CURRICULUM VITAE

Part I: GENERAL INFORMATION

Date Prepared:	January 15, 2023
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Current Positions:

2020-2022	Assistant Research Professor, Department of Physics, University of Houston, Houston, TX
2019-Present	Member of the Board of Directors Chintimini Wildlife Center (previously Vice President and President)
2018-Present	Scientific Consultant in Physics & Theoretical Biology

Education:

1977	B.A. (Biochemistry)	University of Pennsylvania, Philadelphia, PA
1988	Ph.D. (Molecular Genetics)	The Rockefeller University, New York, NY (Advisor: Michael W. Young)

Postdoctoral Training:

Research Fellowships:

1988-1989	Howard Hughes Postdoctoral Fellow, Molecular Neurobiology Section, Yale University, New Haven, CT (Advisor: Dr. Charles F. Stevens)
1990-1991	Howard Hughes Postdoctoral Fellow, Molecular Neurobiology Lab., The Salk Institute, La Jolla, CA (Advisor: Dr. Stephen F. Heinemann)
1991-1993	Research Associate, Molecular Neurobiology Laboratory, The Salk Institute, La Jolla, CA

Academic Appointments:

1993-2008	Visiting Scientist & Sloan Center Fellow, The Salk Institute, La Jolla, CA
2001-2002	Visiting Scientist, Dept. of Neurobiology, Harvard Medical School, Boston, MA
2002-2004	Instructor, Department of Radiology, Harvard Medical School
2004-2008	Assistant Professor, Department of Radiology, Harvard Medical School

Hospital or Affiliated Institution Appointment:

2002-2008	Assistant Neuroscientist in Radiology at Massachusetts General Hospital
2002-2008	Director, Laboratory of Neurogenetics in the Athinoula A. Martinos Center for Imaging, Department of Radiology, Massachusetts General Hospital
2002-2008	Co-Director, Motivation Emotion Neuroscience Collaboration (MENC)

Major Administrative Responsibilities:

1994-2001	Editor (in chief) of *Neuron*, Cambridge, MA
2001	Assistant Director for Scientific Affairs, Center for Learning & Memory, Massachusetts Institute of Technology, Cambridge, MA
2002-2008	Associate Director for Neuroscience & Genetics Research, Division on Addictions, Cambridge Health Alliance

Major Committee Assignments:

1995-2001	Scientific Council, Fundación Juan March, Madrid, Spain (With Ceasar Milstein, Miguel Beato, Jose Campos-Ortega, Margarita Salas, and Ramon Serano)
2001-2007	Scientific Advisory Board, MRC Toxicology, University of Leicester, Leicester UK
2002-2007	Scientific Advisor, Laboratorio de Investigaciones Biomédicas, Hospital Universitario Virgen del Roció, Universidad de Sevilla
2002-2006	Institute for Research on Pathological Gambling and Related Disorders- Grant Review Panel

2004	National Institute of Drug Abuse Genetics Grant Review Panel, with David Clayton (Cambridge Institute for Medical Research), Elizabeth Hauser (Duke University), Robert Moyzis (UC Irvine), and Pak Sham (Institute for Psychiatry, London)
2004-2007	Center for Inherited Disease Research Grant Review Panel, National Human Genome Research Institute, NIH.
2005-2007	Life Sciences Research Organization (LSRO, Bethesda, MD) Behavioral Panel (with Warren Bickel, William Eadington, Harriet de Wit, Nell Ahl, Richard Schwing, William Windsor, Heping Zhang) "Prepare a white paper on the behavioral (addictive) criteria required of a reduced risk tobacco product and methods to monitor the population risk after the introduction of such a product"
2007	National Institute of Drug Abuse Genetics Grant Review Panel

Honors & Awards:

1988-1991	Howard Hughes Postdoctoral Fellowship
1991-1993	NIMH Postdoctoral Fellowship

Professional Societies:

1981-1987	Society for Developmental Biology
1987-2008	Society for Neuroscience
1995-present	American Association for the Advancement of Science
2000-2008	American Society of Human Genetics

Editorial Boards:

