

## CURRICULUM VITAE

**BAZAN**, Nicolas Guillermo

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## CURRENT POSITIONS

Director of the Neuroscience Center of Excellence  
Boyd Professor  
Ernest C. and Ivette C. Villere Chair for Retinal Degenerations  
Professor of Biochemistry and Molecular Biology, Ophthalmology and Neurology  
Foreign Adjunct Professor of Neuroscience, Karolinska Institutet, Stockholm, Sweden

## EDUCATION

1958	B.S.	Colegio Belgrano, Salta, Argentina
1965	M.D.	Medical School, Univ. of Tucuman, Argentina
1966-1968	Ph.D. equivalent/thesis research	Harvard Medical School, Boston, MA
1970	D.Med. Sc.	Medical School, Univ. of Tucuman, Argentina

## TEACHING-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 Medical School, Boston, MA

## ACADEMIC APPOINTMENTS

1968-1970	Asst. Professor, Dept. Biochemistry, Faculty of Medicine, University of Toronto, Canada Asst. Director, Dept. Neurochemistry, Clarke Institute of Psychiatry, Toronto, Canada
1970-1971	Consejo Superior (Deans Council), Univ. South, Bahia Blanca, Argentina
1970-1973	Director (Founder), Department of Biology, Univ. South, Bahía Blanca, Argentina
1970-1981	Professor and Chair of Biological Chemistry, Univ. 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 (the highest academic title in the Louisiana State University system)  
2017- Foreign Adjunct Professor of Neuroscience, Department of Neurobiology, Care Sciences and Society, Karolinska Institutet, Stockholm, Sweden

### 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, Impact factor 6.190)  
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  
1996-2016 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  
2004-2016 Current Neurovascular Research  
2004- Medical Economics  
2005-2016 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 (Nature Journal)  
2008- Journal of Neurodegeneration and Regeneration  
2008- Lipids Insights  
2010- Metabolic Brain Disease  
2010- Cell Death & Disease (Nature journal)  
2014-2016 Neurology

## **CHAIRMANSHIPS AND ORGANIZER OF SCIENTIFIC EVENTS/PROGRAM COMMITTEES**

- 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

- 1991 Ischemic Brain Damage, Okinawa, Japan  
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 and Chair, 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 Meeting, New Orleans, LA
- 1999 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/APS, August 23-28, 2009, BEXCO, Busan, Korea
2010	Co-Chair
2011	Faculty, Neuroscience School of Advanced Studies, Neurodegeneration and Molecular Neuropathology. San Quirico d'Orcia, Siena, Italy - June 13-25
2012	Coordinator, Neuroscience School of Advanced Studies, Neuroinflammation. San Quirico d'Orcia, Siena, Italy - June 13-25
2013	Coordinator (with S. Tonegawa, A. Silva) Neuroscience School of Advanced Studies, Cellular and Systems Mechanism of Learning and Memory, Convento di Sant' Agostino, Cortona, Italy: July 20-28
2011-14	Chairman, Board of Governors, ARVO Foundation,
2014	Coordinator, Neuroscience School of Advanced Studies, Neuroinflammation: Molecular Principles and Translational Approach, Bressanone, Italian Alps - August 23-30

## **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 (BRS), 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 Materiel 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
- Peer Review Panel Member, 2016 Clinical and Rehabilitative Medicine Research, Intramural Research, U.S. Army Medical Research and Material Command's office of Congressionally Directed Medical Research Programs and SRA International Inc., November 11, 2015 – December 31, 2017
- Reviewer, Videoconference NIH CSR Special Emphasis Panel (SEP) "Fellowship: Cell Biology, Developmental Biology and Bioengineering (FOS-U), February 23-24, 2016
- Reviewer, Clinical and Rehabilitative Medicine Research, Intramural Research, U.S. Army Medical Research and Material Command's office of Congressionally Directed Medical Research Programs and SRA International Inc., April 11, 2016
- Reviewer, ZNS1 SRB-L 07, Centers without Walls for Collaborative Research in the Epilepsies, Special Emphasis Panel, NIH, NINDS, June 28-29, 2016
- Reviewer, NEI Translational Research (R24) and Patient-Oriented Mentoring Training (K23), August 4, 2016
- Reviewer, NIH Special Emphasis Panel, "Synapses, Cytoskeleton & Trafficking (SYN) Scientific Review Group", November 30, 2016
- Reviewer, NEI Special Emphasis Panel ZEY1 VSN (3) NEI Translational Research Program to Develop Novel Therapies and Devices for the Treatment of Visual System Disorders (R24A), July 25-26, 2017
- Reviewer, NIH/NIGMS Special Emphasis Panel, 2018/05 ZGM1 RCB-3 (2B) - COBRE Phase II, March 19, 2018
- Reviewer, ZRG1-BDCN R02 Special Emphasis Panel, October 24, 2018
- Reviewer, 2018/10 CNNT - Clinical Neuroplasticity and Neurotransmitters Study Section, June 15, 2018
- Reviewer, NIH/NEI 2019/05 ZEY1 VSN (05) - NEI Mentored Career Development Applications (K08 and K23), March 25, 2019
- Reviewer, NIH/NIGMS Special Emphasis Panel in Stroke Recovery, 2019/05 ZGM1 RCB-3 (C2) - Renewal of Centers of Biomedical Research Excellence [COBRE] (P20), March 7-8, 2019
- Reviewer, NIH Special Emphasis Panel 2019/10 ZRG1-BDCN L(90)S - Acute Brain Injury, July 19, 2019
- Chair and Reviewer, NIH Special Emphasis Panel 2019/10 ZRG1-BDCN R(02)M, "Member Conflict: Retinopathies, Glaucoma and Strabismus", July 24, 2019

## **OTHER ADVISORY COMMITTEES**

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

1990-1992 Scientific Adv. Board Member, Fondazione Giovanni Lorenzini, Houston, TX  
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

2001-2014 Member, Board of Directors, Atrix Laboratories, Inc., Denver, CO

2001- 2014 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- Member, External Board meeting for MU-AD-PG, St. Louis, MO

2005 Pharmacology Department Head Search Committee, LSU Health Sciences Center, New Orleans, LA

2006-2009 Chairperson, Executive Research Council, New Orleans, LA

2007-2016 COBRE EAC (External Advisory Committee) member, University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma

2007 Pharmacology Chair Search Committee, New Orleans, LA

2007 Dean of the School of Medicine Search Committee, New Orleans, LA

2007 Chair, Neurology Search Committee, New Orleans, LA

2007 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

2010-2016 Founding Senate Member, 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

