

BIOGRAPHICAL SKETCH			
DO NOT EXCEED FIVE PAGES			
NAME Iacobas, Sanda		POSITION TITLE Retired Assistant Professor of Pathology	
EDUCATION/TRAINING (<i>Begin with baccalaureate or other initial professional education, and include postdoctoral training.</i>)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Carol Davila University of Medicine & Pharmacy	Pharm D	1971-1976	Pharmacy
Pharmaceutical Authority of Constanta County	Residency	1974-1976	Pharmacy
Carol Davila University of Medicine & Pharmacy	PhD	1994-1997	Pharmacology
Albert Einstein College of Medicine, NY	PostDoc	2001-2006	Neuroscience
Albert Einstein College of Medicine, NY	PostDoc	2006-2009	Neurogenomics

A. Positions:

1976-1982 Pharmacist, Pharmaceutical Authority of the District of Constanta, Romania
 1982-1986 Pharmacist, Pharmaceutical Authority of the District of Bucharest, Romania
 1986-1990 Research Associate, Biomass Laboratory, Institute of Biological Sciences, Bucharest, Romania
 1990-1993 Primary Pharmacist, Pharmaceutical Authority of the District of Constanta, Romania
 1993-2000 Assistant Professor, Head Division of Pharmacology, Ovidius University, Constanta
 1995-2002 General Manager Tilia-Pharm Ltd, Constanta, Romania
 1999-2001 General Inspector, Public Health Authority of the District of Constanta, Romania
 2000-2001 Associate Professor, Head Division of Pharmacology, Ovidius University, Constanta
 2001-2009 Research Fellow (Dr. Spray's Lab), Dept. Neuroscience, Albert Einstein College of Medicine
 2009-2013 Associate, Dept. Neuroscience, Albert Einstein College of Medicine (DA Iacobas lab)
 2013 (6 month) Research Fellow at New York Medical College, Valhalla, NY (Velisek lab).
 2013-2014 Visiting Assistant Professor in the Systems Biology Core, New York Medical College, Valhalla
 2014-2017 Assistant Professor of Pathology, **Co-director of the Genomics Core Laboratory**, New York Medical College, Valhalla, NY

Honors:

1988: Crystal Globe, Scientific movies, Laussane, Switzerland, as member of the team of Dr. M.Godeanu.
 1994: Medaille d'or, Salon International des Inventions et des Techniques Nouvelles, Jassy, Romania.
 1996: Medaille d'or, 24e Salon International des Inventions, Genève, Switzerland.
 2006-2009 Ruth L Kirschstein NIH National Research Service Award

B. Selected peer-reviewed publications, in chronological order (earliest to recent)**Patents for inventions:**

Iacobas S, Godeanu M (1989). Procedure to valorize the aquatic phytomass. Romanian Patent nr. 105006/02.03/1989.

Selected (out of 66) articles:

Iacobas DA, Urban M, Massimi A, **Iacobas S**, Spray DC. (2002) Hits and misses from gene expression ratio measurements in cDNA microarray studies. *J. Biomol. Tech.* 13(3), 143-157. PMID:PMC2279857.

Iacobas DA, Urban M, **Iacobas S**, Scemes E, Spray DC. (2003). Array analysis of gene expression in connexin43 null astrocytes. *Physiol Genomics*, 15(3):177-190. PMID:PMC265183

Brand-Schieber E, Werner P, Iacobas DA, **Iacobas S**, Beelitz M, Lowery SL, Spray DC, Scemes E. (2005). Connexin43, the major gap junction protein of astrocytes, is down regulated in an animal model of multiple sclerosis. *J Neurosci Res.* 80:798-808. PMID:PMC1226319

Iacobas DA, **Iacobas S**, Li WE, Zoidl G, Dermietzel R, Spray DC. (2005). Genes controlling multiple functional pathways are transcriptionally regulated in connexin43 null mouse heart. *Physiol Genomics* 20: 211-223. PMID:5585606

Iacobas DA, **Iacobas S**, Urban-Maldonado M, Spray DC (2005). Sensitivity of the brain transcriptome to connexin ablation, *Biochimica et Biofisica Acta.* 1711: 183-196. Review. PMID:15955303

