

## Curriculum Vitae

- Name:** Nicolas G. Bazan, M.D., Ph.D.
- Office Address:** Louisiana State University Health Sciences Center  
Neuroscience Center of Excellence  
2020 Gravier Street, Suite "D", New Orleans, LA 70112  
Office 504-599-0832; Fax 504-568-5801  
Email [nbazan@lsuhsc.edu](mailto:nbazan@lsuhsc.edu)  
Web site <http://www.medschool.lsuhs.edu/neuroscience/>
- Place of Birth:** Los Sarmientos, Tucuman, Argentina
- Citizenship:** United States
- Marital Status:** Married Sept. 18, 1965 to Dr. Haydee E. Pascual;  
Five children: Patricia Bazan Garrubbo, JD (1966), Andrea Bazan, MHA, MSW (1967),  
Nicolas Bazan, III (1969), Hernan Bazan, MD (1972),  
Maria Bazan Clark (1978)
- Education:**
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|------|------------------------------------|---|
| 1958 | Bachiller                          | Colegio Belgrano, Salta, Argentina  |
| 1965 | M.D.                               | Medical School, U. Tucumán (Facultad de Medicina, Universidad, Nacional de Tucumán, Argentina)                            |
| 1971 | D. Med. Sci.<br>(Ph.D. equivalent) | Medical School, U. Tucuman, Argentina<br>(Thesis research conducted during 1966-68 at Harvard Medical School, Boston, MA) |
- Research Fellowships:**
- |           |  |
|-----------|--|
| 1960-1965 | Departments of Pathology, Pharmacology and Anatomy, Faculty of Medicine, University of Tucuman, Argentina                        |
| 1962      | Fellowship in Institute of Altitude Biology Jujuy, Univ. Tucuman, Argentina  |
| 1963      | Teaching Assistant, Dept. of Biology, Embryology & Genetics, Faculty of Medicine University of Tucuman, Argentina                |
| 1963-1965 | Institute of Biology, Faculty of Biochemistry, U. Tucuman  |
| 1964      | Instituto de Investigaciones Bioquimicas, Fundación Campomar, Buenos Aires, Argentina  |
| 1964      | Winter International Courses on New Aspects in Biology and "Basis of the Modern Genetics," University of Buenos Aires, Argentina |
- Postdoctoral Research Training:**
- |           |   |
|-----------|---|
| 1965-1966 | Postdoctoral Research Fellow, Department of Physical Medicine and Rehabilitation, College of Physicians and Surgeons, Columbia University, New York, NY |
| 1966-1968 | Postdoctoral Research Fellow, Massachusetts Mental Health Center, Department of Biological Chemistry, Harvard University Medical School, Boston, MA     |
- Academic Appointments:**
- |           |   |
|-----------|---|
| 1968-1970 | Assistant Professor, Department Biochemistry, Faculty of Medicine, University of Toronto, Canada<br>Assistant Director, Department Neurochemistry, Clarke Institute of Psychiatry, Toronto, |
|-----------|---|

	Canada
1970-1971	Consejo Superior (Deans Council), University of the South, Bahia Blanca, Argentina
1970-1973	Director (Founder), Department of Biology, University of the South, Bahía Blanca, Argentina
1970-1981	Professor and Chair of Biological Chemistry, University of the South, Bahia Blanca, Argentina
1970-1981	Director (Founder), Instituto of Biochemical Investigations, Universidad Nacional del Sur-Consejo Nacional de Investigaciones Cientificas y Técnicas, Bahía Blanca, Argentina
1977	Visiting Professor, Department Ophthalmology, Baylor College of Medicine, Houston, TX
1981-	Professor of Ophthalmology, Biochemistry and Molecular Biology and Neurology, LSU Medical Center School of Medicine, New Orleans, LA
1984-	The Ernest C. and Yvette C. Villere Chair for Research in Retinal Degeneration Eye, Ear, Nose and Throat Hospital, New Orleans, LA
1988-	Director (Founder), Neuroscience Center of Excellence, LSU Medical Center School of Medicine, New Orleans, LA
1994-	Boyd Professor, LSU Medical Center, New Orleans, LA

***Membership in Professional and Scientific Societies: Other Societies***

***Elected Memberships***

American Diabetes Association	American Oil Chemists Society
American Epilepsy Society	Association for Research in Vision & Ophthalmology
American Society of Biological Chemists	Biochemical Society of London, England
American Society for Neurochemistry	Canadian Biochemical Society, Canada
British Society for Nutritional Medicine	International Brain Research
International Society for Neurochemistry	International Cell Research Organization
Sociedad Argentina de Investigación Bioquímica	New York Academy of Science
Society of Neuroscience	Sociedad Argentina de Biofísica
Society of Sigma Xi	Sociedad Argentina de Investigación en Neurociencias
American Association for the Advancement of Science	

***Community Awards in New Orleans:***

1994	Role Model Awardee, Young Leadership Council of New Orleans
2002	CityBusiness 2002 Innovator of the Year Award, New Orleans, LA
2002	The Alzheimer's' Association Greater New Orleans Chapter Award, New Orleans, LA
2003	Career Service Award, 20 years, LSU Health Sciences Center, New Orleans, LA
2003	Family Services of Greater New Orleans (Ten Outstanding Persons) Award, New Orleans, LA
2008	New Orleans CityBusiness Health Care Heroes Award
2010	Junior Achievement Business Hall of Fame, New Orleans, LA
2011	Excelencia Award for Medical Research and Business, Hispanic Chamber of Commerce of Louisiana, New Orleans, LA

***Editorial Boards:***

1981-1989	Journal of Neurochemistry
1983-1988	Neurochemical Pathology
1986-1993	Neurochemical Research
1988-1993	Journal of Lipid Mediators
1988-1996	Journal Cerebral Blood Flow & Metabolism
1994-1997	Journal of Lipid Mediators & Cell Activation

1985-	Journal of Neuroscience Research
1987-	Molecular Neurobiology (Editor-in-Chief and Founder)
1988-1998	Molecular and Chemical Neuropathology
1989-1990	Journal of Molecular Neuroscience
1990-2001	Journal of Nutritional Biochemistry
1993-1999	Journal of Clinical Neuroscience
1994-	Pathophysiology
1996-	Neurochemical Research (Associate Editor)
1996-1998	Receptors and Signal Transduction
1997-2002	Journal of Biological Chemistry
2000-	Proceedings of the Society for Experimental Biology and Medicine
2000-	Neurotoxicity Research
2001-	Investigative Ophthalmology & Visual Science (Editorial Board Member)
2002-	NeuroMolecular Medicine
2003-	Cellular and Molecular Neurobiology
2004-	Current Neurovascular Research
2004-	Medical Economics
2005-	Recent Patent Reviews on CNS Drug Discovery
2005-	Handbook of Neurochemistry and Molecular Neurobiology, 3 <sup>rd</sup> Edition At Large Editor – Nicolas G. Bazan
2007-	Cell Death & Differentiation
2008-	Journal of Neurodegeneration and Regeneration
2008-	Lipids Insights
2010-	Metabolic Brain Disease
2010-	Cell Death & Disease (Nature journal)
2014-	Neurology

**Major Committee Assignments:**

1975	Chair, Round-Table on Neurochemistry of Sensory Systems: Retina International Meeting of the International Society for Neurochemistry, Barcelona, Spain
1975	Co-chair and Organizer, International Symposium on Function and Biosynthesis of Lipids, Sierra de La Ventana, Argentina
1976	Chair and Organizer, Annual Meeting of the Argentine Biochemical Society, Sierra de La Ventana, Argentina
1977 & 1980	Co-Organizer, "Nutrition and Atherosclerosis," Tucuman, Argentina
1978	Chaired and Organized, Annual Meeting of the Argentine Biophysical Society, Pehuen-Co, Argentina
1977-1979	Program Committee, 7th International Meeting International Society for Neurochemistry, Jerusalem
1973-	Chair and Organizer, Symposia and Workshops in the Neurosciences in Jerusalem, Mexico, Birmingham, Tokyo, Taipei, Nijmegen, Vancouver, Hot Springs, Alicante, Baltimore, Montreal
1979	Co-Chair and Organizer, International Symposium on Neurochemistry of the Retina, Athens, Greece
1980	Co-Chair and Organizer, International Symposium on Nutrition, Lipid Research and Cardiovascular Diseases, Bahia Blanca, Argentina
1982	Co-Chaired and Organizer, Symposium on Retina Neurochemistry, 5th International Congress of Eye Research, Netherlands
1985	Co-Organizer, of International Symposium on Phospholipids in the Nervous System: Biochemical and Molecular Pharmacology, Satellite meeting of the International Society for Neurochemistry, Mantova, Italy

