

## SUMMARY CURRICULUM VITAE

Daniel Acosta, Jr.

**Education** B.S. --(b)(6)-- ; Ph.D. --(b)(6)--

**Military Experience** U.S. Army --(b)(6)--

**Academic Positions** Research Assistant, University of Kansas, 1970-1974  
Assistant Professor, University of Texas, 1974-1979  
Associate Professor, University of Texas, 1979-1983  
Professor, University of Texas, 1983-1996  
Dean, Winkle College of Pharmacy, University of Cincinnati, 1996-present

**Organizational Membership** Nine professional and scientific organizations

**Honors** National Science Foundation Traineeship, 1970-1973  
National Chicano Council on Higher Education  
Post-Doctoral Fellowship (Ford Foundation), 1978-1979  
Candidate for National Secretary of Rho Chi Pharmacy Honor Society, 1978  
Burroughs Wellcome Toxicology Scholar, 1986-1991  
Alcon Centennial Professorship at the University of Texas, 1986-1989  
Johnson & Johnson Professorship at the University of Texas, 1989-1996  
Colgate Palmolive Visiting Professor in In Vitro Toxicology, Washington State University, 1996  
President, Society of Toxicology, 2000-2001  
U.S. Army Medical Research and Materiel Command Breast Cancer Research Program, Integration Panel, 1998-2000  
Recipient of the Society of Toxicology 2005 Enhancement of Animal Welfare Award for long-term contributions to in vitro toxicology research  
Recipient of the 2006 Pharmaceutical Research and Manufacturers of America Foundation Award in Excellence for a distinguished career in pharmacology and toxicology.  
Outstanding Ex, Austin High School, El Paso, Texas, 2008-2009  
President-elect, IUTOX, 2009-2010  
President, IUTOX, 2010-2013  
Center for Alternatives to Animal Testing Recognition Award, 2009, for my co-authorship of Toxicity Testing in the 21<sup>st</sup> Century: A Vision and a Strategy. This award honors individuals or organizations who have made an outstanding contribution to the field of the 3Rs, the development of alternative methods, or the field of in vitro science.  
Doerenkamp-Zbinden Foundation Prize for 2009—as co-author of the NAS/NRC Report, “Toxicity Testing in the 21<sup>st</sup> Century. This prize recognizes distinguished services to animal protection in science.  
Joseph W. Carl Chair of Pharmacy at the University of Cincinnati, 2009-present

**Teaching** Undergraduate: Physiology, pharmacology, and toxicology

Graduate: Cell culture techniques; cellular toxicology

**Advanced Students  
Supervised**

Fourteen, Ph.D.; Eleven, post-doctoral; Four, M.S.

**Ph.D. Students-most recent**

--(b)(6)--

**Publications**

Over one hundred and twenty-five papers in print or in press; 26 book chapters or reviews; 5 books

**Abstracts or Presentations**

Over one hundred and seventy-five presented before learned groups

**Editorships**

Toxicology In Vitro (a journal of toxicology), 1994-present  
Cardiovascular Toxicology (monograph), 1992-present  
Cellular and Molecular Toxicology and In Vitro Toxicology (monograph), 1990

Professional Activities (1985-Present)

Society of Toxicology and International Union of Toxicology

- Chair, Task Force on Recruitment and Retention, 2003-2004, Society of Toxicology
- Past-President, 2001-2002, Society of Toxicology
- President, 2000-2001, Society of Toxicology
- Vice President, 1999-2000, Society of Toxicology
- Vice President-Elect, 1998-1999, Society of Toxicology
- Chairman, Program Committee, 1999-2000, Society of Toxicology
- Co-Chairman, Program Committee, 1998-1999, Society of Toxicology
- Councilor, 1992-1994, Society of Toxicology
- Member, Program Committee, 1985-1988, Society of Toxicology
- Chairman, Membership Committee, 1989-1991, Society of Toxicology
- President, Gulf Coast Regional Chapter, 1989-1990, Society of Toxicology
- President, In Vitro Specialty Section, 1994-1995, Society of Toxicology
- Member, Finance Committee, 1996-1998, Society of Toxicology
- Councilor, Mechanisms Specialty Section, 1988-1990, Society of Toxicology
- Liaison, Society for In Vitro Biology, 1983-1998, Society of Toxicology
- Member, Program Committee, International Congress of Toxicology X, 2001-2004
- Member, Nominating Committee, IUTOX, 2001-2004
- Member, Nominating Committee, SOT, 2004-2005
- Chair, Colgate Palmolive Grants for Alternative Research Review Panel, 2005 and 2006
- Councilor, International Union of Toxicology, 2004-2007
- Chair, Task Force on Professional Needs Assessment, 2008-2010
- President-elect, IUTOX, 2009-2010
- President, IUTOX, 2010-2013

American Society for Pharmacology & Experimental Therapeutics and Society for In Vitro Biology

- Member, Executive Committee, Toxicology Division, 1993-1996, ASPET
- Co-Chairman, Committee on Toxicity, Carcinogenesis and Mutagenesis, 1984-1988, SIVB

**Daniel Acosta, Jr.**

### Editorships and Editorial Boards

- Associate Editor, In Vitro Cellular and Developmental Biology, Journal of the Society for In Vitro Biology, 1993-present
- North American Editor (Associate Editor), Toxicology In Vitro, 1991-1993
- Editor, Toxicology In Vitro, 1994-present
- Editor, Target Organ Toxicology Series on Cardiovascular Toxicology, 1990-present
- Editor, Monograph, Cellular and Molecular Toxicology and In Vitro Toxicology, CRC Press, 1990
- Editorial Board, Toxicology, 1991-1996
- Editorial Board, In Vitro Toxicology, 1986-1993
- Editorial Board, Fundamental and Applied Toxicology, 1986-1992
- Reviewer for the following journals: Biochemical Pharmacology, Life Sciences, Toxicology and Applied Pharmacology

### Government and Private Activities

- Ad Hoc Member, US Air Force Scientific Advisory Board of Science and Technology, Review of Air Force Research Laboratory, Wright Patterson AF Base, Dayton, Ohio, November, 2001
- Member, Search Committee for the Director of the Environmental Toxicology Division, EPA, 1999-2000
- Member, U.S. Army Breast Cancer Research Program, Integration Panel, 1998-2000
- Member, FDA Scientific Advisory Board for the National Center for Toxicology Research, 2000-2006; Chairman, 2001-2006
- Chairman, Texas A&M University External Advisory Board, Center for Environmental and Rural Health, NIEHS Center for Excellence, 1998-2001; member, 2001-present
- Member, Expert Committee on General Toxicology and Biocompatibility, United States Pharmacopoeia, 2000-2005
- Liaison member, National Advisory Environmental Health Sciences Council, NIEHS, NIH, 2000-2002
- Member, Board of Scientific Councilors, Environmental Protection Agency, 2000-2004
- Member, National Institute on Drug Abuse, NIH, Pharmacology II Research Subcommittee, Drug Abuse Biomedical Research Review Committee, 1990-1993
- Member, Howard Hughes Medical Institute, Panel for the Pre-doctoral Fellowships in Biological Sciences Program, 1995-1997
- Special Reviewer, Toxicology Study Section, NIH, 1985
- Expert Reviewer, Board of Scientific Counselors of NIEHS, National Toxicology Program, 1987
- Ad Hoc Consultant to Minority Biomedical Support Program of NIH
- Member, Central Research Review Committee, American Heart Association, Texas Affiliate, 1976-1981
- Member, Allocations and Advisory Committee, American Heart Association, Texas Affiliate, 1978-1981
- Member, Board of Directors, American Heart Association, Texas Affiliate, 1981-1983
- Member, Special Review Committee, National Cancer Institute, RFA 89-CA-17, National Cooperative Natural Products Drug Discovery Group
- Member, Steering Committee, 1993 Workshop on Eye Irritation Testing: Practical Application of Non-whole Animal Alternatives
- Member, Board of Trustees, Toxicology Excellence for Risk Assessment, 2001-2004; 2007-present
- Member, Advisory Committee for the National Center for Environmental Health, CDC, 2002-2004
- Member, Scientific Advisory Committee on Alternative Toxicological Methods, NIEHS, 2002-2006

- \* Member, National Academy of Sciences, Committee on Toxicity and Assessment of Environmental Agents, 2004-2007
- Member, External Advisory Board, University of Louisville NIEHS Center for Environmental Genomics and Integrative Biology, 2007-present
- Member, Basic Pharmacology Advisory Committee, PhRMA Foundation, 2006-present

#### Pharmacy Activities

- Member, Research and Graduate Affairs Committee, American Association of College of Pharmacy (AACP), 1995-1996
- Member, Academic Affairs Committee, AACP, 1997-1998
- Member, Walgreen Pharmacy Advisory Council, 1996-1999
- Member, Board of Directors, Council of Ohio Colleges of Pharmacy, 1996-present; Chair, 2002-2004
- Member, Graduate Minority Council, University of Kansas, School of Pharmacy, 1999-present
- Site Visit Team, Review of Graduate Program, Department of Pharmacology and Toxicology, School of Pharmacy, University of Kansas, December, 2003
- Member, Nominating Committee for Officers in the Council of Deans, AACP, 2006
- Member, Institute for Healthcare Improvement (IHI) Health Professions Education Collaborative (HPEC), Governing Board, Pharmacy Representative, 2005-2007
- Chair, Visiting Committee on Accreditation of Pharmacy Program, Al Ain University of Science and Technology, Abu Dhabi, UAE, May, 2006.
- Chair, Visiting Committee on Accreditation of Pharmacy Program, Ajman University of Science and Technology, UAE, November, 2006.
- Chair, Visiting Committee on Accreditation of Pharmacy Program, RAK Medical and Health Sciences University, UAE, March, 2007.
- Member, Site Visit Team, ACPE review of East Tennessee State University College of Pharmacy for candidate accreditation status, Spring, 2008.
- Member, Site Visit Team, ACPE review of Wayne State University College of Pharmacy for full accreditation status, Fall, 2009

#### Research Activities (1974-2011)

Dr. Acosta's research has focused on the development of *in vitro* cellular models to explore and evaluate the mechanisms by which xenobiotics damage or injure specific cell types of various organs or tissues. To have a better understanding of selective toxicity of these compounds, his laboratory has developed primary culture systems of liver, heart, kidney, nerve, skin, and eye cells as experimental models to study the cellular and subcellular toxicity of selected xenobiotics. An important aspect of his research has been to establish the retention of differentiated functions in these culture systems, which are similar to their tissue counterparts in the intact animal. Another consideration of his research has been to develop sensitive indices of cytotoxicity to better understand the mechanisms by which these selected xenobiotics cause cellular injury. For example, Dr. Acosta has explored the use of primary cultures of rat myocardial cells to study cell injury associated with simulated ischemic conditions—hypoxia, glucose deprivation, and extracellular acidosis—which resulted in time-related inhibition of beating activity, marked alteration in cellular morphology, leakage of cytoplasmic enzymes and enhanced lysosomal membrane fragility. In addition, he has studied cell injury associated with hypoxic-reoxygenation phenomena and with depletion and repletion of calcium, the so-called calcium paradox. These studies showed that the absence of calcium ions during a hypoxic episode

**Daniel Acosta, Jr.**

potentiated the cellular injury produced upon reoxygenation of hypoxic heart cells. He has also routinely used the myocardial cell culture systems to explore the mechanism of action of selected cardiotoxic agents and to evaluate the toxicity of a variety of compounds as to their effects on the heart. For example, the mechanism of toxicity of isoproterenol was suggested to involve the formation of reactive intermediates, which in turn caused alterations in calcium homeostasis. He has evaluated the cardiotoxicity of such drugs and chemicals as caffeine, free fatty acids, chlorpromazine, tricyclic antidepressants, ethanol, doxorubicin, diazepam, and food additives. For his work with the liver, he has established the capacity of cultured rat hepatocytes to metabolically activate an agent to toxic intermediates, to quantitate the formation of these metabolites, and to assess the cytotoxicity of the formed metabolites to cells in culture. By measuring the distribution of covalent binding of the reactive intermediates of a test agent to macromolecules in various subcellular fractions, the potential sites of cellular damage produced by the agent were identified. He worked with Patrick J. Davis, a colleague at the UT College of Pharmacy, on the development of fungal cellular systems as experimental models to study the toxicity and metabolism of xenobiotics and to serve as an alternative testing system to screen for compounds potentially toxic to higher organisms. Their approach to this problem was to compare and contrast the fungal cell systems to the primary culture system of rat hepatocytes described above.