1993	Assistant Editor Biological Sciences *Nature*
1993-1994	Reviews & Deputy Editor of *Cell*
1994-2001	Editor (in Chief) of *Neuron*
1994-2001	Consulting Editor of *Cell*
2001-2003	Consulting Editor of *Neuron*
2003-2007	Reviewer for the Archives of General *Psychiatry*
2003-2007	Reviewer for *Biological Psychiatry*
2004-2007	Reviewer for *Journal of Neuroscience*
2005-2007	*Reviewer Harvard Review of Psychiatry*
2006-2008	Editorial Board of *Cell Death & Differentiation*

Part II: RESEARCH & TEACHING

A. Narrative Report of Research & Teaching Contributions:

As an undergraduate, I worked on several research projects, which involved cell membrane physiology of red cells, organic chemistry of prostaglandin endoperoxides, thromboxanes, and prostacyclin, and their roles as local messengers in platelet and cardiovascular physiology. We were the first group to synthesize prostacyclin and characterize it beneficial cardiovascular properties. Through college and part of graduate school, I also contributed to the work of my father in cancer research with papers, grant proposals, and suggestions for new approaches to the research in limiting the spread of metastases. Several publications resulted from my input, and I was a co-inventor in two patents.

At Rockefeller University, I began research with William S. Hayward to characterize the RNAs of the avian leukosis viruses that lacked the src oncogene. I came up with the hypothesis that these viruses were oncogenic because, as a rare event, they were able to integrate into genomic sequences, thereby altering the dosage of a tightly regulated cell cycle and/or signal transduction molecule and initiating an oncogenic process. Alternatively, this integration event led to gain of function mutation that initiated oncogenic transformation. My thesis (advisors: Drs. E. Thomas Kaiser & Michael W. Young; 2017 Nobel Laurette in Physiology & Medicine) work involved the characterization of the Notch gene/product, how the different mutations (alleles) affected Notch signaling, and its role in the differentiation of the neuroblast-epidermal lineages. My research demonstrated that Notch signaling during embryonic development required its participation at the cell surface, whereas combined genetic (alleles of Notch with mutations in the intracellular domain), biochemical, and cell biological evidence alluded to the generation of an intracellular Notch cleavage product that directly mediated an intracellular signal.

For my Ph.D., I attended seminars in Biochemistry, Genetics, Immunology, and Virology and qualified in these areas. Under the supervision of Rockefeller University Professor Martin Carter, I ran the endowed Pathology and Experimental Medicine Seminar Series (1983-1986) where I invited a outside speaker in diverse areas every month (James F. Gusella, Hilary Koprowski, Constance L. Cepko, Richard C. Mulligan and many others), assigned 10-12 research papers for discussion participants related to the speaker's area. A subset of the participants went to dinner with the invited speaker. This experience allowed me to broaden my biomedical knowledge base.

I carried out postdoctoral work at Yale University in the laboratory of Dr. Charles F. Stevens using physiological approaches to try to clone the NMDA receptor, and a second project to characterize the neuromuscular acetylcholine receptor in oocytes by electrophysiological and biochemical approaches. This project sought to resolve a controversy between the Unwin and Karlin laboratories in the arrangements of the α, β, γ, δ(ε) subunits by analyzing the electrophysiological properties of oocytes injected with combinations missing γ or δ. Subsequently, I carried out additional research in the laboratory of Dr. Stephen Heinemann (Salk Institute), where the first glutamate receptor subunits had been cloned. This project sought to characterize glutamate receptor gene

products, roles in normal synaptic transmission, neural development, and ultimately to understand their roles in the pathophysiology of neurodegenerative diseases and other CNS diseases such as drug addiction. As I was finishing my post-doctoral work, I was accorded the opportunity of being the Assistant Editor, Biological Science (Cellular and Molecular Neurobiology, Cell Signal Transduction, and Pharmacology) at *Nature (London)*, then Benjamin Lewin's deputy at *Cell*, and finally, Editor (in-chief) of *Neuron*.

As Editor of *Neuron*, I helped shape the course of neuroscience from the biophysics of ion channels to the systems involved in memory, perception, goal directed behavior, attention, and other higher cognitive functions. By delving into the heart of the work, I tried to find ways to turn a promising piece of work into something that several years down the road would be recognized as a landmark work. With a broad base of knowledge, I have returned the academic environment to face the challenges of the experimental research environment, which required me on focus important problems, tangible goals, and funding of these projects.