## 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- Administrative Council, LSUMC School of Medicine, New Orleans, LA
- 1990 Committee Member, Clinical Sciences Research Building Planning, LSU Medical Center School of Medicine, New Orleans, LA
- 1991- Clinical Department Head Committee, LSUMC School of Medicine, New Orleans, LA
- 1992- 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 Medicine, Neuroscience Center of Excellence, New Orleans, LA
- 1996- Chair, Honorary Host Committee of Brain Awareness Week, LSUMC School of Medicine, Neuroscience Center of Excellence, New Orleans, LA
- 1996-1997 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, 85-86 - Klingenstein Foundation (\$753,000)
- 1982-1983, 88-89 - 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, 91-92 - National Retinitis Pigmentosa Foundation, Inc. (\$290,000)
- 1984-1986 - American Diabetes Association (\$50,000)
- 1986-1989, 2007- - Edward G. Schlieder Educational Foundation (\$99,000)
- 1986-1991 - IPSEN Beaufour, Paris, France (\$2,600,000)
- 1989-1994 - GLAXO (1,500,000)
- 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 EY0512I 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 - **EY0512I** Leukotrienes and Prostaglandins in Photoreceptor Renewal (\$676,552)
- 1992-1996 - **EY0512I** Leukotrienes and Messengers in Photoreceptor Renewal (\$608,000)
- 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
- 1995-1998 - Institute de Recherches Internationales Servier, France (\$1,120,000),
- « Pathophysiology of Diabetic Retinopathy: Identification of New Targets of Potential Treatment
- 1996-2001 - **NS23002**, NIH, "Role of Phospholipids and Arachidonic Acid in Epilepsy" (\$966,041)
- 1996-2001 - **EY05121**, NIH, "RPE Messengers, Transcription and Photoreceptor Renewal" (\$638,290)
- 1998- - Eye, Ear, Nose and Throat Foundation (\$750,000)
- 1998 - Daughters of Charity (\$750,000)
- 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"
- 2002-2004 - 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"
- 2002-2007 - **R21 COBRE**, NIH (\$9,800,000), "Mentoring Neuroscience in Louisiana"
- 2002-2008 - **NS23002** "Role of Phospholipids and Arachidonic Acid in Epilepsy" (\$1,079,675)
- 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"
- 2004-2010 - **R01 NS046741**, NIH/NINDS, "Neuroprotection: Lipid Signaling in Ischemia-Reperfusion" (\$1,911,482)
- 2010-2016 - **R01 NS046741**, NIH/NINDS, "Neuroprotection: Lipid Signaling in Ischemia-Reperfusion" (\$1,514,577)
- 2010-2015 - **R01 NS046741**, NIH/NINDS, "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"
- 2001-2004 - **EY05121** RPE Messengers, Transcription and Photoreceptor Renewal (\$1,001,000)
- 2005-2011 - **EY05121** RPE Messengers, Transcription and Photoreceptor Renewal (\$1,731,412)
- 2009-2011 - **EY05121** RPE Messengers, Transcription and Photoreceptor Renewal Supplement (S1) – (\$337,824)
- 2015-2019 - **R01 EY05121** RPE Messengers, Transcription and Photoreceptor Renewal (\$1,779,674)
- 2007-2012 - **P20 RR16816** COBRE, NIH (\$8,313,195), "Mentoring Neuroscience in Louisiana: A Biomedical Program to Enhance Neuroscience"
- 2009-2010 - COBRE Supplement (S1), NIH (\$190,848), "Mentoring Neuroscience in Louisiana"
- 2009-2014 - **AG033282** "DAPK1 Regulation of NMDA receptors in Ischemic Neuronal Death" (\$1,209,348)
- 2010-2012 - **American Health Assistance Foundation (AHAF), Macular Degeneration Research** (\$100,000), "**NPD1** Promotes Survival Signaling in the Ccl2-/-/Cx3cr1-/- 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 (\$5,155,870), "Mentoring Neuroscience in Louisiana: A Biomedical Program to Enhance Neuroscience"
- 2016-2017 - **R01 EY010420** "Degradative Processes in RPE-photoreceptor Renewal" (UPENN) (\$50,400)

- 2018 - **R13 EY029995-01** (Wang S, Bazan N)
- 2018-2023 - **R01 NS104117**, NIH/NINDS, “Novel combinatory therapy for experimental ischemic stroke” (Bazan N, Belayev L) (\$337,751)
- 2019-2024 - **R01 NS109221**, NIH/NINDS, “Docosanoids modulate homeostasis and cell survival after ischemic stroke” (Bazan N, Belayev L) (\$338,932)

## **GRADUATE STUDENTS, POSTDOCTORAL FELLOWS, RESEARCH FELLOWS/CURRENT APOINTEMENTS**

- S.A. Morelli de Liberti
- M.S.D.F. de Escalante
- A. Gauna de Rositano
- Victor Marcheselli, Former 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, Assistant Professor of Biological Chemistry, University of South, Bahia Blanca, Argentina
- 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
- Enrique Politi, Post-doctoral fellow, Harvard Medical School
- 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
- Françoise 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

- 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 of Biological Chemistry, 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., Former 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, Chief, Psychiatry Service, Director, Molecular Neuroscience Program, Louisville Veterans Administration Medical Center, Louisville, KY, 1982-1988
- John Doucet, Ph.D., 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, PhD. Professor Ophthalmology and Head of Glaucoma Research, University of Copenhagen, Denmark
- Hiroshi Hito, Associate Professor, University of Tokyo, Japan
- Antony Rajee, Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School
- Jorgelina Calandria, Ph.D., Research Assistant Professor, 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., M.D./PH.D. CANDIDATES, AND M.D./PH.D. GRADUATES**

- Khanh V. Do (Ph.D. candidate)
- Katelyn Robillard (M.D./Ph.D. candidate)
- Tiffany N. Eady, Senior Neurology Resident, Beth Israel Deaconess Medical Center, Harvard Medical School Teaching Hospital, Children's Hospital (M.D./Ph.D. graduate)
- Tabitha Quebedeaux, Resident, Obstetrics and Gynecology, LSU Health New Orleans, School of Medicine (M.D./Ph.D. graduate)
- David Stark, EyeSTAR Resident UCLA Stein Eye Institute, Department of Ophthalmology, David Geffen School of Medicine at UCLA (M.D./Ph.D. graduate)

## HONORS AND AWARDS

- Argentine Association for the Advancement of the Sciences, Goytia Prizes, **1968, 1970**;
- Awarded best medicine thesis, University of Tucuman, Argentina, **1971-1972**;
- 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, **1983-1984**;
- Elected to Council International Society for Neurochemistry (ISN), **1979-1983**;
- Elected to Council American Society for Neurochemistry (ASN), **1988-1990**;
- 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 Wellcome Fund / FASEB), 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 Annual American Academy of Clinical Neurophysiology, **1998**;
- Mayerson-Di Luzio Lecture, Tulane University School of Medicine, Department of 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 Innovator of the Year Award, New Orleans, LA, **2002**;
- Alzheimer's Association Greater New Orleans Chapter Award, New Orleans, LA, **2002**;
- Career Service Awards, 20 years, LSUHSC, New Orleans, LA, **2003**;
- Family Services of Greater New Orleans (Ten Outstanding Persons) Award, **2003**;



