

Curriculum Vitae

Alexander V. Kazansky, Ph.D.

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EMPLOYMENT

2014-present Associate Professor, Dept. of Health and Biomedical Sciences, University of Texas Rio Grande Valley (UTRGV)
2011-2014 Associate Professor, Dept. Biomedicine, University of Texas Brownsville (UTB)
2006-2011 Associate Professor, Department of Biological Science, University of Texas at Brownsville, 80 Fort Brown, LHSB, Brownsville, Texas
2006-present Adjunct Associate Professor, Department of Molecular and Cellular Biology, Baylor College of Medicine, Houston, Texas
2003-2006 Assistant Professor, Department of Molecular and Cellular Biology, Baylor College of Medicine, Houston, Texas
1997-2003 Faculty Appointment to Instructor, Department of Molecular and Cellular Biology, Baylor College of Medicine, Houston, Texas
1992-1997 Postdoctoral Fellow, Department of Cell Biology, Baylor College of Medicine, Houston, Texas
1990-1992 Research Associate, Laboratory of Molecular Genetics of Cell Differentiation, Institute of Gene Biology, Moscow, Russia
1985-1990 Graduate Student, Institute of General Genetics and Koltzov Institute of Developmental Biology, Moscow, Russia

EDUCATION

1992-1997 Postdoctoral Fellow
Department of Cell Biology, Baylor College of Medicine, Houston, Texas
1990 Ph.D. Molecular Biology
Koltzov Institute of Developmental Biology, Moscow, Russia.
1985 M.S. Biochemistry
Lomonosov Institute of Fine Chemical Technology, Moscow, Russia.

AWARDS

2014 Department of Defense, \$433,500 , Acquisition of a Scanning Electron Microscope (SEM) for Multidisciplinary Research, Teaching and Outreach in the Rio Grande Valley. Co-PI.
2009-2014 NIH/NIGMS SC3GM087201 Novel nanotechnology approach to target prostate cancer. \$316,000 in direct cost. Role – PI.

This proposed work is based on the combination of novel knowledge of regulation and action of specific gene in prostate cancer progression along with a modern nanotechnology approach for targeted delivery in tumor cells.

Success of this study will lead to future translational research which will generate new anti-cancer drug.

- 2012 Departmental Seed Grant: Functional Imaging of Prostate Cancer with targeted contrast agents.
- 2011 “MRI- Consortium: Acquisition of Cryogen-free Cryocooler-based Physical Property Measurement System to Support Transformative Device and Materials Research in the Rio Grande Valley” to NSF Major Research Instrumentation, with amount \$437,970. Co-PI.
- 2009 NIH RIMI Pilot Grant
2009 Frances Rusteberg Faculty Fellowship at The University of Texas at Brownsville and Texas Southmost College.
- 2007-2009 P20MD001091 11/08/04-10/31/09 8.1 AY NIH/NCMHD (Martin)
\$608,999/year direct costs Developing Biomedical Research Infrastructure at UTB/TSC
The major goals of this project are to enhance existing infrastructures to support growing biomedical research initiatives on the UTB/TSC campus as well as to support intra- and inter-institutional collaborative research projects.
Role: Associate Professor
- 2003-2006 New Investigator Award, 2002 Prostate Cancer Research Program. Department of Defense, U.S. Army Medical Research and Materiel Command.
- 1997-2002 National Institutes of Health, Public Health Service Grant CA16303, Hormonal Regulation of Breast Cancer (Co-PI).

SELECTED PRESENTATIONS

- Alexander Kazansky, Novel nanotechnology approach to target cancer- Switch from Proto-Oncogene to Tumor Suppressor. J of Stem Cell Research & Therapy, 2017, 7:9 (Supple), DOI: 10.4172/2157-7633-C1-029, p.48.
- M. Medrano and A.V. Kazansky, New approach to alternative splicing-switch from proto-oncogene to tumor suppressor, Engaged Scholar Symposium (ES2) at The University of Texas Rio Grande Valley, April 21-23, 2016. Oral presentation.
- M. Perramon Corominas, A. Kuklina, G.Gonzalez, B. Ermolinsky, A.V.Kazansky, Novel nanotechnology approach to tune up an alternative splicing – switch from proto-oncogene to tumor suppressor, South Texas Integrated Team Collaborative for Health (STITCH) Symposium, December 4, 2015, Poster presentation.
- A.V. Kazansky, I. Mendez, and K.S. Martirosyan, Novel nanotechnology approach to target cancer disease by switching an alternative splicing, TS APS Annual Fall Meeting, Brownsville, October 10-12, 2013.
- A.V. Kazansky, M.A. Hobosyan, A.S. Kuklina, and K.S. Martirosyan, INTEGRATION OF pGLO TRANSFORMATION OF BACTERIA AND NANO-STRUCTURED THERMITES FOR BIO AGENT DEFEAT SYSTEMS, XIII Int. Symposium on Self-Propagating High-Temperature Synthesis, pp. 221-222, 21-24 October 2013, South Padre Island, USA.