More recently, Dr. Acosta has worked on the development of primary culture systems of rabbit corneal epithelial cells, conjunctival cells, and iris epithelial cells and primary cultures of rat epidermal keratinocytes as *in vitro* models to evaluate selected chemicals for ocular and dermal toxicity. It is hoped that such systems may eventually serve as alternative testing systems for the Draize and skin irritation tests.

In summary, Dr. Acosta's laboratory has had extensive experience in *in vitro* toxicology and in the development of cell culture systems and methods for assessing cytotoxicity. This type of technology should prove valuable in the development of new drugs by providing pharmacological and toxicological data. Due to Dr. Acosta's administrative position as Dean, he no longer maintains an active laboratory.

DANIEL ACOSTA, JR.

Curriculum Vitae

Personal Data

Birth place: --(b)(6)--

Citizen Status: --(b)(6)--

Marital Status: --(b)(6)--

Home address and telephone number: --(b)(6)--

Business address and telephone number: Winkle College of Pharmacy  
The University of Cincinnati  
P.O. Box 670004  
Cincinnati, Ohio 45267  
(513) 558-3326

Education

<u>Year</u>	<u>Degree</u>	<u>Institution</u>
--(b)(6)--	Pre-Pharmacy	University of Texas; El Paso, Texas.
--(b)(6)--	B.S., Pharmacy	University of Texas; Austin, Texas.
--(b)(6)--	Ph.D., Pharmacology/ Toxicology	University of Kansas; Lawrence, Kansas.

Military Experience

<u>Year</u>	<u>Assignment</u>	<u>Location</u>
--(b)(6)--	Basic Training	Fort Bliss, Texas
--(b)(6)--	Pharmacist; Specialist 4 <sup>th</sup> Class	Hunter Army Airfield; Savannah, Georgia
--(b)(6)--	Pharmacist; Specialist 5 <sup>th</sup> Class	Taegu, South Korea

## Appointments

<u>Month, Year</u>	<u>Position</u>	<u>Institution</u>
9/72-5/74	Research Assistant	University of Kansas; Department of Pharmacology/Toxicology
9/74-8/79	Assistant Professor, Pharmacology and Toxicology	University of Texas at Austin; College of Pharmacy
1979-1983	Associate Professor, Pharmacology and Toxicology	University of Texas at Austin; College of Pharmacy
1983-1996	Professor, Pharmacology and Toxicology	University of Texas at Austin; College of Pharmacy
1985-1996	Associate Head, Pharmacology and Toxicology	University of Texas at Austin, College of Pharmacy
1985-1996	Head, Biochemical Toxicology Program Drug Dynamics Institute	University of Texas at Austin, College of Pharmacy
1990-1996	Director, Toxicology Training Program	University of Texas at Austin College of Pharmacy
1996-present	Dean	University of Cincinnati James L. Winkle College of Pharmacy

## Publications in Print or in Press

1. Wenzel, D.G. and Acosta, D. Permeability of lysosomes and mitochondria in cultured rat heart muscle and endothelioid cells as affected by vitamin A, chlorpromazine, amphotericin B, and clofibrate. *Res. Commun. Chem. Pathol. Pharmacol.* 6:689-700 (1973).
2. Acosta, D., Wenzel, D.G. and Wheatley, J.W. Beating duration of cultured rat heart cells as affected by drugs and other factors. *Pharmacol. Res. Commun.* 6:263-271 (1974).
3. Wenzel, D.G. and Acosta, D. Clofibrate enhancement of stearate-induced permeability of lysosomes and mitochondria in cultured heart muscle and endothelioid cells. *Res. Commun. Chem. Pathol. Pharmacol.* 7:210-204 (1974).

4. Acosta, D. and Wenzel, D.G. Injury produced by free fatty acids to lysosomes and mitochondria in cultured heart muscle and endothelial cells. *Atherosclerosis* 20:417-426 (1974).
5. Wenzel, D.G. and Acosta, D. Labialization of lysosomes and mitochondria in situ by hypoxia-related factors. *Res. Commun. Chem. Pathol. Pharmacol.* 12:173-176 (1975).
6. Wenzel, D.G. and Acosta, D. The use of cultured cells for in situ measurements of mitochondrial fragility. *Tissue Culture Association Manual* 1:221-223 (1975).
7. Acosta, D. and Wenzel, D.G. A permeability test for the study of mitochondrial injury in in vitro cultured heart muscle and endotheloid cells. *Histochem. J.* 7:45-56 (1975).
8. Wenzel, D.G. Acosta, D., and Kretsinger, W.B. Cholesterol and B-lipoprotein on lipid inclusions and lysosomal and mitochondrial permeability of cultured heart muscle and endothelioid cells. *Res. Commun. Chem. Pathol. Pharmacol.* 12:789-792 (1975).
9. Combs, A.B., Acosta, D. and Folkers, K. Prevention by coenzyme Q of the cardiotoxicity of adriamycin in cultured heart cells. *IRCS Medical Science* 4:403 (1976).
10. Acosta, D. and Anuforo, D. Cytotoxicity of caffeine in cultured heart cells. *Toxicology* 6:225-233 (1976)
11. Acosta, D. and Chappell, R. Cardiotoxicity of diazepam in cultured heart cells. *Toxicology* 8:311-317 (1977).
12. Acosta, D. and Anuforo, D. Acute mitochondrial toxicity of caffeine in cultured heart cells. *Drug Chem. Toxicol.* 1:19-24 (1977-1978).
13. Acosta, D. and Puckett, M. Ischemic myocardial injury in cultured heart cells: Preliminary observations on morphology and beating activity. *In Vitro* 13:818-823 (1977).
14. Acosta, D., Puckett, M. and McMillin, R. Ischemic myocardial injury in cultured heart cells: in situ lysosomal damage. *Experientia* 34:1388-1389 (1978).
15. Leslie, S.W., Gad, S.C. and Acosta, D. Cytotoxicity of butylatedhydroxytoluene and butylatedhydroxyanisole in cultured heart cells. *Toxicology* 10:281-289 (1978).
16. Bonner, H.W., Buffington, C.K., Newman, J.J. and Acosta, D. Contractile activity of neonatal heart cells in culture derived from offspring of exercised pregnant rats. *Eur. J. Appl. Physiol.* 39:1-6 (1978).

17. Acosta, D., Puckett, M. and McMillin, R. Ischemic myocardial injury in cultured heart cells: Leakage of cytoplasmic enzymes from injured cells. *In Vitro* 14:728-732 (1978).
18. Acosta, D., Anuforo, D. and Smith, R.V. Primary monolayer cultures of postnatal rat liver cells with extended differentiated functions. *In Vitro* 14:428-436 (1978).
19. Anuforo, D.C., Acosta, D. and Smith, R.V. Hepatotoxicity studies with primary cultures of rat liver cells. *In Vitro* 14:981-988 (1978).
20. Acosta, D., and Cheng-Pei Li. Injury to primary cultures of rat heart endothelial cells by hypoxia and glucose deprivation. *In Vitro* 15:929-934 (1979).
21. Gad, S.C., Leslie, S.W. and Acosta, D. Inhibitory actions of butylatedhydroxytoluene (BHT) on isolated ileal, atrial, and heart preparations. *Toxicol. Appl. Pharmacol.* 49:45-52 (1979).
22. Acosta, D., Puckett, M. and Li, C.P. Reduction of cell injury in hypoxic cultures of rat myocardial cells by methylprednisolone. *In Vitro* 16:93-96 (1980).
23. Acosta, D., Anuforo, D., McMillin, R., Soine, W.H. and Smith, R.V. Comparison of cytochrome P-450 levels in adult rat liver, postnatal rat liver, and primary cultures of postnatal rat hepatocytes. *Life Sciences* 25:1413-418 (1979).
24. Acosta, D., Anuforo, D., and Smith, R.V. Cytotoxicity of acetaminophen and papaverine in primary cultures of rat hepatocytes. *Toxicol. Appl. Pharmacol.* 53:306-314 (1980).
25. Acosta, D., Anuforo, D.C. and Smith, R.V. Preparation of primary monolayer cultures of postnatal rat liver cells. *J. Tiss. Cult. Meth.* 6:35-38 (1980).
26. Acosta, D. and Li, C.P. Actions of extracellular acidosis on primary cultures of rat myocardial cells deprived of oxygen and glucose. *J. Molec. Cell. Cardiol.* 12:1459-1463 (1980).
27. Mitchell, D.B., Santone, K.S. and Acosta, D. Evaluation of cytotoxicity in cultured cells by enzyme leakage. *J. Tiss. Cult. Meth.* 6:113-116 (1980).
28. Mitchell, D.B. and Acosta, D. Evaluation of the cytotoxicity of tricyclic antidepressants in primary cultures of rat hepatocytes. *J. Toxicol. Envir. Health* 7:83-92 (1981).
29. Acosta, D. and Mitchell, D.B. Metabolic activation and cytotoxicity of cyclophosphamide in primary cultures of postnatal rat hepatocytes. *Biochem. Pharmacol.* 30:3225-3230 (1981).
30. Acosta, D., Mitchell, D.B. and Santone, K.S. Lack of cytotoxicity of ticrynafen in cultured hepatocytes. *Toxicol. Lett.* 10:385-388 (1982).

31. Santone, K.S., Acosta, D. and Bruckner, J.V. Cadmium toxicity in primary cultures of rat hepatocytes. *J. Toxicol. Envir. Health* 10:169-177 (1982).
32. Nelson, K.F., Acosta, D. and Bruckner, J.V. Long-term maintenance and induction of cytochrome P-450 in primary cultures of rat hepatocytes. *Biochem. Pharmacol.* 31:2211-2214 (1982).
33. Ekwall, B. and Acosta, D. In vitro comparative toxicity of selected drugs and chemicals in HeLa cells, Chang liver cells, and rat hepatocytes. *Drug Chem. Toxicol.* 5:219-231 (1982).
34. Acosta, D., Ramos, K. and Li-Goldman, C.P. Cellular injury of primary cultures of rat myocytes incubated in calcium-free medium followed by recovery in calcium. *In Vitro* 19:141-144 (1983).
35. Ramos, K. and Acosta, D. Prevention by l(-)-ascorbic acid of isoproterenol-induced cardiotoxicity in primary cultures of rat myocytes. *Toxicology* 26:81-90 (1983).
36. Ramos, K., Combs, A.B. and Acosta, D. Cytotoxicity of isoproterenol to cultured heart cells: Effects of antioxidants on modifying membrane damage. *Toxicol. Appl. Pharmacol.* 70:317-323 (1983).
37. Kyle, G.M., Luthra, R., Bruckner, J.V., MacKenzie, W.F. and Acosta, D. Assessment of functional, morphological, and enzymatic tests for acute nephrotoxicity induced by mercuric chloride. *J. Toxicol. Envir. Hlth.* 12:99-117 (1983).
38. Santone, K.S. and Acosta, D. Measurement of functional metabolic activity as a sensitive parameter of cytotoxicity in cultured hepatocytes. *J. Tiss. Cult. Meth.* 7:137-142 (1982).
39. Ramos, K., Combs, A.B. and Acosta, D. Role of calcium in isoproterenolcytotoxicity to cultured myocardial cells. *Biochem. Pharmacol.* 33:1989-1992 (1984).
40. Acosta, D., Combs, A.B. and Ramos, K. Attenuation by antioxidants of Na<sup>+</sup>/K<sup>+</sup> ATPase inhibition by toxic concentrations of isoproterenol in cultured rat myocardial cells. *J. Mol. Cell. Cardiol.* 16:281-284 (1984).
41. Acosta, D. and Ramos, K. Cardiotoxicity of tricyclic antidepressants in primary cultures of rat myocardial cells. *J. Toxicol. Envir. Hlth.* 14:137-143 (1984).
42. Acosta, D., Ramos, K. and Li-Goldman, C.P. Cell injury of cultured rat myocardial cells after reoxygenation of hypoxic cultures in the presence and absence of calcium. *In Vitro.* 20:642-646 (1984).
43. Butler, A.W., Farrar, R.P. and Acosta, D. The effects of cardioactive drugs on the beating activity of myocardial cell cultures isolated from offspring of trained and untrained pregnant rats. *In Vitro* 20:629-634 (1984).