- First Leon S. Wolfe Lecture, Montreal Neurological Institute, Montreal, Canada, **2004**;
- Proctor Medal and Lecture, Association for Research in Vision and Ophthalmology (ARVO), **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**;
- Silver Fellow, Association for Research in Vision and Ophthalmology (ARVO), **2009**;
- Gold Fellow, Association for Research in Vision and Ophthalmology (ARVO), **2011**;
- Chevreul Medal, Paris, France, **2011**;
- Alkmeon International Prize, **2011**;
- Translational Research Initiative in Ophthalmology (TRIO): [https://www.medschool.lsuhsu.edu/faculty/docs/trio\\_program.pdf](https://www.medschool.lsuhsu.edu/faculty/docs/trio_program.pdf), **2012**;
- Speaker, 2nd Annual Gladstone / DZNE Workshop – Synaptic Pathophysiology and Neurodegenerative Disease, German Center for Neurodegenerative Diseases (DZNE) / Gladstone Institute of Neurological Disease (GIND) - Bonn, Germany: <https://www.medschool.lsuhsu.edu/faculty/docs/NB%20Gladstone%20poster%20announcement.pdf>, **May 16-May 18, 2012**;
- Panel Member, Early History of Omega-3 Research, Global Organization for EPA and DHA Omega-3s (GOED) Exchange - Boston, MA: <https://www.medschool.lsuhsu.edu/faculty/docs/GOED%20exchange%202012%20program.pdf>, **June 6-8, 2012**;
- 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, NY, **2013**;
- The Medal Professor Miroslaw M. Mossakowski, Polish Academy of Sciences: <https://www.medschool.lsuhsu.edu/neuroscience/docs/Bazan%20award%20sheet%20Poland%20102913%20R1.pdf> **2013**;
- Honoree, Satellite Symposium: Unveiling the Significance of Lipid Signaling in Neurodegeneration, International Society for Neurochemistry (ISN) / American Society for Neurochemistry (ASN), Cancun, Mexico: <https://www.medschool.lsuhsu.edu/neuroscience/images/nature%20ad%20scan%20for%20website.jpg>, **April 17-19, 2013**;
- Invited Plenary Lecture, 5th International Congress on Stem Cells and Tissue Formation, Dresden, Germany - **July 8-11, 2014**;
- Invited Speaker, Nobel Forum, Lipid Mediators in Health and Disease: A Tribute to Bengt Samuelsson at Karolinska Institut, Stockholm, Sweden - **Aug 27-29, 2014**;
- Keynote Opening Lecture, German Center for Neurodegenerative Diseases (DZNE), Scientific Retreat, Schorfheide, Germany - **Sept 24-26, 2014**;
- Neuroscience School of Advanced Studies, Learning and Memory: Cellular and Systems Mechanisms, S. Tonegawa, A. Silva and N. Bazan (Coordinators), Florence, Italy - **May 23-30, 2015**.
- Chair Nanosymposium: Neuroprotection: *In vivo* Studies. Neuroscience 2015: Society for Neuroscience Annual Meeting, Chicago, IL - **Oct 20, 2015**;
- Opening Keynote Lecture, “The significance of a novel molecular switch for the DHA lipidome in cell function and disease” The 12th Fatty Acids in Cell Signaling Conference: From Genes to Human Physiology, Toronto, Canada - **Oct 25-27, 2015**;
- Plenary Lecturer, The Pan-American Association for Biochemistry and Molecular Biology (PABMB), 56th International Conference for the Bioscience of Lipids (ICBL), Puerto Iguazu, Argentina - **Sept 22-26, 2015**;
- Conference Chair and Organizer, Lipid Mediators in Health and Disease II: From the Cutting Edge and 7th International Conference on Phospholipase A2 and Lipid Mediators: From Bench to Translational Medicine, La Jolla, CA - **May 19-20, 2016**;
- Gradle Medal and Lecture, The Pan-American Association of Ophthalmology (PAAO) / World Ophthalmology Congress (WOC), Guadalajara, Mexico - **Feb 5-9, 2016**;

- Featured on cover of Research Features for article *A marvelous mind*: <http://researchfeatures.com/wp-content/uploads/2016/12/Dr-Nicolas-Bazan-Isuhch-Neuroscience-2.pdf>, **2016**;
- Invited video lecture, American Society of Biochemistry and Molecular Biology (ASBMB); Lipid Corner: Nicolas G. Bazan, LSU Health School of Medicine: <https://www.youtube.com/watch?v=EDc5RW3Mc8s>, **2017**;
- Invited Faculty, Venusberg Neuroinflammation School, Conil de la Frontera, Spain - **Oct 11-16, 2016**;
- Invited Faculty, Venusberg Meeting, Bonn, Germany - **May 11-14, 2017**;
- Neuroscience School of Advanced Studies, Learning and Memory: Cellular and Systems Mechanisms, S. Tonegawa, A.Silva and N. Bazan (Coordinators), Cortona, Italy - **May 27-Jun 3, 2017**;
- Invited Editor of Mini-review thematic series of Journal of Biological Chemistry on “Molecular Principles of the Inflammatory Response Governed by Gene Transcriptional Control”, **2017**;
- Gala Honoree, Association for Research in Vision and Ophthalmology (ARVO) Foundation for Eye Research, Honolulu, Hawaii, **2018**;
- 2018 DZNE Award Lecture, “Tau in Neurodegeneration and Alzheimer’s Disease: Potential Role of Immunotherapy”, Deutsches Zentrum für Neurodegenerative Erkrankungen (DZNE) in der Helmholtz-Gemeinschaft, Bonn, Germany: <https://www.dzne.de/en/spotlight/meldungen/2018/dzne-award-lecture-nicolas-bazan>, **Sept 24, 2018**;
- Mark Nickerson Memorial Lecture, “Brain homeostasis resiliency at the onset of damage and neurodegenerative diseases”, McGill University, Montreal, Quebec, Canada: <https://www.mcgill.ca/pharma/seminarsnews/seminar-events>, **May 9, 2019**;
- Invited two-part talk, Photoreceptor protection: significance of docosanoids and elovanoids 1: docosahexaenoic acid (DHA), The Biomedical & Life Sciences Collection, Henry Stewart Talks Ltd. “Photoreceptor protection: significance of docosanoids and elovanoids 1: docosahexaenoic acid (DHA)” (<https://hstalks.com/bs/4033/>) and “Photoreceptor protection: significance of docosanoids and elovanoids 2: bioactive derivatives of DHA” (<https://hstalks.com/bs/4044/>). **Sept 26, 2019**;