The *Phenotype Genotype Project in Depression and Addiction* is an Office of National Drug Control Policy funded major initiative to: 1) build a high through-put brain imaging pipeline for sub-millimeter resolution structure, tractography, baseline perfusion, and functional MRI measures of reward/aversion, attention, and memory function that will densely sample the neural systems at the core of human addiction (cocaine) and major depression. 2) Construct a multi-dimensional database for brain imaging, genetic, and clinical measures for correlative studies, data mining, and neural modeling. 3) Derive circuit-based endophenotypes of risk for recurrent major depression (MDD) and cocaine addiction and distinguish these from state markers of active illness that can be used to objective diagnosis, staging, and treatment prediction. 4) Conduct genetic association studies with hypothesis-driven candidate genes. The project PIs are Drs. Hans Breiter and Gregory Gasic and represented a collaboration between MGH Neurology, Psychiatry, Radiology, and the MGH Center for Human Genetics Research (Dr. James Gusella, Director). Instrumental in these studies was the MGH Center for Morphometric Analysis (Verne Caviness, Nikos Makris, and David Kennedy). The project scanned almost 300 individuals (Cocaine Dependence, Major Depressive Disorder, Healthy Controls, and their first-degree relatives) with morphometric, perfusion, and functional MRI (5 paradigms). Genetic association studied were designed to test specific hypotheses provided by the neuroimaging-based phenotypes, using social cognition, reward and attention, and morphometric measures as quantitative traits. Polymorphisms were chosen in candidate genes associated with a psychiatric disease or ones that have a high biological prior probability (e.g from mechanistic animal studies) and that were appropriately matched to neuroimaging-based phenotypes to illuminate their role in normative and disease brain function.

In late 2007, I was diagnosed with a cardiac arrythmia (Atrial-Flutter), which in the previous 2 years caused multiple visits the ER with tachycardia and an episode of syncope. During this period, the high stresses of an academic researcher dependent on grants was often the precipitating incidents. I left active research in Boston. In late 2008, I underwent a full cardiac workup at The Ohio State University (Wexner) Medical Center where a team of Electrophysiological Cardiologists recommend an ablation procedure for my Atrial-Flutter. Although sinus rhythm was restored, within less than a year, I presented with a related arrhythmia, intermittent Atrial Fibrillation (A-Fib), which in my case was uncomfortably symptomatic. In 2008, the best medical centers carrying out this much longer procedure to

isolate the 4 pulmonary veins and to treat A-Fib had a mortality rate about 4% and a much higher morbidity. For the next decade I had intermittent A-Fib that required anticoagulant prophylaxis with warfarin to prevent a stroke.

During this period, I took courses in Enology and Viticulture leading to Certificates (Washington State University) and carried out Enology research part time. I did not have any faculty responsibilities, but edited a thesis (L. Federico Casassa, PhD, now Associate Professor at Cal Poly, San Luis Obispo) and several manuscripts for science content and clarity. In 2010, at the International Meeting of the American Society of Enology & Viticulture (ASEV) in Seattle, I delivered a lecture entitled: "The "French Paradox" Revisited: Vin, a votre santé?". This lecture was a critical assessment of the benefits of wine (and resveratrol), harms of addiction, and modest effects of the alcohol content of wines on cardiovascular health. I concluded that the net benefit of wine was predominantly through "harm reduction" with unmeasured sociological benefits. Most recently, I have been accorded coauthorship on a study: "Whole Cluster and Dried Stem Additions effects on Chemical and Sensory Properties of Pinot Noir Wines over Two Vintages" published in 2021 and recipient of the ASEV prize as the best paper of 2021 in enology. My participation on this study was constructively criticizing the study design and conclusions and rewriting large portions for clarity prior to submission. I left it up to the corresponding author as to whether I received an acknowledgement or coauthorship.