- 1985-1986 Program Committee, 17th Annual Meeting American Society of Neurochemistry, Baltimore, MD
- 1986 Chair and Organizer, ASN Symposium Formation and Functions of Eicosanoids in the Central Nervous System, Montreal, Quebec
- 1986 Co-Chair and Organizer, International Symposium on Prostaglandins and Related Compounds in Ophthalmology, Tokyo, Japan
- 1986-1987 Chair, Neuroscience Steering Committee of LSU Medical School
- 1987 Chair and Organizer, Phospholipid in the Nervous System: Biochemical and Molecular Pathology, Satellite Symposium of ISN-ASN Joint Meeting, Puerto La Cruz, Venezuela
- 1987 Co-Organizer, Satellite of 17th Annual Society for Neuroscience Meeting, The Role of Nutrition in the Development, Differentiation and Function of the Central Nervous System, New Orleans, LA
- 1987-1989 Member, Program Committee, 20th Annual Meeting, American Society for Neurochemistry, Chicago, IL
- 1988 Chair, Local Organizing Committee, 19th Annual Meeting American Society for Neurochemistry, New Orleans, LA
- 1988 Co-Organizer and Co-chair, The New York Academy of Sciences Conference on Arachidonic Acid Metabolism in the Nervous System: Physiological and Pathological Significance, Bethesda, MD
- 1987-1989 President, Pan American Association for Research in Ophthalmology
- 1990 Organizer, Minisymposium, American Soc. for Neurochemistry, Phoenix, AZ
- 1990 Co-Organizer, Satellite Meeting of the 9th ISER on The Ocular Functions of Eicosanoids and Other Lipids Mediators, Haikko, Finland
- 1991 Chair, Sendai Forum 91, International Workshop on Molecular Mechanisms of Ischemic Brain Damage, Okinawa, Japan
- 1991 Chair, Session, Receptor and Second Messengers, American Society for Neurochemistry, Charleston, SC
- 1991 Co-Organizer, Meeting of Eicosanoid Group, The Role of Eicosanoids in the Modulation of the Intraocular Pressure and in Other Ocular Functions, Longboat Key, FL
- 1991 Co-Organizer, Joint Meeting of American Uveitis Society and Eicosanoid Group, Interplay between Eicosanoids, Other Lipid Mediators and Cytokines in the Eye, Longboat Key, FL
- 1991 Co-Organizer, Satellite Meeting of the 13th International Society for Neurochemistry, "Neurobiology of Essential Fatty Acids," Cairns, Australia
- 1991 Co-Organizer, International Symposium of the 13th International Society for Neurochemistry, Molecular Events in Neurotransmissions, Sydney, Australia
- 1991 Co-Organizer, Satellite Meeting of the Society for Neuroscience, "Immediate Early Genes of the Nervous System: Physiological Role and Pathological Significance," New Orleans, LA
- 1991 Co-Organizer and Co-chair, Symposium on "Lipid Mediators in Synaptic Transmission and Signal Transduction of Neuronal Cells: Physiological and Pathological Implications," Society for Neuroscience, New Orleans, LA
- 1990-1992 Program Committee, American Society for Neurochemistry, Houston, Texas
- 1991-1993 Program Committee, International Society for Neurochemistry, Montpellier, France
- 1991-1993 Council Member, International Society for Pathophysiology
- 1992 International Advisory Committee, International Symposium on Retinal Degeneration, Costa Smeralda, Sardinia
- 1992 Co-Organizer, Ocular Cell and Molecular Biology Conference, Dallas, TX
- 1993 Advisory Board, ISN Satellite Meeting, 6th International Symposium, New Frontiers in the Biochemistry and Biophysics on Diagnosis and Treatment of Stroke, Neurotrauma and Other Neurological Diseases, Martin, Slovak Republic

- 1993 Program Committee, International Society for Neurochemistry, 14th ISN Biennial Meeting, Montpellier, France
- 1993 Advisory Board, Neurotrauma Society, 11th Neurotrauma Symposium, Washington, DC
- 1994 Organizer, Leon Wolfe Symposium, Lipids in the Central Nervous System: From Structure to Signal Transduction, New Orleans, LA
- 1994 International Advisory Board, 9th International Conference on Prostaglandins and Related Compounds, Florence, Italy
- 1994 Advisory Board, International Symposium on Pharmacology of Cerebral Ischemia, Marburg, Germany
- 1995 Chair, Program Committee, Association for Ocular Pharmacology and Therapeutics, New Orleans, LA
- 1995 Co-Chair, ASN Satellite Symposium, Neural and Glial Injury: Signal Transduction and Neuroprotection, Santa Monica, CA
- 1995 Co-Chair, ASN Symposium on Physiological Significance and Pathophysiological Role of PAF in Nervous System, Santa Monica, CA
- 1995 Chair Session, on Growth Regulation and Apoptosis/Calcium Transport and Regulatory Proteins at Neurodegenerative Diseases: Molecular and Cellular Mechanisms and Therapeutic Advances, XV Washington Spring International Symposium in Washington, DC
- 1995 Co-Chair Session, on Free Radical Pathophysiology in the Brain Disease at the 7th International Symposium on New Frontiers in the Biochemistry and Biophysics on Diagnosis and Treatment of Stroke, Neurotrauma and Other Neurological Disorders, Kurashiki, Japan
- 1996 Organizer, International Symposium, Fundamental Issues in Stroke and Epilepsy: Excitotoxicity, Cell Signaling and Neuroprotection, New Orleans, LA
- 1996 Co-Chair, American Society for Neurochemistry Symposium, Epileptogenesis and Neural Plasticity, Philadelphia, PA
- 1996 Co-Chair, International Symposium, New Targets in Inflammation: Inhibitors of COX-2 or Adhesion Molecules, New Orleans, LA
- 1996 Program Committee Co-Chair, Second Annual Association for Ocular Pharmacology and Therapeutics, Los Angeles, CA
- 1996 Chair, Session on “Animal Models of Diabetic Nephropathy and/or Mechanistic Approaches, at Diabetic Nephropathy: Secondary Phenomenon or Disease Entity,” Baden, Austria
- 1996 Chair, Session at the ICP’96 - 10th International Conference on Prostaglandins and Related Compounds, Vienna, Austria
- 1997 Co-Moderator, Photooxidative Damage and Protective Mechanisms in Retina Session, Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL
- 1997 Chair and Organizer, 8th International Symposium on Stroke, Neurotrauma, and Other Neurological Diseases, Satellite of the Joint Meeting of the 16th Biennial Meeting of the International Society for Neurochemistry and the 28th Annual Meeting of the American Society for Neurochemistry, New Orleans, LA
- 1997 Chair and Organizer, Lipid Messengers in the Nervous System, Satellite of the Joint Meeting of the 16th Biennial Meeting of the International Society for Neurochemistry and the 28th Annual Meeting of the American Society for Neurochemistry, New Orleans, LA
- 1997 Co-organizer, on “Matrix Metalloproteinases and the Central Nervous System,” New Orleans, LA
- 1998 Co-organizer, Asthma: Clinical and Research Perspectives meeting, New Orleans, LA
- 1998 Chair, 8th International Congress on “Platelet-Activating Factor and Related Lipid Mediators,” New Orleans, LA
- 1999 Chair, Organizer and President, Thirtieth Annual American Society for Neurochemistry

1999	Meeting, New Orleans, LA Organizer and Chair, Fourth International Workshop on Maturation Phenomenon in Cerebral Ischemia-Apoptosis and/or Necrosis, Neuronal Recovery vs. Death, and Protection for Infarction, New Orleans, LA
2000	Co-Chair, Session, XIV International Congress of Eye Research, Santé Fe, NM
2002-2004	President, Pan-American Association for Research in Ophthalmology
2004	Co-Organizers, Retinal Cell Biology Session on Oxidative Damage and Signal Transduction in the Retina, XVI International Congress for Eye Research (ICER), Sydney, Australia
2004	Co-Chair, Research Committee of the Pan-American Association of Ophthalmology
2006	Co-Chair, Session, XII International Symposium on Retinal Degeneration, October 23-28, 2006, San Carlos de Bariloche, Argentina
2006	Co-Organizer, XII International Symposium on Retinal Degeneration, October 23-28, 2006, San Carlos de Bariloche, Argentina
2007	Member Scientific Committee, 3 <sup>rd</sup> International Conference on Phospholipases A <sub>2</sub> and Lipid Mediators, May 9-12, 2007, Sorrento (Naples), Italy.
2007	Co-Chair, ARVO Ocular Cell and Molecular Biology, September 6-8, 2007, Sarasota, Florida
2008	Co-Chair, Session on Stroke Research-From Past to Future Perspectives, 5 <sup>th</sup> International Symposium on Neuroprotection and Neurorepair, Cerebral Ischemia and Stroke, May 17-20, 2008, Magdeburg, Germany
2008	Member of International Advisory Committee, XIII International Symposium on Retinal Degeneration, September 18-23, 2008, Emeishan, Sichuan, China
2009	Invited Keynote Lecturer at the British Pharmacological Society Meeting, July 8-10, 2009, Edinburgh, UK
2009	Co-Chair, Session on Current Opinions in Cell Death Signaling at Satellite Meeting on Cell Death, July 10-11, 2009, Edinburgh, UK
2009	Co-Chair, Session on Oxidative Stress-mediated Signaling in Neurodegeneration Diseases, 22 <sup>nd</sup> Biennial Meeting of the ISN/APSN, August 23-28, 2009, BEXCO, Busan, Korea
2010	Co-Chair

***Federal Advisory Committees, U.S. Public Health Service, National Institute of Health:***

- Member, Task Force for Developmental Neurobiology, National Institute of Child Health and Human Development, 1983-1984.
- Member, Special Review Committee, National Institute of Neurological and Communicative Diseases and Stroke (NIH), January 1985.
- Ad hoc member, Basic Psychopharmacology Research Neurosciences, Review Committee, National Institute of Mental Health, June 1985.
- Reviewer, Research Scientist Development Review Committee, National Institute of Mental Health, 1985.
- Reviewer, Visual Sciences Study Section, Special Review Committee, National Institute of Neurological and Communicative Diseases and Stroke (NIH), 1986
- Reviewer, National Science Foundation, Veterans Administration Hospital, 1986.
- Special Review Committee, January 1986.
- Special Reviewer, VISA 1 Study Section, January 1986.
- Member, Special Review Committee, National Institute of Neurological and Communicative Diseases and Stroke (NIH), February 1986.
- Special Review Committee, October 1986.
- Ad hoc Member, NIH Neurology B Study Section, Division of Research Grants, February 1988.
- NIH Behavioral and Neurosciences Study Section, Division of Research Grants, 1988-1992.

