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Nationality: U.S.A.

Research Interests: Environmental Health Risk Assessment Using Genomics Tools
Developmental Neuroscience and Neuroimmunology
Compromised Gene Expression in Multiple System Atrophy

Academic Degrees: Ph.D. 1975 Princeton University
(Biology)
M.A. 1973 Princeton University
(Biology)
B.A. 1971 University of Oregon
(Honors College Independent Scholar)

Research/Professional Experience:

2003- Gwen Frostic Professor of Biological Sciences, Western Michigan University
2002- Director, Great Lakes Center for Environmental and Molecular Sciences, Western Michigan University
1999-10 Director, Environmental Institute, Western Michigan University
1998-10 Director, Environmental Research Center, Western Michigan University
1998- Professor of Biological Sciences, Western Michigan University
2001-02 Director, Environmental Studies Program, Western Michigan University
1998 Professor of Cell and Molecular Biology, Tulane University
1990-93 Founding Chairman, Department of Cell and Molecular Biology, Tulane University
1991-98 Director, State of Louisiana DOE/EPSCOR Interdisciplinary Research Program
1989-98 Founding Deputy Director, Tulane/Xavier Center for Bioenvironmental Research
1993-98 Co-Director, Tulane/Xavier DOE/Environmental Restoration and Waste Management Program 'Hazardous Materials in Aquatic Environments of the Mississippi River Basin'
1988-94 Co-Director, Neurosciences Interdisciplinary Graduate Program, Tulane University
1994-95 Interim Director, Tulane/Xavier Center for Bioenvironmental Research
1989-98 Associate Professor, Department of Cell and Molecular Biology, Tulane University
1993-98 Adjunct Associate Professor, Department of Environmental Health Sciences, Tulane University School of Public Health and Tropical Medicine
1993-94 President, Society for Neuroscience, Greater New Orleans Chapter
1989-90 Visiting Associate Professor, Department of Psychiatry and Biobehavioral Sciences, Mental Retardation Research Center, UCLA School of Medicine
1986-90 Director, Electron Microscope and Image Analysis Suite, Department of Biology, Tulane University
1986-88 Adjunct Assistant Professor, Dept. of Physiology, Tulane University Medical School

1982-88 Assistant Professor, Biology Department, Tulane University
1981-82 Research Scientist, Developmental Biology Center, University of California, Irvine
1976-79 Research Associate, Biophysics Department, The Johns Hopkins University
1975-76 Research Associate, Biology Department, University of Oregon

Honors:

2003 Gwen Frostic Professor of Biological Sciences, Western Michigan University
1990 Distinguished Lecturer in Neuroscience, LSU School of Medicine Seminar Series
1989 NRSA (NIH) Senior Fellow
1988 Lilly Endowment Fellow - "Workshop on Administration in the Liberal Arts"
1988 Distinguished Young Scientist Award, Sigma Xi
1986 Tulane University Mortar Board Award for Excellence in Teaching
1986 Newcomb College Alumnae Association Prize
1983 Tulane University Faculty Fellow
1975-77 NIMH Postdoctoral Fellow
1974-75 Spencer Neuroscience Fellow, Princeton University
1971-74 Princeton University Fellow
1971 NSF Fellow Designate
1970-71 Independent Scholar, University of Oregon

Grants:

2010-2018 MSA Private Ongoing Grants, "Cell and Molecular Basis of Neurodegeneration in Multiple System Atrophy; ~\$120,200. To date; C.F. Ide, PI
2009-2010 21 Sports Foundation Grant: "Gene Expression in Blood Samples from Multiple System Atrophy, Parkinson's Plus, and Pure Autonomic Failure Patients";\$10,000.; C.F. Ide (PI).
2009-2010 NSF Grant, "Global Climate Change First Year Seminar: How Science is Working to Save the Planet"; \$149,951; C.F. Ide (PI), Toni Woolfork-Barnes, and David Karowe (Co-PI's).
2000-2007 EPA Grant, "Great Lakes Center for Environmental and Molecular Sciences"; \$3,598,750.; C.F. Ide (PI).
2003-2005 Private Grant: Molecular Approach to Atypical Parkinson's Disease (MSA); \$82,500.; C.F. Ide (PI)
2002 Great Lakes Commission, St. Joseph River Watershed Conference; \$11,935.; C. F. Ide (PI) and B. A. Wygant
2001-2004 Michigan Life Sciences Consortium: Nano- and Microarray Centrifugal Field Biosynthesis and Separation; \$750,000; S. Muralidharan (PI), C. F. Ide and J. Means Co-PIs.
2000-2005 EPA Grant, "Kalamazoo River Watershed Council, Technical Assistance Grant— Allied Paper/Portage Creek/ Kalamazoo River Superfund Site"; \$62,070. C. F. Ide (PI)
2000-2002 Private Grant: Environmental Institute Research Projects Fund; \$220,000; C.F. Ide (PI)
1999-2002 EPA Grant, "Kalamazoo River Watershed Initiative"; \$950,200; C.F. Ide (PI)