I had participated in design of research in my father's lab that resulted in the discovery of antistasin, a leech-derived clotting cascade Factor Xa (fXa) peptide inhibitor. It provided the proof-of-concept principle that a FXa inhibitor may be superior to hirudin (thrombin inhibitor) and the fifty-year-old coumadin anticoagulant. Based on this background, I was asked to give a lecture to cardiologists and medical students in 2014 on the non-vitamin K antagonist oral anticoagulants (NOACS), three of which inhibited fXa. Ironically, I then faulted rivaroxaban (fXa inhibitor) for its dangerous pharmacokinetics, and by the time I arrived in Corvallis in 2017, a study of medical records showed that rivaroxaban was inferior to 3 other NOACS and it was on the FDA list with the largest number of fatalities in 2015. With this information, Good Samaritan Regional Medical Center Cardiology switched to apixaban (oral Factor Xa inhibitor) and the pharmacy managers quickly complied.

As A-Fib is often a prelude to "sick sinus" syndrome, I developed 3-degree heart-block. On admission to the hospital in late 2018, I presented with a heart rate of 24 bmp and received a Medtronic dual-chamber pacemaker (RA & RV). By 2019, several clinical trials demonstrated that the ablation procedures for A-Fib (pulmonary vein isolation) were much safer and recommended over medical management. I underwent two (April & August 2019) separate procedures to destroy the aberrant electrical activity in my heart, and now I am predominantly in sinus rhythm, but taking apixaban for stroke prophylaxis. In the process, I learned a lot of cardiology by reading the scientific literature and undergoing all these cardiac procedures.

Most recently, I have been a paid consultant for Theoretical Biologist, Professor Margaret S. Cheung (formerly, Moores Professor of Physics University of Houston), who is currently, a biological physicist and computational scientist with the Systems Modeling and Computational Science team at the Pacific Northwest National Laboratory (Seattle, WA). She holds a joint appointment with the Department of Physics at the University of Washington. My work consists of reviewing the design of NSF and NIH grants and making constructive suggestions from the published scientific literature, and writing/editing the grant. Moreover, I also make critical

suggestions on her manuscripts. As these grants/manuscripts have large amounts of mathematics/ physics, I am only able to determine if the explanations make sense in a systems biology context. So that I was more familiar with her work, she paid all my expenses to 2020 Protein Folding Dynamics Gordon Research Conference. I also received an Assistant Research Professor appointment in the Physics Department at the University of Houston during the time she was a faculty member at UH.

B. Research Funding Information:

Current:

10/03 - 10/07:	DATM05-02-R-ONDCP "Validating High-Field Functional and Structural MRI for Circuitry-Based Phenotyping to Drive Genotyping of Heritable Components Leading to Cocaine Addiction and Mood Disorders" PI: Hans Breiter, MD & Co-PI Gregory Gasic, PhD Total: $7,996,846
5/05-10/07:	RIS-EMR-4021, Janssen Medical Affairs, "Clinical and Brain Reward Circuitry Effects of Risperdal Consta in Active Cocaine Dependence" Co-PI: Gregory Gasic, Dates: 5/1/06-5/1/07, Total: $449,457

C. Report of Previous Research Activities

Major Research Interests:

1. Molecular-Genetic Basis of Neuropsychiatric Diseases
2. Complex Diseases: Genetic, Epigenetic, and Environmental Contributions
3. Circuit-Based Phenotype Delineation for Drug Dependence using mMRI and fMRI
4. Circuit-Based Phenotype Delineation for Mood Disorders
5. Genetic Association Studies in Addictions and Mood Disorders
6. Genetics of Human Aging and Gene-Environment Interactions that Affect Age-Related Cognitive Decline, Neurodegenerative Disease Onset or Forestall these Processes
7. Systems Biology
8. Complex Systems of SARS-CoV-2 Host-Virus Interactions

D. Teaching:

1. Local Contributions

University of Pennsylvania

1976-1977	Instructor, Undergraduate Organic Chemistry Laboratory Dept. of Chemistry, University of Pennsylvania 10-15 hours/week laboratory & lectures

Rockefeller University

1981-1987	Volunteer New York City Science Fair Judge and High School Science Instructor for Hispanic Children in New York City Public Schools (Lower Manhattan)
1983-1986	Experimental Medicine and Pathophysiology Seminar/Course Coordinator and Instructor at The Rockefeller University

