**UNIVERSITY CURRICULUM VITAE**

**DATE:** October 22, 2018

**NAME:** Pranela Rameshwar

**PRESENT TITLE:**  Professor

**HOME ADDRESS:** 217 Lexington Ave, Maplewood, NJ 07040

**OFFICE ADDRESS:** Rutgers-New Jersey Medical School, Department of Medicine-

Hematology/Oncology, MSB, E-579, 185 South Orange Ave, Newark, NJ 07103

**TELEPHONE NUMBER/E-MAIL ADDRESS:** 973-972-0625/rameshwa@njms.rutgers.edu

**CITIZENSHIP:** USA

**EDUCATION**:

A. Undergraduate Graduate and Professional

*Univ of Guyana,*

*Guyana, South America (8/72-11/74)*

*Cert, Medical Technology 1974*

*University of Wisconsin*

*Madison, WI (8/81-5/85)*

*BS (Medical Microbiology) 1985*

B. Graduate and Professional

*Rutgers Univ - Newark, NJ (1/88-10/93)*

*Ph.D. (Biology) 1993*

**POSTGRADUATE TRAINING:**

A. Internship and Residencies (Not applicable)

B. Research Fellowships (None)

C. Postdoctoral Appointments

*Location* Rutgers Rutgers (formerly UMDNJ) -New Jersey Medical School

*Discipline* Hematology

*Inclusive Dates* 11/93-5/95

**OTHER TRAINING:**

Facilitating Research Mentor Training Workshop, National Research Mentoring Network (NRMN), 7/7/2016

**MILITARY:** None

**ACADEMIC APPOINTMENTS:**

*Department* Medicine-Hematology/Oncology

*University* Rutgers (New Jersey Medical School) (formerly UMDNJ)

*Title* Assistant Professor

*Inclusive Dates* 6/95-6/01

*Department* Medicine-Hematology/Oncology

*University* Rutgers (New Jersey Medical School) (formerly UMDNJ)

*Title* Associate Professor (Tenure)

*Inclusive Dates* 7/01-6/07

*Department* Medicine-Hematology/Oncology

*University* Rutgers (New Jersey Medical School) (formerly UMDNJ)

*Title* Professor (Tenure)

*Inclusive Dates* 7/07-6/13

*Department* Medicine-Hematology/Oncology

*University* Rutgers (New Jersey Medical School)

*Title* Professor (Tenure)

*Inclusive Dates* 7/13 -

 *Department* Graduate School of Biomed Sci

*University* Rutgers – Newark Campus (formerly UMDNJ)

*Title* Member

*Inclusive Dates* 1/00-6/13

 *Department* Graduate School of Biomed Sci at New Jersey Medical School

*University* Rutgers

*Title* Member

*Inclusive Dates* 7/01-

 *Department* Integrative Neuroscience Graduate Program

*University* Rutgers (formerly UMDNJ), Newark, NJ.

*Title* Member

*Inclusive Dates* 2/02-7/10

 *Department* Combined Doctoral Biomedical Engineer Program

 *University Grad Schools -* New Jersey Inst of Tech & Rutgers Biomed Health Sci

*Title* Member

*Inclusive Dates* 03-

*Department* Rutgers Cancer Institute of New Jersey – Newark (formerly University Hospital Cancer Center)

 *University* New Jersey Medical School (Rutgers)

*Title* Member

*Inclusive Dates* 05-

 *Department* Rutgers Cancer Institute of New Jersey-New Brunswick

 *University* Rutgers

*Title* Member

*Inclusive Dates* 14-

 *Department* Dept of Biomedical Engineer

 *University* New Jersey Inst of Tech

*Title* Affiliated Faculty

*Inclusive Dates* 17-20

 *Department* Medicine

 *University* NY/NJ VA Health Care Network

*Title* Research Faculty

*Inclusive Dates* 18-21

**Other Appointments:**

 1974-1981 Medical Technologist, Central Medical Laboratory, Georgetown, Guyana

 1981-1983 Medical Technologist, Central Medical Laboratory, Ministry of Health,

 Georgetown, Guyana. *Leave of absence,* Student, Univ of Wisconsin, Madison, WI

1983-1985 Research Assistant, Univ of Wisconsin, Madison, WI, Depart of Med Microbiology