- 1996-1999 DOE Grant, "Environmental Analysis of Endocrine Disrupting Effects from Hydrocarbon Contaminants in the Ecosystem" \$619,995; J. McLachlan (PI), C.F. Ide and Co-PI's.
- 1995-1998 Private Grant, "Water Quality in the Mississippi River" \$50,735 (Ide portion only); W. George (PI); C.F. Ide and Co-PI's.
- 1992-1998 DOE Grant; "Hazardous Materials in Aquatic Environments of the Mississippi River Basin;" \$24,999,992. J. McLachlan (PI), C.F. Ide and S. O'Connor (Co-PI's) Award #DE-FG-01-93EW53023.
- 1993-1999 US Department of Energy Cooperative Agreement; "Enhancement of Energy Related Research and Education in Louisiana" (Louisiana DOE EPSCOR program); \$7,560,627; C.F. Ide (PI) with R. Ford and P. Kilcrease (Co-PIs); Award #DE-FC-02-91ER75669.
- 1993-1999 Louisiana State Board of Regents LEQSF Matching Funds Grant; "Enhancement of Energy Related Research and Education in Louisiana" (Louisiana DOE EPSCOR program); \$3,947,768; C.F. Ide (PI) with R. Ford (Co-PI).
- 1994 -1996 DOD Grant, "Biomarkers of Chronic Low Level Radiation Modifications in the Neuro-immune System's Response to Environmental Challenges" Total Award 1994-96: \$320,774; A. Gerall (PI), C.F. Ide and other Co-PI's.
- 1994-1997 DOD Grant, "Effects of Pulsed Electromagnetic Fields on Human Cells" Total Award 1994-96: \$340,000; S. Clejan (PI), C.F. Ide and other Co-PI's.
- 1994 LEQSF Grant, "Louisiana Imaging Network for Biological Sciences" Total Award 1994-95: \$250,000; R. Mize (PI), C.F. Ide and other Co-PI's; 1-year award.
- 1991-1995 Louisiana State Board of Regents LEQSF Grant, "Recruitment of Superior Graduate Students in Cell and Molecular Biology"; \$60,000; C.F. Ide (PI), E. Ellgaard and K. Kendall (Co-PIs).
- 1991 DOE Grant, "DOE/EPSCOR Planning Grant for the State of Louisiana"; \$99,450; C.F. Ide (PI), R. Ford and P. Kilcrease (Co-PIs).
- 1990-1994 DOD Grant, "Effects of Stress on Neuroendocrine and Immune Function during Recovery from Irradiation"; \$350,000; A. Gerall (PI), C.F. Ide and other Co-PI's.
- 1989-1990 NIH Grant, "Perinatal Cortical Lesions and Hippocampal Development"; \$33,000; C.F. Ide, (PI).
- 1986 NSF Grant, "Supplement to PCM-8316142"; \$10,000; C.F. Ide, (PI).
- 1985 Cancer Association of Greater New Orleans Grant, "Oncogene Activity in Regenerating Retina and Adjacent Tumor Tissue"; \$8,000; C.F. Ide, (PI).
- 1985 NSF Grant, "Purchase of a Transmission Electron Microscope"; \$174,031; R. Lumsden, C.F. Ide and other Co-PIs.
- 1984-1987 NSF Grant, "Healing Modes Correlate with Pattern Formation in Regenerating Embryonic Retina"; \$219,000; C.F. Ide, (PI).
- 1975-1977 NIMH Postdoctoral Fellowship; \$27,000; C.F. Ide, (PI).
- 1971 NSF Grant, "Interdisciplinary Studies on the Ecology of the Coos Bay Estuary" Student-Originated-Studies Grant; \$35,000; C.F. Ide and other student Co-PIs.

Administrative Accomplishments:

Western Michigan University: Director, Environmental Research Center, Environmental Institute, and Great Lakes Center for Environmental and Molecular Sciences, 1998-present

- Addressed US House Congressional VA/HUD Committee to help obtain funding (\$950,200) to support WMU based research on cleanup of the Kalamazoo River Superfund site
- The following year, addressed the same Congressional Committee to obtain funding (\$3,598,750) for establishment of the Great Lakes Environmental and Molecular Sciences Center (GLEAMS), a collaborative venture between the WMU Environmental Institute and the Michigan Tech Research Institute (MTRI, formerly part of Altarum/ERIM);
- In collaboration with GLEAMS faculty and an External Science Advisory Committee composed of successful scientists from EPA, academe, and industry, developed an approach that integrates genomics based ecosystem health analysis, remote sensing, and GIS methods in producing research, education, and outreach tools for use by environmental managers and the public in protecting ecosystem and human health in the Great Lakes Basin.
- Performed Audit of Environmental Research Capabilities at WMU
- Provided justification document for Board approved creation of the Environmental Institute
- With faculty and administrators, produced a strategic plan for the Environmental Research Center/Environmental Institute
- Helped establish and provide administrative support for the Asylum Lake Nature Preserve near the WMU campus.
- Established the Gibbs House Program for Environmental Research and Education, a student run program where student fellows receive free housing in the historic Gibbs Farm House adjacent to Asylum Lake in exchange for carrying out research in environmental sustainability and sharing their findings with the public.

Environmental Institute/GLEAMS Related Presentations

NSF Sponsored Science and Social Justice Think Tank Meeting, Kalamazoo College - Protecting Ecosystem and Human Health from Pollution in the Great Lakes Basin
Northwest Michigan College, Freshwater Studies Program – Human Impacts on the Great Lakes
State of Lake Michigan Satellite Fish Advisory Meeting: Genomics Based Tools for Improving Fish Advisories
State of Michigan’s Upper Peninsula Water Quality Meeting: Genomics Based Approach to Environmental Health
EPA/MDEQ Kalamazoo River Superfund Meeting: Inadequacies of the Current Remedial Investigation/Feasibility Study.
US House of Representatives VA/HUD Committee: Kalamazoo River Initiative.
Kalamazoo County Commissioners: Inadequacies of the Current Remedial Investigation/Feasibility Study.
Kalamazoo City Commissioners: Inadequacies of the Current Remedial Investigation/Feasibility Study.
US House of Representatives VA/HUD Committee: Great Lakes Environmental and Molecular Sciences Center.
Kalamazoo Community Foundation Watershed Conference, Keynote Speaker: Assessing Health Risks in the Kalamazoo River Watershed.
Hope College: 21st Annual Critical Issues Symposium.
U. of Indiana, Northwest: Creating Environmental Research Centers.
Environmental Mutagen Society, Functional Genomics Conference, Seattle, WA: Genomics Tools to Measure Environmental Health Risks.
St. Joseph River Watershed Conference, South Bend, Indiana: EPA Funded Kalamazoo River Initiative.
ASPRS Society Meeting: Keynote Speaker - PCB Fate and Transport and Related Health Risk in the Kalamazoo River Superfund Site
MSA (Atypical Parkinson’s disease) Support Group; Vanderbilt University Medical Center: Altered Gene Expression in MSA Brain
Grand Rounds, Vanderbilt University Medical Center: Differences in Global Gene Expression in Blood Samples from MSA, Parkinson’s Plus, and Pure Autonomic Failure Patients
Battle Creek Continuing Education Meeting for Medical Professionals: Genomics and Personalized Medicine in Cancer Care
Parkinson’s Disease Support Group, Heritage Center: Keynote Speaker - Multiple System Atrophy (Atypical Parkinson’s Disease)
Canoe the Kalamazoo River Meeting: EPA Superfund Activities on the Kalamazoo
Medical Humanities Conference: Reflections on the Science of HeLa Cells
Kalamazoo River Watershed Council Stakeholders Meeting, Saugatuck, MI: Keynote Speaker - How PCBs Impact Human Health.
Special Symposium Regarding the Allied Superfund Site: PCB Impacts on Human Health
Symposium for Environmental Writers: Legacy Pollution in the Kalamazoo River
Northwest Michigan College: Human Impacts on Lake Michigan
Lifelong Learning Academy: Human Impacts on the Health of the Great Lakes
Wellness Meeting: Keynote Speaker - Role of Stress in Heart Disease and Neurodegenerative Disorders
Miracles for MSA and Dayton Barefoot Runners Meeting: Keynote Speaker - Molecular and Cellular Basis of Multiple System Atrophy