Massachusetts General Hospital

2003- 2007	Dept. Neurology, Center for Morphometric Analysis: "Journal Club with the Editor"- Monthly meeting where I introduce and lead the discussion of an important systems neuroscience or molecular genetics paper

Harvard Medical School

2003, April	ABS Course on Substance Abuse (Professor Bertha Madras) "Integrative Neuroscience Approaches to Understand the Genes Responsible for Susceptibilities to Addictions and Mood Disorders"
2004, April	Imaging Based Phenotype Delineation for Genetic Studies on Addiction

2. Regional, National, & International Contributions

1999, July-August	Lecturer in 1999 RIKEN Brain Science Institute Workshop, July 20-August 6, 1999, Wako-shi, Japan.
July 2003	Lecturer in Summer Institute in Cognitive Neuroscience, Lake Tahoe, CA
2003 August	Lecturer in Cold Spring Harbor Course: "Cellular Biology of Addiction", Cold Spring Harbor, New York
2005 August	Lecturer in Cold Spring Harbor Course: "Cellular Biology of Addiction", Cold Spring Harbor, New York

Invited Presentations

1991, September	"Glutamate Receptor Molecular Biology and Their Involvement in Memory, Epilepsy, and Nerve Cell Death" Chiron, Emeryville, CA.
1991, November	"The Biological Importance & Medical Significance of the Molecular Characterization of an NMDA Receptor Subunit" *New York Times* Science Interview with Sandra Blakeslee, Excerpts appeared in the November 19th *New York Times.*
1992, December	" NMDA Receptor: from Structure to an Electrophysiological Model of Memory ", Chiron, Emeryville, CA.
1992, December	" Factor Xa inhibitors, Antistasin and TAP, for prevention of vascular restenosis.", Zymogenetics, Seattle WA.
1995, December	" Neuroscience at the Edge of the 21st Century: One Editor's Perspective ", Cambridge University Neuroscience Symposium, Cambridge, UK.
1997, September	" Principles of Neural Integration (Introduction and Concluding Remarks)", Juan March Workshop. Organizers: Gregory Gasic and Charles Gilbert, Madrid, Spain.
1997, September	" Perspectives on Alzheimer's Disease (Lecture and Discussion)", Speakers: Gregory P. Gasic and Alan D. Roses, Moderator: José López-Barneo, Fundación "La Caxia", Barcelona, Spain.
1997, November	"Important Problems in Neuroscience in the 21st Century", Tokyo University, Tokyo, Japan.
1997, November	"Basic Science Approaches to Tackle Neurological & Psychiatric Diseases in the Next Century", National Center Neurological & Psychiatric Diseases, Kodaira, Tokyo, Japan.
1999, July-August	Lecturer in 1999 RIKEN Brain Science Institute Workshop, July 20-August 6, 1999, Wako-shi, Japan.
1999, October	"Neuroscience in the Next Century, One Editor's Perspective", Stanford University Neuroscience Retreat Lecture, Monterey, CA.
2000, April	"Hallmarks of Neuronal Dysfunction in Neurodegenerative Diseases" (Session Chair & Speaker)-European Science

	Foundation Workshop: Mechanisms in Toxicity, San Feliu de Guixols, Spain.
2000, May	“Challenges for Neuroscience in the Coming Century", University of Chicago Symposium: Neuroscience into the Millennium, Chicago, IL.
2001, February	“Neuronal Dysfunction as a Common Theme in Neuropsychiatric Diseases", Symposium on Mitochondria, Cell Death, and Neurodegeneration. MRC Toxicology Unit, University of Leicester, Leicester, UK.
2001, May	"Challenges & Opportunities for Neuroscience in a Post-Genomic Era", Mount Sinai School of Medicine, New York, NY
2001, June	"Towards an Understanding of Addiction at Multiple Levels of Brain Function" (Symposium Organizer, Session Chair & Speaker), Roundtable Discussion led by Roy Wise (NIDA) Office of the National Drug Control Policy International Symposium, San Diego, CA.
2001, October	Session Chair, Nobel Conference, Apoptosis: Mechanisms and Implications for Human Disease Stockholm, Sweden, October 4-7, 2001
2002, January	"Towards an Understanding of Addiction at Multiple Levels of Brain Function" NIDA Seminar, NIH, Bethesda, MD.
2002, March	“Understanding the Neural Basis of Addictive Behaviors in Primates” Universidad de Sevilla, Hospital Universitario Virgen del Roció
2002, May	"Assessing the contributions of neuronal dysfunction and cell death to neuropsychiatric diseases." Session Chair & Speaker in the VI International Workshop on Apoptosis in Biology & Medicine, Parghelia, Calabria, Italy
2002, September	“Understanding the Contributions of the Genome, Epigenome, and the Environment to Neural Systems” Session Leader and Speaker in the Brainstorm 2002: The Future of Neuroimaging, Athens, Greece
2002, November	"Neuroimaging-Based Endophenotypes: Guides to the Genes that Confer Susceptibility/Resistance to Addictions and Mood Disorders", Montreal Neurological Institute Lecture, Montreal, Canada