- Review Committee Member, NIH Basic Research Science Grant (BRSG), LSU Medical Center School of Medicine, New Orleans, July 1989-1991.
- Special Review Committee, Neuronal Ceroid Lipofuscinoses (Batten Disease), 1991.
- Reviewer, NIH, NIAAA Board of Scientific Counselors and Ad Hoc Reviewers of the Laboratory of Membrane Biochemistry and Biophysics (LMBB), Washington, DC, 2001
- Review Committee, National Eye Institute, National Institutes of Health, Lutin/DHA Advisory Group, 2004
- Review Committee member, National Institutes on Drug Abuse (NIDA), Targeted Lipidomics: Signaling Lipids and Drugs of Abuse, 2004
- Reviewer, MU-AD-PPG, NIH Study section, St. Louis, MO, 2004
- Review Committee member, Brain Uptake and Utilization of Fatty Acids, Lipids and Lipoproteins, Bethesda, MD, 2004
- Chair, NIH Study Section, Review Committee, Bethesda, Maryland, 2006
- Reviewer, Biology and Diseases of the Posterior Eye Study, 2006 Section, (formerly Visual Sciences C Study Section) Center for Scientific Review, NIH, Bethesda, MD, 2006
- Reviewer, Biophysics of Neural Systems (BPNS), Center for Scientific Review, National Institutes of Health, Bethesda, MD, 2006
- Reviewer, National Institute of General Medical Sciences, NIH, Bethesda, MD, 2007
- Reviewer, Special Emphasis Panel/Scientific Review Group 2007/05 ZRG1, MDCN-B, Mitochondrial and Cerebral Ischemia, Center for Scientific Review, NIH, Bethesda, MD, 2007
- Reviewer, U.S. Army Medical Research and Material Command (USAMRMC), American Institute of Biological Sciences, Scientific Peer Advisory and Review Services, Reston, VA, 2007
- Reviewer, Alzheimer's Association Grant Reviews, Chicago, IL, 2007
- Reviewer, Molecular and Integrative Signal Transduction (MIST) Study Section, Bethesda, MD, 2008
- Member, Institutional Clinical Translational Science Award (CTSA) Center Special Emphasis Panel review panel, National Center for Research Resources, February 19-20, 2008
- Reviewer, NIH Study Section, Biophysical and Physiological Neuroscience ZRG1 F03B (20), Washington, DC, June 18-19, 2009
- Reviewer, Center for Scientific Review, Special Emphasis Panel, Challenge Grant review ZRG1-CB-N 58, July 20-21, 2009.
- Reviewer, S10 Shared Instrumentation and Microscopy Review, Center for Scientific Review, NIH, November 12-13, 2009, Chicago, IL
- Reviewer, Brain Disorders and Clinical Neuroscience Integrated Review Group, Clinical Neuroplasticity and Neurotransmitters Study Section (CNNT), San Francisco, CA, February 11-12, 2010. Washington, DC
- Reviewer, Biology and Disease of the Posterior Eye Study Section, Center for Scientific Review, NIH, July 1, 2010, Bethesda, MD
- Reviewer, NIH Workshop "Clarifying Directions and Approaches to Mechanistic and Translational Research on Omega-3 Fatty Acids and their Metabolites", February 14-15, 2011, Bethesda, MD.
- Reviewer, Biology and Disease of the Posterior Eye Study Section, Center for Scientific Review, NIH, February 22-23, 2011, Bethesda, MD
- Reviewer, Biology and Disease of the Posterior Eye Study Section, Center for Scientific Review, NIH, June 20-21, 2011, Chicago, IL
- Reviewer, NIH, Biology and Disease of the Posterior Eye Study Section, October 24-25, 2011, Bethesda, MD
- Reviewer, Special Emphasis Panel, NEI Translational Research on Therapy for Visual Disorders (R24), Washington, DC, 2011
- Reviewer, Biology of the Visual System Study Section, Center for Scientific Review, NIH, February 13-14, 2012, Bethesda, MD.
- Reviewer, American Heart Association, Brain 4 Peer Review Committee, Teleconference meeting, April 2, 2012.
- Reviewer, NIH, Biology and Disease of the Posterior Eye Study Section, June 4-5, 2012, San Francisco, CA
- Reviewer, NIH, Biology and Disease of the Posterior Eye Study Section, June 10-11, 2013, San Francisco, CA
- Reviewer, American Heart Association Peer Review, Teleconference meeting, October 23, 2013

- Reviewer and Member, Biology of the Visual System Study Section, NIH, Washington, DC, Teleconference call, December 5-6, 2013.
- Reviewer, Biology of the Visual System Study Section, NIH, Bethesda, MD, February 13-14, 2014.
- Reviewer, Biology of the Visual System Study Section, NIH, San Francisco, CA, June 19-20, 2014
- Reviewer, American Heart Association, IRG Vascular Science (Brain), BSc1 Conference Call, October 20, 2014
- Reviewer, Botanical Dietary Supplement Research Center (BDSRC) (p50), Washington, DC, December 17-18, 2014
- Reviewer, NINDS Study Section, NIH, Washington, DC, June 17, 2015
- Reviewer, NEI Translational Research Program on Therapy for Visual Disorder Study Section, Bethesda, MD, July 31, 2015

***Other Advisory Committees:***

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| 1988-1989 | Glaxo Inc., Cardiovascular Discovery Grant Advisory Board  |
| 1988-1990 | Fundamental Research Related to Multiple Sclerosis, National Multiple Sclerosis Society, New York, NY                        |
| 1988-1990 | Chairman, Task Force on Research as an Economic Force for the Future, LSU Medical Center School of Medicine, New Orleans, LA |
| 1988-1991 | Boyd Professorship Review Committee, LSU Systems, Baton Rouge, LA  |
| 1990-     | Administrative Council, LSU Health Sciences Center New Orleans, LA   |
| 1990-     | Scientific Adv. Board Member, Fondazione Giovanni Lorenzini, Houston, TX   |
| 1992      | International Advisory Board, International Conference on Prostaglandins and Related Compounds, Montreal, Quebec, Canada     |
| 1992      | Chairman, SACS Accreditation Committee on Externally Funded Grants and Contracts, LSU School of Medicine, New Orleans, LA    |
| 1994      | Board Member, William Harvey Medical Research Foundation   |
| 1995-1998 | President and Trustee, William Harvey Medical Research Foundation  |
| 1996      | Search Committee Member, Endowed Chair in Parkinson Disease, LSU School of Medicine, New Orleans, LA                         |
| 1998-     | Member, Scientific Board of Visitors, Oklahoma Medical Research Foundation, Oklahoma City, OK                                |
| 1998-     | Board Member, William Harvey Medical Research Foundation   |
| 1998-     | Member, Fondazione Giovanni Lorenzini, Houston, TX   |
| 1998-     | Member, Southern Dominican Province New Orleans Advisory Board   |
| 1998-1999 | Advisory Board Member, Interdisciplinary Development for Celecoxib in Alzheimer's disease, Chicago, IL                       |
| 1999      | Advisory Board member, G.D. Searle & Co. Celecoxib-Alzheimer's Disease Development, Irving, TX                               |
| 1999-2003 | Advisory Board Member, Book Series "Nutrition, Brain and Behavior"   |
| 2000      | Peer Reviewer, American Heart Association, Brain Res. Group, Dallas, TX  |
| 2000      | Consultant, Merck 2000 Management of Acute Pain and Arthritis, Dallas, TX  |
| 2000      | Peer Reviewer, Spinal Cord Injury Research Board, Sarasota Springs, NY   |
| 2000-     | Board Member, University of New Orleans Research and Technology Foundation, New Orleans, LA                                  |
| 2001-     | Member, Board of Directors, Atrix Laboratories, Inc., Denver, CO   |
| 2001-     | Member, Board of Directors, The Lighthouse for the Blind in New Orleans, Inc, New Orleans, LA                                |
| 2001-     | Member, Department of Economic Development Screening Committee, Baton Rouge, LA  |
| 2001      | Peer Review, American Heart Association Affiliate Brain/Stroke Study Group, Dallas, TX                                       |
| 2002-2006 | Chair, Research Council, LSU Health Sciences Center, New Orleans, LA   |
| 2003-     | Member, Business Advisory Group for the Proof of Concept Fund, MetroVision, Louisiana Technology Council                     |



2004-2004-2005 2005	Member, External Board meeting for MU-AD-PG, St. Louis, MO Member, Committee for the Advancement and Encouragement Pharmacology Department Head Search Committee, LSU Health Sciences Center, New Orleans, LA
2006-2009 2006 2007	Chairperson, Executive Research Council, New Orleans, LA Board Member of the Chamber, New Orleans, LA COBRE EAC (External Advisory Committee) member, University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma
2007 2007 2007 2007	Pharmacology Chair Search Committee, New Orleans, LA Dean of the School of Medicine Search Committee, New Orleans, LA Chair, Neurology Search Committee, New Orleans, LA Member, International Scientific Committee, 3 <sup>rd</sup> International Conference on Phospholipases A2 and Lipid Mediators, Sorrento, Italy, May 9-12, 2007
2010	Member, Board of Governors for Association for Research in Vision and Ophthalmology Foundation
2010	Member, Senate for Deutsches Zentrum für Neurodegenerative Erkrankungen (German Centre for Neurodegenerative Diseases) of the Helmholtz Gemeinschaft
2010	Ad Hoc Committee members, Harvard Medical School, Office for Faculty Affairs, Boston, MA
2010-2013	Member, LSU Health Sciences Center, Committee on Community Outreach, New Orleans, LA
2010-2013	Member, LSU Health Sciences Center, Research Space Advisory Committee, New Orleans, LA
2010-2014	Member, NIH, Biology and Diseases of the Posterior Study Section, Center for Scientific Review
2012	Member, Sociedad Argentina de Investigación en Neurociencias, Buenos Aires, Argentina