Environmental Institute/GLEAMS Related Committees:

WMU Medical School Curriculum Committee
Kalamazoo River Cleanup Coalition Founding Board Member
City of Kalamazoo Environmental Concerns Committee
Asylum Lake Focus Group
Environmental Studies Program Curriculum Committee
University Mission Statement Committee
NSF Research Ethics Fellow/Committee Member
Freshwater Sustainability Program Committee (with Northwest Michigan College) 2012-

Kalamazoo River Cleanup Coalition:

Founding member, 2007-

Homer Stryker Medical School at Western Michigan University:

Medical Education Program Committee and
Molecular Medicine Subcommittee, Chair, 2010-2013

Tulane/Xavier Center for Bioenvironmental Research (CBR): Founding Deputy Director, 1989-1998; Interim Director, 1994-1995.

- CBR Strategic Planning Committee
- Served on Design Committee for CBR Building - J. Bennett Johnston Health and Environmental Research Building
- Designed Core Research Facilities (shared by CBR and other faculty)
- Co-investigator on NIEHS funded graduate-training program.
- Co-PI on the successful NSF/EPSCoR proposal "Joint Faculty Appointment Program for Tulane and Xavier Universities".
- Traveled to DOD facilities to set up research collaborations for CBR scientists:
 - Tyndall Air Force Base - Environmental Remediation and Restoration
 - Wright- Patterson Air Force Base - Environmental Toxicology
 - Armed Forces Radiobiological Research Laboratory - Radioprotection
- Co-Director, "Hazardous Materials in Aquatic Environments of the Mississippi River Basin Grant (DOE-EM Grant, \$24,999,992.) With Dr. Sally O'Connor, Xavier University
- Set-up partnership with scientists at Oakridge National Laboratory
- Organized field sampling core, chemical analysis core, and data management core groups for coordinated studies on Bayou Trepagnier, LA
 - As CBR Interim Director, negotiated (with Dr. William George) private funding for "Water Quality in the Mississippi River" study, \$879,000.

Tulane/Xavier Center for Bioenvironmental Research Related Presentations:

President's Advisory Council
38th Annual Tulane Educational Conference
Prospective Tulane Students and their Parents
McDermott Corporation
Louisiana Congressional Delegation and Staff
Tulane Development Office Staff
Tulane Medical Center Development Advisory Council
Tulane Alumni Chapter, Lafayette, Louisiana
Tulane Alumni Chapter, New York City
Parent's Day
Provost's Advisory Board
DOE Office of Technology Development Group
Office of Technology Development Exhibitions

Rayburn House Office Building, U. S. House of Representatives
Hart Senate Building, U. S. Senate
Forestall Building, Department of Energy
Delegation from Shanghai University, People's Republic of China
National Association of Environmental Professionals
Exxon Corporation/Exxon Education Foundation
Tulane University Board of Administrators/Student Affairs Committee
Environmental Education

CBR Related Boards and Committees:

CBR Governing Board
DOD Research Peer Review Committee
CBR/BISEPP Committee (Chair)
Lake Ponchartrain Basin Foundation Technical Advisory Board
Environmental Health Sciences Chairman Search Committee
Interdisciplinary General Science Course Committee (Initial Chair)
DOE/EPSCOR Louisiana Planning Grant Committee (Chair)
DOE/EM Technical Implementation Committee (Co-Chair)
Handling of Hazardous Materials (HAMMER) Grant Steering Committee

Experimental Programs to Stimulate Competitive Research (DOE-EPSCOR): PI and Project Director, 1991-98

- Designed the State of Louisiana's DOE/EPSCOR Program (enhancement of energy related materials science research, environmental research, and K-12 education across Louisiana)
- Negotiated EPSCOR partnership with Louisiana HBCUs.
- Directed statewide workshop, request for proposals, and external peer review of EPSCOR related proposals.
- Organized and wrote management and coordination section of successful yearly renewals
- Wrote successful renewal grants for matching funds from the State of LA Board of Regents

Department of Cell and Molecular Biology, Tulane U.: Founding Chairman, 1990-1993

- Provided 5-year plan for creation of new Department of Cell and Molecular Biology.
- Negotiated establishment of new Interdisciplinary Graduate Program in Molecular and Cellular Biology with Tulane Medical Center and Tulane School of Public Health and Tropical Medicine.
- Negotiated funding and set-up for new neuroscience faculty positions.
- Directed curriculum design for new department.
- Created shared core research facilities in Tissue Culture, Molecular Biology, and Neurobiology.

Cell and Molecular Biology Related Committees

Cell and Molecular Biology Curriculum Committee
Interdisciplinary Molecular and Cellular Biology Graduate Program Steering Committee

Interdisciplinary Neuroscience Graduate Program

Neuroscience Program Faculty Committee - 1986 to 1998
Neuroscience Interdisciplinary Program Co-Director - 7/1/88 to 6/30/94

Bibliography: Articles

Katbamna, B., N. Klutz, C. Pudrith, J. P. Lavery, and C.F. Ide (2013) Prenatal smoke exposure and placental gene expression: Effects on infant auditory system. *Neurotoxicology and Teratology* 38: 61-71.