Iacobas DA, **Iacobas S**, Spray DC (2007). Connexin43 and the brain transcriptome of the newborn mice. *Genomics.* 89(1), 113-123. PMID:PMC2651831

Iacobas DA, Suadicanu SO, **Iacobas S**, Chrisman C, Cohen M, Spray DC, Scemes E. (2007). Gap junction and purinergic P2 receptor proteins as a functional unit: insights from transcriptomics. *J Membr Biol.* 217(1-3):83-91. PMID: 17665085

Thi MM, Iacobas DA, **Iacobas S**, Spray DC. (2007). Fluid shear stress regulates vascular endothelial growth factor gene in osteoblasts. *Ann N Y Acad Sci.* 1117: 73-81. PMID:17646268

Iacobas DA, **Iacobas S**, Werner P, Scemes E, Spray DC (2007). Alteration of transcriptomic networks in adoptive-transfer experimental autoimmune encephalomyelitis. *Front Integr Neurosci.* 1:10. doi:10.3389/neuro.07/010.2007. PMID: PMC2526015

Iacobas DA, **Iacobas S**, Spray DC (2007). Connexin-dependent transcellular transcriptomic networks in mouse brain. *Prog Biophys Mol Biol.* 94(1-2):168-184. Review. PMID:17507080.

Frigeri A, Iacobas DA, **Iacobas S**, Nicchia GP, Desaphy JF, Camerino DC, Svelto M, Spray DC (2008). Effect of microgravity on brain gene expression in mice. *Exp Brain Res.* 191(3): 289-300. PMID:PMC2651838.

Iacobas DA, **Iacobas S**, Urban-Maldonado M, Scemes E, Spray DC (2008). Similar transcriptomic alterations in Cx43 knock-down and knock-out astrocytes. *Cell Commun. Adhes.* 15:1, 195-206. PMID:PMC2583241.

Iacobas DA, Fan C, **Iacobas S**, Haddad GG. (2008). Integrated transcriptomic response to cardiac chronic hypoxia: translation regulators and response to stress in cell survival. *Funct Integr Genomics.* 8(3):265-75. PMID:PMC2856931

Goldenberg RCS, Iacobas DA, **Iacobas S**, Rocha LL, Fortesa FSA, Vairoa L, Nagajyothi F, Carvalho ACC, Tanowitz HB, Spray DC (2009). Transcriptomic alterations in Trypanosoma cruzi-infected cardiac myocytes. *Microbes Infect* 11(14-15):1140-9. PMID:PMC2825022

Desruisseaux M, Iacobas DA, **Iacobas S**, Mukherjee S, Weiss LM, Tanowitz HB, Spray DC (2010). Alterations in the Brain Transcriptome in Plasmodium Berghei ANKA Infected. *J Neuroparasitology.* 1: 74-81. PMID: PMC3587055.

Iacobas DA, **Iacobas S**, Thomas N, Spray DC. (2010). Sex-dependent gene regulatory networks of the heart rhythm. *Funct Integr Genomics.* 10(1):73-86. PMID:PMC283582

Iacobas DA, **Iacobas S**, Haddad GG. (2010). Heart rhythm genomic fabric in hypoxia. *Biochem. Biophys. Res. Commun.* 391(4):1769-1774. PMID:PMC2849310

Lachtermacher S, Esporcatte BLB, Montalvo F, Costa P, Rodrigues D, Belem, Rabischoffsky A, Neto HF, Vasconcellos R, Iacobas DA, **Iacobas S**, Dohmann H, Spray DC, Goldenberg R, Campos de Carvalho A. (2010). Cardiac gene expression and systemic cytokine profile are complementary in a murine model of post ischemic heart failure. *Braz J Med Biol Res.* 43(4):377-89. PMID:PMC3032498.

Adesse D, Iacobas DA, **Iacobas S**, Garzoni LR, Nazareth Meirelles M, Tanowitz HB, Spray DC. (2010). Transcriptomic signatures of alterations in a myoblast cell line infected with four strains of Trypanosoma cruzi. *Am J Trop Med Hyg.* 82(5): 846-54. PMID:PMC2861399

Soares MBP, Lima RS, Rocha LL, Vasconcelos JF, Rogatto SR, dos Santos RR, **Iacobas S**, Goldenberg RC, Iacobas DA, Tanowitz HB, Campos de Carvalho AC, Spray DC. (2010). Gene expression changes associated with myocarditis and fibrosis in hearts of mice with chronic chagasic cardiomyopathy. *J Infect Dis.* 202(3):416-426. PMID:PMC2897928.