Forthcoming:

- Invited Lecture, “Lipid mediators in health and disease”, International Stroke Pre-Conference Symposium II, Los Angeles, CA - **Feb 18, 2020**;
- Invited Lecture, “Significance of hypothalamic neuronal regulation of appetite in obesity and diabetes”, 1<sup>st</sup> Annual Dr. V.J. Canizaro Health Summit, Spotlight on Diabetes, Obesity and Health, (Cleveland Clinic Endocrinology & Metabolism Institute (EMI) & National Diabetes & Obesity Research Institute (NDORI), Biloxi, MS - **Mar 4, 2020**;
- Invited Lecture, “Interphotoreceptor Matrix integrity protected against oxidative stress by elovanoids resulting in photoreceptor survival”, The 18<sup>th</sup> International Winter Eicosanoid Conference, Baltimore, MD - **Mar 15-17, 2020**;
- Frontiers in Vision Science Lecture, “Molecular Guardians and Resiliency of Photoreceptors”, Bascom Palmer Eye Institute, Miami, Florida - **Mar 26, 2020**;
- Schepens/Mass Eye and Ear Institute Distinguished Lecture, “Elovanoids modulate the transcriptome of the retina: Significance for retinal degeneration”, Harvard University, Boston, MA - **April 23, 2020**;

**IMPACT OF MY ORIGINAL RESEARCH AS OF 01/09/2020**

>450 peer-reviewed publications (PubMed), plus monographs, books, and chapters. h-index=96 (Google Scholar), i10-index=411, and >35,620 citations to my work (Google Scholar).

## **BUSINESS/ENTREPRENEURIAL ACTIVITIES**

### Consulting

- FIDIA, Italy, 1982-1985
- IPSEN-BEAUFOR, France, 1986-1990
- TEIJIN, Japan, 1985-1986
- EISAI, Japan, 1986-1991
- MONSANTO, U.S.A., 1984-1985
- Cardiovascular Drug Discovery Board, GLAXO, North Carolina, 1988-1990
- ICOS, Seattle, Washington, 1996-1999
- SERVIER, France, 1996-2000
- Interdisciplinary Development Advisory Board on Celecoxib in Alzheimer's Disease, SEARLE, Skokie, Illinois, 1998-1999
- CENTAUR, Sunnyvale, California, 1997-2000
- Consultant, MERCK 2000 Management of Acute Pain and Arthritis, Dallas, Texas, 2000

### Start-Up Companies

- Co-Founder and Consultant, In Site Vision, Alameda, California, 1987-1989
- Operating Committee, Member, In Site Vision, Alameda, California, 1987-1989
- Scientific Advisory Board, Centaur, Sunnyvale, California, 1997-2000
- Scientific Founder, St. Charles Pharmaceuticals New Orleans, Louisiana, 1997-2000
- Board of Directors, Atrix Laboratories, Inc., 2001-2004
- Scientific Co-Founder and Chairman of the Board (in organization), South Rampart Pharmaceuticals, LLC, 2016-present
- Scientific Co-Founder and CEO, Neuresto Therapeutics, LLC 2017-present (Publicly Traded Company)

### University-Industry Interactions

- Chairman, Task Force Research as an Economic Force for the Future at LSU Medical Center, New Orleans, Louisiana, 1988-1990
- Member Chair of Bioscience Committee, New Orleans New Business Initiative City Hall, New Orleans, Louisiana, 1989-1991

### Other Activities

- Healthcare & Scientific Advisory Board, BlueStone Capital Partners, LP, New York, 1997-1998
- Genome Securities, Inc., Scientific Advisory Board, Scranton, Pennsylvania, 1998-1999
- eMed Securities, Inc., Chair, Scientific Advisory Board, Scranton, Pennsylvania, 2000-2002
- President, Louisiana Alliance for Biotechnology, Baton Rouge, Louisiana, 2000-2002

## **DEVELOPMENT OF NOVEL SYNTHETIC COMPOUNDS AND THERAPEUTIC APPLICATIONS**

Based on fundamental research in the Bazan lab, patents were developed by effective collaborations with medicinal chemists. Novel molecules developed include: Platelet-activating factor receptor (PAF-R) antagonists, eovanoids, analgesics and other compounds. The lab uncovered receptor mediation (PAF-R) in brains damaged by the phospholipid mediator PAF, which is released during ischemic stroke. Excessive PAF release activates the receptor, triggering a myriad of pro-neuroinflammatory events that include: enhanced excitotoxicity by stimulating glutamate release, inhibition of ionotropic GABA receptor, apoptosis, induction of matrix metalloproteinases 1 and 9, activation of COX-2 transcription, and complement activation. Therefore, PAF-R antagonists for certain neuroinflammatory signaling activated by PAF were developed. The receptor

antagonists are called LAU compounds (Louisiana Alcala Universities, reflecting the collaboration of the Bazan lab with Prof. Alvarez–Builla from the University of Alcala, Spain). One of the members of this series, LAU-0901 downregulates neuroinflammation and reduces the penumbra volume after an experimental ischemic stroke. Thus LAU PAF-R antagonists are highly neuroprotective. Bazan and collaborators also developed a series of acetaminophen (APAP) analogs, 2-(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)-N-(4-hydroxyphenyl) alkanecarboxamides, bearing a heterocyclic moiety linked to the pacylamino phenol fragment. Unexpectedly, these compounds maintained their *in vivo* analgesic profile, while the hepatotoxicity of APAP was abolished. Analgesic and antipyretic efficacy was comparable to that of APAP and display an overall favorable safety profile as an orally delivered compound.

## ABSTRACTS

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.
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1080. Hagel S, Werner D, Chiappinelli B, Rohner N, Afshordel S, Eckert S, Kogel D, **Bazan NG**, Eckert GP: Fish oil improves mitochondrial function in brain of aged mice. 10th Congress of the International Society for the Study of **Fatty Acids** and Lipids, May 26-30, 2012, Vancouver, Canada.
1081. **Bazan NG: DHA**: A sentinel for neuroprotection and brain repair. GEOD Exchange 2012, Boston, Massachusettes, June 6-8, 2012.
1082. **Bazan NG**: Neuroinflammation and omega-3 in synaptic circuitry: New targets for neuroprotection. International Summer School of Neuroscience X, July 7-13, 2012, Catania.
1083. **Bazan NG: Neuroprotectin D1 (NPD1)** and RPE signaling in retinal degenerations. RD2012, XVth International Symposium on Retinal Degeneration, Bad Gogging, Bavaria, Germany.
1084. **Bazan NG** Calandria J, Mukherjee PK: **Neuroprotectin D1** modulates protein misfolding-induced proteotoxic stress in retinal pigment epithelial cells. ISER 2012, XX Biennial meeting