44. Sorensen, E.M.B., Smith, N.K.R., Boecker, C.S. and Acosta, D. Calcium amelioration of cadmium-induced cytotoxicity in cultured rat hepatocytes. *In Vitro* 20:771-779 (1984).
45. Sorensen, E.M.B. and Acosta, D. Cadmium-induced hepatotoxicity in cultured rat hepatocytes as evaluated by morphometric analysis. *In Vitro* 20:763-770 (1984).
46. Ramos, K. and Acosta, D. Accumulation of <sup>45</sup>calcium as an index of cell injury and cytotoxicity in cultured cells. *J. Tissue Cult. Meth.* 9:3-5 (1984).
47. Nealon, D.G., Sorensen, E.M.B. and Acosta, D. A fluorescence polarization procedure for the evaluation of the effects of cadmium and calcium on plasma membrane fluidity. *J. Tissue Cult. Meth.* 9:11-17 (1984).
48. Sorensen, E.M.B., Ramirez-Mitchell, R. and Acosta, D. Stereographic evaluation of cellular changes in vivo or in vitro. *J. Tissue Cult. Meth.* 9:23-28 (1984).
49. Combs, A.B., Acosta, D. and Ramos, K. Effects of doxorubicin and verapamil on calcium uptake in primary cultures of rat myocardial cells. *Biochem. Pharmacol.* 34:1115-1116 (1985).
50. Butler, A.W., Smith, M.A., Farrar, R.P. and Acosta, D. Ethanol toxicity in primary cultures of rat myocardial cells. *Toxicology* 36:61-70 (1985).
51. Sorensen, E.M.B., Nealon, D.G. and Acosta, D. Effects of cadmium and calcium on the fluidity of plasma membranes. *Toxicol. Lett.* 25:319-326 (1985).
52. Sorensen, E.M.B. and Acosta, D. Comparison of dantrolene sodium with erythromycin estolate using primary cultures of rat hepatocytes. *Drug Chem. Toxicology* 8:219-237 (1985).
53. Mitchell, D.B., Acosta, D. and Bruckner, J.V. Role of glutathione depletion in the cytotoxicity of acetaminophen in a primary culture system of rat hepatocytes. *Toxicology* 37:127-146 (1985).
54. Acosta, D., Anuforo, D., Mitchell, D., Santone, K. and Nelson, K. A primary cell culture system for hepatotoxic assessment. *Lab Animal* 14:31-36 (1985).
55. Sorensen, E.M.B. and Acosta, D. Erythromycin estolate-induced toxicity in cultured rat hepatocytes. *Toxicol. Letters* 27:73-82 (1985)
56. Sorensen, E.M.B. and Acosta, D. Relative toxicities of several nonsteroidal anti-inflammatory compounds in primary cultures of rat hepatocytes. *J. Toxicol. Envir. Hlth.* 16:425-440 (1985).
57. Bruckner, J.V., MacKenzie, W.F., Muralidhara, S., Luthra, R., Kyle, G.M. and Acosta, D. Oral toxicity of carbon tetrachloride: acute, subacute, and subchronic studies in rats. *Fund. Appl. Toxicol.* 6:16-34 (1986).

58. Acosta, D. and Bradlaw, J. Symposium: Application of Cell Culture to Toxicology. *Fund. Appl. Toxicol.* 6: 579 (1986).
59. Acosta, D. Stege, T.E. and Erickson, C.K. Cytotoxicity of ethanol in primary cultures of rat midbrain neurons. *Toxicol. Letters* 30: 231-235 (1986).
60. Smith, M.A. and Acosta, D. Development of a primary culture system of rat kidney cortical cells to evaluate the nephrotoxicity of xenobiotics. *Food Chem. Toxicol.* 24:551-556 (1986).
61. Butler, A.W., Smith, M.A., Farrar, R.P. and Acosta, D. Attenuation of ethanol toxicity in primary myocardial cell cultures from offspring of swim-trained rats. *Toxicol. In Vitro* 1:39-44 (1987).
62. Smith, M.A., Acosta, D. and Bruckner, J.V. Cephaloridine toxicity in primary cultures of rat renal cortical epithelial cells. *Toxicol. In Vitro* 1:23-29 (1987).
63. Butler, A.W., Smith, M.A., Farrar, R.P. and Acosta, D. The effects of ethanol on cellular calcium content in primary myocardial cell cultures from offspring of sedentary and swim-trained pregnant rats. *Biochem. Biophys. Res. Commun.* 142:496-500 (1987).
64. Norbury, K.C., Sandifer, S., Carthage, Sorensen, E.M., and Acosta, D. An interlaboratory study using postnatal rat hepatocytes to measure in vitro toxicity of known hepatotoxins. *In Vitro Toxicol.* 1:193-203 (1987).
65. Kisby, G.E., and Acosta, D. Cytotoxic effects of aluminum in hippocampal, cerebellar, and astrocyte cell cultures. *In Vitro Toxicol.* 1:85-102 (1987).
66. Welder, A.A., Smith, M.A., Ramos, K. and Acosta, D. Cocaine-induced cardiotoxicity in vitro. *Toxicol. In Vitro* 2:205-213 (1988).
67. Welder, A.A., Machu, T., Leslie, S.W., Wilcox, R.E., Bradlaw, J. and Acosta, D. Beta-adrenergic receptor characteristics of postnatal rat myocardial cell preparations. *In Vitro Cell. Dev. Biol.* 24:771-777 (1988).
68. Mbugua, P.M., Welder, A.A. and Acosta, D. Cardiotoxicity of Jamesoni's mamba venom and its fractionated components in primary cultures of rat myocardial cells. *In Vitro Cell. Dev. Biol.* 24:743-752 (1988).
69. Mbugua, P.M., Welder, A.A., and Acosta, D. Cardiotoxicity of Kenyan green mamba venom and its fractionated components in primary cultures of rat myocardial cells. *Toxicology* 52:187-207 (1988).
70. Smith, M.A., Swann, J. and Acosta, D. Isolation and primary culture of rat renal cortical epithelial cells. *J. Tissue Cult. Meth.* 11:207-210 (1988).
71. Welder, A.A., Park, Y., Bradlaw, J. and Acosta, D. Cardiotoxicity of amitriptyline in primary cultures of rat myocardial cells. *In Vitro Toxicol.* 2:109-116 (1989).

72. Davila, J.C., Lenherr, A. and Acosta, D. Protective effect of flavonoids on drug-induced hepatotoxicity *in vitro*. *Toxicology* 57:267-286 (1989).
73. Davila, J.C., Reddy, C.G., Davis, P.J. and Acosta, D. Toxicity assessment of papaverine hydrochloride and paverine-derived metabolites in primary cultures of rat hepatocytes. *In Vitro Cell. Dev. Biol.* 26:515-524 (1990).
74. Davila, J.C., Davis, P.J. and Acosta, D. Cytotoxic effects of papaverine hydrochloride in liver cell cultures. *In Vitro Toxicol.* 3:229-241 (1990).
75. Swann, J.D. and Acosta, D. Failure of gentamicin to elevate cellular malondialdehyde content or increase generation of intracellular reactive oxygen species in primary cultures of renal cortical epithelial cells. *Biochem. Pharmacol.* 40:1523-1526 (1990).
76. Davila, J.C., Hsieh, G.C., Acosta, D. and Davis, P.J. Cytotoxicity induced by papaverine hydrochloride in fungal cell systems. *Toxicol. Lett.* 54:23-31 (1990).
77. Swann, J.D., Ulrich, R. and Acosta, D. Lack of changes in cytosolic calcium in primary cultures of rat kidney cortical cells exposed to cytotoxic concentrations of gentamicin. *Toxicol. Appl. Pharmacol.* 106:38-47 (1990).
78. Hsieh, G.C. and Acosta, D. Dithranol-induced cytotoxicity in primary cultures of rat epidermal keratinocytes. *Toxicol. Appl. Pharmacol.* 107:16-26 (1991).
79. Chacon, E. and Acosta, D. Mitochondrial regulation of superoxide by Ca<sup>2+</sup>: An alternate mechanism for the cardiotoxicity of doxorubicin. *Toxicol. Appl. Pharmacol.* 107:117-128 (1991).
80. Davila, J.C., Davis, P.J. and Acosta, D. Changes in glutathione and cellular energy as potential mechanisms of papaverine-induced hepatotoxicity *in vitro*. *Toxicol. Appl. Pharmacol.* 108:28-36 (1991).
81. Davila, J.C., Dorantes, A., Stavchansky, S.A. and Acosta, D. The cytotoxicity of p-chloro-m-xyleneol in primary culture of rat hepatocytes. *Pharmaceut. Res.* 8:656-657 (1991).
82. Yang, W., Jiang, T., Davis, P.J., and Acosta, D. *In vitro* metabolism and toxicity assessment of N-methylcarbazole in primary cultured rat hepatocytes. *Toxicology* 68:217-226 (1991).
83. Swann, J.D., Ulrich, R. and Acosta, D. Lack of changes in cytosolic ionized calcium in primary cultures of rat kidney cortical cells exposed to cytotoxic concentrations of gentamicin: a fluorescent digital imaging method for assessing changes in cytosolic ionized calcium. *Toxicol. Meth.* 1:161-171 (1991).
84. Welder, A.A., Grant, R., Kutschke, R.L., Anthony, M., Bradlaw, J. and Acosta, D. Effects of maternal calorie-restricted diet on development of the fetal heart, as evaluated in primary cultures of rat myocardial cells. *Food Chem. Toxicol.* 29:445-452 (1991).

85. Davila, J.C., Rodriguez, M. and Acosta, D. Toxicological studies of gossypol in primary culture of postnatal rat hepatocytes. *In Vitro Toxicol.* 4:161-170 (1991).
86. Chacon, E., Ulrich, R. and Acosta, D. A digitized fluorescence imaging study of mitochondrial Ca<sup>2+</sup> increase by doxorubicin in cardiac myocytes. *Biochem. J.* 281:871-878 (1992).
87. Garza-Ocanas, L., Hsieh, G.C., Acosta, D., Torres-Alanis, O. and Piñeyro, A. Toxicity assessment of toxins T-514 and T-544 of buckthorn in primary skin and liver cell cultures. *Toxicology* 73:191-201 (1992).
88. Yang, W., Jiang, T., Acosta, D. and Davis, P.J. Production of a toxic novel mammalian metabolite of N-methyl-carbazole predicted by a fungal cell model of mammalian metabolism. *Toxicol. Letters* 60:307-314 (1992).
89. Yao, C. and Acosta, D. Surfactant cytotoxicity potential evaluated with primary cultures of ocular tissues: A method for the culture of rabbit conjunctival epithelial cells and initial cytotoxicity studies. *Toxicol. Methods* 2:199-218 (1992).
90. Welder, A.A., Grant, R., Bradlaw, J. and Acosta, D. A primary culture system of adult rat heart cells for the study of toxicologic agents. *In Vitro Cell Dev. Biol.* 27A:921-926 (1991).
91. Grant, R.L., Yao, C., Gabaldon, D., and Acosta, D. Evaluation of surfactant cytotoxicity potential by primary cultures of ocular tissues. I. Characterization of rabbit corneal epithelial cells and initial injury and delayed toxicity studies. *Toxicology* 76:153-176 (1992).
92. Yang, W., Jiang, T., Acosta, D. and Davis, P.J. Microbial models of mammalian metabolism: involvement of cytochrome P450 in the N-demethylation of N-methylcarbazole by *Cunninghamella echinulata*. *Xenobiotica* 23:973-982 (1993).
93. Jiang, T. and Acosta, D. An in vitro model of cyclosporine-induced nephrotoxicity. *Fund. Appl. Toxicol.* 20:486-495 (1993).
94. Giridhar, J. and Acosta, D. Evaluation of cytotoxicity potential of surfactants using primary rat keratinocyte culture as an in vitro cutaneous model. *In Vitro Toxicol.* 6:33-46 (1993).
95. Jiang, T., Grant, R.L. and Acosta, D. A digitized fluorescence imaging study of intracellular free calcium, mitochondrial integrity and cytotoxicity in rat renal cells exposed to ionomycin, a calcium ionophore. *Toxicology* 23:41-65 (1993).
96. Yang, W. and Acosta, D. Cytotoxicity potential of surfactant mixtures evaluated by primary cultures of rabbit corneal epithelial cells. *Toxicol. Letters* 70:309-318 (1994).
97. Grant, R.L. and Acosta, D. Comparative toxicity of tetracaine, proparacaine and cocaine evaluated with primary cultures of rabbit corneal epithelial cells. *Exp. Eye Res.* 58:469-478 (1994).