Zaya, R.M., Z. Amini, A.S. Whitaker, and C.F. Ide (2011) Exposure to atrazine affects the expression of key genes in metabolic pathways integral to energy homeostasis in *Xenopus laevis* tadpoles. *Aquatic Toxicology* 104: 254-262.

Zaya, R.M., Z. Amini, A.S. Whitaker, S.L. Kohler, and C.F. Ide (2011) Atrazine exposure affects growth, body condition and liver health in *Xenopus laevis* tadpoles. *Aquatic Toxicology* 104: 243-253.

Langerveld, A.J., R. Celestine, R. Zaya, D. Mihalko, and C. F. Ide (2009) Chronic Exposure to High Levels of Atrazine Alters Expression of Genes that Regulate Immune and Growth-Related Functions in Developing *Xenopus laevis* Tadpoles. *Environmental Research*, 109 (4): 379-389.

Fisher, M.A., R. Eversole, C. DeLong, J. C. Means, D. Mihalko, and C. F. Ide (2008) Liver cyp1A protein expression and pigmented macrophage aggregates as indicators of polychlorinated biphenyl exposure in carp (*Cyprinus carpio*) from the Kalamazoo River Superfund Site, MI. *Journal of Fish Biology*, 72: 1-16.

Gurley, G.H., A. M. Jelaso, C.F. Ide, and J.M. Spitsbergen (2007) Effects of polychlorinated biphenyls (PCBs) on expression of neurotrophic factors in C6 glial cells in culture. *Neurotoxicology* 28 (No. 6): 1264-1271.

Langerveld, A. J., D. Mihalko, C. DeLong, J. Walburn, and C. F. Ide (2007) Gene expression changes in post-mortem tissue from the rostral pons of multiple system atrophy patients. *Movement Disorders*, 22 (No. 6): 766-777.

Katbamna, B., A. Jelaso Langerveld, and C.F. Ide (2006) Aroclor 1254 impairs the hearing ability of *Xenopus laevis*. *Journal of Comparative Physiology A: Sensory, Neural, and Behavioral Physiology* 192 (No. 9): 971-983.

Shirey, E.L., A. Jelaso Langerveld, D. Mihalko, and C.F. Ide (2006) PCB exposure delays metamorphosis and alters thyroid hormone system gene expression in developing *Xenopus laevis*. *Environmental Research* 102 (No.2): 205-214.

Katbamna, B., J.A. Brown, M. Collard, and C.F. Ide (2006) Auditory brainstem responses to airborne sounds in the aquatic frog *Xenopus laevis*: correlation with middle ear characteristics. *Journal of Comparative Physiology A: Sensory, Neural, and Behavioral Physiology* 192 (No.4): 381 - 387.

Fisher, M.A., C. Mehne, J.C. Means, and C.F. Ide (2006) Induction of CYP1A mRNA in carp (*Cyprinus carpio*) in laboratory studies and in carp from a PCB contaminated Superfund site. *Archives of Environmental Contamination Toxicology* 50, 14-22.

R. Shuchman, S. Savage, T. Erickson, R. Edson, M. O'Haver, J. Means, and C. Ide (2005) Enabling watershed analysis and data sharing through the GLEAMS portal and dynamic decision support systems. *Proceedings of the Eighth International Conference on Remote Sensing for Marine and Coastal Environments*.

Jelaso, A.M., C. DeLong, J. Means and C.F. Ide (2005) Dietary exposure to Aroclor 1254 alters gene expression in *Xenopus laevis* frogs. *Environ. Res.*, 98:64-72.

Katbamna, B., A.M. Jelaso, and C.F. Ide (2003) Connexin 43 expression in glial cells of developing rhombomeres of *Xenopus laevis*. *Int. J. Devl. Neuroscience* 22: 47-55.

Jelaso, A.M., E. Lehigh-Shirey, J. Means, and C.F. Ide (2003) Gene expression patterns predict exposure to PCBs in developing *Xenopus laevis* tadpoles. *Environmental and Molecular Mutagenesis* 42:1-10.

Fisher, M.A., A.M. Jelaso, A. Predenkiewicz, L. Schuster, J. Means, C.F. Ide (2003) Exposure to the polychlorinated biphenyl mixture Aroclor 1254 alters melanocyte and tail muscle morphology in *Xenopus laevis* tadpoles. *Environmental Toxicology and Chemistry*. 22 (2).

Jelaso, A.M., E. Lehigh-Shirey, A. Predenkiewicz, J. Means and C.F. Ide. (2002) Aroclor 1254 alters morphology, survival, and gene expression in *Xenopus laevis* tadpoles. *Environmental and Molecular Mutagenesis* 40:24-35.

Miller, D.A., G. Greenwood, and C. Ide. (2000) On the uses of biologically-inspired adaptive mutations to evolve artificial neural network structures. *Proceedings of the 2000 IEEE Symposium on Combinations of Evolutionary Computation and Neural Networks* (San Antonio, Texas), pp. 24-32.

Oberdorster, E., M. Martin, C.F. Ide, and J.A. McLachlan (1999) Benthic community structure and biomarker induction in Grass Shrimp in an estuarine system. *Archives of Environmental Contamination and Toxicology*. 37(4): 512-518.

Pita, I., Jelaso, A.M., and C.F. Ide (1999) IL-1 β increases intracellular calcium levels through an IL-1 type 1 receptor mediated mechanism in C6 astrocytic cells. *International Journal of Developmental Neuroscience*. 17 (8): 813-820.

Cheek, A.O., C.F. Ide, J.E. Bollinger, C.V. Rider, J.A. McLachlan (1999) Alteration of leopard frog (*Rana pipiens*) metamorphosis by the herbicide acetochlor. *Ach. Environ. Contam. Toxicol.* 37:70-77.