- International Society for Eye Research, Berlin, Germany.
1085. Asatryan A, Calandria JM, **Bazan NG**: Transcriptional activation of BIRC3, a versatile modulator of apoptosis by **neuroprotectin D1** in retinal pigment epithelial cells. Society for Neuroscience October 13- 17, 2012, New Orleans, LA.
  1086. **Bazan NG: Neuroprotectin D1** mediates cell survival in an *in vitro* model of Parkinson's disease. Society for Neuroscience October 13-17, 2012, New Orleans, LA.
  1087. Bender V, Mukherjee PK, **Bazan NG**: Effect of **NPD1** treatment of Induna expression after oxidative-stress in retinal pigment epithelial cells. *Society for Neuroscience* October 13-17, 2012, New Orleans, LA.
  1088. Calandria J, Asatryan A, **Bazan NG: Neuroprotectin D1** mediates dendritic arbor integrity in an *in vitro* model of Parkinson's disease. Society for Neuroscience October 13-17, 2012, New Orleans, LA.
  1089. Hong S-H, Khoutorova L, Atkins KD, Belayev L, Obenaus A, **Bazan NG**: Long-term neurological improvement by systemically administered **docosahexaenoic acid** in experimental focal cerebral ischemia. Society for Neuroscience October 13-17, 2012, New Orleans, LA.
  1090. Knott EJ, Gordon W, **Bazan NG**: Pigment epithelium derived factor-induced neuroprotection is bolstered by docosahaenoic acid and stimulates docosanoid production. Society for Neuroscience October 13-17, 2012, New Orleans, LA.
  1091. Musto AE, Quebedeaux T, Walker CP, Khoobehi D, **Bazan NG: Neuroprotectin D1** attenuates aberrant neuronal networks in epileptogenesis. Society for Neuroscience October 13-17, 2012, New Orleans, LA.
  1092. Rossi JL, Todd T, **Bazan NG**, Belayev L: Inhibition of myosin light chain kinase attenuates cerebral edema and preserves neurologic function in young mice following traumatic brain injury. Society for Neuroscience October 13-17, 2012, New Orleans, LA.
  1093. Hong S-H, Khoutorova L, Anzola D, Wu Q, June B-K, **Bazan NG**, Belayev L: Protection against blood-brain barrier disruption in focal cerebral ischemia by **docosahexaenoic acid**. International Stroke Conference February 6-8, 2013.
  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 Signalin 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 Bolters 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 Homestatic 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 Institutet and present a Seminar in Stockholm, Sweden. Title: "Unraveling Molecular Principles of Neuronal Survival: Significance in Vision and Neuroprotection" November 29-December 3, 2014.
1116. Anthony M. DiGiorgio, Erin S. Fannin, Eric Knott, Caroline L. Davidson, Rachel H. Kopkin, Janet L. Rossi, Bok Kyoo Jun, Brenda B. Chiappinelli, Shelly Mullenix, Marisa Fromica, Jacques Courseault, Vincent Shaw, Stephen Etheridge, **Nicolas G. Bazan**, Frank Culicchia, Larry H. Hollier: Experimental design to assess blood biomarkers in concussed collegiate

- football players: A matched cohorts study. Congress of Neurological Surgeons meeting, New Orleans, LA, January 16-17, 2015.
1117. **Nicolas G. Bazan**: Phospholipase A2 and neuroprotectin D1 in experimental ischemic stroke and epilepsy. The 10th IGAKUKEN International Symposium on "Phospholipase A<sub>2</sub> and Lipid Mediators". Tokyo, Japan, February 9, 2015.
1118. **Nicolas G. Bazan**: Molecular principles for retention specificity and function of docosahexaenoic acid in the retina and brain: A necessary, integral membrane protein, phospholipase A<sub>2</sub> and neuroprotectin D1. 6th International Conference on Phospholipase A<sub>2</sub> and Lipid Mediators (PLM2015), Tokyo, Japan, February 9-12, 2015.
1119. **Nicolas G. Bazan**, Larissa Khoutorova, Julio Alvarez-Builla, Ludmila Belayev: Novel platelet-activating factor receptor antagonists attenuate brain injury after experimental stroke. International Stroke Conference 2015, Nashville, TN, February 11-13, 2015.
1120. **Nicolas G. Bazan**: Molecular principles for docosahexaenoic acid (DHA) retention specificity and cell function in the nervous system, Journees Chevreul 2015, "Lipid and Brain 3, Paris, (FIAP Jean Monnet), France, March 16-18, 2015.
1121. **Nicolas G. Bazan**: Alzheimer's disease is a world affairs. OHSU Brain Institute, Brain Awareness, Public Lecture Series of the Brain Awareness, Portland, Oregon, March 31, 2015
1122. Russell Amato, Robert Rosencrans, Francine M. Jodelka, Anthony J. Hinrich, **Nicolas G. Bazan**, Frank Rigo, Michelle L. Hastings, Jennifer J. Lentz: Early effects of antisense oligonucleotide treatment on photoreceptor function and retinal structure in a mouse model of Usher Syndrome. ARVO, Association for Research in Vision and Ophthalmology, Denver, CO, May 3-7, 2015
1123. Aram Asatryan, Jorgelina Calandria, **Nicolas G. Bazan**: NPD1 transcriptional activation of c-REL is essential to contain AIM2 and NOD-2 inflammasome formation in RPE cells ARVO, Association for Research in Vision and Ophthalmology, Denver, CO, May 3-7, 2015.
1124. **Nicolas G. Bazan**: Moderator, "Lipid/oxidation/ischemia reperfusion/hypoxia preconditioning". ARVO, Association for Research in Vision and Ophthalmology, Denver, CO, May 3-7, 2015.
1125. **Nicolas G. Bazan**: Moderator, "Aqueous humor dynamics, corneal disease". ARVO, Association for Research in Vision and Ophthalmology, Denver, CO, May 3-7, 2015.
1126. **Nicolas G. Bazan**, Dennis S. Rice, William C. Gordon, Jorgelina M. Calandria: The integral membrane protein adiponectin receptor 1 (Adipo-R1) is necessary to retain docosahexaenoic acid (DHA) and to sustain photoreceptor cell (PRC) integrity. ARVO, Association for Research in Vision and Ophthalmology, Denver, CO, May 3-7, 2015.
1127. Jorgelina Calandria, Aram Asatryan, John Cefalu, **Nicolas G. Bazan**: HMGB1 potentiates NPD1-mediated protection to oxidative stress through the inhibition of PTPRZ1-mediated activation of the  $\beta$ -catenin pathway. ARVO, Association for Research in Vision and Ophthalmology, Denver, CO, May 3-7, 2015.
1128. William C. Gordon, Bok Kyoo Jun, **Nicolas G. Bazan**: Phosphatidylcholine (PC) molecular species-containing very long chain polyunsaturated fatty acids (VLC-PUFAs) are altered in AMD. ARVO, Association for Research in Vision and Ophthalmology, Denver, CO, May 3-7, 2015.
1129. Bok Kyoo Jun, William C. Gordon, **Nicolas G. Bazan**: Adiponectin receptor 1 (AdipoR1) is necessary for the synthesis of very long chain polyunsaturated fatty acids (VLC-PUFAs) in photoreceptor cells. ARVO, Association for Research in Vision and Ophthalmology, Denver, CO, May 3-7, 2015.
1130. Eric J. Knott, Blake A. Lemoyne, **Nicolas G. Bazan**: The significance of 15 lipoxygenase-1 and docosanoid signaling in retinal ischemic preconditioning. ARVO, Association for Research in Vision and Ophthalmology, Denver, CO, May 3-7, 2015.
1131. Pranab Mukherjee, **Nicolas G. Bazan**: Sirtuin 1 (SIRT1) is a neuroprotectin D1 (NPD1) target in retinal pigment epithelial cell survival signaling. ARVO, Association for Research in Vision