98. Abdul-Hussain, S. and Acosta, D. In vitro model to evaluate the cytotoxicity of two groups of surfactant mixtures with rat keratinocyte cultures. *Toxic Subst. J.* 13:1-14 (1994).
99. Garza-Ocanas, L., Jiang, T., Acosta, D., Torres-Alanis, O., Waksman de Torres, N. and Pineyro-Lopez, A. Comparison of the hepatotoxicity of toxin T-514 of *KarwiniaHumboldtiana* and its diastereoisomer in primary liver cell cultures. *Toxicon*32:1287-1291 (1994).
100. Yuan, C. and Acosta, D. Inhibitory effect of cocaine on calcium mobilization in cultured rat myocardial cells. *J. Mol. Cell. Cardiol.* 26:1415-1419 (1994).
101. Grant, R.L. and Acosta, D. A digitized fluorescence imaging study on the effects of local anesthetics on cytosolic calcium and mitochondrial membrane potential in cultured rabbit corneal epithelial cells. *Toxicol. Appl. Pharmacol.* 129:23-35 (1994).
102. Grant, R.L. and Acosta, D. Delayed toxicity of benzalkonium chloride and sodium dodecyl sulfate evaluated in primary cultures of rabbit corneal epithelial cells. *Toxicol. Meth.* 4:259-273 (1994).
103. Jiang, T. and Acosta, D. Mitochondrial Ca<sup>2+</sup> overload in primary cultures of rat renal cortical epithelial cells by cytotoxic concentrations of cyclosporine: a digitized fluorescence imaging study. *Toxicology* 95:155-166 (1995).
104. Rodriguez, R.J. and Acosta, D. Comparison of ketoconazole- and fluconazole-induced hepatotoxicity in a primary culture system of rat keratinocytes. *Toxicology* 96:83-92 (1995).
105. Al Casey, S., Brewster, D., Viau, C. and Acosta, D. Effect of glutathione depletion and oxidative stress on the in vitro cytotoxicity of velnacrinemaleate. *Toxicol. Lett.* 76:257-265 (1995).
106. Yang, W. and Acosta, D. A digitized fluorescence imaging study of intracellular calcium, pH, and mitochondrial function in primary cultures of rabbit corneal epithelial cells exposed to sodium dodecyl sulfate. *In Vitro Cell. Dev. Biol.* 31:499-507 (1995).
107. Grant, R.L. and Acosta, D. Interactions of intracellular pH and intracellular calcium in primary cultures of rabbit corneal epithelial cells. *In Vitro Cell. Dev. Biol.* 32:38-45 (1996).
108. Melchert, R.B., Levin, P.S. and Acosta, D. Cardiotoxicity of nonsedating antihistamines in vitro. *In Vitro. Toxicol.* 9:431-440 (1996).
109. Rodriguez, R. J. and Acosta, D. Inhibition of mitochondrial function in isolated rat liver mitochondria by azoleantifungals. *J. Biochem. Toxicol.* 11:127-131 (1996).

110. Grant, R. L. and Acosta, D. Prolonged adverse effects of benzalkonium chloride and sodium dodecyl sulfate in a primary culture system of rabbit corneal epithelial cells. *Fund. Appl. Toxicol.* 33:71-82 (1996).
111. Yuan, C. and Acosta, D. Cocaine-induced mitochondrial dysfunction in primary cultures of rat cardiomyocytes. *Toxicology* 112:1-10 (1996).
112. Yuan, C. and Acosta, D. Dissociation of the cytotoxicity of cocaine from its local anesthetic effect: A comparison with lidocaine. *Toxicol. In Vitro* 10:195-204 (1996).
113. Yuan, C. and Acosta, D. Effect of acute cocaine exposure on cell viability evaluated in a hypoxia/reoxygenation model of primary cultures of rat myocardial cells. *In Vitro Toxicol.* 9:67-72 (1996).
114. Rodriguez, R. J. and Acosta, D. N-deacetylketoconazole-induced hepatotoxicity in a primary culture system of rat hepatocytes. *Toxicology* 117:123-131 (1997).
115. Grant, R. L. and Acosta, D. Ratiometric measurement of intracellular pH of cultured cells with BCECF in a fluorescence multi-well plate reader. *In Vitro Cell. Dev. Biol.* 33:256-260 (1997).
116. Rodriguez, R. J. and Acosta, D. Metabolism of ketoconazole and deacetylatedketoconazole by rat hepatic microsomes and flavin-containing monooxygenases. *Drug Metab. Disp.* 25:772-777 (1997).
117. Harbell, J. W. *et al.* Cell cytotoxicity assays. *Food Chem. Toxicol.* 35:79-126 (1997).
118. Davila, J.C., Rodriguez, R. J., Melchert, R.B., and Acosta, D. Predictive value of in vitro model systems in toxicology. *Annu. Rev. Pharmacol. Toxicol.* 38:63-96 (1998).
119. Yuan, Cai and Acosta, D. Effect of cocaine on mitochondrial electron transport chain evaluated in primary cultures of neonatal rat myocardial cells and in isolated mitochondrial preparations. *Drug Chem. Toxicol.* 23: 339-348 (2000).
120. Bruckner, J.V., Kyle, G.M., Luthra, R., Acosta, D., et al. Acute, short-term, and sub-chronic oral toxicity of 1,1,1-trichloroethane in rats. *Toxicol. Sci.* 60: 363-372 (2001).
121. Muralidhara, S., Ramanathan, R., Mehta, S.M., Lash, L.H., Acosta, D., and Bruckner, J.V. Acute, subacute, and subchronic oral toxicity studies of 1,1-dichloroethane in rats: Application to risk assessment. *Toxicol. Sci.* 64: 135-145 (2001).
122. Garza-Ocanas, L., Zanatta-Calderon, M.T., Acosta, D., Torres-Alaniz, and Pineyro-Lopez, A. Production of reactive oxygen species by toxin T-514 of genus *Karwinskia* in vitro. *Toxicol. In Vitro* 17: 19-25 (2003).

**Books and Chapters or Reviews in Monographs, Proceedings, or Symposia**

Smith, R.V., Acosta, D. and Rosazza, J.P. Cellular and microbial models in the investigation of mammalian metabolism of xenobiotics. *Adv. Biochem. Eng.* 5:69-100 (1977).

- Acosta, D. and Sorensen, E.M.B. Role of calcium in cytotoxic injury of cultured hepatocytes. *Ann. N.Y. Acad. Sci.* 407:78-92 (1983).
- Bruckner, J.V., Luthra, R., Kyle, G.M., Muralkidhara, S., Ramanathan, R. and Acosta, D. Influence of time of exposure to CCl<sub>4</sub> on toxic liver injury. *Ann. Rev. Chronopharmacol.* 1:373-376 (1984).
- Acosta, D., Mitchell, D.B. and Bruckner, J.V. Hepatotoxicity: An in vitro approach to the study of metabolism and toxicity of chemicals and drugs using cultured rat hepatocytes. *Safety Evaluation and Regulation of Chemicals 2.* Homburger, F. (ed.) Karger, Basel.pp.305-317 (1985).
- Acosta, D., Sorensen, E.M.B., Anuforo, D.C., Mitchell, D.B., Ramos, K., Santone, K.S. and Smith, M.A. An in vitro approach to the study of target organ toxicity of drugs and chemicals. *In Vitro Cell. Dev. Biol.* 9:495-504 (1985).
- Sorensen, E.M.B. and Acosta, D. Protective effects of calcium in the amelioration of cadmium-induced cytotoxicity in cultured murineparenchymalhepatocytes. *In Vitro Toxicology Alternative Methods in Toxicology, Vol.3,* pp.101-139, Mary Ann Liebert Publishers, New York (1985).
- Acosta, D., Mitchell, D., Sorensen, E.M., and Bruckner, J.V. The metabolism and toxicity of xenobiotics in a primary culture system of postnatal rat hepatocytes. In: *The Isolated Hepatocyte*, E.J. Rauckman and G.M. Padilla (Eds.), Academic Press, New York, pp. 189-214 (1987).
- Santone, K.S., Acosta, D., Stavchansky, S.A. and Bruckner, J.V. The use of primary cultures of postnatal rat hepatocytes to investigate carbon tetrachloride-induced cytotoxicity. In: *Liver Cells and Drugs*, A. Guillouzo, Ed., John LibbeyEurotext Limited. Vol. 164, pp. 31-233 (1988).
- Ramos, K. and Acosta, D. Cytotoxic actions of isoproterenol in cardiac cells: protective effects of antioxidants. In: *CRC Handbook of Free Radicals and Antioxidants in Biomedicine*, J. Miguel, A. Quintanilha, and H. Weber, Eds., CRC Press, Vol. II, pp. 177-185 (1989).
- Ramos, K. and Acosta, D. Primary cultures of newborn rat myocardial cells as a model system to evaluate the cardiotoxicity of drugs and chemicals. In: *In Vitro Models in Toxicology*, C.A. McQueen, Ed., The Telford Press, Caldwell, N.J., pp. 163-193 (1989).
- Acosta, D., Combs, A.B. and Ramos, K. Cardiovascular Toxicity. In: *Introduction to Biochemical Toxicology*, 2<sup>nd</sup> Edition, E. Hodgson and P.E. Levi, Eds., pp. 547-567 (1994).
- Acosta, D. (Editor). *Cellular and Molecular Toxicology and In Vitro Toxicology*, CRC Press, Inc., Boca Raton, FL (1990).
- Ramos, K. and Acosta, D. Cardiovascular toxicity. In: *In Vitro Toxicity Testing*, J.M. Frazier, Ed., Marcel Dekker, New York, pp. 131-148 (1992).

Acosta, D. (Editor). Cardiovascular Toxicology, 2<sup>nd</sup> Edition, Raven Press, Ltd., New York (1992).

Acosta, D., Chacon, E. and Ramos, K.S. Cardiovascular toxicology: introductory notes. In: Cardiovascular Toxicology, 2<sup>nd</sup> Edition, D. Acosta, Ed., Raven Press, New York, pp. 3-17 (1992).

Acosta, D., Ramos, K., Smith, M.A., Swann, J. and Davila, J. An in vitro approach to the study of target organ toxicity. In: In Vitro Methods in Toxicology, G. Jolles and A. Cordier, Eds., Academic Press, New York, pp. 43-56 (1992).

Welder, A.A. and Acosta, D. Preparation of primary cultures of postnatal rat myocardial cells for toxicological studies. In: In Vitro Biological Systems, Part A - Methods in Toxicology, C.A. Tyson and J.M. Frazier, Eds. Academic Press, New York, pp. 147-158 (1993).

Davila, J.C. and Acosta, D. Preparation of primary monolayer cultures of postnatal rat liver cells for hepatotoxic assessment of xenobiotics. In: Methods in Toxicology - In Vitro Biological Systems, Part A, C.A. Tyson and J.M. Frazier, Eds., Academic Press, New York, pp. 244-254 (1993).

Ramos, K. and Acosta, D. Application of in vitro model systems to the study of cardiovascular toxicity. In: In Vitro Toxicology, S. Gad, Ed., Raven Press, New York, pp. 221-230 (1994).

Welder, A.A. and Acosta, D. Enzyme leakage as an indicator of cytotoxicity in cultured cells. In: In Vitro Toxicity Indicators - Methods in Toxicology, Vol. 1B, C.A. Tyson and J.M. Frazier, Eds., Academic Press, New York, pp. 46-49 (1994).

Grant, R.L. and Acosta, D. Models of toxicity screening using cultured cells. In: Cell Biology of Trauma, J.J. Lemasters and C., Oliver, Eds., CRC Press, Boca Raton, pp. 3-23 (1995).

Ramos, K., Chacon, E. and Acosta, D. Toxic responses of the heart and vascular systems. In: Casarett and Doull's Toxicology, 5<sup>th</sup> Edition, C.D. Klaassen, Editor, McGraw-Hill, New York, pp. 487-527 (1996).

Grant, R. L., Acosta, D. and Smith, M. A. Experimental models for investigation of toxicological mechanisms. In: Comprehensive Toxicology, Vol. 1 – General Principles, J. Bonds, Editor, Pergamon, New York, pp. 205-218 (1997).

Acosta, D. et al. In vitro evaluation of cardiac and myocyte function. In: Comprehensive Toxicology, Vol. 6 – Cardiovascular Toxicology, S. P. Bishop and W. D. Kerns, Editors, Pergamon, New York, pp. 167-188 (1997).

Rodriguez, R.J. and Acosta, D. Cardiac toxicology. In: Heart Physiology and Pathophysiology, 4<sup>th</sup> Edition, N. Sperelakis et al., Editors, Academic Press, San Diego, pp. 1211-1224 (2000).

Ramos, K.S. and Acosta, D. Application of in vitro model systems to study cardiovascular toxicity. In: *In Vitro Toxicology*, 2<sup>nd</sup> Edition, Shayne C. Gad, Editor, Taylor & Francis, New York, pp. 305-325 (2000).