 1985-1992 Part-time Clinical Microbiologist, Elizabeth General and Overlook Hospitals

9/85-10/93 Research Teaching Specialist, Rutgers-New Jersey Med School (formerly UMDNJ)

**HOSPITAL APPOINTMENTS:** Not applicable

**OTHER EMPLOYMENT OR MAJOR VISITNG APPOINTMENTS:** Not applicable

**PRIVATE PRACTICE**: Not applicable

**LICENSURE:** Not applicable

**DRUG LICENSURE:**  Not applicable

**CERTIFICATION:** Not applicable

**MEMBERSHIPS, OFFICES AND COMMITTEE ASSIGNMENTS IN PROFESSIONAL SOCIETIES:**

*Am Assoc of Immunologists*

*Member*

*1993-*

*Am Assoc of Cancer Res*

*Member*

*2002-*

*Am Soc of Hematol*

*Member*

*1998-*

*Clin Immunol Soc*

*Member*

*1997-2002*

*Soc of Neuromodulation*

*Member*

*1995-2000*

*Intl Soc for Exp Hematol*

*Member*

*1995-2004*

*Intl Soc for Stem Cell Research*

*Member*

*2005-2008*

*Soc for Neurosci*

*Member*

*1996-2002*

*NY Acad Sci*

*Member*

*2005-2010*

*Stem Cell Research Italy Assoc*

*Honorary Membership*

*2010-*

**HONORS AND AWARDS:**

*Title* World Health Scholar

*Awarded By* World Health Organization

*Date* 1983-1985

*Title* Phi Beta Kappa

*Awarded By* University of Wisconsin-Madison, WI

*Date* 1984

*Title* Water Russel Award

*Awarded By* Rutgers University

*Date* 1992

*Title* Inductee, Stuart D. Cook, MD, Master of Educator Guild

*Awarded By* Master Educator Guild (Rutgers Sch of Biomed Sci, formerly UMDNJ)

*Date* 2005

*Title* Faculty of the Year Award

*Awarded By* Faculty Organization, New Jersey Medical School

*Date* 2006

*Title* Basic Science Mentoring Award

*Awarded By* Faculty Organization, New Jersey Medical School

*Date* 2015

*Title* Public Medal Educational Award

*Awarded By* New Jersey Medical School

*Date* 2016

*Title* Contributions to Cancer Research

*Awarded By* Society of Asian Am Scientists for Cancer Res (SAASCR)

