive Division, 1997 – 1999

Project Manager, Interactive Division, 1995 – 1997

University of Michigan, Ann Arbor, Michigan

Post-Doctoral Fellow, Mental Health Research Institute, 1991 – 1995

Presentations

“A Picture is Worth 1000 Words: Seeing the Unwitnessed Facts in Accidents,” PLP&D 2017 Fall Workshop, Rosemont, IL, October 12, 2017

“Commercial Hand Fed Chipper Winch Line Accident Reconstruction Analysis,” 27th Annual Occupational Ergonomics and Safety Conference, 2015

“Visualization: The Science of Seeing the Facts,” Georgia Defense Lawyers Association, 2015

Publications

Brickman, Dennis B., Roberts, Julius M., and **Fox, Charles A.**, “Automatic Sliding Door Sensor Safety Analysis,” Proceedings of the XXVIIIth Annual International Occupational Ergonomics and Safety Conference, Chicago, IL, June 9-10, 2016, pp. 29-35.

Brickman, Dennis B., Novak, Gary J., **Fox, Charles A.**, Lueck, Jay K., and Karlins, Scott A., “Shelving Cart Design and Manufacturing Safety Analysis,” Proceedings of the XXVIIIth Annual International Occupational Ergonomics and Safety Conference, Chicago, IL, June 9-10, 2016, pp. 17-22.

Brickman, Dennis B., Bajzek, Thomas J., Knox, Erick H., **Fox, Charles A.**, Lueck, Jay K., and Petersen, John M., “Beach Rental Elevator Child Entrapment Safety Analysis,” Proceedings of the XXVIIIth Annual International Occupational Ergonomics and Safety Conference, Chicago, IL, June 9-10, 2016, pp. 23-28.

Edwards, Dale B., Brickman, Dennis B., **Fox, Charles A.**, and Brewster, Rodney A., “Failure Analysis of a Plastic Toy Helicopter,” Proceedings of the Society of Plastics Engineers Annual Technical Conference, Indianapolis, IN, May 23-25, 2016, pp. 1017-1025.

Brickman, Dennis B., Knox, Erick H., **Fox, Charles A.**, and Stage, James D., “Commercial HandFed Chipper Winch Line Accident Reconstruction Analysis,” Proceedings of The XXVIIth Annual International Occupational Ergonomics and Safety Conference, Nashville, TN, May 28-29, 2015, pp. 25-30.

Dr. Fox has authored 19 scientific papers in the field of molecular neurobiology.

Dr. Fox has authored two book chapters:

“Interaction Between Dopamine and Opioid Systems in the Dorsal and Ventral Striatum of the Rat,”
C.A. Fox, E.J. Curran, A. Mansour, H. Akil, S.J. Watson, Cellular and Molecular Mechanisms of the Stratum (1996)

“Biochemical Anatomy: Insights into the Cell Biology and Pharmacology of Neurotransmitter Systems in the Brain,” **C.A. Fox**, A. Mansour, D.T. Chambers, J.H. Meador-Woodruff, S.J. Watson, Textbook of Psychopharmacology, pp. 45-63 (1995)