Combs, A.B., Ramos, K., and Acosta, D. Cardiovascular toxicity. In: *Introduction to Biochemical Toxicology*, Third Edition, E. Hodgson and R. C. Smart, Editors, Wiley InterScience, New York, pp. 673-696 (2001).

Acosta, D. (Editor). *Cardiovascular Toxicology*, 3<sup>rd</sup> Edition, Taylor & Francis, London & New York, 2001.

Ramos, K.S., Melchert, R.B., Chacon, E., and Acosta, D. Toxic Responses of the Heart and Vascular Systems. In: *Casarett & Doull's Toxicology*, 6<sup>th</sup> Edition, Curtis D. Klaassen, Editor, McGraw Hill, New York, pp.597-651 (2001).

Melchert, R.B., Yuan, C., and Acosta, D. Cardiovascular Toxicology-Introductory Notes. In: *Cardiovascular Toxicology*, 3<sup>rd</sup> Edition, Daniel Acosta, Jr., Editor, Taylor & Francis, London & New York, pp. 3-30 (2001).

Melchert, R.B., Kennedy, R.H., and Acosta, D. Cardiovascular Effects of Steroidal Agents. In: *Cardiovascular Toxicology*, 3<sup>rd</sup> Edition, Daniel Acosta, Jr., Editor, Taylor & Francis, London & New York, pp. 425-475 (2001).

Jiang, T.T. and Acosta, D. Pharmaceuticals, In: *Patty's Toxicology*, John Wiley and Sons, 2004; Article Online Posting Date: April 15, 2005.

Toxicity Testing for Assessment of Environmental Agents, Interim Report, National Research Council of the National Academies, Committee on Toxicity Testing and Assessment of Environmental Agents (one of 23 members on the committee responsible for the writing of the book), The National Academies Press, Washington, D.C. (2006).

Toxicity Testing in the Twenty-First Century: A Vision and a Strategy, National Research Council of the National Academies, Committee on Toxicity Testing and Assessment of Environmental Agents (one of 23 members of the committee responsible for the writing of the book). The National Academies Press, Washington, D.C. (2007).

Combs, A.B. and Acosta, D. An Introduction to Toxicology and its Methodologies. In: *Computational Toxicology*, Sean Ekins, Editor. John Wiley and Sons, New York, pp. 3-20 (2007).

Acosta, D. (Editor). *Cardiovascular Toxicology* (4<sup>th</sup> Edition), Taylor and Francis, 2008.

Grant, R.L., Combs, A.B., and Acosta, D. Experimental Models for the Investigation of Toxicological Mechanisms. In: Charlene A. McQueen, *Comprehensive Toxicology*, 2<sup>nd</sup> ed., Academic Press, Oxford, Volume 1, pp. 203-224 (2010).

#### Invited papers and lectures

American College of Sports Medicine, 24<sup>th</sup> Annual Meeting, 1977, "Rat Neonatal Heart Cell Response to Exercise During Pregnancy," (with C. Buffington, J. Newman, and H. Bonner).

Tissue Culture Association, 28<sup>th</sup> Annual Meeting, 1977, "Ischemic Myocardial Injury in Cultured Heart Cells," (with M. Puckett). *In Vitro* 13:168-169 (1977).

Texas Medical Association, Forum of original Research, 1977 Annual Session, "Primary Liver Cell Culture as a New Tool for Drug Metabolism and Toxicity Studies," (with D. Anuforo).

Tissue Culture Association, Texas Branch, Spring Meeting, 1977 Annual Session, "An In Vitro Model of Myocardial Ischemia with Cultured Heart Cells," (with R. McMillin).

A.Ph.A. Academy of Pharmaceutical Sciences, 23<sup>rd</sup> National Meeting, November 1977 "Development of a Primary Culture System of Neonatal Liver Cells as an Experimental Tool for Pharmacologic/Toxicology Studies," (with D. Anuforo, D.M. Baaske, and R.V. Smith).

University of Southern California, School of Pharmacy, Invited lecture on "Myocardial Injury in Cultured Heart Cells," June, 1977.

Society of Toxicology, 17<sup>th</sup> Annual Meeting, March, 1978, "The Use of Primary Liver cell cultures to Study Hepatotoxic Agents," (with D.C. Anuforo and R.V. Smith).

University of Kentucky, School of Pharmacy, Invited Lecture on "Hepatotoxicity Studies in Cultured Liver Cells," October 1, 1978.

Tissue Culture Association, 29<sup>th</sup> Annual Meeting, June, 1978, "The Use of Cytoplasmic Enzyme Leakage by Primary Liver Cell Cultures to Study Hepatotoxic Agents," (with D.C. Anuforo and R. V. Smith). *In Vitro* 14:346 (1978).

Tissue Culture Association, Texas Branch Fall Meeting, 1978, "Hepatotoxicity Studies in Cultured Liver Cells."

Tissue Culture Association, 29<sup>th</sup> Annual Meeting, June 1978, "Ischemic Myocardial Injury in Cultured Heart Cells: Leakage of Cytoplasmic Enzymes." *In Vitro* 14:364 (1978).

Joint Meeting of the American Society for Pharmacology and Experimental Therapeutics and Society of Toxicology, August 13-17, 1978. "Inhibition of Ileum and Atrium by BHT and BHA," (with S.C. Gad and S.W. Leslie). *Pharmacologist* 20:249 (1978).

University of California at San Francisco, Invited Lecture on "Effect of Hepatotoxic Agents in Primary Liver Cell Cultures," February, 1979.

Society of Toxicology, 18<sup>th</sup> Annual Meeting, March, 1979, "Cardiovascular Toxicity of BHT and BHA," (with S.C. Gad and S.W. Leslie).

FASEB Spring Meeting, April, 1979 American Society for Pharmacology and Experimental Therapeutics, "Cytochrome P-450 Levels and O-Demethylation Activity in Cultures of Rat Hepatocytes," (with D. Anuforo, R. Smith, R. McMillin and W. Soine). *Fed. Proc.* 38:366 (1979).

Tissue Culture Association, 30<sup>th</sup> Annual Meeting, June, 1979, "Effects of Some Agents on Cytochrome P-450 Content of Primary Liver Cell Cultures," (with D.C. Anuforo and R.V. Smith). *In Vitro* 15:189 (1979).

NATO International Congress on In Vitro Toxicity Testing of Environmental Agents, September 22-28, 1978, Monte Carlo. "Cellular Model of Hepatotoxicity Evaluation of Xenobiotics."

Tissue Culture Association, 31<sup>st</sup> Annual Meeting, June, 1980, "Reduction of Myocardial Injury by Methylprednisolone in Primary Cultures of Rat Heart Cells Exposed to Hypoxia and Glucose Deprivation," (with C.P. Li). *In Vitro* 16:260 (1980).

Tissue Culture Association, 31<sup>st</sup> Annual Meeting, June 1980, "Cytotoxicity of Tricyclic Antidepressants in Cultured Rat Hepatocytes," (with D.B. Mitchell). *In Vitro* 16:225 (1980).

Gordon Research Conferences, July 28-August 1, 1980. Invited lecture on “Primary Cultures of Rat Hepatocytes as Experimental Models to Study Chemical and Metabolism-mediated Cytotoxicity.”

International Workshop on the Application of Tissue Culture in Toxicology, July 4-5, 1980, Soesterbrgs, The Netherlands, “Use of Primary Cultures of Rat Hepatocytes as a Testing System for Hepatotoxic Chemicals,” (with J.V. Bruckner).

Upjohn Company, Invited Lecture on “Evaluation of Hepatotoxic Agents with Cultured Liver Cells,” September, 16, 1980.

Texas Tech University, Invited Lecture on “The Use of Primary Cultures of Liver Cells in Drug Metabolism and Toxicity Studies,” December 2, 1980.

University of Alabama, Invited Lecture on “The Development of Cultured Liver Cells for Use in Drug Metabolism and Toxicologic Studies,” February 9, 1981.

Society of Toxicology, 20<sup>th</sup> Annual Meeting, March, 1981, “The Metabolism-Mediated Activation of Cyclophosphamide to Cytotoxic Intermediates in Primary Cultures of Rat Hepatocytes,” (with D.B. Mitchell). *Toxicologist* 1:126 (1981).

Tissue Culture Association, 32<sup>nd</sup> Annual Meeting, June, 1981, “The Effect of Culture Medium Supplements on Glutathione Levels in Primary Cultures of Postnatal Rat Hepatocytes,” (with D.B. Mitchell). *In Vitro* 17:243 (1981).

Tissue Culture Association, 32<sup>nd</sup> Annual Meeting June, 1981, “Measurement of Functional Metabolic Activity as a Useful Parameter of Cytotoxicity in Cultured Postnatal Rat Hepatocytes,” (with K.S. Santone). *In Vitro* 17:243 (1981).

American Association for Clinical Chemistry—Texas Section, April 10, 1981, Arlington, Texas, “Metabolic Activity as a Functional Parameter in Evaluating Toxicants in Cultured Hepatocytes,” (with K.S. Santone).

FASEB Spring Meeting, April, 1981, “Effect of Isoproterenol on Beating Rates of Cultured Heart Cells,” (with H.W. Bonner, A.W. Butler, and J.H. Merz). *Fed. Proc.* 40:241 (1981).

Society of Toxicology, 21<sup>st</sup> Annual Meeting, February, 1982, “In Vitro Hepatotoxicity of the Glutathione Depletors Diethylmaleate, Iodoacetamide, and Acetaminophen,” (with D.B. Mitchell). *Toxicologist* 2:67 (1982).

Society of Toxicology, 21<sup>st</sup> Annual Meeting, February, 1982, “D-Galactosamine Cytotoxicity in Primary Cultures of Postnatal Rat Hepatocytes,” (with K.S. Santone). *Toxicologist* 2:68 (1982).

Tissue Culture Association, 33<sup>rd</sup> Annual Meeting, June, 1982 “Protective Effect of Calcium on Cadmium-induced Cytotoxicity in Cultured Rat Hepatocytes,” *In Vitro* 18:288 (1982).

Tissue Culture Association, 33<sup>rd</sup> Annual Meeting, June, 1982 “Development of a Primary Culture System of Postnatal Rat Hepatocytes which Retains High Levels of Cytochrome P-450 Activity,” *In Vitro* 18:303 (1982).

Second International Workshop on the Application of Tissue Culture in Toxicology, June, 1982, Stockholm. “The Problems of Obtaining Cells In Vitro with Structure, Functions, and Activities Closer to That In Vivo.” Plenary speaker for the session.

Society of Toxicology-ASPET Joint Meeting, August, 1982. “Effects of HgCl<sub>2</sub> on Alkaline Phosphatase Activity, Lactate Dehydrogenase, and Cell Morphology in Primary Renal Epithelial Cell Cultures,” (with M.A. Smith). *Toxicologist* 2:146 (1982).

Society of Toxicology-ASPET Joint Meeting, August, 1982, "Prevention by l-ascorbic acid of isoproterenol-induced cardiotoxicity in primary cultures of rat myocytes," (with K. Ramos). *Toxicologist* 2:147 (1982).

New York Academy of Sciences, October, 1982, "Cytotoxicity in Cultured Hepatocytes." Main speaker for the Conference on "Cellular Systems for Toxicological Testing."

Society of Toxicology, 22<sup>nd</sup> Annual Meeting, March, 1983, "Cardiotoxicity of l-isoproterenol in cultured myocytes: prevention by l-ascorbic acid and sodium bisulfite." *Toxicologist* 3:84 (1983).

Society of Toxicology, March, 1983, "Effects of acetaminophen on primary cultures of rat kidney epithelial cells." *Toxicologist* 3:112 (1983).

Society of Toxicology, March, 1983, "Subcellular localization of hepatocyte injury due to metabolic activation of acetaminophen." *Toxicologist* 3:113 (1983).

Tissue Culture Association, 34<sup>th</sup> Annual Meeting, June, 1983, "Semiquantitative Morphologic Analysis to Quantify the Cyto-toxicity of Cadmium to Cultured Hepatocytes," (with E.M. Sorensen). *In Vitro* 19:287 (1983).

Tissue Culture Association, June, 1983, "Cardiotoxicity of Tricyclic Antidepressants in Cultured Rat Myocytes," (with K. Ramos). *In Vitro* 19:287 (1983).

Rockefeller University, June, 1983, Progress in Alternatives to Animal Testing-Seminar for Science Writers, I presented a lecture on "Alternatives in the Field of Systemic and Target Organ Toxicology."