- and Ophthalmology, Denver, CO, May 3-7, 2015.
1132. Robert Rosencrans, Russell J. Amato, Yongdong Zhou, **Nicolas G. Bazan**, Jennifer J. Lentz: Early changes in retinal structures in a mouse model of Usher Syndrome. ARVO, Association for Research in Vision and Ophthalmology, Denver, CO, May 3-7, 2015.
1133. Swornin Man Shrestha, Jorgelina M. Calandria, Khanh Do, Jonathan D. Wren, **Nicolas G. Bazan**: Neuroprotectin D1 (NPD1) homeostatic response induces transcription events that target a NF- $\kappa$ B member, cREL in retinal pigment epithelial cells (RPE). ARVO, Association for Research in Vision and Ophthalmology, Denver, CO, May 3-7, 2015.
1134. **Nicolas G. Bazan**: Integral membrane protein necessary for omega-3 fatty acid retention in photoreceptor cells and neurodegeneration. Lipidomics Impact on Cancer, Metabolic and Inflammatory Diseases, LIPID MAPS Annual Meeting, LaJolla, CA, May 12-13, 2015.
1135. **Nicolas G. Bazan**: Moderator, Novel approaches to neuroprotection, XXVII International Symposium on Cerebral Blood Flow, Metabolism and Function & XIIth International Conference on Quantification of Brain Function with PET, Vancouver, Canada, June 27-30, 2015.
1136. **Nicolas G. Bazan**: Molecular principles for retention specificity, cell survival bioactivity and function of docosahexaenoic acid. 56th International Conference on Bioscience of Lipids, Puerto Iguazu, Misiones, Argentina, September 22-26, 2015.
1137. **Nicolas G. Bazan**, Sung-ha Hong, Larissa Khoutorova, Andre Obenaus, Nicos A. Petasis, Ludmila Belayev: A PAF-receptor antagonist plus docosanoids leads to remarkable neuroprotectin in experimental stroke. Society for Neuroscience, October 17-21, 2015.
1138. Ludmila Belayev, Larissa Khoutorova, Andre Obenaus, Sung-ha Hong, **Nicolas G. Bazan**: Docosahexaenoic acid therapy protects the ischemic penumbra after experimental stroke in female rats. Society for Neuroscience, October 17-21, 2015.
1139. **Nicolas G. Bazan**: The significance of a novel molecular switch for the DHA lipidome in cell function and disease. The 12th Fatty Acids in Cell Signaling (FACS) Conference: From Genes to Human Physiology, Toronto, Canada, October 25-27, 2015.
1140. **Nicolas G. Bazan**: Research update: The movement toward healing the mind. 17th Annual McGinty Conference on Alzheimer's, The Mind, Memory and Music, Alzheimer's Association Oregon Chapter, Portland, Oregon, November 3, 2015.
- 1141 **Nicolas G. Bazan**: Molecular clues to understanding retinal degenerative diseases: Novel neuroprotection mechanisms. Gradle Lecture at World Ophthalmology Congress (WOC) of International Council of Ophthalmology, Guadalajara, Mexico, February 5-9, 2016.
- 1142 L. Belayev, L. Khoutorova, A. Obenaus, and N.G. Bazan. Experimental stroke during aging: Docosahexaenoic acid therapy provides robust neuroprotection. 40th International Stroke Conference. Los Angeles, CA, February 17-19, 2016.
- 1143 **Nicolas G. Bazan**: The vulnerability of sight and cognition in aging. 12<sup>th</sup> Annual Aging Research Day, Sensory Systems in Aging, Charleston, SC, February 26, 2016.
- 1144 Desire Alexander; Anuradha Dhingra; William C. Gordon, Bok Kyoo Jun; **Nicolas G. Bazan**, Kathleen Boesze-Battaglia, Alvia Bragin: Loss of MREG dependent LC3 associated phagocytosis (LAP) by the RPE leads to altered intracellular lipid processing. ARVO, Association for Research in Vision and Ophthalmology, Seattle, Washington, May 1-5, 2016.
- 1145 Russell Amato, Robert F. Rosencrans, Francine M. Jodelka, Frederic Depreux, **Nicolas G. Bazan**, Frank Rigo, Michelle Hastings, Jennifer J. Lentz: Cumulative dosing enhances the beneficial efforts of antisense oligonucleotide treatment on visual function in a mouse model of Usher Syndrome. ARVO, Association for Research in Vision and Ophthalmology, Seattle, Washington, May 1-5, 2016.
- 1146 Aram Asatryan, **Nicolas G. Bazan**: Stereoselective transcriptional modulation of inflammasome in hRPE cells by the docosanoid Neuroprotectin D1 (NPD1) ARVO, Association for Research in Vision and Ophthalmology, Seattle, Washington, May 1-5, 2016.