2002, December	"Top-down and Bottom-up Approaches to Linking Genes to Neural Systems Underlying Addictions" NIDA Genetics Consortium Seminar, Bethesda, MD
2004, February	"Imaging based phenotype delineation for genetic studies on addiction" International Congress of Biological Psychiatry, Sydney, Australia
2004, May	"Using the systems biology of motivation for genetic studies in psychiatry" American Psychiatric Association New York, NY
2004, December	"Genetic and Systems Neuroscience Basis of Addictions" Las Vegas, NV
2005, December	"Neurodevelopmental and Neurodegenerative Aspects of Alcohol and Drug Addiction" Organizer (and Speaker) with Juan Lerma and Jesús Ávila of Cantoblanco Workshop on "Memory and Related Disorders", Madrid, Spain
2007, March	The Ohio State University Internal Medicine Grand Rounds: Imaging Genetics: How a Genetic Variation in Brain-Derived Neurotrophic Factor Contributes to Neuropsychiatric Disease.
2007, April	"Neural Systems Basis of Addictive Behaviors" A public lecture for the Harvard Office of Public Affairs with Howard Shaffer and Michael Miller (moderators).
2010, June	The "French Paradox" Revisited: Vin, a votre santé? ASEV International Meeting, Seattle, WA
2014, February	Novel, Oral Anticoagulants: An Evaluation of their Putative Mechanisms of Action, Safety, Efficacy, and Cost-Effectiveness Versus Vitamin K Antagonist (VKA) Therapy. (Cardiology Issues; Yakima, WA Medical Society)
2017, November	Best Practices for Publishing Your Research to Maximize its Impact (Rice University Center for Theoretical Biophysics) primarily for graduate students and Postdoctoral Fellows

Part III Bibliography

Original Research Articles

1. Nicolaou KC, Barnette WE, Gasic GP, Magolda RL, Sipio WJ, Smith JB, Ingerman CM, Silver MJ. Rapid and easy preparation of prostacyclin. Lancet. 1977; I: 1058-1059.

2. Nicolaou KC, Barnette WE, Gasic GP, Magolda RL, Sipio WJ. Simple efficient synthesis of PGI_2 . JCS Chem Comm. 1977; 630-633.

3. Nicolaou KC, Barnette WE, Gasic GP, Magolda RL. 6,9 Thiaprostacyclin. a stable and biologically potent analogue of prostacyclin (PGI_2). J Amer Chem Soc. 1977; 99: 7736-7738.

4. Lefer AM, Ogletree M, Smith JB, Silver MJ, Nicolaou KC, Barnette WE, Gasic GP. Prostacyclin: profile of a new, potentially valuable agent for preserving jeopardized myocardial tissue in acute myocardial ischemia. Science. 1978; 200: 52-55.

5. Neel BG, Gasic GP, Rogler CE, Skalka AM, Ju G, Hishinuma F, Papas T, Astrin SM, Hayward WS. Molecular analysis of the c-myc locus in normal tissues and in avian leukosis virus induced lymphomas. J Virol**.** 1982; 44: 158-166.

6. Gasic GJ, Viner ED, Budzynski AZ, Gasic GP. Inhibition of lung tumor colonization by leech salivary gland extracts from *Haementeria ghiliani*. Cancer Research. 1983; 43: 1633-1636.