- Sexually transmitted disease - link to cancer progression. Rosen Symposium:Forty Years of Training, Research, and Innovation, June 23-24, 2011 Park City Mountain Resort, Utah. Invited speaker.
- Problems in tumor imaging and drug delivery. College Interdisciplinary Research Seminar. January, 2011. University of Texas at Brownsville, Brownsville, TX.
- Nanostructured thermites based on iodine pentoxide for bio agent defeat systems. M. Hobosyan, A. Kazansky and K.S. Martirosyan. American Physical Society. October 6–8, 2011; Commerce, TX.
- Specific modification and targeting of nanoparticles for imaging and treatment of disease. Materials Science & Technology Conference and Exposition, Oct, 2010, Houston, TX. A. Kazansky, B.Ermolinsky and K. Martirosyan.
- 10-th Annual UTB/TSC Research Symposium, March 28, 2008. Presentation “STAT5 and Prostate Cancer.”
- Department of Defense, Prostate Cancer Research Program Meeting, September 5-8, 2007, Atlanta, Georgia. Presentation “STAT5 and Prostate Cancer.”
- Border Health Seminar Series, The Department of Biological Sciences and the School of Public Health, University of Texas, Brownsville, TX (October 2007) “STAT5 and Immunity”.
- Prostate Cancer Foundation, October 21-24, 2004 Lake Tahoe, NV. Invited presentation “STAT5 Isoforms and Prostate Cancer Progression.”
- Border Health Seminar Series, The Department of Biological Sciences and the School of Public Health, University of Texas, Brownsville, TX (April 2nd, 2004) “STAT5 and Cancer.”
- University of Texas M. D. Anderson Cancer Center, Department of Cancer Biology’s Cancer Metastasis Research Program Seminar Series, Houston, TX (October 28, 2003) “STAT5 and Cancer Progression.”
- Cold Spring Harbor Laboratory, New York, Tyrosine Phosphorylation & Cell Signaling meeting. “Signal Transducer and Activators of Transcription (STAT) Factors and Prostate Cancer” (May, 2001).
- American Association of Cancer Research, San Diego, CA. “Signal Transducers and Activators of Transcription 5B Potentiates v-Src-mediated Transformation”. (March, 1999).

PATENT

New cell-based high-throughput screening assay for identification of new anti-cancer agents that switch the proto-oncogenic form of STAT5B to a tumor suppressor form. NIH Disclosure No. (EIR#):0481201-05-0011. Pending.

AREAS OF EXPERTISE

Molecular & cellular biology

- Molecular cloning, PCR, metabolic labeling, kinase assays, in vivo phosphorylation, design of specific expression vectors, etc.
- RNA synthesis, modification, RNA/DNA isolation and analysis.
- Mouse studies, transgenic mice generation and analysis, xenograft tumor models.

Protein analysis

- Western blotting, enzymatic and chemical protein cleavage.
- Affinity, gel filtration and reverse phase chromatography, immunoprecipitation.

Cell-based techniques

- Full-scale tissue culture techniques, stable and transient transfection.
- Cell-based assays, ELISA, FACS analysis
- Bright field and fluorescent microscopy, immunohistochemistry, digital imaging. Antibodies design, production and purification.

SELECTED PEER-REVIEWED PUBLICATIONS (in chronological order).