Ide, C.F., A. Jelaso (1998) River Symposium Paper "Hazardous Materials in Aquatic Environments: Molecular Biomarkers and Risk Assessment in Bayou Trepagnier, LA". *Proceedings from The Mississippi River Symposium Meeting*.

Ide, C.F., S. O'Connor, G. Flowers. (1998) Tulane/Xavier Center for Bioenvironmental Research Project "Hazardous Materials in Aquatic Environments. *Proceedings from "Industry Partnerships to Deploy Environmental Technology Meeting"*.

Jelaso, A., S. Acevedo, T. Dang, A. LePere, and C.F. Ide (1998) Interleukin-1 β and its Type 1 Receptor are Expressed in Developing Neural Circuits in the Frog, *Xenopus laevis*. *J. Comp. Neurol.* 394: 242-251.

McLay, R.N., S.M. Freeman, R.E. Harlan, C.F. Ide, A.J. Kastin, and J.E. Zadina. (1997) Aging in the hippocampus: Interrelated actions of neurotrophins and glucocorticoid. *Neuroscience and Biobehavioral Reviews.* 21(5):615-629.

Jelaso, A., D. MacKay, C.F. Ide (1997) Methylmercury decreases IL-1 β immunoreactivity in the nervous system of the developing frog *Xenopus laevis*. *NeuroToxicology.* 18(3):841-850.

Lizhong, Jin, D.Q. Tran, C.F. Ide, J.A. McLachlan, and S.F. Arnold. (1997) Several synthetic chemicals inhibit progesterone receptor-mediated transactivation in yeast. *Biochem. Biophys. Res. Comm.* 233:139-146.

Scripter, J.L., J. Ko, K. Kow, A. Arimura, and C.F. Ide (1997) Regulation by interleukin-1 β of formation of a line of delimiting astrocytes following prenatal trauma to the brain of the mouse. *Experimental Neurology.* 145:1-14.

Ide, C.F. (1997) Tulane/Xavier Center for Bioenvironmental Research Project "Hazardous Materials in Aquatic Environments; Subproject: Biomarkers and Risk Assessment in Bayou Trepagnier, LA". Proceedings from "Industry Partnerships to Deploy Environmental Technology '97 Meeting".

Tran, D.Q., D.M. Klotz, B.L. Ladlie, C.F. Ide, J.A. McLachlan and S.F. Arnold. (1996) Inhibition of progesterone receptor activity in yeast by synthetic chemicals. *Biochemical and Biophysical Research Communications.* 229:518-523.

Tran, D.Q., C.F. Ide, J.A. McLachlan and S.F. Arnold. (1996) The anti-estrogenic activity of selected polynuclear aromatic hydrocarbons in yeast expressing human estrogen receptor. *Biochemical and Biophysical Research Communications.* 229:102-108.

Ide, C.F., J.L. Scripter, B.W. Coltman, R.S. Dotson, and A. Jelaso (1996) Cellular and molecular correlates to plasticity during recovery from injury in the developing mammalian brain. *Progress in Brain Research: Neural Development and Plasticity.* 108:365-377.

Coltman, B.W. and C.F. Ide (1996) Temporal characterization of microglia, IL-1 β -like immunoreactivity and astrocytes in the dentate gyrus of hippocampal organotypic slice cultures. *International Journal of Developmental Neuroscience.* 14:707-719.

Clejan S., C.F. Ide, C.F. Walker, E.W. Wolf, M. Corb, and B. Beckman (1996) Electromagnetic fields induced changes in lipid second messengers. *Journal of Lipid Mediators and Cell Signaling.* 13:301-324.

Clejan, S., R.S. Dotson, E.W. Wolf, M.P. Corb, and C.F. Ide (1996) Morphological differentiation of N1E-115 neuroblastoma cells by dimethyl sulfoxide and activation of lipid second messengers. *Experimental Cell Research*. 224:16-27.

Dotson, R.S., C.F. Ide, and S. Clejan (1996) Multiple changes in lipid second messengers in DMSO-induced neuroblastoma differentiation. *10 (6)*:L34-L34.

Clejan, S., R.S. Dotson, C.F. Ide, and B.S. Beckman (1995) Coordinated effects of electromagnetic field exposure on erythropoietin-induced activities of phosphatidylinositol-phospholipase C and phosphatidylinositol 3-kinase. *Cell Biochem Biophysics*. 27(3):203-225.

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Wolf, E.W., C. Walker, and C.F. Ide (1993) A method for studying ion channel gating under magnetic stimulation conditions using the whole-cell patch-clamp technique. *Proceedings of the Annual Conference of the IEEE Engineering in Medicine and Biology Society*. 15:1435-6.

Wolf, E.W., C. Walker, and C.F. Ide (1993) Search for altered sodium channel gating kinetics during magnetic stimulation conditions *in vitro*. *Proceedings of the Annual Conference of the IEEE Engineering in Medicine and Biology Society*. 15:1437-8.

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Wunsh, L.M. and C.F. Ide (1990) Fully differentiated *Xenopus* eye fragments regenerate to form pattern duplicated visuotectal projections. *J. Exptl. Zool.* 254:192-201.

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Dudek, F.E., C.F. Ide, and R. Tompkins (1987) Unresponsive, a behavioral mutant in *Xenopus laevis*: electrophysiological studies on the neuromuscular system. *J. Neurobiol.* 18: 237-243.

Ide, C.F., A. Blankeneau, J. Morrow, and R. Tompkins (1986) Cell movements correlate with novel cell division patterns during pattern formation in regenerating embryonic retina. In "Progress in Clinical and Biological Research: Volume 217B", Harold C. Slavkin, ed. Alan R. Liss, Inc. New York.

Tompkins, R., B. Szaro, D. Reinschmidt, C. Kaye, and C. F. Ide (1985) Effects of alterations of cell size and number on the structure and function of the *Xenopus laevis* nervous system. In "Gene Expression and Cell-Cell Interactions in the Developing Nervous System", J. M. Lauder and P. G. Nelson, Eds. Plenum Press. (pps.135-146).