***Offices and New Programs:***

7/70-8/71, 3/75-2/76	Member, Dean Council and member of several committees, Universidad Nacional del Sur Bahia Blanca, Argentina
1970	Organizer and Founder, Inst. of Biochemical Research, and School of Biology (the Natural Sciences), Universidad Nacional del Sur, Bahia Blanca, Argentina
1970	Organized graduate studies curriculum towards Ph.D. and M.S. Sc. in Biochemistry and Biology, Universidad Nacional del Sur, Bahia Blanca, Argentina
1979	Founder and First President, Foundation for the Promotion of Science and Culture, Bahia Blanca, Argentina
October, 1983	Expert, United Nations Educational and Scientific Mission to India (UNESCO-UNDP Project)
1984-1988	Neuroscience Steering Committee, LSUMC, New Orleans, LA
1988	Chairman, Neuroscience Steering Committee, LSUMC, New Orleans, LA
July 1989-1991	Local Review Committee Member, NIH BRSG Award, LSUMC School of Medicine, New Orleans, LA
1990- 1990	Administrative Council, LSUMC School of Medicine, New Orleans, LA Committee Member, Clinical Sciences Research Building Planning, LSU Medical Center School of Medicine, New Orleans, LA
1991- 1992-	Clinical Department Head Committee, LSUMC School of Medicine, New Orleans, LA Advisory Committee, Neuroscience Training Program, LSUMC School of Medicine, Neuroscience Center of Excellence, New Orleans, LA
1992-	Executive Committee for the Interdisciplinary Ph.D. Program, LSUMC School of

1996-	Medicine, Neuroscience Center of Excellence, New Orleans, LA
1996-1997	Chair, Honorary Host Committee of Brain Awareness Week, LSUMC School of Medicine, Neuroscience Center of Excellence, New Orleans, LA
1996-	Committee Member, Endowed Chair in Parkinson Disease, LSUMC School of Medicine, New Orleans, LA
1996-	Committee Member, Faculty Awards and Fellowships, LSU Medical School, New Orleans, LA
1996-2001	Chair, Research Council, LSU Medical School, New Orleans, LA
1999	Committee Member, Search Committee for Director of Excellence in Oral and Craniofacial Biology and Assistant Dean for Research
2003-	Committee Member, Dean's Search Committee, LSU Health Sciences Center School of Medicine, New Orleans, LA
2003-	Chair, Research Committee, LSU Health Sciences Center, New Orleans, LA
2004-	Committee Member, Neurosurgery Chair Search Committee, LSU Health Sciences Center, New Orleans, LA
2005	Committee Member, Louisiana Biotechnology Community: Building on the Foundation, Baton Rouge, LA – Session on Where Do We Go From Here? “Proof of Principle: It can be done in Louisiana”
2006	Board Member of the Chamber, New Orleans, LA, 2006
2007	Committee Member, Pharmacology Chair Search Committee, LSU Health Sciences Center, New Orleans, LA
2008	Committee Member, Neurology Chair Search Committee, LSU Health Sciences Center, New Orleans, LA
2009	Committee Member, Ophthalmology Chair Search Committee, LSU Health Sciences Center, New Orleans, LA, 2009
2011-14	Chairman Board of Governors, Association for Research in Vision and Ophthalmology (ARVO) Foundation

**Research Support:**

1969-1971	- Medical Research Council Canada
1970-1981	- National Research Council Argentina (several grants)
	- Scientific Research Council, Province of Buenos Aires, Argentina (several grants)
1970-1980	- Science and Technology, Subsecretary Argentina (several grants)
1973-1981	- Interamerican Bank of Development (\$16,000,000)
	- National Research Council of Argentina Training-Core-Program Project
1982-1983, 1985-1986	- Klingenstein Foundation (\$753,000)
1982-1983, 1988-1989	- International Research Scholar and other awards, Research to Prevent Blindness, Inc. (\$440,000)
1982-1983	- The March of Dimes (\$107,000)
1982-1983	- Fight for Sight (\$49,000)
1983-1984	- American Epilepsy Foundation (\$133,000)
1984-1986, 1991-1992	- National Retinitis Pigmentosa Foundation, Inc. (\$290,000)
1984-1986	- American Diabetes Association (\$50,000)
1986-1989	- Edward G. Schlieder Educational Foundation (\$99,000)
2007-	- Edward G. Schlieder Educational Foundation
1986-1991	- IPSEN Beaufour, Paris, France (\$2,600,000)
1989-1994	- GLAXO (1,500,000)
1995-1998	- Institute de Recherches Internationales Servier, France (\$1,120,000) Pathophysiology of Diabetic Retinopathy: Identification of New Targets of Potential Treatment
1998	- Eye, Ear, Nose and Throat Foundation (\$750,000)

1998 - Daughters of Charity (\$750,000)

**- National Institutes of Health**

1981-1982 Pilot Project EY04274 Biosynthesis of Phosphatidic Acid in the Retina (\$15,000)  
 1982-1986 EY04428 Role of Lipids in Retinal Degenerative Disease (\$587,516)  
 1984-1987 EY05121 Prostaglandins and Lipoxygenase Metabolites in Retina (\$432,911)  
 1986-1996 NS23002 Role of Phospholipids and Arachidonic Acid in Epilepsy (\$1,602,887)  
 Jacob Javits Investigatorship Award from National Institutes of Neurological Diseases and Stroke  
 1987-1992 EY04428 **Docosahexaenoic Acid** Metabolism in Retina (\$697,537)  
 1987-1992 EY05121 Leukotrienes and Prostaglandins in Photoreceptor Renewal (\$676,552)  
 1992-1996 EY05121 Leukotrienes and Messengers in Photoreceptor Renewal (\$608,000)  
 1996-2001 NS23002 Role of Phospholipids and Arachidonic Acid in Epilepsy (\$966,041)  
 1996-2001 EY05121 RPE Messengers, Transcription and Photoreceptor Renewal (\$638,290)  
 2001-2004 EY05121 RPE Messengers, Transcription and Photoreceptor Renewal (\$1,001,000)  
 2002-2008 NS23002 Role of Phospholipids and Arachidonic Acid in Epilepsy (\$1,079,675)  
 2004-2010 R01 NS046741, NIH, National Institute of Neurological Disorders and Stroke, Neuroprotection: Lipid Signaling in Ischemia-Reperfusion (\$225,816)  
 2010-2015 R01 NS046741, NIH, National Institute of Neurological Disorders and Stroke, Neuroprotection: Lipid Signaling in Ischemia-Reperfusion (\$225,816)  
 2005-2010 EY05121 RPE Messengers, Transcription and Photoreceptor Renewal (\$244,125)  
 2009-2011 EY05121 RPE Messengers, Transcription and Photoreceptor Renewal Supplement (S1) – (\$337,824)  
 2010-2015 R01 NS046741, NIH, National Institute of Neurological Disorders and Stroke Neuroprotection: Lipid Signaling in Ischemia-Reperfusion (\$1,553,125)  
 2009-2011 1RC2AT005909-01 NIH, NCCAM (Bazan NG, Serhan C, Petasis N) (\$1,418,175.00) - “Mechanism of Action of Omega-3 **fatty Acids** in Brain Injury”  
 1994-1998 **- DAMD17-93-V-3013 Program Project (Medical Research and Development Command Cooperative Agreement)** (\$13,800,000)  
 Neural Responses to Injury: Prevention, Protection and Repair  
 Role of Growth Factors and Cell Signaling in the Response of Brain and Retina to Injury  
 Neurochemical Protection of the Brain: Neural Plasticity and Repair  
 1999-2003 **- Department of Transportation for the Automotive Highway Safety Initiative** (\$878,600)  
 2000-2001 **- Space and Naval Warfare Systems Command** (\$598,517)  
 “Is Hippocampal Long-Term Potentiation Modified after Sleep Deprivation in Rats?”  
 2001-2003 **- Novartis** (\$338,000)  
 “Cell Signaling and Pharmacology in the Eye”  
 2001-2004 **- NSF/EPSCoR/Board of Regents** (\$2,775,000)  
 “Micro/Nano Technologies: Neural Signaling Research”  
 2002-2007 **- R21COBRE, NIH** (\$9,800,000)  
 “Mentoring Neuroscience in Louisiana”  
 2007-2012 **- P20RR16816 COBRE, NIH** (\$1,662,639)  
 “Mentoring Neuroscience in Louisiana: A Biomedical Program to Enhance Neuroscience”

- 2009-2010 - **CoBRE Supplement (S1), NIH** (\$147,840)  
“Mentoring Neuroscience in Louisiana”
- 2002-2004 - **Defense Advanced Research Projects Agency (DARPA)**  
(\$10,630,000 Phase I, 2.3M begins April 1, 2002)  
“Identification of Synaptic Signaling Events and Behavioral Correlates in Sleep Deprivation: Development of Novel Pharmacologic Agents”
- 2003 - **Neurobiotechnology Program in Louisiana** (\$833,000)
- 2003-2008 - **Bio-Magnetics Interfacing Concepts: A Microfluidic System using Magnetic Nanoparticles for Quantitative Detection of Biological Species**  
(\$494,500/year=\$2,472,500)
- 2004-2007 - **American Health Assistance Foundation (AHAF), Macular Degeneration Research**  
(\$300,000), “Signaling in RPE Cell Survival”
- 2010-2012 - **American Health Assistance Foundation (AHAF), Macular Degeneration Research**  
(\$100,000), “**NPD1** Promotes Survival Signaling in the Ccl2<sup>-/-</sup>/Cx3cr1<sup>-/-</sup> mouse AMD Model”
- 2009-2010 - **Foundation Fighting Blindness** (Bronya Keats, PhD: Former PI) (\$110,000)
- 2009-2012 - **TA-NP-0808-0463-LSUNO, Foundation Fighting Blindness**  
(\$89,964), “**Neuroprotectin D1** slows photoreceptor degeneration”
- 2010-2012 - **Beckman Initiative for Macular Research; The Arnold and Mabel Beckman Foundation, Doheny Eye Institute 1101**  
(\$100,000), “Neuroprotective Bioactivity of Neuroprotectin-D1 with Nanoparticle-enhanced Delivery in Experimental Retinal Degeneration”
- 2012-2017 - **P30GM103340 COBRE, NIH** (\$1,031,174)  
“Mentoring Neuroscience in Louisiana: A Biomedical Program to Enhance Neuroscience”