Federation Proceedings, 67<sup>th</sup> Annual Meeting, April, 1983, "Carbon tetrachloride cytotoxicity in primary cultures of postnatal rat hepatocytes," (with K. Santone and S. Stavchansky). *Fed. Proc.* 42:355 (1983).

Texas A & M University, September, 1982, Environmental Toxicology and Pharmacology Seminar, "The use of liver cell cultures in toxicology."

The University of Texas at Austin, April, 1983, Graduate Chemical Engineering Seminar Series, "Development of Cell Culture Systems to Evaluate Environmental Chemicals for Potential Toxicity."

Texas Society of Electron Microscopy, Annual Fall Meeting, October, 1982, "Morphological changes in cadmium-exposed cultured hepatocytes," (with E. Sorensen).

Allied Chemical Company, October, 1982, "Development of liver cell cultures as toxicology models."

Ortho Pharmaceutical Company and McNeil Pharmaceutical Company, December, 1982, "In Vitro Toxicity Testing: Target Organ Studies."

Norwich Pharmaceutical Company, January, 1983, "Use of liver cells cultures to study hepatotoxic compounds."

American Society for Pharmacology and Experimental Therapeutics (ASPET), Fall Meeting, August, 1983, "Actions of isoproterenol and other agents on calcium uptake in cultured rat myocardial cells," (with K. Ramos). *Pharmacologist* 25:263 (1983).

Second International Conference on Safety Evaluation and Regulation of Chemicals, Cambridge, October 28, 1983, "An In Vitro Approach to the Study of Metabolism and Toxicity of Chemicals and Drugs Using Cultured Rat Hepatocytes."

Pharmaceutical Manufacturers Association 1983 Program on Drug Safety, October 24, 1983, Tarpon Springs, Florida, "In Vitro Models to Explore Drug and Chemical Toxicity."

American Association for Laboratory Animal Science, 34<sup>th</sup> Annual Meeting, San Antonio, November 7, 1983, "In Vitro Methods in Assessing Cytotoxicity."

First International Montreux Conference of Chronopharmacology, March 28, 1984, "Influence of time of exposure to CCl<sub>4</sub> on the toxic injury," (with J.V. Bruckner).

Stuart Pharmaceutical Corp., January 9, 1984, "Use of cell culture models to evaluate drug and chemical toxicity."

Norwich Eaton Pharmaceutical Corp., January 19, 1984, "Development of kidney cell cultures to evaluate nephrotoxic agents."

Philadelphia College of Pharmacy, January 10, 1984, "In vitro models to evaluate toxicity of chemicals and drugs."

Society of Toxicology, March, 1984, "Cytotoxicity of nonsteroidal anti-inflammatory agents in primary cultures of rat hepatocytes," (with E.M.B. Sorensen). *Toxicologist* 4:4 (1984).

Society of Toxicology, March, 1984, "Effect of cephaloridine on cellular ATP content and mitochondrial succinate dehydrogenase activity in primary cultures of rat kidney cortical epithelial cells," (with M.A. Smith). *Toxicologist* 4:31 (1984).

Society of Toxicology, March, 1984, "The role of extracellular calcium in CCl<sub>4</sub> injury of cultured rat hepatocytes," (with K.S. Santone). *Toxicologist* 4:133 (1984).

Society of Toxicology, March, 1984, "Morphometric analysis of calcium-induced cytotoxicity in cultured hepatocytes," (with E.M.B. Sorensen). *Toxicologist* 4:163 (1984).

Society of Cosmetics Chemists, March, 1984, "In vitro developments in toxicology."

University of Georgia College of Pharmacy, March 16, 1984, "Development of in vitro models to explore cardiotoxicity and hepatotoxicity of drugs and chemicals."

Shell Development Company, May 11, 1984, "Metabolism and toxicity studies in primary cultured hepatocytes and kidney cells."

Tissue Culture Association, June 4, 1984, "Morphometric analysis of the protective effect of calcium to cadmium-challenged cultured rat hepatocytes," (with E.M.B. Sorensen). *In Vitro* 20: 248 (1984).

Tissue Culture Association, June 4, 1984, "Effects of cardiac drugs on beating of heart cells cultures from pups of trained and untrained rats," (with A. Butler). *In Vitro* 20: 265-266 (1984).

Texas A & M University, Symposium on Applications of Mammalian Cell Culture Systems in Toxicology, June 18, 1984, "An in vitro model of cardiotoxicity with primary cultures of rat myocardial cells."

American Association for Pharmacology and Experimental Therapeutics, August, 1984, "Ethanol toxicity in neonatal rat heart cell cultures," (with A.W. Butler). *Pharmacologist* 26:182 (1984).

Bristol Laboratories, October 4, 1984, "Use of liver and kidney cell cultures in toxicology."

Johns Hopkins Center for Alternatives to Animal Testing, Symposium on In Vitro Toxicology, October 23, 1984, "Toxicity Evaluation of Cadmium-Calcium Interactions in Cultured Rat Hepatocytes," (with Elsie Sorensen).

Mid-Atlantic Chapter, Society of Toxicology Fall Symposium, Alternative Methods in Toxicology, November 9, 1984, "Use of Isolated Liver and Kidney for the Prediction of Toxicity."

Stuart Pharmaceutical Corporation, January 29, 1985, "An In Vitro Approach to the Study of Drug and Chemical Toxicity."

Society of Toxicology, March, 1985, "Morphometric analysis of erythromycin estolate-induced changes in cultured hepatocytes," (with E.M. Sorensen).

Society of Toxicology, March, 1985, "Interference of intracellular calcium dynamics by CCl<sub>4</sub> in cultured rat hepatocytes," (with K.S. Santone).

Mary Kay Cosmetics, April 25, 1985, "An in vitro approach to the study of target organ toxicology."

FASEB Scientific Meeting, April 22, 1985, "Comparison of primary renal cortical cell cultures derived from neonatal and adult rats," (with M.A. Smith).

Annual Meeting of American College of Sports Medicine, May 27, 1985, "The interaction of maternal exercise and ethanol on calcium uptake in neonatal myocardial cells," (with A.W. Butler).

Tissue Culture Association, June 2, 1985, "Ethanol toxicity in primary cultures of rat myocardial cells from offspring of swim trained mothers," (with A.W. Butler).

Tissue Culture Association, June 2, 1985, "Toxic effects of aluminum chloride on primary rathippocampal cultures," (with G.E. Kisby).

Tissue Culture Association, June 2, 1985, "Effects of cadmium and calcium challenge on the fluidity of plasma membranes," (with E.M. Sorensen).

Ortho Pharmaceutical Corporation, June 24, 1985, "In vitro approaches to target organ toxicology."

American Association for Pharmacology and Experimental Therapeutics, August, 1985, "The effect of aluminum chloride on CNS neuronal and non-neuronal cell cultures," (with G.E. Kisby).

British Industrial Biological Research Association, September 17, 1985, "Development of a Primary Culture System of Rat Heart Cells to Study Cardiotoxic Agents," Carshalton, England.

International Conference on Practical In Vitro Toxicology, September 18, 1985, "An In Vitro Approach to the Study of Target Organ Toxicity of Hepatotoxic and Nephrotoxic Agents," Reading, England.

Haskell Laboratory for Toxicology and Industrial Medicine, DuPont Company, February 12, 1986, "An In Vitro Model for Myocardial Cell Injury and Cardiotoxicity with a Primary Culture System of Rat Heart Cells," Wilmington, Delaware.

Society of Toxicology, March, 1986, "Aluminum distribution and GLDH activity in primary hippocampal, astrocyte and cerebellar cultures treated with aluminum chloride." *Toxicologist* 6: 21 (1986). (with G. Kisby)

Society of Toxicology, March, 1986, "In vitro hepatotoxicity study of chlorpromazine and erythromycin analogs." *Toxicologist* 6: 115 (1986). (with K. Norbury and E.M.B. Sorensen).

Lilly Research Laboratories, April 3, 1986, "In vitro models to explore target organ toxicity of xenobiotics."

Searle Research and Development, May 8, 1986, "The usefulness of cultured cells for toxicologic and pharmaceutical investigations."

Upjohn Company, May 22, 1986, "Use of cultured heart cells to study cell injury and toxicity to the myocardium."

Michigan Regional Chapter of SOT, Symposium on In Vitro Approaches for Studying Toxic Cell Injury, main speaker: "Development of in vitro systems for evaluating hepatotoxic and nephrotoxic agents."

Tissue Culture Association, June 1986, "Mechanistic aspects of cadmium-induced cytotoxicity in cultured hepatocytes (with E.M. Sorensen). In Vitro 22: 49A (1986).

Third Congress of the International Society for Biomedical Research on Alcoholism, Helsinki, June 1986, "Toxicity in primary culture of myocardial cells."

Third Congress, June 1986, "Cytotoxicity of ethanol in primary cultures of rat midbrain neurons" (with C.K. Erickson).

The University of Mississippi School of Medicine, November 3, 1986, "An in vitro model of cardiotoxicity and cell injury."

Pfizer Pharmaceutical Corp., Groton, Connecticut, December 11, 1986, "Use of in vitro systems to evaluate drug and chemical toxicity."

Society of Toxicology, February, 1987, "Protection of rat liver cell cultures from drug-induced injury by flavonoids" (with J.C. Davila and A. Lenherr).

Society of Toxicology, February, 1987, "The toxic effects of mamba snake venoms in primary myocardial cell cultures" (with P.M. Mbugua and A.A. Welder).

Society of Toxicology, February, 1987, "The toxic effects of mamba snake venoms in primary endothelial cell cultures" (with P.M. Mbugua and A.A. Welder).

The University of Louvain, Brussels, Belgium, May 20, 1987, "An in vitro model of myocardial cell injury and cardiotoxicity."

First International Scientific Congress on Alternative Methods to the Use of Animals Experiments, Versailles, France, May 25, 1987, "Application of cell culture techniques for the toxicity assessment of drugs and chemicals."

Tissue Culture Association, May, 1987, "Dendroaspis (Mamba) venom-induced hepatotoxicity in primary cultures of rat liver cells" (with J.C. Davila and P.M. Mbugua).

Tissue Culture Association, May, 1987, "Cytotoxicity of mamba venoms in primary cultures of rat kidney cortical epithelium" (with J.D. Swann and P.M. Mbugua).

Tissue Culture Association, May, 1987, "Comparison of KCl-stimulated and receptor-mediated calcium entry into primary myocardial cell cultures and suspensions" (with A. Welder, T. Machu, S. Leslie, R. Wilcox, and J. Bradlaw).

International Symposium on Liver Cells and Drugs, Rennes, France, July 10, 1987, "Toxicity of drugs and chemicals on cultured rat hepatocytes."

Ortho Pharmaceutical Corporation, Raritan, New Jersey, July 23, 1987, "An in vitro model of myocardial toxicity."

Northrop Services and EPA, Research Triangle Park, North Carolina, July 28, 1987, "An in vitro approach to the study of target organ toxicology."

International Society for Heart Research, Molecular Biology of the Cardiovascular System, Boston, September 10, 1987, “<sup>125</sup>Iodopindolol binding in postnatal primary myocardial cell cultures, myocyte suspensions, and whole heart membrane preparations” (with A.A. Welder, T. Machu, R.E. Wilcox, and J. Bradlaw).

The Upjohn Company, Kalamazoo, Michigan, October 30, 1987, “In vitro systems to study the toxicity of drugs and chemicals.”

American Cyanamid Company, Princeton, New Jersey, November 20, 1987, “An in vitro model to study cardiotoxicity of drugs and chemicals.”

The University of Texas at El Paso, February 4, 1988, “Study of drug and chemical toxicity with in vitro cellular systems.”

Society of Toxicology, Dallas, February 17, 1988, “Effects of amitriptyline on calcium uptake and high energy phosphates in primary myocardial cell cultures.” (with Y. Park, J. Bradlaw, and A. Welder).

Society of Toxicology, Dallas, February 18, 1988, “Cocaine toxicity in primary cardiac muscle and non-muscle cell cultures.” (with A. Welder, M. Smith, and K. Ramos).

Society of Toxicology, Dallas, February 18, 1988, “Isolation and characterization of four subgroups of mamba cardiotoxins using primary cultures of rat myocardial cells” (with P. Mbugua and A. Welder).

Society of Toxicology, Dallas, February 19, 1988, “Effects of flavonoids of liver cell injury.” (with J. Davila and A. Lenherr).

Food and Drug Administration, Washington, D.C., September 1, 1988, “In vitro models of cardiotoxicity.”

New Jersey Drug Metabolism Group, Somerset, N.J., September 22, 1988, “The use of in vitro hepatocyte culture systems to study the metabolism and toxicity of xenobiotics.”