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Hilton, D.S., McKinney-Bostic, A.A., Ide, C.F (2012) The cytokine Pander (FAM3B) and caspase 3 are induced by exogenous alpha-synuclein in C6 rat oligodendrocytes, and are present in oligodendrocytes undergoing myelin degeneration in MSA cerebellum. Society for Neuroscience, Abstracts, New Orleans, Louisiana.

Welter, M., Hilton, D.S., Ide, C.F. (2012) The expression of the chemokine receptor CXCR4 is increased in Purkinje cells of the Multiple System Atrophy cerebellum. Society for Neuroscience, Abstracts, New Orleans, Louisiana.

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Hilton, D., Langerveld, A., and Ide, C. F. (2011) Hook homolog 3 is down-regulated by the presence of alpha synuclein in C6 cells and is reduced in the granular cell layer of multiple system atrophy patients. Society for Neuroscience Abstracts, Washington, D.C.

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Katbamna, B., T. Barsheff, and C.F. Ide (2009) Ethanol disrupts connexin 43 expressing cells in the rhombomeres of *Xenopus laevis*. Society for Neuroscience Abstracts, Chicago, IL

Brooks, C., R. Shuchman, B. Koziol, and C.F. Ide (2009) A dynamic decision support tool for understanding the potential health impacts of different fish consumption patterns for mercury and PCBs in Great Lakes rivers. EPA and NEWMOA Mercury Science & Policy Conference with a Special Focus on the Great Lakes & Northeast Regions. Chicago, IL.

Zaya, R.M., A.J. Langerveld, R. Celestine, Z. Amini, A.S. Whitaker, and C.F. Ide (2009) Exposure to 400 ppb atrazine affects the expression of key genes in metabolic pathways integral to energy homeostasis in *Xenopus laevis* tadpoles. Society of Environmental Toxicology and Chemistry. New Orleans, Louisiana

Biernat, Jay and Ide, Charles. (2009) Assessment of soil composition and vegetation survey of old field, forest 1, and savannah 2 areas of the asylum lake property, Kalamazoo, Michigan. Argonne Symposium for Undergraduates in Science, Engineering and Mathematics. Argonne National Laboratory.

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Katbamna, B., and C.F. Ide (2007) Connexin 43 antisense morpholino mediated disruption of neural development. Society for Neuroscience Abstracts, San Diego, CA.

Mackenzie, C.D., R.R. Eversole, A. Jelaso-Langerveld, K. Thelen, and Ide, C. F. (2007) Macrophages in the inflammatory response to the common polysaccharide, chitosan. Keystone Symposia: The Macrophage: Homeostasis, Immunoregulation, and Disease. Copper Mountain, Colorado

Brooks, C.N., Koziol, B., Shuchman, R.A., Keefauver, D.E., and Ide, C., (2007) Geospatial health risk assessment tools: New and extended resources for Lake Michigan watersheds developed by the Great Lakes Environmental and Molecular Sciences (GLEAMS) Center. International Association for Great Lakes Research Abstracts, University Park, PA

Zaya, R., R. Eversole, S. Stapleton, S. Harris, and C. Ide (2007) Atrazine exposure may affect lipid storage in *Xenopus laevis* tadpoles. International Association for Great Lakes Research Abstracts, University Park, PA

Ide, C.F. and A.M. Jelaso (2005) DNA microarray analysis of gene expression in the pons of multiple systems atrophy (MSA) patients. Society for Neuroscience Abstracts, Washington, DC.

Ide, C.F. and A.M. Jelaso (2005) DNA microarray analysis of gene expression in the pons of multiple systems atrophy (MSA) patients. National Parkinson's Foundation Symposium. November, 2005, Washington, DC.

Katbamna, B., Brown, J., Ide, C. F. (2005) Auditory brainstem responses to airborne sounds in the aquatic frog *Xenopus laevis*: Correlations with middle ear characteristics. Association for Research in Otolaryngology midwinter meeting, February 2005, New Orleans, LA

Lehigh Shirey, E., Anna M. Jelaso, and Charles F. Ide (2005) PCBs delay amphibian metamorphosis: Aroclor 1254 changes deiodinase gene expression in *Xenopus laevis* tadpoles. International Association for Great Lakes Research Conference, Ann Arbor, MI.

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Jelaso, A.M., G. Gurley, J.M. Spitsbergen, and C.F. Ide (2003) Exposure to PCBs causes suppression of neural-immune response genes in C6 glioblastoma cells. Society for Neuroscience Abstracts. New Orleans, LA.

Fisher, M., J. Means, and C. Ide (2003) Bioindicators for Environmental Risk Assessment: Molecular Markers for Carp (*Cyprinus carpio*) Exposed to Polychlorinated Biphenyls. Lake Michigan: State of the Lake Meeting Abstracts, Muskegon, Michigan.

Shuchman, R., S. Savage, E. Caldwell, B. Piper, C. Ide, J. Means, B. Wygant (2003) Application of advanced informatics for improved efficiency in management of Lake Michigan watersheds – activities of the Great Lakes Environmental and Molecular Sciences Center (Gleams). Lake Michigan: State of the Lake Meeting Abstracts, Muskegon, Michigan.

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Jelaso, A.M., J.C. Means and C.F. Ide (2003) Gene expression levels as bioindicators of exposure to PCBs in developing *Xenopus laevis* tadpoles. Environmental Mutagenesis Society Conference, Miami, FL May.

Jelaso, A.M., John Spitsbergen and Charles F. Ide (2003) Gene expression profiles as bioindicators of neuroimmune suppression induced by exposure to PCBs. Keystone Symposia, Santa Fe, NM February.

Katbamna, B.J., A.M. Jelaso and C.F. Ide (2003) Does formation of the vertebrate ear modulate astroglial connexin43 expression in the hindbrain? Association for Otolaryngology Mid-Winter Meeting.

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Claypool, C.D., C.F. Ide, and K. Muneoka (1988) Cell behavior during healing of half-eye fragments of the embryonic mouse. Soc. For Neurosc. Abstracts.

Wunsh, L.M. and C.F. Ide (1988) An autoradiographic time study of healing and regeneration in fully differentiated *Xenopus* retinas. Soc. For Neurosc. Abstracts.