**Graduate Students and Postdoctoral Fellows:**

- Marcos Crupkin, M.S., Professor of Biological Chemistry, University of Mar del Plata, Argentina, 1974
- Marta I. Avelano, Ph.D., Professor and Head of Biological Chemistry, University of South, Bahia Blanca, Argentina, 1975
- Carlos A. Barassi, Ph.D., Professor and Head of Biological Chemistry, University of Mar del Plata, Argentina, 1975
- Ana M. Pechen, Ph.D., Professor and President, University of Comahue, Neuquen, Argentina, 1975
- Norma M. Giusto, Ph.D., Professor of Biochemical Pathology, University of South, Bahia Blanca, Argentina, 1976
- Haydee E. Pascual, Ph.D., Professor of Ophthalmology, LSU Eye Center, New Orleans, LA
- Elena B. Rodriguez de Turco, Ph.D., Associate Professor of Ophthalmology, LSU Eye Center, New Orleans, LA, 1981
- Telma S. Alonso, Ph.D., Associate Professor of Biological Chemistry, University of South, Bahia Blanca, Argentina, 1982
- Robert Vadnal, Ph.D., Chief of Psychiatry, Louisville VA Medical Center, Louisville, KY, 1982-1988
- John Doucet, Ph.D., Associate Professor, Nicholls State University, LA
- Ying Tao, Ph.D., Neurology Resident, Saint Louis University Hospital, St. Louis,

- Mark Stellingworth, M.D., Resident, LSU Medical Center, New Orleans, LA
- Lisa Teather, Ph.D., Assistant Professor, MIT, Boston, MA
- Michael Serou, M.D., Ph.D., Resident LSU Medical School
- Mark Parker, Ph.D Postdoctoral Fellow, Harvard Medical School
- Daoling Zhang, MD Resident Ophthalmology, Duke University, NC
- Bin Tu, Postdoctoral Fellow, Duke University, NC
- Mark Parker, Ph.D., Postdoctoral Research Fellow, Harvard Medical School, Boston, MA, 2001
- Peimin Zhu, Postdoctoral Fellow, U Penn, PA
- Miriam Kolko, M.D, Resident Ophthalmology, University of Copenhagen, Denmark
- Hiroshi Hito, University of Tokyo, Japan
- Antony Rajee, Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School
- Jorgelina Calandria, Ph.D., Post-Doctoral Fellow, LSU Health Sciences Center, New Orleans, LA
- Zahra Faghiri, Dept. of Pharmacology, Harvard Medical School
- Aram Asatryan, Ph.D., Post-Doctoral Fellow, LSU Health Sciences Center, Neuroscience Center of Excellence, New Orleans, LA
- Eric Knott, Ph.D., M.S. Public Health; Research Associate, LSU Health Sciences Center, Neuroscience Center of Excellence, New Orleans, LA
- Surjyadipta Bhattacharjee, Ph.D.; Post-Doctoral Researcher, LSU Health Sciences Center, Neuroscience Center of Excellence, New Orleans, LA

**Current Ph.D. Candidates**

- Khanh V. Do
- Swornim Man Shrestha

**M.D/Ph.D.**

- Tiffany N. Eady
- Tabitha Quebedeaux
- David Stark
- Miguel Molina

***Research Fellows:***

- S.A. Morelli de Liberti
- M.S.D.F. de Escalante
- A. Gauna de Rositano
- Victor Marcheselli, Research Assistant Professor, Department of Ophthalmology, LSU Eye Center, New Orleans, LA
- Maria Pediconi, Assistant Professor of Biological Chemistry, University of South, Bahia Blanca, Argentina
- Monica Ilincheta de Boschero, Assistant Professor of Biological Chemistry, University of South, Bahia Blanca, Argentina
- Idi Bonini
- Norma M. Giusto, Vice-Director of the Institute of Biochemistry, Chair and Professor of Biochemical Pathology, University of South, Bahia Blanca, Argentina
- Robert Vadnal, Chief, Psychiatry Service, Director, Molecular Neuroscience Program, Louisville Veterans Administration Medical Center, Louisville, KY
- Dale L. Birkle, Associate Professor of Pharmacology and Toxicology, West Virginia University
- Burton Scott, Assistant Professor, Neurology, Duke University, NC
- Geoffrey Allan, Post-doctoral Fellow, Department of Ophthalmology, LSU Medical Center, New Orleans, LA
- Rex Martin, Assistant Professor of Anatomical Sciences, University Oklahoma Health Science Center, OK
- Z.E.G. Oliveira
- R. Alcalde

Hugo Caldironi  
Marta Matzkin de Rosujovsky  
Graciela Cascone  
Maria M. Careaga  
Carlos A. Barassi, Professor and Head of Biological Chemistry, University of Mar del Plata, Argentina  
Ana M. Pechen de D'Angelo, Professor and Head of Biological Chemistry, University of COMAHUE, Nequen, Argentina  
Enrique Politi, Post-doctoral fellow, Harvard Medical School  
Telma S. Alonso, Associate Professor of Biological Chemistry, University of South, Bahia Blanca, Argentina  
Marta I. Aveldano, Professor of Biological Chemistry, University of South, Argentina  
Marcos Crupkin, Professor of Biological Chemistry, University of Mar del Plata, Argentina  
Magdalena Rossowska, Assistant Professor, Physiology, LSU School of Dentistry, New Orleans, LA  
Marisa Abreu, Professor of Ophthalmology, University of Sao Paulo, Brazil  
Wilson Tang  
T. Sanjeeva Reddy, LSU Medical School, New Orleans, LA  
Lucio Van Rooijen, Bayer AG, Head of Neurochemistry, Tropon, Berkshire, UK  
Michael Limberg  
Feng Cai, Montreal, Canada  
Naigang Lin, Alcon Laboratories, Fort Worth, TX  
Christophe Baudouin, Professor and Chair, Department of Ophthalmology, University of Paris, France  
Francoise Baudouin, Assistant Professor of Ophthalmology, University of Paris, France  
Fernando Santos, M.D., Curitiba, Brazil  
Roberto Cohen, Centro de Enfermedades Oculares, Sante Fe, Argentina  
David Linn, Tulane University Medical Center, New Orleans, LA  
Walter Lukiw, Ph.D., Assistant Professor of Ophthalmology and Neuroscience Center, LSUHSC, New Orleans, LA  
Alexey Ershov, Ph.D., Amersham Pharmacia Biotech, Inc., Piscataway, NJ  
Sebastian Barreiro, M.D., Buenos Aires, Argentina  
Vittorio Colangelo, M.D., Research Fellow, LSUHSC, New Orleans, LA  
Mathieu Soriano, Ph.D. Buenos Aires, Argentina

### **Honors and Awards**

- Argentine Association for the Advancement of the Sciences, Goytia Prizes, 1968, 1970;
- Award best medicine thesis Univ. Tucuman, Argentina; 1971-72;
- Ten Outstanding Young Persons of Argentina, Junior Chamber Buenos Aires Research to Prevent Blindness, Incorporated, NY, 1976;
- International Research Scholar, 1977;
- William & Mary Greve International Scholar, 1983-84;
- Elected to Council ISN, 1979-83;
- Elected to Council ASN, 1988-90;
- Gold Medal, Fondazione Giovanni Lorenzini, Milan, Italy, 1981;
- Honorary Professor, Universidad de Tucuman, Argentina, 1987-;
- Javits Neuroscience Investigator Award NINDS, NIH, 1989;
- Citation Classic, "Neural Stimulation or Onset of Cerebral Ischemia Activates Phospholipase A2" Current Contents/Life Sciences, 30:10, July 29, 1991;
- Elected Member, Academy of Medical Sciences, Cordoba, Argentina, 1991-;
- Merck Lecture in Pharmacology, McGill University, Canada, 1992;
- Elected Member, Royal Academy of Sciences, Spain, 1993;
- Boyd University Professor, Louisiana State University; 1994;
- 11th William Harvey Lecture, London, 1994;