*Date* 2017

*Title* Outstanding Scientist Award

*Awarded By* Eward J Ill Excellence in Medicine

*Date* 2018

**BOARDS OF DIRECTORS/TRUSTEES POSITIONS:** None

**SERVICE ON NATIONAL GRANT REVIEW PANELS, STUDY SECTIONS, COMMITTEES:**

**International Panels (Adhoc):**

* North West Cancer Research Fund (NWCRF), Liverpool, England (02-)
* Italian Association for Cancer Research (00-)
* Swiss National Science Foundation (99-)
* Neurological Foundation of New Zealand (05-)
* Breast Cancer Campaign, London, England (07-)
* Slovak Research and Development Agency, Slovakia (08-)
* French Nat’l Research Agency, France – Gene to Pathophysiology Program (GENOPAT) (08-)
* Singapore Stem Cell Consortium, Institute of Medical Biology (08-)
* Hungary Research Fund, Hungary (08-)
* **S**cience Foundation Ireland (08-)
* Yorkshire Cancer Research (09-)
* Netherlands Org for Health Res and Dev (09-)
* Leuk Res Fund, UK (09-)
* Med Res Council, South Africa (09-)
* Welcome Trust- India Alliance System (09-)
* U.S.-Israel Binational Science Foundation (10-)
* Israel Science Found (11-)
* Italian Ministry of Health (10-)
* Nat’l Med Res Council, Singapore (11-)
* Leukemia Lymphoma Research, UK (renamed `Bloodwise’) (11-)
* European Science Foundation, on site meeting, Strasbourg, France (12; online 13-)
	+ Onsite: 2014-15
* Portuguese Foundation for Science and Technology (FCT) (12-)
* Cancer Research – UK (13-)
* British-Israel Res & Acad Partnership Regen Med Initiative (14-)
* Health Res Board, Ireland (15-)
* Icelandic Research Fund (16-)
* Bloodwise, UK (17-)
* Raine Med Res Foundation, Govt of Western Australia (18-)

**National Panels (Adhoc):**

 Grants:

* Susan G. Komen Breast Cancer Foundation, Tumor Metastasis Study Section (04-07; 11)
* K18/K23/K24/K25 Study Section, SHL1 CSR-R (M1) (06-07, 3 times/year)
* K01 Study Section, ZHL1 CSR-G (07, one session)
* California Breast Cancer Research Program, Pathogenesis Study Section (06-09)
* Howard Hughes Fellowship for Medical and Veterinary Students (08-10)
* American Heart Association, Immunol and Microbiol Study Section, Philadelphia Chapter (08)
* Department of Defense, Breast Cancer Program (PBY, Online and Onsite, 08-12; PBY & IMM (Ad hoc), 14)
* Am Institute of Biol Sciences, Stem Cell Characterization Panel (08-)
* National Science Foundation (09)
* Northern California Center for the National Children's Study (11)
* Broad Medical Res Prog – Los Angeles, CA (13)
* New Jersey Health Foundation Signature Res Grant Prog (14)
* NCI Special Emphasis Panel, ZCA 1 RPRB-M (M4) Provocative Question (3/16)
* Kentucky Science & Engineering Foundation, Lexington, KY (17)
* Am Assoc of Indian Scientist in Cancer Res (AAISCR) Grant Review (18)
* Horizon – Blood Cancer – Cancer Res Prog, Congressional Directed Med Res (18)

University:

* Cancer Education Program Committee, NJMS (99-)
* Office of Research and Sponsored Program, Research Proposal for Med Students (99-)
* Master Educator Guild Educational Grant (12)
* Human Genetics Institute of New Jersey at Rutgers Univ (13, 15)

**SERVICE ON MAJOR COMMITTEES:**

1. International
2. BIT Life Sci First Annual World Congress of Regenerative Med & Stem Cell

 2014 Co-organizer of 5th Disputationes 2014, Aalborg, Denmark

 2014 Technical Program Committee Member, 2015 Conference on advances in prevention and treatment of cancer, Suzhou, China

 2014 Scientific advisor, 21st Century Translational Medicine Conference, Bhopal, March 2015

 2017 Paper Reviewer for 9th Intl Multi-Conf on Complexity, Informatics and Cybernetics (IMIC)

 2017 External evaluator for promotion of faculty at Seoul National University, Dental School

1. National

Board Membership:

* + - * Biotechnology, Chemical Technology, and Environmental Science, Morristown County College (2005)
			* ImmuneRegen Biosciences (2007-2013)
			* NeoloMed BioSciences (2008-2016)
			* Stem Cell Therapeutics (Key Opinion Leader) Roche (2009)
			* Celvive Biosciences (2011-)
			* CellHealth™ Institute, NJ (2013-2015)
			* North America Frost and Sullivan (Key Opinion Leader) (2016)
			* Immutrix Therapeutics, Rapid City, South Dakota (2018-)
			* New Amsterdam Science (2016-)

Scientific Evaluation:

* Academic Promotion to Full Professor, Univ of Mississippi School of Medicine (2017)
* Faculty renewal, Van Andel Res Inst, Grand Rapids, MI (2017)
* Post-tenure review, Univ of Louisville Sch of Medicine (2017)

Scholarship Committee:

* Committee member, AAISCR Scholarship Committee (2018)
1. Rutgers University

14- Executive member, HGINJ Stem Cell Program

Rutgers New Jersey Medical School

* + - Organizes stem cell initiative (education and research) for trainees, staff and faculty (01-)
		- Full Member, Admission Committee, New Jersey Medical School (Interviewer and Weekly Committee Meetings) (02-12)
		- Basic & Translational Science Task Force meeting for Cancer Research (03-)
		- Committee Member, Summer Research Program for Medical Students (03-)
		- Search committee, Faculty recruitment, Dept of Cell Biol and Mol Medicine (03-08)
		- Institutional Animal Care and Use Committee (04-)
		- IACUC sub-committee to evaluate justifications for Pain & Distress Category E (8/13)
		- Member, Search Committee for Associate Dean for the Graduate School of Biomedical Sciences, Newark Campus (07-08)
		- Member, organizing committee for academic fellowship for medical students (07-)
		- Dept of Medicine, Research Day Selection Committee (10-)
		- Radiation Safety and Licensing/Full Committee (12-)
		- Member, Institutional Planning and Developmental Committee (16-18)
		- Interviewer, Position of Chief of UH/Rutgers Level I Trauma Unit (17)
		- CV reading committee member for tenure, Dept of Surgery (16, 17)
		- Chair, CV reading committee for Distinguished Professor, Dept of Micro/Biochem/ Mol Genetics (18)

Rutgers Dental School:

 2005 Member, Faculty recruitment, Oral Biology Department

 Rutgers Biomedical & Health Science School (RBHS):

03-06 University Representative, steering committee for the joint doctoral program in Biomedical Engineer with NJIT, Newark, NJ

2005 Member, President’s Strategic Council on Research Advancement

2005 Member, President’s Stem Cell Speaker’s Bureau

07- Research Integrity Committee Member, Newark Campus

09-16 Appeal Committee Member, Faculty evaluations (09, 11, 16)

11- Laboratory Safety Committee

12- Research Development Advisory Committee

14 Co-chair, Stem cell regenerative medicine (RBHS strategic plenary steering committee working group)

14- Executive Committee Member, Human Genetics Institute of New Jersey-Stem Cell Program

14- Chair, Master Educator Guild Induction Review Committee Chair

D. Hospital (Not Applicable)

E. Departments (New Jersey Medical School – Rutgers)

1996-99 Organize monthly research lectures for the Department of Medicine. Purpose was to bridge clinical and basic sciences though inter- and intra-departmental collaboration at NJMS (Medicine)

2001-02 Dept of Medicine Research Steering Committee (Medicine)

2001-02 Dept of Medicine Grant Funding Subcommittee (Medicine)

2003-04 Member, Search Committee for Directors of the Divisions of Endocrinology and Gastroenterology (Medicine)

7/05-1/05 Vice Chair of Research (Interim), Department of Medicine (Medicine)

12/8/16 Reading Committee for candidate proposed for tenure (Surgery)

F. Editorial Boards

EDITOR IN CHIEF

Breast Cancer – Targets and Therapy (11-)

**Intl J Stem Cell Research and Transplantation (12-)**

**J of Cancer Stem Cell (16-)**

SERIES EDITOR

 Research and Business Chronicles: Biotechnology & Medicine

EDITOR

 J Cancer Stem Cell Research (13-16)

 SENIOR EDITORIAL BOARD

Am J Cancer Research (11-)

Hematology/Leukemia (13-)

GUEST EDITOR

Stem Cell International (Eds: Deepa Bhartiya, Kenneth Boheler, Pranela Rameshwar, 2012), “Multipotent to Pluripotent Properties of Adult Stem Cells”