1. Alexander Kazansky, Novel nanotechnology approach to target cancer- Switch from Proto-Oncogene to Tumor Suppressor. *J of Stem Cell Research & Therapy*, 2017, 7:9 (Supple), DOI: 10.4172/2157-7633-C1-029, p.48
2. A.V. Kazansky, M.A. Hobosyan, A.S. Kuklina, and K.S. Martirosyan, INTEGRATION OF pGLO TRANSFORMATION OF BACTERIA AND NANO-STRUCTURED THERMITES FOR BIO AGENT DEFEAT SYSTEMS, XIII Int. Symposium on Self-Propagating High-Temperature Synthesis, pp. 221-222, 21-24 October 2013, South Padre Island, USA.
3. Shchelkunova A., Ermolinsky B., Boyle M, Mendez I, Lehker M, Martirosyan K.S. and Kazansky A.V. (2013) Tuning Of Alternative Splicing – Switch From Proto-Oncogene To Tumor Suppressor, *International Journal of Biological Sciences*. 9(1):45-54. doi:10.7150/ijbs.5194.
4. Liopo A, Conjuteau A, Tsyboulski D, Ermolinsky B, Kazansky A. and Oraevsky A. (2012) Biocompatible Gold Nanorod Conjugates for Preclinical Biomedical Research. *J Nanomedic Nanotechnol* S2:001. doi:10.4172/2157-7439.S2-001.
5. M. Hobosyan, A. Kazansky and K.S. Martirosyan, Nanoenergetic composite based on I2O5/Al for biological agent defeat, *Proceedings of Nano Science and Technology Institute*, Vol. 3, 599-602, 2012.
6. Kazansky A.V. *IMPACT – Innovative Minds in Prostate Cancer Today* (2007), *STAT5 and Prostate Cancer*. p.128.
7. Kazansky, A.V., Spencer, D.M. Greenberg, N.M. (2003) Activation of STAT5 is Required for Progression of Autochthonous Prostate Cancer: Evidence from the TRAMP System. *Cancer Research* 2003 Dec 15;63(24):8757-62.
8. Kazansky A.V. and Rosen J.M. (2001) Signal Transducer and Activator of Transcription 5B Potentiates v-Src-mediated Transformation of NIH-3T3 Cells. *Cell Growth&Differentiation*. January, v.12, pp.1-7.
9. Kazansky, A.V., Greenberg, N.M., (2001) Signal transducer and activator of transcription (STAT) factors and prostate cancer. *Tyrosine Phosphorylation & Cell Signaling*, Cold Spring Harbor Laboratory, May 2001, p 50.
10. Kazansky A.V., Kabotyanski E.B., Lindsey S., Mancini M., Rosen J.M. (1999) Differential effects of prolactin and src/abl kinases on the nuclear translocation of STAT5B and STAT5A. *The Journal of Biological Chemistry*. Aug 6, v.274 (32), pp. 22484-22492.
11. Kazansky A.V., Kabotyanski E.B., Lindsey S., Rosen J.M. (1998) Differential effects of prolactin and src/abl kinases on the nuclear. translocation of STAT5B and STAT5A. Invited speaker. *Gordon Research Conference (Prolactin)*
12. Rosen J.M, Zahnow C, Kazansky A, Raught B (1998) Composite response elements mediate hormonal and developmental regulation of milk protein gene expression. *Biochem Soc Symp* 1998; 63:101-13.
13. Kazansky A.V., Lindsey S., Rosen J.M. (1997) Differential activation of STAT5 isoforms by Src and prolactin. *88th Annual Meeting of the American Association for Cancer Research*. v.38, p.443.
14. Rosen, J.M., Zahnow, C., Kazansky, A. and Raught, B. (1996) Composite response elements Mediate hormonal and developmental regulation of milk protein gene expression. In (P.S. Rudland, D. Fernig and S. Leinster, Eds.) *The Biochemical Society Annual Symposium*, Portland Press, London.

15. Dajee, M., Kazansky, A.V., Raught, B., Hocke, G.M., Fey, G.H. and Richards, J.S. (1996) Prolactin induction of the α 2-macroglobulin gene in rat ovarian granulosa cells: Stat5 activation and binding to the interleukin-5 response element. *Mol Endocrinol.* 10, 171-184.
16. Kazansky, A.V., Raught, B., Lindsey, S., Wang, Y.-f. and Rosen, J. (1995) Regulation of MGF/Stat5a during mammary gland development. *Mol. Endocrinol.* 9, 1598-1609.
17. Raught, B., Khursheed, B., Kazansky, A. and Rosen, J.M. (1994) YY1 represses α -casein gene expression by preventing a cooperative interaction required to form a lactation-associated complex. *Mol. Cell. Biol.* 14, 1752-1763.
18. Zelenin, A., Alimov, A., Titomirov, A., Kazansky, A., Gorodetsky, S. and Kolesnikov, V. (1991) Introduction of CAT gene into liver, kidney and mammary gland explant of rodent and in situ by high velocity mechanical DNA-injection. *FEBS* 280, 94-96.
19. Zelenin, A., Kolesnikov, V., Titomirov, A., Barmitsev, L., Kazansky, A. and Gorodetsky, S. (1990) In vivo transfection of animal cells by high velocity microprojectile. *Cell Biology International Reports*, 14, Abst. Suppl.
20. Korzh, V., Sleptsova, I., Kazansky, A. and Gorodetsky, S. (1990) The study of the influence of cis-regulatory sequences and trans-regulatory factors of eucaryotes on CAT gene expression in *Xenopus* oocytes. In (Zbarsky, I. and Harris, J., eds.), London.