
BIOGRAPHICAL SKETCH

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NAME Agoulnik, Irina U.	POSITION TITLE Associate Professor		
eRA COMMONS USER NAME (credential, e.g., agency login) IRINAA			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
Novosibirsk State University, Novosibirsk, USSR	BS	05/1989	Biochemistry
Institute of Bioorganic Chemistry, Novosibirsk, USSR	MS	05/1991	Biochemistry
Institute of Cytology and Genetics, Novosibirsk, Russia	PhD	1999	Genetics
Baylor College of Medicine, Houston, TX	Postdoc	1999-2004	Cell Biology

A. Personal Statement.

Since completing my research training at Baylor College of Medicine (Houston, TX), my goal has been to conduct rigorous research that would elucidate prostate cancer progression to hormone independence and metastases, and to inspire young students to participate in biomedical research. Most of the work in my laboratory is dedicated to studying the signaling pathways that lead to prostate cancer (PCa) progression.

B. Positions and Honors

Academic positions:

2011-present Director of Admission at Herbert Wertheim College of Medicine Graduate Program.
2009-present Associate Professor, Department of Cellular Biology and Pharmacology, Herbert Wertheim College of Medicine, FIU, Miami, FL
2009-present Adjunct Assistant Professor, Baylor College of Medicine, Houston, TX
2009-present Voluntary Associate Professor, Miller School of Medicine, University of Miami, Miami, FL
2008-2009 Assistant Professor, Department of Molecular and Cellular Biology, Baylor College of Medicine, Houston, TX
2004-2008 Instructor; Department of Molecular and Cellular Biology, Baylor College of Medicine, Houston, TX

Honors and Fellowships:

Travel Award, American Association for Cancer Research, 1997
Travel Award, Endocrine Society, 2001
Best TA Award, Frontiers in Reproduction, MBL, 2002,
Best Graduate Course Award, Organization of the Cell, 2004
Travel Award, Endocrine Society, 2005
DAMD17-01-1-0018, Department of Defense Postdoctoral Fellowship "The Role of Coregulators in the Activation of Androgen Receptor by Androgen Independent Pathways" 2001-2003
FIU Top Scholar, 2011
Member of National Academy of Inventors 2012-present

Editorial Positions:

Academic Editor of PLoS ONE
Executive editor of Pharmaceuticals & Novel Drug Delivery Systems: Current Research
Editorial Board Member of PeerJ

Study section reviews

2012	Department of Defense (CDMRP)-PCRP-TRN-CET Section
2012	Department of Defense (CDMRP)-PCRP-TRN-PBY Section
2012	Department of Defense (CDMRP)-PCRP-EHDA-END Section
2009-20112	Reviews for Republic of Italy, Ministry of Labor, Health and Social Policies, Department of Innovation General Directorate for Health and Technologies Research
2011	Department of Defense Prostate Cancer Research Program (PCRP), Pathobiology Section
2011	Department of Defense PCRP EHD-END-IMM peer review panel
2010	Department of Defense Prostate Cancer Research Program (PCRP), Pathobiology Section
2009	NCI ARRA Concept Revisions Review
2009	NCI RFA-OD-09-004, "Recovery Act Limited Competition for NIH Grants: Research and Research Infrastructure "Grand Opportunities" (RC2)." August 5-6, 2009