ASSOCIATE EDITOR

Breast Cancer – Targets and Therapy (08-11)

World J of Hematology (15-)

World Journal of Stem Cells (15-)

ACADEMIC EDITOR

PLoS One (11-)

EDITORIAL BOARD

Recent Patents on Central Nervous System Drug Discovery, 06-

Intl J Biomedical Science, 06-

Recent Patents on Biotechnology, 07-

Oxidative Med and Cellular Longevity (08-)

J Receptor, Ligand and Channel Res (08-)

J Reg Med & Tissue Engineering, 12-

Clin Transl Sci, 07-

Stem Cells Intl, 08-

Curr Signal Transduction Ther, 08-

Stem Cell Rev Lett, 09-

World J of Stem Cells, 09-15

J of Stem Cell & Ther, 10-

Analytical Cell Pathol, 10-

World J of Exp Med, 11-

Am J of Cancer Sci, 12-

Am J of Cancer Rev, 12-

Hematology & Leukemia, 12-

Analytical Cellular Pathology, 12-

Challenges in Cancer (Enliven, 13-

J Transplantation Stem Cell Biol (Avens, 13-

World J Biol Chem, 13-17

Saudi J of Biomed Sci, 13-

Cell Death in Therapy, 14-

BrainImmune media, 14-

Austin J of Med Oncol, 14-

Imaging J Clin Med Sci, 14-

Integrative Cancer Res & Ther, 14-

J Oncol & Hematol, 15-

Intl J Stem Cell Res, 15-

Intl Immunopharmacol 18-

Scholars Report, and Oncology section editor), 16-

J Hematol & Multiple Myeloma, 16-

Cancer Research – Open J, 16-

Biologics: Targets and Therapy, 16-

Cancer Lett, 16-

Reg Med Frontiers, 18-20

J Medicine, 18-

Stem Cell & Tissue Engineering 18-

Clinics in Oncology 18-

G. *Ad Hoc* Journal Reviewer

Acta Pharmacologia Sinica 08-

Ad Drug Deliv Reviews 12-

Annals of Hematol 10-

Annals Human Genetics 12-

Am J Physiol-Reg, Integrative and Comp Physiol 04-

Am J Physiol-Heart & Circulatory Physiol 17-

Am J Pathol 11-

Anticancer Ther 11-

Amino Acids 13-

BBA-Reviews on Cancer 11-

Biol of the Neonate 01-

Biotech Prog 07-

Blood 05-

BBA-Gene Reg Mechanism 13-

BBA- Reviews on Cancer 16-

BMC-Cell Biol 11-

BMC-Genomics 09-

BMC-Medical Genomics 11-

Brain Behav Immunity 04-

Brain Res 07-

Brain Sci 17-

Brain Pathology 13-

Breast Cancer – Nature 18-

Breast Cancer Res 07-

Breast Cancer Res Treatment 11-

Breast Cancer: Basic,Clin Res 09-

Br J Med Medical Res 12-

Br J Cancer 07-

Br J Pharmacol 12-

Br Med J (BMJ) 17-

Cancer Biol Ther 14-

Cancer Immunol Immunother 08-

Carcinogenesis 09-

Cancer Microenvironment 16-

Cell Death Diff 11-

Cellular Microbiol 12-

Cell Comm Signaling 17-

Cell Mol Neurobiol 12-

Cell Reports (19-)