7. Bargiello TA, Saez L, Baylies MK, Gasic GP, Young MW, Spray DC. The *Drosophila* clock gene *per* affects intercellular junctional communication. Nature. 1987; 328: 686-691.

8. Kidd S, Baylies MK, Gasic GP, Young MW. Structure and distribution of the *Notch* protein in developing *Drosophila*. Genes and Development. 1989; 3: 1113-1129.

9. Hollmann M, Rogers SW, O'Shea-Greenfield A, Deneris ES, Hughes TE, Gasic GP, and Heinemann S. The glutamate receptor GluR-K1: structure, function and expression in the brain. Cold Spring Harbour Symposium on Quantitative Biology: The Brain 1990; **55**: 41-56.

10. Rogers SW, Hughes TE, Hollmann M, Gasic GP, Deneris ES, Heinemann S. The distribution and characterization of the glutamate receptor subunit, GluR1, in rat Brain. J Neurosci. 1991; 11: 2713-2724.

11. Gasic GP, Arenas CP, Gasic TB, Gasic GJ. Coagulation factors X, Xa, and protein S as potent mitogens of cultured aortic smooth muscle cells. Proc Natl. Acad Sci USA. 1992; 89: 2317-2320.

12. Brose N, Gasic GP, Vetter DE, Sullivan JM, Heinemann SF. Protein chemical characterization and immunocytochemical localization of NMDA receptors containing the NMDAR1 subunit. J Biol Chem. 1993; 268: 22663-22671.

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NMDAR1 transcripts without receptor protein suggests post-transcriptional control in PC12 cells. J Biol Chem. 1993; 268: 22299-222304.

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15. Trevisan L, Fitzgerald LW, Brose N, Gasic GP, Heinemann SF, Duman RS, Nestler EJ. Chronic ingestion of ethanol up-regulates NMDAR1 receptor subunit immunoreactivity in rat hippocampus. J Neurochem. 1994; 62: 1635-1638.

16. Fitzgerald LW, Deutch AY, Gasic G, Heinemann SF, Nestler EJ. Regulation of cortical and subcortical glutamate receptor subunit expression by antipsychotic drugs. J Neuroscience 1995; 15: 2453-2461.

17. Elman I, Lukas SE, Karlsgodt KH, Gasic GP, Breiter HC. Acute cortisol administration triggers craving in individuals with cocaine dependence. Psychopharmacol Bull. 2003, 37: 84-89.

18. Makris N,* Gasic GP*, Seidman LJ, Goldstein, JM Gastfriend, DR Elman I, Albaugh, MD, Hodge SM Ziegler DA, Sheahan, FS Caviness VS, Jr., Tsuang MT, Kennedy DM, Hyman SE, Rosen BR, and Breiter HC. Decreased absolute amygdala volume in cocaine addicts. Neuron 2004, 44:729-740 (*co-first authors).

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20. Makris N, Oscar-Berman M, Jaffin SK, Hodge SM, Kennedy DN, Caviness VS, Marinkovic K, Breiter HC, Gasic GP, Harris GJ. Decreased volume of the brain reward system in alcoholism. Biol Psychiatry. 2008 Aug 1;64(3):192-202.

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22. Makris, N Gasic, GP Kennedy, DN, Hodge SM Kaiser JR Lee, MJ, Kim BW, Blood AJ, Evins, AE Seidman, LJ Iosifescu, D Lee, S Baxter, C and Perlis, RH Smoller, JW Fava, M Breiter, HC Cortical thickness abnormalities in cocaine addiction – a reflection of both drug use and a pre-existing disposition to drug abuse? Neuron 2008 60: 174-188.

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26. Eliaz, Y. Danovich, M. Gasic, G. Poolkeh Finds the Optimal Pooling Strategy for a Population-wide COVID-19 Testing (Israel, UK, and US as Test Cases) medRxiv 2020.04.25.20079343; doi: https://doi.org/10.1101/2020.04.25.20079343

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Reviews, Book Chapters, Editorials

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2. Nicolaou, K.C., Gasic, G.P. and Barnette, W.E. (1978), Synthesis and Biological Properties of Prostaglandin Endoperoxides, Thromboxanes and Prostacyclins. Angew. Chem. Int. Ed. Engl., 17: 293-312. https://doi.org/10.1002/anie.197802933

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