- 1147 **Nicolas G. Bazan**, Bok Kyoo Jun, Bo Chang, William C. Gordon: Membrane-type frizzled related protein (MFRP) is needed for photoreceptor cell function by retaining docosahexaenoic acid (DHA). ARVO, Association for Research in Vision and Ophthalmology, Seattle, Washington, May 1-5, 2016.
- 1148 Jorgelina Calandria, Khanh Do, Swornin Man Shrestha, **Nicolas G. Bazan**: The tyrosine phosphatase receptor PTPRZ1 inhibits  $\beta$ -catenin-dependent gene expression in RPE cells. ARVO, Association for Research in Vision and Ophthalmology, Seattle, Washington, May 1-5, 2016.
- 1149 Khanh Do, Jorgelina M. Calandria, **Nicolas G. Bazan**: Neuroprotectin D1 (NPD1) modulates amyloid precursor protein (APP) processing in human retinal pigment epithelial cells (RPE). ARVO, Association for Research in Vision and Ophthalmology, Seattle, Washington, May 1-5, 2016.
- 1150 William C. Gordon, Bok Kyoo Jun, **Nicolas G. Bazan**: Very long chain polyunsaturated fatty acids (VLC-PUFAs) in cone- and rod-rich regions of the human retina. ARVO, Association for Research in Vision and Ophthalmology, Seattle, Washington, May 1-5, 2016.
- 1151 Bok Kyoo Jun, Robert F. Rosencrans, Hamilton E. Farris, Corinne Richards-Zawacki, William C. Gordon, **Nicolas G. Bazan**: Lipid profiling in a diurnal frog retina shows no VLC-PUFA ARVO, Association for Research in Vision and Ophthalmology, Seattle, Washington, May 1-5, 2016.
- 1152 Azucena H. Kakazu, Bokkyoo Jun; **Nicolas G. Bazan**, Haydee E. Bazan: Synthesis of pro-homeostatic docosanoids in corneas stimulated with pigment epithelial derived factor (PEDF) or 44-mer PEDF plus docosahexaenoic acid (DHA) ARVO, Association for Research in Vision and Ophthalmology, Seattle, Washington, May 1-5, 2016.
- 1153 Pranab K. Mukherjee, **Nicolas G. Bazan**: NeuroprotectinD1 (NPD1) mediates Sirtuin signaling in cell survival under-uncompensated oxidative stress in retinal pigment epithelial (RPE) cells. ARVO, Association for Research in Vision and Ophthalmology, Seattle, Washington, May 1-5, 2016.
- 1154 Robert F. Rosencrans, Keith Perkins, William C. Gordon, Corinne Richards-Zawacki, **Nicolas G. Bazan**, Hamilton E. Farris: Validating optical predictions of sensitivity in vertebrate eyes. ARVO, Association for Research in Vision and Ophthalmology, Seattle, Washington, May 1-5, 2016.
- 1155 Marcell SJ, Freitas RS, Menghani H, Belayev L, Khoutorova L, Obenaus A and **Bazan NG**. Docosanoid-mediated neuroprotection in experimental ischemic stroke. Lipid Mediators in Health and Disease, La Jolla, CA, May 19-20, 2016.
- 1156 Freitas SR, Marcell SJ, Menghani H, Hong SH, Khoutorova L, Obenaus A, Petasis NA, Belayev L, **Bazan NG**. A therapeutic approach for experimental ischemic stroke combining a PAF-receptor antagonist plus docosanoids. Lipid Mediators in Health and Disease, La Jolla, CA, May 19-20, 2016.
- 1157 **Bazan NG**, Mukherjee PK, Balaszczuk V, Obenaus A, Khoutorova L, Hong SH, Belayev L. Docosahexaenoic acid provides neuroprotection by upregulating Iduna expression in the ischemic penumbra after experimental stroke. Society for Neuroscience, San Diego, CA, November 12-16, 2016.
- 1158 Belayev L, Khoutorova L, Obenaus A, **Bazan NG**. Is docosahexaenoic acid neuroprotective after traumatic brain injury in rats? Society for Neuroscience, San Diego, CA, November 12-16, 2016.
- 1159 Belayev L Hong SH, Mukherjee PK, Menghani H, Khoutorova L. and **Bazan NG**. Induction Profile of Mesencephalic Astrocyte-Derived Neurotrophic Factor by Cerebral Ischemia and its Implication for Neuroprotection. 41st International Stroke Conference. Houston, TX, February 22-24, 2017.
- 1160 **Bazan NG**, Hong SH, Menghani H, Khoutorova L. and L. Belayev, Docosahexaenoic Acid



- Provides Neuroprotection by Increasing Neurogenesis After Experimental Stroke. 41st International Stroke Conference. Houston, TX, February 22-24, 2017.
- 1161 **Bazan NG.**, Hong SH, Menghani H, Marcell S, Mukherjee PK, Khoutorova L. and Belayev L. Upregulation of mesencephalic astrocyte-derived neurotrophic factor by cerebral ischemia promotes tissue repair after experimental stroke. XXVIII International Symposium on Cerebral Blood Flow and Metabolism, Berlin, Germany, April 1-4, 2017.
- 1162 Belayev L, Khoutorova L, Pizarro Cabral LM, Marcell S, Cong L, Semikov R, Obenaus A and **Bazan NG.** The salutary effects of omega-3 fatty acids on cognition and tissue repair after traumatic brain injury in rats. XXVIII International Symposium on Cerebral Blood Flow and Metabolism, Berlin, Germany, April 1-4, 2017.
- 1163 Asatryan, Aram; Kautzmann, Marie-Audrey I.; Heap, Jessica; **Nicolas G. Bazan.** Single human retinal pigment epithelial (hRPE) cell analysis under oxidative stress reveals differential expression of pro-inflammatory and apoptosis related genes. ARVO, Association for Research in Vision and Ophthalmology, Baltimore, Maryland, May 7-11, 2017.
- 1164 **Nicolas G. Bazan;** Asatryan, Aram; Mukherjee, Pranab K.; Yang, Rong; Petasis, Nicos; Jun, Bokkyoo. The discovery of a new family of lipid mediators, the elovanoids, biosynthesized in human RPE cells. ARVO, Association for Research in Vision and Ophthalmology, Baltimore, Maryland, May 7-11, 2017.
- 1165 Calandria, Jorgelina M.; Do, Khanh; **Nicolas G. Bazan.** DHA-NPD1 signaling via cREL downregulates pro-inflammatory Wnt5a in RPE cells. ARVO, Association for Research in Vision and Ophthalmology, Baltimore, Maryland, May 7-11, 2017.
- 1166 Do, Khanh; **Nicolas G. Bazan.** Neuroprotectin D1 (NPD1) downregulates amyloid beta (A $\beta$ 42) oligomer-induced senescence in human retinal pigment epithelial (RPE) cells. ARVO, Association for Research in Vision and Ophthalmology, Baltimore, Maryland, May 7-11, 2017.
- 1167 Fuerst, Jonathan; Kautzmann, Marie-Audrey I.; Gordon, William C.; **Nicolas G. Bazan.** Optimization of mouse photoreceptor isolation and micro-fluidic single cell capture for downstream molecular analysis. ARVO, Association for Research in Vision and Ophthalmology, Baltimore, Maryland, May 7-11, 2017.
- 1168 Gordon, William C; **Nicolas G. Bazan.** Early photoreceptor cell impairment upon AdipoR1 genetic ablation. ARVO, Association for Research in Vision and Ophthalmology, Baltimore, Maryland, May 7-11, 2017.
- 1169 Heap, Jessica; Kautzmann, Marie-Audrey I.; **Nicolas G. Bazan.** Gene signatures of single photoreceptor cells (PRC) using microfluidic technology. ARVO, Association for Research in Vision and Ophthalmology, Baltimore, Maryland, May 7-11, 2017.
- 1170 Jun, Bokkyoo; Kautzmann, Marie-Audrey I.; Hill, Helen E.; Patel, Uday B.; Gordon, William C.; **Nicolas G. Bazan.** Retina-specific molecular species (PC and PE) alterations by ablation of AdipoR1 or MFRP. ARVO, Association for Research in Vision and Ophthalmology, Baltimore, Maryland, May 7-11, 2017.
- 1171 Kautzmann, Marie-Audrey I.; Heap, Jessica; **Nicolas G. Bazan.** Transcriptomics of isolated photoreceptor cells reveal profiling of genes linked to function and retinal degeneration. ARVO, Association for Research in Vision and Ophthalmology, Baltimore, Maryland, May 7-11, 2017.
- 1172 Miyagishima, Kiyoharu J.; Sharma, Ruchi; Clore-Gronenborn, Katharina; Qureshy, Zoya; Jun, Bokkyoo; Gordon, William C.; Hotaling, Nathan; Zhang, Congxiao; Cukras, Catherine A.; Sieving, Paul A.; **Nicolas G. Bazan;** Miller, Sheldon S.; Bharti, Kapil. Analysis of Secretory Lipidomics and Proteomics of Late-Onset Retinal Degeneration iPSC-derived RPE. ARVO, Association for Research in Vision and Ophthalmology, Baltimore, Maryland, May 7-11, 2017.
- 1173 Muhale, Filipe A.; Asatryan, Aram; Heap, Jessica; Kautzmann, Marie-Audrey I.; **Nicolas G. Bazan.** Single human retinal pigmented epithelial cells (hRPE) transcriptome analysis reveals upregulation of a subset of autophagy-related genes in response to uncompensated oxidative