C. Selected peer-reviewed publications (Selected from 32 peer-reviewed publications)

1. Bishop CE, Whitworth DJ, Qin Y, AgoulNIK AI, AgoulNIK IU, Harrison WR, Behringer RR, Overbeek PA, A transgenic insertion upstream of *sox9* is associated with dominant XX sex reversal in the mouse. *Nat Genet* 26:4, 490-4 Dec, 2000. PMID: 11101852
2. AgoulNIK IU, Krause WC, Bingman WE 3rd, Rahman HT, Amrikachi M, Ayala GE, Weigel NL. Repressors of androgen and progesterone receptor action. *J Biol Chem* 278:33; 31136-48 Aug, 2003. PMID: 12771131
3. AgoulNIK IU, Tong XW, Fischer DC, Koerner K, Atkinson NE, Edwards DP, Headon DR, Weigel NL, Kieback DG (2004) A Germline Variation in the Progesterone Receptor Gene Increases Transcriptional Activity and May Modify Ovarian Cancer Risk. *The Journal of Clinical Endocrinology & Metabolism* 89:12; Dec, 2004, PMID: 15579801
4. AgoulNIK IU, Vaid A, Bingman WE III, Erdeme H, Frolov A, Smith CL, Ayala G, Ittmann MM, Weigel NL. A Role for SRC-1 in Promoting Prostate Cancer Cell Growth and Tumor Progression. *Cancer Research*. 1:65;7959-67 2005 Sep, 2005, PMID: 16140968
5. AgoulNIK IU, Weigel NL. Androgen Receptor Action in Androgen Dependent and Recurrent Prostate Cancer. *J Cell Biochem*. 99:2;362-72 Oct, 2006. PMID: 16619264
6. AgoulNIK IU, Vaid A, Nakka M, Alvarado M, Bingman WE III, Erdem H, Frolov A, Smith CL, Ayala G, Ittmann MM, Weigel NL. Androgens modulate expression of transcription intermediary factor 2, an androgen receptor coactivator whose expression level correlates with early biochemical recurrence in prostate cancer. *Cancer Research*. 66:21; 10594-602 Nov, 2006. PMID: 17079484
7. AgoulNIK IU, Weigel NL. Androgen Receptor Coactivators and Prostate Cancer. Hormonal Carcinogenesis, Volume V. 5th International Symposium on Hormonal Carcinogenesis. 2006
8. AgoulNIK IU, Bingman WE 3rd, Nakka M, Li W, Wang Q, Liu XS, Brown M, Weigel NL. Target Gene Specific Regulation of Androgen Receptor Activity by p42/p44 MAPK. *Mol Endo*, 22(11):2420-32. Nov, 2008. PMID: 18787043
9. AgoulNIK IU, Weigel, NL. Coactivator Selective Regulation of Androgen Receptor Activity. *Steroids*, 74(8):669-74. Aug, 2009. PMID: 19463689
10. Hodgson MC, Shao LJ, Frolov A, Li R, Peterson LE, Ayala G, Ittmann MM, Weigel NL, AgoulNIK IU. Decreased Expression and Androgen Regulation of the Tumor Suppressor Gene INPP4B in Prostate Cancer. *Cancer Re*, 71(2):572-82. Jan 2011. PMID: 21224358
11. AgoulNIK IU, Hodgson MC, Bowden WA, Ittmann MM. INPP4B: the New Kid on the PI3K Block. *Oncotarget*, 2(4):321-8. Apr 2011. PMID: 21487159
12. Hodgson MC, Vanostran G, Alghamdi S, Poppiti RJ, AgoulNIK AI, AgoulNIK IU. Reduced Androgen Receptor Expression Accelerates the Onset of ERBB2 Induced Breast Tumors in Female Mice. *PLoS One*. 8;8(4):e60455. Apr 2013.
13. Lai Y, Beaver JM, Lorente K, Melo J, Ramjagsingh S, AgoulNIK IU, Zhang Z, Liu Y. Base Excision Repair of Chemotherapeutically-Induced Alkylated DNA Damage Predominantly Causes Contractions of Expanded GAA Repeats Associated with Friedreich's Ataxia. *PLoS One*. 9(4):e93464. April, 2014. PMID: 24691413 [PubMed - in process]
14. Lopez SM, Hodgson MC, Packianathan C, Bingol-Ozakpinar O, Uras F, Rosen BP, AgoulNIK IU. Determinants of the tumor suppressor INPP4B protein and lipid phosphatase activities. *BBRC*, 440(2):277-82. October, 2013. PMID: 24070612

15. Xiao J, Huang Z, Chen CZ, Agoulnik IU, Southall N, Hu X, Jones RE, Ferrer M, Zheng W, Agoulnik AI, Marugan JJ. Identification and optimization of small-molecule agonists of the human relaxin hormone receptor RXFP1. Nat Commun. 14(4):1953. June, 2013. PMID: 23764525

D. Research Support:

Current

NCI: R15 CA179287-01A1 (PI: Agoulnik IU) May 2014 – April 2017

Regulation of metastases by tumor suppressor INPP4B

The goal of this proposal is to determine which metastatic pathways are activated due to loss of INPP4B.

Bristol-Myers Squibb: Cooperative Research and Development Agreement (co-PIs: Agoulnik AI & Agoulnik IU)
May 1, 2014 - May 1, 2016

Small Molecule RXFP1 Agonists as Novel Therapeutics

Small molecule compounds which activate RXFP1 were recently identified by NCATS/NIH and FIU. Using these compounds as potential leads, BMS will be collaborating with NCATS/NIH and FIU to develop a novel therapeutic suitable for the treatment of chronic heart failure and other fibrotic diseases.

NCI: 1R01CA177711, (PI: Agoulnik AI) October 2013 – September 2015

Small molecule antagonists of relaxin receptor

The goal of this project is find small molecule antagonists of RXFP1 for use in cancer therapies.

Role: Co-investigator

Completed:

FIU: FRSP 800000894 August 2011 – August 2012

Structural studies of tumor suppressor INPP4B

The goal of this project was to optimize large scale purification of INPP4B and conduct crystallization trials.

Role : Principal investigator

NIH: 1R21CA129265-01A1 April 2008 –April 2011

Role of NCoR in Antiandrogen Resistance in Prostate Cancer

The goal of the project is to study the role of NCoR in prostate cancer progression using novel mouse mutant for this gene.

Role: Principal Investigator

DOD: BC097064 2010-2011

Androgen Regulation of Novel Tumor Suppressor in Male and Female Breast Cancer

The goal of the project is to study the role of INPP4B tumor suppressor gene in mouse model of breast cancer with conditional inactivation of androgen receptor gene.

Role: Principal Investigator

DAMD17-01-1-0018 (PI: Agoulnik IU) 23 April 2001 – 22 May 2003

Department of Defense Postdoctoral Fellowship

“The Role of Coregulators in the Activation of Androgen Receptor by Androgen Independent Pthways”

NIDDK (PI: Agoulnik IU) 1 June 2003 – 1 June 2005

NIDDK/BCM Biotechnology Center Pilot/Feasibility Award

“Role of Corepressors in Androgen Receptor Action”