Iacobas S, Iacobas DA (2010). Astrocyte proximity modulates the myelination gene fabric of oligodendrocytes. *Neuron Glia Biology*. 6(3): 157-169. PMID: 21208491

Soares MB, Lima RS, Souza BSF, Vasconcelos JF, Rocha LL, dos Santos RR, **Iacobas S**, Goldenberg RC, Iacobas DA, Tanowitz HB, Spray DC, Campos de Carvalho AC (2011). Reversion of gene expression alterations in hearts of mice with chronic chagasic cardiomyopathy after transplantation of bone marrow cells. *Cell cycle*, 10(9): 1448-1455. PMCID:PMC3117044

Lachtermacher S, Esporcatte BLB, Fortes FSA, Rocha NN, Montalvo F, Costa P, Belem L, Rabischowsky A, Neto HF, Vasconcellos R, Iacobas DA, **Iacobas S**, Spray DC, Thomas N, Goldenberg R, Campos de Carvalho A. (2011). Functional and Transcriptomic Recovery of Infarcted Mouse Myocardium Treated with Bone Marrow Mononuclear Cells. *Stem Cell Rev*. 8(1):251-61. PMCID:PMC3212608

Adesse D, Goldenberg RC, Fortes FS, Iacobas DA, **Iacobas S**, Campos de Carvalho AC, de Narareth M, Huang H, Tanowitz HB, Garzoni LR, Spray DC. (2011). Gap junctions and Chagas' disease. *Adv Parasitol*, 76: 63-81. PMCID:PMC3552244

Iacobas S, Thomas NM, Iacobas DA (2012). Plasticity of the myelination genomic fabric. *Mol Gen Genom*. 287:237-246. PMID:22246408

Iacobas S, Iacobas DA, Spray DC and Scemes E. (2012). The connexin43 transcriptome during brain development: importance of genetic background. *Brain Research*. 1487: 131-139. PMCID:PMC3501561

Friedman LK, Mancuso J, Patel A, Kudur V, Leheste J, **Iacobas S**, Botta J, Iacobas DA, Spray D. (2013) Transcriptome Profiling of Hippocampal CA1 after Early Life Seizure-Induced Preconditioning May Elucidate New Genetic Therapies for Epilepsy, *Eur J Neurosci* 38(1):2139-52. PMCID:PMC4354696

Iacobas DA, **Iacobas S**, Chachua T, Goletiani C, Sidyelyeva G, Velíšková J, Velíšek L. (2013). Prenatal corticosteroids modify glutamatergic and GABAergic synapse genomic fabric: Insights from a novel animal model of infantile spasms. *J Neuroendocrinol*. 25, 964-979. PMCID: PMC3855178

Zia MTK, Vinukonda G, Vose L, Bhimavarapu BBR, **Iacobas S**, Pandey NK, Beall AM, LaGamma EF, Iacobas DA, Ballabh P. (2014) Postnatal glucocorticoid-induced hypomyelination, gliosis, neurologic deficits are dose-dependent, preparation-specific, and reversible. *Exp Neurol*. 263, 200-213. PMCID:PMC4262645

Velíšková J, Iacobas DA, **Iacobas S**, Sidyelyeva G, Chachua T, Velíšek L. (2015) Estradiol regulates neuropeptide Y release and the gene coupling with GABAergic and glutamatergic synapse in adult female rat dentate gyrus. *J Neuroendocrinol*. 27(12):911-20. PMID:26541912

Kravchick DO, Hrdinka M, **Iacobas S**, Iacobas DA, Kreutz MR, Jordan BA. (2016) Synaptonuclear messenger PRR7 inhibits c-Jun ubiquitination and regulates NMDA mediated excitotoxicity. *EMBOJ* 35(17):1923-34. PMID:27458189.