- Role Model Awardee, Young Leadership Council of New Orleans, 1994;
- Caputto Gold Medal, Argentine Neurochemical Society, 1994;
- Elected Member, Dana Alliance for Brain Initiative, 1995;
- Elected Member, Royal Academy of Medicine, Spain, 1996;
- Welcome Professorship and Lecture (Burroughs Welcome Fund/FASEB) At University of North Carolina, 1996;
- Merit Award, Distinguished Argentine Abroad, National Research Council of Argentina, Presented by the President of Argentina, 1996;
- Annual John Dorsey Lecture, Wayne State University, Detroit, Michigan, 1996;
- Guest of Honor, Inaugural Symposium, Frontiers in Neuroscience, Wallenberg Neuroscience Center, Lund University, Sweden, 1996;
- President elect, President (1999-2001), American Society for Neurochemistry, 1997-2001;
- Distinguished Lecturer in Neuroscience, Oklahoma Neuroscience Center, Oklahoma University Medical Center, Oklahoma City, OK, 1997;
- William H. Bell Lectureship, Oklahoma Medical Research Foundation, Oklahoma City, OK, 1997;
- Robert Schwab Lecturer, 13th Ann. American Academy of Clinical Neurophysiology, 1998;
- Mayerson-Di Luzio Lecture, Tulane University School of Medicine, Dept. Physiology, 1998;
- Loris & David Rich Lecture in Visual Science, University of Alabama, Birmingham, AL, 1999;
- President, American Society for Neurochemistry, 1999-2001;
- Elected Fellow, Medical Society of Ireland, The Royal College of Physicians Of Ireland, Dublin Doctor Honoris Causa, Universidad Nacional del Tucuman, Argentina, 1999;
- Endre A. Balazs Prize, International Society of Eye Research, 2000;
- Neurochemical Research journal issue dedicated to Nicolas Bazan, Vol. 25, No. 5, <http://www.wkap.nl/journalhome.htm/0364-3190>, 2000;
- President, American Society for Neurochemistry, 1999-2001;
- Citybusiness 2002 Innovator of the Year Award New Orleans, LA, 2002;
- The Alzheimer's Association Greater New Orleans Chapter Award, NOLA, 2002;
- Career Service Awards, 20 years, LSUHSC, NOLA, 2003;
- Family Services of Greater New Orleans (Ten Outstanding Persons) Award, 2003;
- First Leon Wolfe Lecturer, Montreal Neurol. Inst., Canada, 2004;
- Association for Research in Vision and Ophthalmology, Proctor Medal and Lecture, 2007;
- Advances in Experimental Medicine and Biology, Vol. 613, Recent Advances in Retinal Degeneration book dedicated to Nicolas Bazan, <http://www.springer.com/medicine/ophthalmology/book/978-0-387-74902-0>, 2008;
- Association for Research in Vision and Ophthalmology Silver Fellow, 2009;
- Association for Research in Vision and Ophthalmology Gold Fellow, 2011;
- Chevreul Medal, Paris, France, 2011;
- Alkmeon International Prize, 2011;
- Keynote Speaker and Excellence Award, Annual European Association for Vision and Eye Research (EVER) Meeting, 2013;
- Distinguished Speaker, Pioneers in Neuroscience Lecture Series, University of Buffalo The State of University of New York, Buffalo, NY, 2013;
- Medal, Miroslaw M. Mossakowski, Polish Academy of Sciences, 2013

**Abstracts and Lectures: 1-1115**

1. Barbieri FD, **Bazan NG**: Observaciones preliminares sobre la molecula de glucogeno de embriones de anfibios en desarrollo por medio de la reaccion de iodo. Segundo symposio sobre metabolismo de los hidratos de carbono, Tucumán, Argentina, 1964.
2. Chiodi HP, **Bazan NG**: Fatty liver induced in the infant rat by chronic carbon monoxide hypoxia. *The Physiologist* 9:153, 1966.
3. **Bazan NG**, Joel CD: Free **fatty acids** in brain. *Fed. Proc.* 27:751, 1968.
4. **Bazan NG**, Cummings M: The turnover of brain **fatty acids** following decapitation or convulsions. Proc Second Int Meeting Int Soc Neurochem, R Paoletti, R Fumagelli, C Galli (eds), Tamburini Editore, Milan, Italy, 83-84, 1969.
5. **Bazan NG**: Factors affecting the brain free **fatty acid** pool. *Trans. Amer. Soc. Neurochem.* 1:28, 1970.
6. Bazan HEP, **Bazan NG**: Efectos de la isquemia y del desarrollo postnatal sobre los acidos grasos libres del encefalo. Congreso Argentino de Ciencias Biologicas, Fac de Medicina, Universidad de Buenos Aires, Buenos Aires, Argentina, 1970.
7. **Bazan NG**: Analisis de los acidos grasos libres cerebrales y los efectos del shock hipoglucemico, anfetaminas y alfa metil-p-tirosina. Congreso Argentino de Ciencias Biologicas, Fac de Medicina, Universidad de Buenos Aires, Argentina, 1970.
8. **Bazan NG**: Distribución de fosfolipasas en fracciones subcelulares y algunas de sus propiedades en homogenados y preparaciones particuladas del cerebro de la rata. Congreso Argentino de Ciencias Biologicas, Fac de Medicina, Universidad de Buenos Aires, Argentina, 1970.
9. **Bazan NG**: Efectos de anestésicos y convulsiones sobre el contenido y composición de los acidos grasos libres cerebrales. Congreso Argentino de Ciencias Biológicas, Facultad de Medicina, Universidad de Buenos Aires, Argentina, 1970.
10. **Bazan NG**: Variaciones en acidos grasos libres neurales producidos por convulsiones y fosfolipasas A de fracciones subcelulares del cerebro de la rata. VI Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, LA Plata, Buenos Aires, Argentina, 1970.
11. Bazan HEP, **Bazan NG**: Cambios inducidos en lipidos del sistema nervioso central de la rata, por la isquemia. VI Reunion Nacional del la Sociedad Argentina de Invesigaciones Bioquimicas, La Plata, Argentina, 1970.
12. Aveldano MI, **Bazan NG**: Diferencias en el contenido y composición de los grupos acilos de fracciones lipidicas de cerebro y retina. VII Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, Bariloche, Argentina, 1971.
13. Crupkin M, **Bazan NG**: Estudios preliminares sobre la incorporación de <sup>32</sup>P durante el desarrollo embrionario temprano. VII Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, Bariloche, Argentina, 1971.
14. Barassi CA, **Bazan NG**: Observaciones preliminares de los grupos acilos de lipidos neutros y polares en ovocito y blástula. VII Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, Bariloche, Argentina, 1971.
15. **Bazan NG**: Lipidos y fosfolipasas de biomembranas. VII Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, Bariloche, Argentina, 1971 (By invitation).
16. **Bazan NG**: Factors affecting the brain free **fatty acids**. 25th International Congress of Physiol Sci, Munich, Germany, 1971.
17. **Bazan NG**: Increased production of brain free **fatty acid** by ischemia, electroshock and drug induced convulsions. 3rd International Meeting Int Soc Neurochemistry, J Domorkos, A Fonyo, I Huszak, J Szentagothai (eds), Akademi Kiado, Budapest, Hungary, 1971.
18. Barassi CA, Crupkin M, **Bazan NG**: Heterogeneidad metabolica de especies moleculares y clases de lipidos de membranas durante el desarrollo embrionario del Bufo Arenarum. VI Congreso Argentino de Biología, S Miguel de Tucumán, Argentina, 1973.
19. Bazan HEP, Rodriguez de Turco EB, **Bazan NG**: Catabolismo de lipidos de membranas en el sistema nerviosos central. VI Congreso Argentino de Biología, S Miguel de Tucumán, Argentina, 1973.
20. Aveldano MI, Giusto NM, **Bazan NG**: Active transferencia in vitro de acidos grasos libres entre la retina y



- el medio de incubacion. IX Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, Rosario, Argentina, 1973.
21. Crupkin M, **Bazan NG**: Carencia de refosforilacion de las fosfoproteinas de la retina en homogenados. IX Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, Rosario, Argentina, 1973.
  22. **Bazan NG**, Aveldano MI, Bazan HEP, Rodriguez EB: Dinamica del pool de acidos grasos libres y de otros componentes derivados de lipidos polares en el tejido nervioso. IX Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, Rosario, Argentina, 1973.
  23. Barassi CA, **Bazan NG**: Comparación entre el contenido de AND y los cambios en la actividad específica y el nivel de lipidos polares durante el desarrollo embrionario. IX Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, Rosario, Argentina, 1973.
  24. Pechen AM, **Bazan NG**: Transferencia de lipids polares y de la fracción acido soluble entre organelas subcelulares de embriones en desarrollo. IX Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, Rosario, Argentina, 1973.
  25. Perez Ballester BM, Gonzalez de Castro SR, **Bazan NG**: Studies on the adipose tissue, endometrium and serum lipids composition and on the  $^{32}\text{P}$  incorporation into human endometrial phospholipids during normal cycle during anovulatory treatment. *Excerpta Medica* nE 279, 893, 1973.
  26. Crupkin M, **Bazan NG**: Phosphoprotein phosphatases activities in neural tissues. 9th International Congress of Biochemistry, Stockholm, Sweden, 1973.
  27. Bazan H, Aveldano de Caldironi MI, **Bazan NG**: Modifications in the free **fatty acids**, triacylglycerols, and monoacylphosphoglycerides during ischemia in the central nervous system of homeotherms and poikilotherms. Fourth International Mtg of the Int Soc of Neurochemistry, Tokyo, Japan, 1973.
  28. Rodriguez de Turco EB, Pascual Bazan HEP, **Bazan NG**: Possible significado fisiologico de los caminos catabólicos de los componentes lipidicos de biomembranas del sistema nervioso. XI Congreso Latinoamericano de Ciencias Fisiologicas, Mendoza, Argentina, 1973.
  29. Giusto NM, **Bazan NG**: Estudios metabolicos de lipidos neutros y polares en la retina *in vitro* por medio del glicerol- $^{14}\text{C}$ . X Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, Buenos Aires, Argentina, 1974.
  30. Bazan HEP, **Bazan NG**: Estudios sobre glicerolipidos del sistema nervioso central por medio del glicerol- $^{14}\text{C}$  y de acido araquidonico- $^3\text{H}$ . X Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, Buenos Aires, Argentina, 1974.
  31. **Bazan NG**, Aveldano MI, Ilincheta MG, Pediconi MF: Diacilgliceroles endógenos y su metabolismo en el sistema nervioso central. X Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, Buenos Aires, Argentina, 1974.
  32. Pechen AM, **Bazan NG**: Incorporación *in vivo* e *in vitro* de glicerol- $^{14}\text{C}$  en lipidos neutros y polares de embriones de sapo en desarrollo. X Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, Buenos Aires, Argentina, 1974.
  33. Rodriguez de Turco EB, Cascone GD, **Bazan NG**: Metabolismo de  $^{32}\text{P}$  y composición en lipidos encefálicos del ratón recién nacido. X Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, Buenos Aires, Argentina, 1974.
  34. Perez Ballester BM, Gonzalez de Castro S, **Bazan NG**: Estudios *in vivo* e *in vitro* sobre el metabolismo lipidico con particular referencia a la accion de las hormonas esteroideas. World Congress of Fertility and Esterility, Buenos Aires, Argentina, 1974.
  35. Pechen AM, **Bazan NG**: Biogénesis de membranas celulares durante el desarrollo temprano de los embriones de vertebrados. World Congress of Fertility and Esterility, Buenos Aires, 1974.
  36. **Bazan NG**, Giusto NM, Bazan HEP, Aveldano MI: Metabolism of phospholipids and triglycerides in the retina. 17th Intl Conf Biochem of Lipids, Milan, Italy, 1974 (By invitation).
  37. Caldironi HA, Ford MC, **Bazan NG**: Estudios preliminares sobre lipidos de carnes tiernizadas y supercongeladas. Segundas Jornadas de la Industria Alimentaria, San Rafael, Mendoza, Argentina, 1974.
  38. **Bazan NG**: Ensenanza universitaria en relacion a la industria alimentaria. Formacion de bioquimicos con orientacion tecnologica. Segundas Jornadas de la Industria Alimentaria, San Rafael, Mendoza, Argentina, 1974 (By invitation).