Wunsh, L.M. and C.F. Ide (1988) Nasal 1/3 fragments made from fully differentiated *Xenopus laevis* eyes regenerate and form pattern duplicated visuo-tectal projections. Investigative Ophthalmology and Visual Science. 378.

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Tompkins, R., M. Miller, J. Marino, and C.F. Ide (1986) Abnormal growth patterns correlate with unexpected visuotectal projections in chimeric *Xenopus* eyes. Soc. For Neurosc. Abstracts.

Ide, C.F., L. Wunsh, F. Amirpanahi, S. Brown, L. Noelke, Q. Le, and R. Tompkins (1986) Healing modes, cell movements, and local cell division influence visuotectal pattern formation in regenerating embryonic *Xenopus* retina. Soc. For Neurosc. Abstracts.

Ide, C.F., J.S. Morrow, R. Snow, J. Ahluwalia, and F.E. Dudek (1985) Combined lineage and dye-coupling studies of neurogenesis in *Xenopus laevis*. Soc. For Neurosc. Abstracts.

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Ide, C. F., A. Blankeneau, and R. Tompkins (1985) The relationship between cell movements and neural innervation pattern duplication in regenerating *Xenopus* embryonic retina. Cell Differentiation 16: 104s.

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Tompkins, R., F.E. Dudek, C.F. Ide, and J. Fuseler (1984) Unresponsive, a transient muscle dysfunction mutant in *Xenopus laevis*. Soc. For Neurosc. Abstracts.

Ide, C.F., P. Reynolds, C. Falk, D. Kahn, B. Szaro, D. Reinschmidt, and R. Tompkins (1983) Healing and growth patterns affect visuotectal projections in eye fragments and chimeric eyes. Soc. For Neurosc. Abstracts.

Fraser, S., C.F. Ide, and R. Meyer (1982) Eye dominance columns from an isogenic double nasal frog eye. Soc. For Neurosc. Abstracts.

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Ide, C.F. and R.K. Hunt (1978) Positional signaling in chimeric *Xenopus* retina. Biophys. J. 18: 110a.

Hunt, R. K. and C.F. Ide (1977) Radial propagation of positional signals in chimeric *Xenopus* retina. Biol. Bul. 153:430-431.

Ide, C. F. (1977) Vestibular physiology of the spastic axolotl. Biophys. J. 16:127a.

Ide, C.F. (1975) Altered trochlear motoneuron activity in response to sustained tilt in behavior mutant (spastic) axolotls. Biophys. J. 16:215a.

Tompkins, R., C.F. Ide, and V. Prewit (1975) Mutations changing axolotl behavior. *Soviet J. Develop. Biol.* 6: 273.

Book Reviews

Principles of Neural Development. By Dale Purvis and Jeff W. Lichtman. *American Zoologist* (1985) 25: 1020-1021.

Principles of Neural Development. By Dale Purvis and Jeff W. Lichtman. *BioScience* (1985) 35: 661-662.

Development of Nerve Cells and Their Connections. By W.G. Hopkins and M.C. Brown. *BioScience* (1986) 36: 119.

Academic Presentations

Symposium Presentations (25 total)

Invited University and Institute Lectures (33 total)

Meeting Presentations (68 total)

Society Memberships (Past and Present)

American Association for the Advancement of Science

Society for Neuroscience

International Brain Research Organization

International Neuropeptide Society

International Society for Developmental Neuroscience

Association for Research in Vision and Ophthalmology

Sigma Xi

Society for Environmental Toxicology and Chemistry

Environmental Mutagen Society

Other Professional Activities

Ad hoc reviewer for Science, Developmental Biology, Brain Research, and Journal of Experimental Zoology, Embryology and Anatomy and Peptide Journal

Ad hoc reviewer for NSF and NIH Developmental Biology and Developmental Neurobiology Panels and NIMH SBIR Review Panels

Member, NSF Panels (2003-2006) Research Experience for Undergraduates (REU) and Undergraduate Mentors in Environmental Biology (UMEB)

Teaching Experience: Graduate Student Sponsorship

Master's Degree

Tulane University

Elisabeth Noelke (1986)

Paula Nelson (1986)

Lauren Wunsh (1987)

Doctoral Degree

Lauren Wunsh Underwood (Ph.D. 1991)

First Position: NIH Postdoctoral Fellow

LSU Eye Center

New Orleans, LA

Lien Ngyuen (1988)
Alan Kaye (1988)
Dianne Claypool Snyder (1988)
Bertram Coltman (1990)
Lourdes Viscasillas, CMB, M.S., 1990

Dianne Claypool Snyder (Ph.D. 1992)
First Position: Assistant Professor
Dept. of Biology
Augusta College
Augusta, Georgia

Jori Lynn Scriptor (Ph.D. 1995)
First Position: Howard Hughes
Post Doctoral Fellow
Washington University
School of Medicine
St. Louis, MO

Bertram Coltman (Ph.D. 1996)
First Position: Post Doctoral Fellow
Case Western Reserve University
Medical School
Cleveland, OH

Anna Jelaso (Ph.D. 1998)
First Position: Research Associate
Environmental Research Center
Western Michigan University
Kalamazoo, MI

Robert Dotson (Ph.D. 1998)
First Position: Instructor
Loyola University
New Orleans, LA

Western Michigan University

Marla Fisher (Ph.D. 2004)
First Position: Post Doctoral Fellow
North Carolina State University
Raleigh, North Carolina

Inez Yuwanita (2009)
Jeff Walburn (2010)
Carrie McKean (2010)
Ashley McKinney-Bostic (2012)
Megan Welter (2013)
Junjie Hu (2013)
Karen Van Wagner (2013)
Chelsea Bagley (2016)
Annamarie Valenti (2017)

Ron Celestine (Ph.D. 2006)
First Position: Instructor
Grand Valley State University
Grand Rapids, MI
Renee Zaya (Ph.D. 2010)
First Position: Research Associate
Western Michigan University

Derrick Hilton (Ph.D. 2012)
First Position: Post Doctoral Fellow
U. of Chicago, Medical School
Carrie McKean (Ph.D. 2014)
First Position: Instructor
Western Michigan U.