American Society for Pharmacology and Experimental Therapeutics, Montreal Canada, October 11, 1988, “Role of lipid peroxidation in gentamicincytotoxicity in primary cultures of rat kidney cortical epithelium” (with J. Swann)

National Institutes of Environmental Health Sciences, Research Triangle Park, N.C., November 7, 1988, “Development of in vitro cellular systems for investigating the toxicity and metabolism of xenobiotics.”

Society of Toxicology, Atlanta, February 28, 1989, “Amitriptyline toxicity in primary cultures of adult myocardial cells” (with A.A. Welder).

Society of Toxicology, Atlanta, February 28, 1989, “Protection against doxorubicin-induced reactive oxygen species by ruthenium red and fructose 1,6-diphosphate” (with E. Chacon).

Society of Toxicology, February 28, 1989, Atlanta, “Role of intracellular reactive oxygen species and calcium in gentamicincytotoxicity” (with J. Swann).

Society of Toxicology, February 28, 1989, Atlanta, “Comparison of papaverine metabolism in culture systems of rat hepatocytes and fungal cells” (with G. Hsieh).

American Chemical Society, April 9, 1989, Dallas, “Microbial models of mammalian metabolism: Oxidation of N-methylcarbazole by Cunninghamella echinulata” (with P. Davis).

FASEB, April 18, 1989, New Orleans, “Gentamicin does not stimulate its own uptake” (with J. Swann).

4<sup>th</sup> International Symposium on Toxicity Assessment, May 9, 1989, Las Vegas, “Comparison of *in vitro* microbial and mammalian cellular systems for the assessment of chemical toxicity” (with J. Davila).

American Society for Pharmacology and Experimental Therapeutics, Salt Lake City, August 15, 1989, “Bromobenzene toxicity in control and phenobarbital-induced primary cultures of rat hepatocytes” (with G. Hsieh, J. Davila, and P. Davis).

American Society for Pharmacology and Experimental Therapeutics, Salt Lake City, August 15, 1989, “Toxicity assessment of papaverine hydrochloride and papaverine-derived metabolites *in vitro*” (with J. Davila, G. Hsieh, C. Reddy, and P. Davis).

Alcon Laboratories, Fort Worth, August 22, 1989, “*In Vitro* approaches to the study of drug toxicity.”

American Association of Pharmaceutical Scientists, Atlanta, October 23, 1989, “Adverse effects of p-chloro-m-xyleneol in rat liver cell cultures” (with S. Stavchansky, J. Davila, and A. Dorantes).

Johnson & Johnson Conference on Research and Testing: Animals, Alternatives, Responsibilities, New Brunswick, September 21, 1989, “*In Vitro* applications in the toxicological evaluation of drugs and chemicals.”

University of Texas Department of Botany, November 13, 1989, “Use of cell culture systems to study drug and chemical toxicity.”

Organogenesis, Cambridge, Massachusetts, November 27, 1989, “Development of *in vitro* cell culture systems to evaluate the hepatotoxicity and nephrotoxicity of drugs and chemicals.”

4<sup>th</sup> International Symposium on Biological Reactive Intermediates, Tucson, January 15, 1990, “Papaverine-induced hepatotoxicity: possible role of glutathione” (with J. Davila and P. Davis).

Society of Toxicology, Miami Beach, February 12, 1990, “Toxicity of phenacetin and its homologs in rat liver cell cultures” (with P.J. Davis, J.C. Davila, and C.G. Reddy).

Society of Toxicology, Miami Beach, February 12, 1990, “The use of primary cultured rat keratinocytes as a model for studying *in vitro* cytotoxicity of dermatotoxic agents” (with G.C. Hsieh and J.R. Lee).

Society of Toxicology, Miami Beach, February, 12, 1990, “Mitochondrial calcium transport coupled to superoxide formation suggests an alternate mechanism for the cardiotoxicity of doxorubicin” (with E. Chacon).

Society of Toxicology, Miami Beach, February 12, 1990, “Studies *in vitro* on the mechanism of papaverine-induced hepatotoxicity” (with J. C. Davila and P.J. Davis).

Society of Toxicology, Miami Beach, February 12, 1990, “Effects of a 21-aminosteroid, lazaroid (U-74006F.), on the inhibition of doxorubicin - induced intracellular formation of reactive oxygen species” (with E. Chacon and R.G. Ulrich).

Society of Toxicology, Miami Beach, February 12, 1990, “Effects of cephaloridine on primary cultures of rat renal cortical epithelial cells: intracellular reactive oxygen species and calcium” (with J.R. Lee).

Society of Toxicology, Miami Beach, February 12, 1990, “Cultured eukaryotic fungal cells as an alternative test system for assessing the cytotoxicity of drugs and chemicals” (with G.C. Hsieh and P.J. Davis).

University of Oklahoma, College of Pharmacy, April 30, 1990, “*In vitro* applications in toxicology: industrial aspects.”

Burroughs Wellcome Co., Research Triangle Park, N.C., May 3, 1990, “*In vitro* studies of the effects of drugs and chemicals on isolated cell cultures.”

Tissue Culture Association, Houston, June 12, 1990, “Role of oxidative stress in anthralin-induced cell injury in primary cultures of rat epidermal keratinocytes” (with G. Hsieh).

Tissue Culture Association, Houston, June 12, 1990, “Primary cultures of rabbit conjunctiva and iris epithelial cells as *in vitro* toxicity test systems” (with C. Yao and R. Grant).

Tissue Culture Association, Houston, June 12, 1990, “Toxicological studies of gossypol in rat liver cell cultures” (with J. Davila and M. Rodriguez).

Tissue Culture Association, Houston, June 12, 1990, “Characterization and toxicity studies utilizing primary cultures of rabbit corneal epithelial cells” (with R. Grant and D. Acosta).

CAAT Technical Workshop No. 2, Johns Hopkins University, Houston, June 14, 1990, “Maintenance of the differentiated state: suspension versus monolayer culture.”

Society of Toxicologic Pathologists, IX International Symposium, Ottawa, Canada, June 26, 1990, “A perspective on cardiotoxicity induced by drugs and chemicals.”

International Meeting on In Vitro Toxicology: An Alternative to Animal Testing? Annecy, France, October 1990, “An *in vitro* approach to the study of target organ toxicity.”

Institute für Toxikologie, University of Zurich, October 1990, “Mechanisms of cardiotoxicity.”

Plenary Burroughs Wellcome Lecture for the Toxicology Scholar Award, Annual meeting of the Society of Toxicology, February 1991.

Research Center in Minority Institutions, Symposium on Environmental Health Science, April 1991, “Target organ toxicity of xenobiotics.”

Annual meeting of the Society of Toxicology, February 1991, “Toxicity assessment of toxins T-514 and T-544 of Buckthorn (*Karwinskia Humboldtiana*) in primary skin and liver cell cultures.”

Annual meeting of the Society of Toxicology, February 1991, “*In vitro* metabolism and toxicity assessment of N-methylcarbazone in cultured rat hepatocytes.”

Annual FASEB meeting, April 1991, “Primary cultures of corneal and conjunctival epithelial cells as *in vitro* models in the evaluation of cytotoxic potential of surfactants.”

Annual FASEB meeting, April 1991, “Potential involvement of oxygen intermediates and glutathione depletion in UB-induced epidermal cell injury *in vitro*.”

Annual FASEB meeting, April 1991, “Doxorubicin dissipates the mitochondrial membrane potential: implications for Ca<sup>++</sup> initiating oxidative stress.”

Annual FASEB meeting, April 1991, “Effects of extracellular calcium concentration on biochemical and morphological characterization of primary rat epidermal keratinocyte cultures and their application in studying toxic injury by dermatotoxicant.”

Annual meeting of the Society of Toxicology, February 1991, “Implications for doxorubicin-induced oxidative stress by mitochondria calcium cycling.”

Annual meeting of the Society of Toxicology, February 1991, “Involvement of calcium in dithranol-induced cytotoxicity in primary cultures of rat epidermal keratinocytes.”

Annual meeting of the Society of Toxicology, February 1991, "Alteration in mitochondria function as a mechanism of cell injury by dithranol."

Annual meeting of the Society of Toxicology, February 1991, "Potential cytotoxicity of surfactants evaluated with primary cultures of rabbit corneal epithelial cells."

Annual meeting of the Society of Toxicology, February 1991, "Serum-free culture of primary rabbit conjunctival epithelial cells as an in vitro toxicity test system."

Annual meeting of the Society of Toxicology, February 1991, "Comparison of primary cultures of corneal and conjunctival epithelial cells in the evaluation of potential cytotoxicity of surfactants."

"Honors Seminar", College of Pharmacy, May 1991, "Cell culture technology in toxicology."

"Toxicology Seminar Series", Eli Lilly and Company, May 1991, "A perspective on an in vitro approach to toxicology."

Opinion Leader Meeting on In Vitro Toxicology, May 1991, "Review of in vitro cytotoxicity and irritation methods."

Biotechnology Perspectives at the University of Texas at Austin, May 1991, "In vitro toxicology."

Annual meeting of the Society of Toxicology, February, 1992, Seattle. "Elevation of Intracellular Calcium by 13-cis-Retinoic Acid in Primary Rat Keratinocyte Model: Implications for Toxicity."

Annual meeting of the Society of Toxicology, February, 1992, Seattle. "Primary Rat Keratinocyte Culture as an In Vitro Model for the Evaluation of Potential Cytotoxicity of Surfactants."

Annual meeting of the Society of Toxicology, February, 1992, Seattle. "Role of Increased Cytosolic Free Calcium in Ionomycin - Induced Cytotoxicity of Rat Renal Cortical Epithelial Cells - A Digitized Fluorescence Imaging Study."

Annual meeting of the Society of Toxicology, February, 1992, Seattle. "Adverse Effects of Tetracaine on Cytosolic Calcium and Mitochondrial Membrane Potential in Cultured Corneal Epithelial Cells."

Annual meeting of the American Society of Pharmacology and Experimental Therapeutics, August, 1992, Orlando. "Oculotoxicity Potential of Local Anesthetics as Evaluated with Primary Cultures of Rabbit Corneal Epithelial Cells."

Johnson & Johnson, New Brunswick, November 18, 1991, "In Vitro Ocular and Dermal Toxicology of Surfactants."

Gulf Coast Hazardous Substance Research Center Meeting, January 14, 1992, "Toxicity Reduction Aspects of Bioremediation."

Honors Seminar, College of Pharmacy, February 21, 1992, "In Vitro Toxicology."

Society of Toxicology, Minority Student Program, Seattle, February 23, 1992, "Toxicology Activities and Opportunities in Academia."

Annual Meeting of the Society of Toxicology, March, 1993, New Orleans. "In Vitro Model to Evaluate the Cytotoxicity of Two Groups of Surfactants by Using Rat Keratinocyte Cultures."

Annual Meeting of the Society of Toxicology, March, 1993, New Orleans. "Effects of Lidocaine, Bupivacaine, and Cocaine on Control of Calcium Mobilization in Cultured Rat Myocardial Cells."

Annual Meeting of the Society of Toxicology, March, 1993, New Orleans. "Evaluation of the Cytotoxicity of Ketoconazole with Primary Cultures of Rat Hepatocytes."

Annual Meeting of the Society of Toxicology, March, 1993, New Orleans. "Hepatotoxicity of Diastereoisomer of Toxin T-514 of *KarwinskiaHumboldtiana* in Primary Liver Cell Cultures."

Annual Meeting of the Society of Toxicology, March, 1993, New Orleans. "Oculotoxicity Potential of Surfactant Mixtures Evaluated by Primary Cultures of Rabbit Corneal Epithelial Cells."

Annual Meeting of the Society of Toxicology, March, 1993, New Orleans. "Adverse Effects of Local Anesthetics on Cytosolic Calcium and Mitochondrial Membrane Potential in Cultured Corneal Epithelial Cells."

Annual Meeting of the Society of Toxicology, March, 1993, New Orleans. "An In Vitro Model of Cyclosporine-Induced Nephrotoxicity."

Annual Meeting of the Federation of American Societies for Experimental Biology, March, 1993, New Orleans. "Cellular and Mitochondrial Ca<sup>2+</sup> Overload by Cyclosporine A in Primary Cultures of Rat Renal Cortical Epithelial Cells."

Rutgers University Joint Graduate Program in Toxicology Fall Seminar Series, Piscataway, October 8, 1992, "Mechanistic Aspects of Cardiotoxic Agents in In Vitro Systems."