39. Giusto NM, Bazan HEP, **Bazan NG**: Phospholipid biosynthesis in the entire retina incubated with  $^{14}\text{C}$ -glycerol. En Simposio sobre Funcion y Metabolismo de Fosfolipidos en los sistemas nerviosos central y periferico, en la International Society for Neurochemistry, Cortona, Italy, p 21, 1975 (By invitation).
40. **Bazan NG**, Rodriguez de Turco EB, Pediconi MF, Cascone GD: Involvement of highly unsaturated free **fatty acids** in synaptic transmission. En Simposio sobre Funcion y Metabolismo de Fosfolipidos en los sistemas nerviosos central y periferico, en la International Society of Neurochemistry, Cortona, Italy, p 21, 1975.
41. Gauna de Rositano A, Aveldano de Calderon MI, **Bazan NG**: Catecholamine-affecting drugs and electroshock on brain diacylglycerols and free **fatty acids**. V Congreso Internacional de la Sociedad Internacional de Neuroquimica, Barcelona, Spain, p 373, 1975.
42. Rodriguez de Turco EB, **Bazan NG**: **Fatty acid** distribution in acylglycerides, free **fatty acids** and phosphatidic acid of developing mouse brain. V Congreso Internacional de Neuroquimica, Barcelona, Spain, p 373, 1975.
43. Bazan HEP, **Bazan NG**: Metabolism of glycerolipids in the toad retina and brain. V Congreso Internacional de la Sociedad Internacional de Neuroquimica, Barcelona, Spain, p 387, 1975.
44. Giusto NM, **Bazan NG**: Cattle retina glycerolipids metabolism. V Congreso Internacional de la Sociedad Internacional de Neuroquimica, Barcelona, Spain, p 378, 1975.
45. Ilincheta de Boschero MG, **Bazan NG**: Biosintesis de novo de glicerolipidos de la retina *in vitro*. Desplazamiento hacia fosfatidilinositol por propranolol y fentolamina. XI Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, Cordoba, Argentina, 1975.
46. Bonini de Romanelli IC, Pechen de D'Angelo AM, **Bazan NG**: Lipidos durante el desarrollo embrionario temprano del sapo Bufo Arenarum, Hensel. XI Reunion Nacional de la Sociedad Argentina de Investig Bioquim, Córdoba, Argentina, 1975.
47. Rodriguez de Turco EB, **Bazan NG**: Efectos de la anoxia sobre los lipidos encefalicos del raton recién nacido. XI Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, Córdoba, Argentina, 1975.
48. Aveldano de Caldironi MI, **Bazan NG**: Accion de drogas adrenergicas sobre lipidos del encefalo de mamiferos durante la isquemia y el shock electroconvulsivo. XI Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, Córdoba, Argentina, 1975.
49. **Bazan NG**, Giusto NM, Bazan HEP, Ilincheta de Boschero MG: Biosíntesis de Novo de glicerolipidos del sistema nervioso central. Modificaciones regulatorias en la disponibilidad de lipidos para biomembranas en el tejido entero. XI Reunion Nacional de la Sociedad Argentina de Investigaciones Bioquimicas, Córdoba, Argentina, 1975 (By invitation).
50. Caldironi HA, Ford MC, Arena R, **Bazan NG**: Lipidos en carnes bovinas congeladas y supercongeladas con distintos tiempos de almacenamiento. Primer Simposio Nacional sobre Tecnologia de Carne Bovina, Bahía Blanca, Argentina, 1975.
51. Caldironi HA, **Bazan NG**: Enzimas en exudados de carnes bovinas congeladas y supercongeladas. Primer Simposio Nacional sobre Tecnología de Carne Bovina. Bahía Blanca, Argentina, 1975.
52. Caldironi HA, **Bazan NG**: Aplicación de la electroforesis sobre geles de poliacrilamida al estudio de proteínas en carnes congeladas, supercongeladas y en la determinación del grado de coccion. Primer Simposio Nacional sobre Tecnología de Carne Bovina, Bahía Blanca, Argentina, 1975.
53. Pediconi MF, Cascone GD, **Bazan NG**: Efecto de la isquemia sobre el metabolismo del araquidonato- $^{14}\text{C}$  en clases de glicerolipidos del sistema nervioso central. XII Reunion Nacional de la Sociedad Argentina de Investigación Bioquimica, Sierra de la Ventana, Argentina, 1976.
54. Cascone GD, Pediconi MF, **Bazan NG**: Acción del electroshock sobre la neosintesis de glicerolipidos neurales a partir del glicerol- $^{14}\text{C}$ . XII Reunion Nacional de la Sociedad Argentina de Investigación Bioquimica, Sierra de la Ventana, Argentina, 1976.
55. Pechen de D'Angelo AM, Bonini de Romanelli IC, Alonso TS, **Bazan NG**: Composition and metabolism of phospholipids during the early stages of the vertebrate embryonic development. Simposio Internacional sobre Función y Biosíntesis de Lipido, Sierra de la Ventana, Argentina, p 22, 1976 (By invitation).
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1094. **Bazan NG**. 3rd Annual Gladstone/DZNE Workshop "From Science to Therapeutics: The Best Way Forward", Mission Bay, San Francisco, CA. Title: An Unexpected Connection between Neuroinflammation and Cell Survival: The Lipidomic Signature as a Target" April 15-17, 2013
1095. **Bazan NG**. ISN-ASN Satellite Meeting on "Unveiling the Significance of Lipid Signaling in Neurodegeneration and Neuroprotection", Cancun, Mexico. Title: "Is There a Molecular Login that Sustains Neuronal Functional Integrity and Survival?" Lipid Signaling is Necessary for Neuroprotective Neuronal Transcriptional Programs" April 17-19, 2013
1096. **Bazan NG**. ARVO, Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL. Title: "Docosahexaenoic acid Bolsters mild Oxidative Stress Preconditioning in Retinal Epithelial Cells" May 5-9, 2013
1097. **Bazan NG**. May 20-21, 2013 – Chairman and Organizer; 5th International Conference on Phospholipase A2-Mediated Signaling in Translational Medicine, New Orleans, LA. Title: "PLA2 and Lipid-Derived