Teaching Experience: Sponsorship of Senior Thesis Projects

Completed Spring, 1984	Daniel Kahn and Gerhardt Rivera
Completed Spring, 1985	Steven Coletti, Andrew Blankenau, Elisabeth Noelke, Paul Lecat, Frank Arena, Curtis Holder, John Morrow, Bradley Bartholomew
Completed Spring, 1986	Lea Percy, Steven Brown, Orlando Galindez, John Tompkins
Completed Spring, 1987	Peter Wang, Juan Perez-Monte
Completed Spring, 1989	Marc Carruth (co-sponsored)
Completed Spring, 1990	Shalini Gilotra
Completed Spring, 1991	Leanne Alworth
Completed Spring, 1992	Michelle Morot, Mike Deiner
Completed Spring, 1993	Kathy Eure, Alpen Patel, Tom Murray
Completed Spring, 1994	Brandi Jones
Completed Spring, 1995	My-Lihn Pham
Completed Spring, 1996	Ivan Castillan, Brian Bigler, Katharina Truelove
Completed Spring 1997	Ignacio Pita
Completed Spring 1998	Sonal Hazariwala
Completed Spring 2003	Bjorn Olsen, Kelly Andrews
Completed Spring 2004	Cari DeLong
Completed Spring 2008	Lucy Kurtz
Completed Spring 2010	Elizabeth Haworth-Hoepfner (Kalamazoo College)
Completed Spring 2014	Alyssa Peterson, Rachel Carp
Completed Summer II 2014	Billy Gotama

Teaching Experience: Postdoctoral Fellows Sponsored

1984-1985	Dorothea Trimble
1990-1993	James Cronin
1995-1997	Kandan Sethumadhavan
1998-2003	Anna Jelaso
2017-2018	Marla Fisher

Teaching Experience: Graduate Instructor

1972	Genetics and Cell Biology, Princeton University
1973-75	Neurophysiology, Princeton University

Teaching Experience: Guest Lectures

1976-78	The Johns Hopkins University - Advanced Neurophysiology Introductory Physiology Genetic Neurobiology Developmental Physiology Molecular Neurobiology Natural History of Man
1981-82	University of California, Irvine - Cell Surface in Development Developmental Neurobiology

Teaching Experience: Courses

1982-1998	Tulane University
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General Biology 101
 Fall term; 1982, 1983, 1984
 General Biology 102
 Spring term; 1983
 Genetics 205
 Summer term; 1984, 1985
 Problems in Developmental Neurobiology 491
 Fall term; 1982, 1983, 1984, 1985, 1986, 1988, 1990, 1992
 Spring term; 1982, 1983, 1985, 1986, 1987, 1988, 1990, 1991, 1993, 1994
 Summer term; 1984, 1986
 Special Projects in Endocrinology 495
 Summer term; 1984
 Fall term; 1984, 1986, 1987, 1988
 Spring term; 1985, 1986, 1988
 Senior Thesis 499, 500
 1983, 1984, 1985, 1986, 1987, 1988, 1990, 1991, 1993, 1994, 1995, 1996, 1997, 1998
 Developmental Biology 202, 702
 Fall term; 1982, 1983, 1984
 Spring term; 1983, 1984
 Neuroscience 621
 Spring term; 1983, 1984, 1985, 1986, 1987, 1988, 1990, 1991
 Summer term; 1983
 Fall term; 1991
 Cell Interactions during Regeneration 799
 Fall term; 1984, 1985, 1986, 1987
 Spring term; 1985, 1986, 1987
 Cells and Tissues 411 (Human Histology)
 Fall term; 1985, 1986, 1987, 1988, 1990, 1995, 1997
 Spring term; 1986, 1992, 1993, 1994, 1995
 Summer term; 1986, 1987, 1988, 1989, 1992, 1993
 Electron Microscopy 758
 Spring; 1988
 Trends in Neuroscience 709
 Fall; 1988; Spring, 1991
 Developmental Neurobiology 612 (431)
 Fall; 1992, 1994
 Spring; 1996, 1998

1998-

Western Michigan University

Human Impacts Great Lakes Environment (Bios 5545)
 Spring, 2012, 2013, 2014, 2015, 2016, 2017
 Summer I, 2013, 2014, 2015, 2016, 2017
 Environmental Biology (Bios 1050)
 Fall; 2000, 2001, 2006, 2009, 2010, 2012, 2013, 2014, 2015, 2016, 2017
 Spring; 2004, 2005, 2006, 2008
 Environmental Assessment (Bios 497)
 Spring; 2001
 Special Problems: Great Lakes Environment (Bios 5970)
 Fall, 2007, 2008; Spring, 2007, 2009, 2010, 2011; Summer, 2011
 Special Problems: Conservation Biology (Bios 5970), co-taught
 Spring, 2007
 Biological Sciences Colloquium (Bios 6050)
 Fall 2007

Brain Function in Health and Disease (Bios 5970)
Fall, 2011; Summer II, 2012, 2013, 2014, 2015, 2016,2017

Publicity

TV Segment and Interview: Robert Bazelle, The Today Show. (1985) Regeneration and Rewiring in Amphibian Vision.

TV Segment and Interview: Charles Crawford, CNN News. (1985) Regeneration and Rewiring in Amphibian Vision.

Interview and Story: Scully, Malcolm G. (2001, June 1) Taking the Pulse of the Kalamazoo, *The Chronicle of Higher Education*, 38, B16.

Interview and Story: Carlton, Jim (2001, July 30) Studying Pollution's Impact on the Genetic Level. *The Wall Street Journal*, B1.

Interview and Story: Krusean, Bill (2001) Research for Kalamazoo River Cleanup, *Kalamazoo Gazette*.

Interview and International Radio Broadcast: BBC (2001) New Genomics Based Tools for Environmental Health Analysis. Aired on National Public Radio and other stations (8/9/2001)

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Broadcast Interview (2013) Human and Ecological Health Effects from Environmental Contaminants in the Kalamazoo River

Radio Interview (2014) Health Effects of Indoor Air Pollution