- stress (UOS). ARVO, Association for Research in Vision and Ophthalmology, Baltimore, Maryland, May 7-11, 2017.
- 1174 Mukherjee, Pranab K.; Bender, Veronica; Calandria, Jorgelina M.; **Nicolas G. Bazan**. Neuroprotectin D1 (NPD1) upregulates Iduna expression and provides protection against uncompensated oxidative stress (UOS) in Human Retinal Pigment Epithelial Cells. ARVO, Association for Research in Vision and Ophthalmology, Baltimore, Maryland, May 7-11, 2017.
- 1175 **Bazan NG**, Jun B, Gordon WC. Mass spectrometry molecular imaging of novel retina pro-homeostatic signaling. Poster session presented at: Imaging in the Eye Conference. ARVO 2018 Annual Meeting. 2018 Apr 29-May 3; Honolulu, HI.
- 1176 Gordon WC, **Bazan NG**. Lack of n3 VLC-PUFAs and elovanoids correlates with impaired photoreceptor disk morphogenesis in AdipoR1 KO. Poster session presented at: Imaging in the Eye Conference. ARVO 2018 Annual Meeting. 2018 Apr 29-May 3; Honolulu, HI.
- 1177 Matherne B, Kautzmann MA, Gordon WC, **Bazan NG**. Disrupted electroretinogram response in RPE or photoreceptor Adiponectin receptor (AdipoR1) conditional KOs. Poster session presented at: Imaging in the Eye Conference. ARVO 2018 Annual Meeting. 2018 Apr 29-May 3; Honolulu, HI.
- 1178 Calandria JM, Bhattacharjee S, **Bazan NG**. Specific induction of the internalization and degradation of inflammatory Wnt5a in damaged RPE cells by neuroprotection D1 (NPD1). Poster session presented at: Imaging in the Eye Conference. ARVO 2018 Annual Meeting. 2018 Apr 29-May 3; Honolulu, HI.
- 1179 Do K, Kautzmann MA, **Bazan NG**. Elovans (ELV) counteract A $\beta$  peptide-induced retinal pigment epithelial cell senescence progression. Poster session presented at: Imaging in the Eye Conference. ARVO 2018 Annual Meeting. 2018 Apr 29-May 3; Honolulu, HI.
- 1180 Jun B, Miyagishima K, Sharma R, Cukras C, Sieving P, Miller S, Bharti K, **Bazan NG**. Elovans profiling of IPSC-RPE, derived from a family affected by Late-Onset Retinal Degeneration reveals attenuated neuroprotective signaling in patients. Poster session presented at: Imaging in the Eye Conference. ARVO 2018 Annual Meeting. 2018 Apr 29-May 3; Honolulu, HI.
- 1181 Barreiro, Sebastian, **Bazan NG**. Lack of synergistic protection by elovans (ELVs) and Neuroprotectin D1 (NPD1) against uncompensated oxidative stress (UOS) in human retinal pigment epithelial cells (RPE). Poster session presented at: Imaging in the Eye Conference. ARVO 2018 Annual Meeting. 2018 Apr 29-May 3; Honolulu, HI.
- 1182 Mukherjee PK, Bhattacharjee S, **Bazan NG**. Enhanced COX-2 and ASC protein abundance in human retinal pigment epithelial (RPE) cells are attenuated by Elovans (ELV) under uncompensated stress (UOS). Poster session presented at: Imaging in the Eye Conference. ARVO 2018 Annual Meeting. 2018 Apr 29-May 3; Honolulu, HI.
- 1183 Kautzmann MA, Khanh Do, **Bazan NG**. Gender analysis of the transcriptomes of AdipoR1 and MFRP deficient mice. Poster session presented at: Imaging in the Eye Conference. ARVO 2018 Annual Meeting. 2018 Apr 29-May 3; Honolulu, HI.
- 1184 Aram A, Kautzmann MA, Heap J, **Bazan NG**. Human retinal pigment epithelial (hRPE) single cell genomics of NLRP3 inflammasome is modulated by elovanoid (ELV32-6) and neuroprotectin D1 (NPD1) in response to uncompensated oxidative stress (UOS). Poster session presented at: Imaging in the Eye Conference. ARVO 2018 Annual Meeting. 2018 Apr 29-May 3; Honolulu, HI.
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3. Of Mind and Music (Nicolas Bazan, co-screenplay writer and executive producer; based on the novel Una Vida: A Fable of Music and the Mind) ([https://www.amazon.com/Mind-Music-Aunjanue-Ellis/dp/B01DEC7BT8/ref=sr\\_1\\_1?ie=UTF8&qid=1502810468&sr=8-1&keywords=of+mind+and+music](https://www.amazon.com/Mind-Music-Aunjanue-Ellis/dp/B01DEC7BT8/ref=sr_1_1?ie=UTF8&qid=1502810468&sr=8-1&keywords=of+mind+and+music))

## SELECTED MAJOR PUBLICATIONS - LISTED IN GROUPS PRECEDED BY A BRIEF DESCRIPTION OF THE FINDINGS

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

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