- Mediators in Stroke, Alzheimer's Disease, Parkinson's Disease and Age-Related Macular Degeneration"
1098. **Bazan NG.** Advanced Course on Learning and Memory, Cortona, Tuscany. Title: "Lipid Signaling in Synaptic Circuitry" June 20-28, 2013
  1099. **Bazan NG.** Pioneers in Neuroscience, Buffalo, New York. Title: "The Challenge of Deciphering Early Responses to Neurodegenerative Diseases: Novel Mechanisms for Neuronal Survival" September 15-17, 2013
  1100. **Bazan NG.** EVER, European Association for Vision and Eye Research, Nice, France. Title: "Molecular Sensors to Homeostatic Departures in Retinal Pigment Epithelium: Lessons to Understand and Treat Retinal Degenerative Diseases" September 18-21, 2013
  1101. **Bazan NG.** Mossakowski Medical Research Centre, Polish Academy of Sciences Committee of Neurological Sciences, Polish Academy of Sciences, Neurochemical Conference, Warsaw, Poland. Title: "Early Survival Signaling Responses to Neurodegenerative Diseases: Significance for New Therapies and Diagnosis" October 24-25, 2013
  1102. **Bazan NG.** Society for Neuroscience, San Diego, CA. Title: "CREL is an Intracellular Messenger of the Essential Docosahexaenoic Acid-Derived Mediator Neuroprotectin D1 in RPE Cell Survival" November 9-13, 2013
  1103. **Bazan NG.** Third International Epilepsy Research Center (EpiCenter) Symposium, Hyatt Regency Newport Beach, CA. Title: "Hippocampal Synaptic Network Modulation by the Bioactive Mediator Neuroprotectin D1 Derived from Excitable Membrane Lipids" February 20-22, 2014.
  1104. **Bazan NG.** Massachusetts Eye and Ear Infirmary and Harvard Medical School Department of Ophthalmology Seminar Series, Boston, MA. Title: "Molecular Principles and Sensor for Decoding Homeostasis Disruptions in the Retinal Pigment Epithelium: Implications to Retinal Degenerative Diseases" February 28, 2014
  1105. **Bazan NG.** The 15th International Winter Eicosanoid Conference, Baltimore, MD. Title: "Phospholipase A2 Activation in Generating Neuroprotectin D1 on Demand upon Responses to Injury in the Brain and Retina" March 9-11, 2014
  1106. **Bazan NG.** 4th Annual Gladstone/DZNE Workshop, Bonn, Germany. May 10-13, 2014
  1107. **Bazan NG.** Advancing Neuroscience at MU, Symposium to Honor Professor Grace Y. Sun, Columbia, Missouri. Title: "Early Survival Signaling Responses to Neurodegenerative Diseases – Significance for New Therapies and Diagnosis" June 26-28, 2014
  1108. **Bazan NG.** Karolinska Institute Lipid Seminar at ISSFAL 2014 in Stockholm, Sweden. Title: "Omega-3 Fatty Acids in CNS ischemia and Neurodegenerative Diseases" June 28, 2014
  1109. **Bazan NG.** 5th International Congress on Stem Cells and Tissue Formation in Dresden, Germany. Title: "Non-redundant Transcriptional Target for Cell Survival of the Essential Docosahexaenoic Acid derived Mediator Neuroprotectin D1" July 8-11, 2014
  1110. **Bazan NG.** XVI International Symposium on Retinal Degeneration (RD 2014), Pacific Grove, California. Title: "Novel Molecular Principles for Decoding Homeostasis Disruptions in the Retinal Pigment Epithelium: Significance to Retinal Degenerative Diseases" July 13-18, 2014
  1111. **Bazan NG.** XXI Biennial Conference of the International Society for Eye Research. (ISER), San Francisco, CA. Title: "CREL is an Intracellular Messenger of the Essential Docosahexaenoic Acid-Derived Mediator Neuroprotectin D1 in RPE Cell Survival" July 20-22, 2014
  1112. **Bazan NG.** Lipid Mediators in Health and Disease A Tribute to Bengt Samuelsson, Stockholm, Sweden. Title: "Lipid Mediators in Vision and Neuroprotection" August 27-29, 2014
  1113. **Bazan NG.** DZNE Scientific Retreat, Schorfheide, Germany. Keynote Lecture. Title: "Lipid Mediators in Vision, Neuronal Plasticity and Neuroprotection" September 24-26, 2014
  1114. **Bazan NG.** Oklahoma Nathan Shock Center for Excellence in the Biology of Aging and Oklahoma Center for Neuroscience/Dean McGee Eye Institute Special Seminar, Oklahoma City, OK. Title: "Molecular Principles of Neuroinflammatory Signaling: Significance in Vision and Neuroprotection" October 4-7, 2014
  1115. **Bazan NG.** Visit to Karolinska Institut and present a Seminar in Stockholm, Sweden. Title: "Unraveling Molecular Principles of Neuronal Survival: Significance in Vision and Neuroprotection" November 29-December 3, 2014

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20. Brady ST, Siegel G, Albers R, Price D, (Editors); Benjamins J, Fisher S, Hall A, **Bazan NG**, Coyle J, Sisodia S (Associate Editors). In: *Basic Neurochemistry: Principles of Molecular, Cellular, and Medical Neurobiology*, Academic Press, 2012.

## **Selected Major Publications - Listed in groups preceded by a brief description of the findings**

### **Discovery of brain free arachidonic acid and docosahexaenoic acid release during seizures and ischemia through phospholipase A<sub>2</sub> (1970).**

1. **Bazan NG:** Effects of ischemia and electroconvulsive shock on free **fatty acid** pool in the brain. *Biochim Biophys Acta* 218:1-10, 1970. (**Citation Classic**, "Neural Stimulation or Onset of Cerebral Ischemia Activates Phospholipase A<sub>2</sub>", **Bazan NG** *Current Content/Life Sciences* 30:10, 1991).
2. **Bazan NG, Joel CD:** Gradient-thickness thin-layer chromatography for the isolation and analysis of trace amounts of free **fatty acids** in large lipid samples. *J Lipid Res* 11:42-47, 1970.
3. **Bazan NG, Rakowski H:** Increased levels of brain free **fatty acids** after electroconvulsive shock. *Life Sci* 9:501-507, 1970.
4. **Bazan NG:** Free **fatty acid** production in cerebral white and grey matter of the squirrel monkey. *Lipids* 6:211-212, 1971.
5. **Bazan NG:** Changes in free **fatty acids** of brain by drug-induced convulsions, electroshock and anesthesia. *J Neurochem* 18:1379-1385, 1971.

### **This finding has often been referred as the "Bazan effect".**

Horrocks LA, Farooqui AA: NMDA receptor-stimulated release of arachidonic acid: Mechanisms for the Bazan effect. In *Cell Signal Transduction, Second Messengers, and Protein Phosphorylation in Health and Disease*, AM Municio, MT Miras-Portugal (eds.), Plenum Press, New York, pps. 113-128, 1994.

Sun GY, Xu J, Jensen MD, Simonyi A: Phospholipase A<sub>2</sub> in central nervous system: Implications for neurodegeneration diseases. *J Lipid Res* 45:205-213, 2004.

### **Demonstration that the brains of newborn mammal and adult poikilotherms accumulate free arachidonic acid sluggishly, correlating with the known resistance of these animals to anoxia. In contrast, mature homeothermic animals, vulnerable to relatively short periods of anoxia, rapidly accumulate arachidonic acid as a result of phospholipase A<sub>2</sub> activation.**

6. Aveldano MI, **Bazan NG:** Differential lipid deacylation during brain ischemia in a homeotherm and a poikilotherm. Content and composition of free **fatty acids** and triacylglycerols. *Brain Res* 100:99-110, 1975.
7. Rodriguez de Turco EB, **Bazan NG:** Changes in free **fatty acids** and diglycerides in mouse brain at birth and during anoxia. *J Neurochem* 41:794-800, 1983.

### **Discovery that the diacylglycerol accumulated in brain in ischemia is derived from inositol lipids and postulated the hypothesis that selective vulnerability at synapses is due to degradation of inositol lipids.**

8. Aveldano MI, **Bazan NG:** Rapid production of diacylglycerols enriched in arachidonate and stearate during early brain ischemia. *J Neurochem* 25:919-920, 1975.

### **Demonstration that the activation of phospholipase A<sub>2</sub> that gives rise to brain free arachidonic acid and diacylglycerol upon stimulation is related to neurotransmission.**

9. Aveldano de Caldironi MI, **Bazan NG:** Alpha-Methyl-p-Tyrosine inhibits the production of free arachidonic acid and diacylglycerols in brain after a single electroconvulsive shock. *Neurochem Res* 4:213-221, 1979.

### **Identification of inositol lipid degradation, and of phospholipase A<sub>2</sub> activation, in neural cell damage in experimental epilepsy and stroke.**

10. Pediconi MF, Rodriguez de Turco EB, **Bazan NG:** Diffusion of intracerebrally injected [1-<sup>14</sup>C]arachidonic acid and [2-<sup>3</sup>H]glycerol in the mouse brain. Effects of ischemia and electroconvulsive shock. *Neurochem Res* 7:1453-1463, 1982.

11. **Bazan NG**, Morelli de Liberti SM, Rodriguez de Turco EB: Arachidonic acid and arachidonoyl-di-glycerides increase in rat cerebrum during bicuculline-induced status epilepticus. *Neurochem Res* 7:839-843, 1982.
12. Pediconi MF, Rodriguez de Turco EB, **Bazan NG**: Effects of post decapitation ischemia on the metabolism of [<sup>14</sup>C]arachidonic acid and [<sup>14</sup>C]palmitic acid in the mouse brain. *Neurochem Res* 8:835-845, 1983.
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16. Reddy TS, **Bazan NG**: Arachidonic acid, stearic acid and diacylglycerol accumulation correlates with the loss of phosphatidylinositol 4,5-bisphosphate in cerebrum 2 seconds after electroconvulsive shock. Complete reversion of changes 5 minutes after stimulation. *J Neurosci Res* 18:449-455, 1987.
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**Discovery of unique features of docosahexaenoic acid metabolism in the retina.**

22. Aveldano MI, **Bazan NG**: Free **fatty acids**, diacyl- and triacylglycerols and total phospholipids in vertebrate retina: Comparison with brain, choroid and plasma. *J Neurochem* 23:1127-1135, 1974.
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25. Giusto NM, **Bazan NG**: Phospholipids and acylglycerols biosynthesis and <sup>14</sup>CO<sub>2</sub> production from (<sup>14</sup>C)glycerol in the bovine retina: The effect of incubation time, oxygen and glucose. *Exp Eye Res* 29:155-168, 1979.

**Discovery that phospholipids in photoreceptors contain two docosahexaenoyl chains per molecule, rather than a saturated chain at C<sub>1</sub> and an unsaturated chain at C<sub>2</sub>. Identification of unique metabolism of these novel molecular species of phospholipids.**

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**Discovery that leukotrienes, HETEs (hydroxyeicosatetraenoic acids), inositol lipids and prostaglandins are key molecules in the communication between retinal pigment epithelial cells and photoreceptors.**

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**PAF is also an endogenous neurotoxin: demonstration of neuroprotection by PAF antagonists.**

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**Discovery that seizure-induced PAF production activates gene expression.**

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**Discovery of a new neuroprotection site.**

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**Discovery that secretory phospholipases A modulate neuronal survival and glutamate transmission.**

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**Discovery that neuronal diacylglycerol kinase epsilon is necessary in seizures and neuroprotection.**

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**Demonstration that phagocytosis by retinal pigment epithelial cells induces gene expression.**

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**Discovery that the conservation pathways for docosahexaenoic acid are impaired in Usher's syndrome.**

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**Identification of the liver to retina transport route for the essential fatty acid docosahexaenoic acid. Demonstration of a mechanism for the supply and conservation of the essential fatty acid docosahexaenoic acid in photoreceptors.**

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**Demonstration that docosahexaenoic acid is transported from the post-Golgi network to the photoreceptor disk membranes with rhodopsin.**

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**Discovery that photoreceptors have a DNA repair mechanism that is induced by light damage.**

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