Honors Seminar, College of Pharmacy, October 21, 1992, "Cell Culture in Drug Development."

Parke-Davis, Ann Arbor, October 23, 1992, "In Vitro Investigations on Mechanisms of Cardiotoxic Agents."

The University of Texas Health Science Center at Houston, December 3, 1992, "An In Vitro Approach to the Study of Cardiotoxic Mechanisms."

RJ Reynolds, Winston-Salem, January 27, 1993, "The Mechanisms of Cardiotoxic Agents."

Faculty of Toxicology, Texas A & M University, College Station, April 5, 1993, "In Vitro Toxicology of Cardiotoxic Agents."

The Toxicology Forum, 1993 Annual Meeting, Washington, D.C., February 15, 1993, "In Vitro Investigations on Mechanisms of Cardiac Toxicity."

Current Trends: In Vitro Skin Toxicology and Eye Irritancy Testing (An International Symposium), Ottawa, Canada, April 23, 1993, "In Vitro Eye Irritancy Test Alternatives."

A Workshop on Cell Biology of Trauma, Chapel Hill, North Carolina, June 15, 1993, "Models of Toxicity Screening Using Cultured Cells."

Annual Meeting of the American Society for Pharmacology and Experimental Therapeutics, August 1, 1993, San Francisco, "Calcium Deregulation and Cardiac Toxicity."

Hoechst Roussel, Somerville, N.J., August 26, 1993, "Use of in vitro technology in the practical application of toxicology: current results of hepatotoxicity studies with HP029."

Environmental Solutions Program, The University of Texas Department of Environmental Engineering, October 21, 1993, "Use of in vitro technology in toxicology assessment of drugs and chemicals."

Medical College of Virginia, Richmond, October 29, 1993, "In vitro model for mechanistic examination of the cardiotoxicity of doxorubicin."

Parke-Davis, Ann Arbor, November 30, 1993, "In vitro models for cardiotoxicity and nephrotoxicity."

The University of Iowa, College of Pharmacy, Iowa City, February 2, 1994, "The use of digitized fluorescence imaging in toxicological investigations."

Food and Drug Administration, Washington, D.C., March 23, 1994, "Use of in vitro technology in assessment of drug and chemical toxicity."

Society for the Advancement of Chicanos and Native Americans in Science, Annual Conference, Chicago, March 25, 1994, "An in vitro approach to the study of target organ toxicity of xenobiotics."

G.D. Searle and Company, Chicago, April 11, 1994, "Digitized fluorescence imaging system to measure target organ toxicity in vitro."

Experimental Biology 94, Annual Meeting, Anaheim, CA, April 25, 1994, "Cytotoxicity induced by Tween-20, a nonionic surfactant in primary keratinocyte cultures from neonatal rat skin."

Experimental Biology 94, Annual Meeting, Anaheim, CA, April 26, 1994, "A rapid, accurate method to determine intracellular pH using a fluorescence multiplate reader."

Experimental Biology 94, Annual Meeting, Anaheim, CA, April 27, 1994, "Effect of changes of pH<sub>i</sub> on intracellular calcium in primary cultures of rabbit corneal epithelial cells."

Society of Toxicology, Annual Meeting, Dallas, TX, March 13-17, 1994, "Comparison of the cytotoxicity of fluconazole and ketoconazole using primary cell cultures of rat hepatocytes."

Society of Toxicology, Annual Meeting, Dallas, TX, March 13-17, 1994, "Exploratory investigations of cytotoxicity induced by SDS in primary keratinocyte cultures established from neonatal rat skin as an in vitro model."

Society of Toxicology, Annual Meeting, Dallas, TX, March 13-17, 1994, "Elevation of intracellular free calcium and mitochondrial dysfunction in primary cultures of rabbit corneal epithelial cells exposed to surfactant SDS."

Society of Toxicology, Annual Meeting, Dallas, TX, March 13-17, 1994, "Fluorescence ratio imaging of intracellular pH in primary cultures of rabbit corneal epithelial cells: pH regulation and acidification by surfactants."

Society of Toxicology, Annual Meeting, Dallas, TX, March 13-17, 1994, "Mechanism of cytoprotection by fructose against cocaine-mediated oxidative cell injury."

Society of Toxicology, Annual Meeting, Dallas, TX, March 13-17, 1994, "Effect of glutathione depletion on the in vitro cytotoxicity of velnacrinemaleate."

Society of Toxicology, Annual Meeting, Dallas, TX, March 13-17, 1994, "Delayed toxicity by benzalkonium chloride and sodium dodecyl sulfate evaluated in primary cultures of rabbit corneal epithelial cells."

Society of Toxicology, Annual Meeting, Dallas, TX, March 13-17, 1994, "Changes in intracellular calcium and pH in rabbit corneal epithelial cells after treatment with sodium dodecyl sulfate and benzalkonium chloride."

Society of Toxicology, Annual Meeting, Dallas, TX, March 13-17, 1994, "Effects of local anesthetics on voltage-dependent calcium channels in plasma membrane of cultured rat myocardial cells."

Bristol-Myers Squibb, Syracuse, N.Y., June 28, 1994, "Use of digitized fluorescence imaging in in vitro toxicology studies."

National Center for Toxicology Research, Little Rock, Arkansas, October 11, 1994, "An in vitro approach to the study of cardiotoxic and nephrotoxic agents."

American Association of Pharmaceutical Scientists, San Diego, CA, November 7, 1994, "Fluorescence ratio imaging of intracellular calcium and pH in primary cultures of rabbit corneal epithelial cells: elevation of calcium and acidification after exposure to surfactant SDS."

The University of Washington, Seattle, November 21, 1994, "New directions in pharmacy."

Johnson & Johnson, Consumer Products, Inc., Skillman, NJ, January 31, 1995, "Development of Ocular and Skin Cell Culture Systems for Assessment of Toxicity of Consumer Products."

BioWhittaker, Inc., Walkersville, MD, February 18, 1995, "Overview of in vitro models for epidermal and liver toxicity."

Society of Toxicology, Annual Meeting, Baltimore, March 5-9, 1995, "The effect of surfactants on the hydrolysis of fura-2 acetoxymethyl ester evaluated in primary cultures of rabbit corneal epithelial cells."

Society of Toxicology, Annual Meeting, Baltimore, March 5-9, 1995, "A comparison of the cytotoxicity of benzalkonium chloride in two cell models: primary cultures of the skin and eye."

Society of Toxicology, Annual Meeting, Baltimore, March 5-9, 1995, "Dermal irritancy induced by SDS and Tween-20, anionic and non-ionic surfactants in rat keratinocyte cultures."

Society of Toxicology, Annual Meeting, Baltimore, March 5-9, 1995, "Cocaine-induced impairment of cardiac mitochondrial function in vitro."

Society of Toxicology, Annual Meeting, Baltimore, March 5-9, 1995, "The effect of ketoconazole on metabolic integrity in relation to its cytotoxicity in cultured rat hepatocytes."

Society of Toxicology, Annual Meeting, Baltimore, March 5-9, 1995, "Tertiary butyl hydroperoxide toxicity as a model of oxidative stress in primary neonatal rat keratinocyte cultures."

Experimental Biology 95, Annual Meeting, Atlanta, April 9-13, 1995, "Dissociation of cytotoxicity of cocaine from its local anesthetic effect: a comparison with lidocaine."

Experimental Biology 95, Annual Meeting, Atlanta, April 9-13, 1995, "Terfenadine and astemizol, but not quinidine, induce toxicity in primary neonatal rat heart cell cultures."

Congress on In Vitro Biology, Denver, CO, May 20, 1995, "An in vitro approach to the study of hepatotoxic agents with a primary culture system of rat liver cells."

Industrial In Vitro Toxicology Group, Symposium on In Vitro Markers of Toxicity: Techniques for Evaluating the Cell's Response to Toxic Agents, Cornell University, Ithaca, NY, May 26, 1995, "Digitized fluorescence imaging as a tool in in vitro toxicology studies."

Michigan State University, Department of Pharmacology and Toxicology, September 19, 1995, "Mechanistic Toxicity Studies with Digitized Fluorescence Imaging Technology."

American Association of Pharmaceutical Scientists, Tenth Annual Meeting, Miami, November 8, 1995, "Metabolism of ketoconazole and N-deacetylketoconazole by hepatic microsomes and flavin-containing monooxygenases."

University of Texas Medical Branch, Graduate Studies Program, January 19, 1996, "Use of in vitro technology in toxicological studies."

Society of Toxicology, Annual Meeting, Anaheim, CA, March 10-14, 1996, "Catecholamines and ventricular myocytes: an in vitro model for studying the cardiotoxicity of cocaine."

Society of Toxicology, Annual Meeting, Anaheim, CA, March 10-14, 1996, "Primary rat hepatocytes, an in vitro model to study flutamide induced cytotoxicity."

Society of Toxicology, Annual Meeting, Anaheim, CA, March 10-14, 1996, "Oxidant-induced cellular senescence."

Society of Toxicology, Annual Meeting, Anaheim, CA, March 10-14, 1996, "Establishment of flavin-containing monooxygenases in hepatic microsomes obtained from primary cultures of rat hepatocytes."

Society of Toxicology, Annual Meeting, Anaheim, CA, March 10-14, 1996, "Effect of acute cocaine exposure on cell viability evaluated in an ischemia/reperfusion model of primary cultures of rat myocardial cells."

New Mexico Highlands University, Department of Biological Sciences, April 1, 1996, "Use of Fluorescent Imaging Technology in Toxicological Studies."

University of Cincinnati Medical Center, College of Pharmacy, June 20, 1996, "Future of the pharmacy profession in academia."

Food and Drug Administration, Washington, D.C., July 2, 1996, "Use of in vitro methodology and fluorescence imaging technology in toxicity studies."

University of Cincinnati, College of Pharmacy, March 5, 1997, Research Seminar, "An in vitro approach to the study of target organ toxicity of xenobiotics."

Society of Toxicology, Annual Meeting, Cincinnati, OH, March 9-13, 1997, "Evaluation of the cytotoxicity of ketoconazole and N-deacetylketoconazole using primary cultures of neonatal rat ventricular myocytes."

Washington State University, College of Pharmacy, Pullman, WA, April 21, 1997, "Evaluation of drug and chemical toxicity: Is there a place for in vitro model systems?"

Washington State University, College of Pharmacy, Pullman, WA, April 22, 1997, "An in vitro approach to the study of target organ toxicity of xenobiotics."

Washington State University, College of Pharmacy, Pullman, WA, April 23, 1997, "Use of in vitro technology in toxicological assessment of drugs and chemicals."

Washington State University, College of Pharmacy, Pullman, WA, April 24, 1997, "Development of sensitive markers of in vitro cytotoxicity of drugs and chemicals."

Alpha Zeta Omega, Cincinnati, OH, October 25, 1998, "Aims and Goals of Pharmacy Trends and Education Update of Pharm.D. Program."

Ohio Valley Society of Toxicology, Wright State University, Fairborn, OH, October 29, 1998, "An In Vitro Approach to the Study of Target Organ Toxicity of Xenobiotics."

National Peruvian Congress of Pharmaceutical Sciences and Biochemistry, December 5-8, 1999, "Disciplines of Pharmacology and Toxicology as a Foundation for the New Doctor of Pharmacy in the United States."

The Pharmaceutical Society of Japan, 120<sup>th</sup> Annual Meeting, Gifu, Japan, March 28-31, 2000, "The Use of In Vitro Technology in Toxicology Assessment of Drugs and Chemicals."

Gifu University College of Medicine, March 30, 2000, “In Vitro Toxicity Assessment of Drugs and Chemicals” and Sankyo Company, March 30, 2000, “Target Toxicity Studies in Primary Culture Systems.”

Society of Toxicology Annual Meeting, March 18, 2002, “How to Market Yourself as a Toxicologist.”

Society of Toxicology Annual Meeting, March, 2006, Panel Discussion on Careers in Toxicology, “A Career in Academic Toxicology.”

Food and Drug Administration, August 19, 2008, “New Innovation at the University of Cincinnati Winkle College of Pharmacy”

University of Cincinnati, College of Engineering and Applied Sciences, School of Energy, Environmental Biology, and Medical Engineering, 2010-2011 Seminar Series, “Toxicology as a Science and Profession”, April 14, 2011.

Japanese Society of Toxicology, Annual Meeting, July 12, 2011, “New Developments in Toxicology from the International Union of Toxicology”, Yokohama, Japan

Sungkyunkwan University, College of Pharmacy, Division of Toxicology, July 15, 2011, “Development of a PharmD Curriculum at the University of Cincinnati”, Seoul, Korea