Lee PR, Cohen JE, Iacobas DA, **Iacobas S**, Fields RD (2017). Gene networks activated by pattern-specific generation of action potentials in dorsal root ganglia neurons. *Sci Rep*. 7:43765, PMCID: PMC5335607

Iacobas DA, **Iacobas S** (2017). Towards a Personalized Cancer Gene Therapy: A Case of Clear Cell Renal Cell Carcinoma. *Cancer & Oncol Res* 5(3): 45-52. DOI:10.13189/cor.2017.050301

Iacobas DA, Iacobas S, Tanowitz HB, deCarvalho AC, Spray DC (2018). Functional genomic fabrics are remodeled in a mouse model of Chagasic cardiomyopathy and restored following cell therapy. *Microbes Infect*. 20(3), 185-195. PMID: 29158000

Iacobas DA, Tuli N, **Iacobas S**, Rasamny JK, Moscatello A, Geliebter J, Tiwari RM. (2018). Gene master regulators of papillary and anaplastic thyroid cancer phenotypes. *Oncotarget* 9(2), 2410-2424. PMCID: PMC5788649

Iacobas DA, Chachua T, **Iacobas S**, Benson MJ, Borges K, Veliskova J, Velisek L. (2018). ACTH and PMX53 recover the normal synaptic transcriptome in a rat model of infantile spasms. *Sci Rep*. 8:5722, PMCID: PMC5893534

Iacobas DA, **Iacobas S**, Nebieridze N, Velisek L, Veliskova J (2018): Estrogen protects neurotransmission transcriptome during status epilepticus, *Front Neurosci*. 12:332. PMCID: PMC6019481

Kobets T, Iatropoulos MJ, Duan JD, Brunnemann KD, Iacobas DA, **Iacobas S**, Vock E, Deschl U,

Williams GM (2018): Effects of Nitrosamines on the Expression of Genes Involved in Xenobiotic Metabolism in the Chicken Egg Alternative Genotoxicity Model. *Toxicol Sci*, 166(1), 82–96, PMID: 30102407

Selected (out of 15) book chapters:

Iacobas DA, Urban M, **Iacobas S**, Spray DC (2001). The “patholog” of the gene expression profile in evaluating the ecotoxin effects. In: C Brebia, Y Vilacampa & J Uso (Editors) *Ecosystems and sustainable development*, WIT Press, Southampton, U.K. 733-742.

Iacobas DA, **Iacobas S**, Spray DC (2005). Use of cDNA arrays to explore gene expression in genetically manipulated mice and cell lines. In: S Dhein, FW Mohr & M Delmar (Editors) *Practical Methods in Cardiovascular Research*, Berlin-New York: Springer-Verlag. ISBN: 3-540-40763-4. pp. 907-915.

Iacobas S, Iacobas DA (2012). Effects of Chronic Intermittent Hypoxia on Cardiac Rhythm Transcriptomic Networks. In: L XI & TV Serebrovskaya (Editors): *Intermittent Hypoxia and Human Diseases*, New York: Springer. Pp. 15-28. ISBN 978-1-4471-2906-6 (eBook)

Iacobas S, Neal-Perry G, Iacobas DA (2013). Analyzing the cytoskeletal transcriptome: sex differences in rat hypothalamus. In: Rolf Dermietzel (ed.), *The Cytoskeleton: Imaging, Isolation, and Interaction, Neuromethods*, 79: 119:133, Springer New York, ISBN 978-1-62703-266-7 (eBook)

Veliskova J, Iacobas DA, **Iacobas S**, Velisek L. (2017). Hormonal modulation of neuronal excitability. In Reference Module in Neuroscience and Biobehavioral Psychology, Elsevier, 1-6. <http://dx.doi.org/10.1016/B978-0-12-809324-5.00082-1>

Books

Iacobas DA, **Iacobas S** (1998) Electrophysiology of the cell membrane (Romanian) Constanta: Tilia Press Intl., Ltd. ISBN 973-98470-1-3.

Iacobas S, Iacobas DA (2000). Pharmacology of the nervous system (Romanian). Constanta: Tilia Press Int. ISBN 973-98470-8-0.

C. Other information considered essential for evaluation of your qualifications.

PI of several research grants in molecular pharmacology in Romania (2003-2001), Investigator in numerous genomics grants of in the USA while on postdoc/faculty positions at Albert Einstein College of Medicine (PIs Drs.: DC Spray, DA Iacobas, A Campos deCarvalho) and New York Medical College (PIs Drs: DA Iacobas, G Williams, R Matthews).