Cell Res 08-

Cell Immunol 05-

Cell Tissues Organs 09-

Cell Transplantation 11-

Curr Biotechnol 13-

Curr Signal Transduction Therapy 12-

Curr Med Chemistry, 09-

Cytotherapy, 09-

Cytometry 09-

Clin Cancer Res 04-

Cancer Immunol Res 15-

Cancer Res 04-

Cancer Lett 07-

Cell Mol Life Sci 08-

Clin Diag Lab Immunol 01-

Clin Exp Metastasis 08-

Curr Cancer Drug Target 11-

Cytokine 07-

Diabetes 08-

Endocrinol 03-

Eur J Cell Biol 16-

Eur Neurol 12-

Exp Cell Res 06-

Exp Hematol 04-

Expert Opin on Biol Ther 05-

Expert Rev anticancer Ther 12-

FASEB J, 09-

Frontiers in Biosci 08-

Frontiers Cell Inf Microbiol 12-

Frontiers in Medicine 17-

Future Oncology 11-

GENE 08-

Genes and Immunity 14-

Genomics 06-

Human Immunol 11-

Intl J Biochem Cell Biol 05-

Intl J Cancer 14-

Intl J Dev Biol 11-

Intl J Oncology 16-

Intl J Neurosci 11-

Intl Immunopharmacol 06-

ISRN Bioinformatics 11-

J Biomaterials Sci 10-

J Biomat Res– Appl Biomat 13-

J Cell Mol Med 07-

J Cell Physiol 05-

J Clin Endocrinol and Metabolism 10-

J Clin Pathol 04-

J Crohn’s & Colitis 12-

J Drug Delivery Sci Technol 09-

J Eur Acad Derm Venereol 13-

J Exp Clin Cancer Res 11-

J Genetic and Genomics 12-

J Immunol 01-

J Mol Endocrinol 00-

J Mol Med 09-

J Mol Cell Cardiol 06-

J Neurochem 02-

J Neurological Sci 11-

J Neurosci Methods 05-

J Photochem & Photobiol 17-

Lancet Oncology 18

Leukemia 02-

Liver Int’l 10-

Melanoma Res 03-

Microscopy Res Technique 13-

Molecules 10-

Mol Cancer 08

Mol Cancer Res 14-

Mol Cell Therapies 14-

Mol Med Reports 16-

Mol Neurobiol 17-

Mol Pharmacol 04-

Mol Therapy 08-

Mol Cancer Therapeutics 11-

Mol Ther – Methods Clin Dev 14-

Neurobiol of Aging 16-

Neurosci 05-

Neurosci Letters 05-

NeuroSignals 10-

Oncology Reports 15-

Oncotarget 14-

Pharmaceuticals 16-

PLoS Med 06-

PLoS ONE, 07-

Proc Natl Acad Sci 05-

Regulat Peptides 02-

Rejuvenation Res 10-

The Lancet 04-

Ther Deliv 14-

Tissue Engineering 10-

Toxicology Lett 14-

Trends Cancer 17-

Trends Mol Med 11-

Trends Endocrinol Metabolism 13-

Tumor Biol 12-

Signal Transduction Targeted Therapy 18-

Stem Cells 07-

Stem Cell Rev & Reports 11-

Stem Cell Res 11-

Stem Cells Transl Med 13-

UCSD-Nature Signaling Gateway 11-

World J of Stem Cells 09-

World J Clin Oncol 14-

Yonsie Med J 10-

BOOKS /SPECIAL SERIES

Springer, Cell Biology (12)

**SERVICE, GRADUATE SCHOOL OF BIOMEDICAL SCIENCES (NJMS):**

* Sloan Faculty Advisor (02-):
	+ Sub-Committee for financial distribution to Sloan students (08-)
* Admission Committee and Recruitment, Interdisciplinary Program in Biomedical Science, Rutgers (formerly UMDNJ) (03-05)
* Admission and Recruitment for the Integrated Program in Neuroscience between the graduate schools of Rutgers University, Newark and New Jersey Medical School (03-10)
* Director and initiating organizer, Undergraduate Summer Research (03-05)
* Organizer, Symposium series on Stem Cell and Regenerative Medicine (05)
* Chair, Selection committee for Master Educator (06-07)
* One of four to initiate Rutgers-NJIT Biomedical Engineering doctoral program (05)
* Member, Selection committee for Master Educator (08)
* Stem Cell Faculty Recruitment, NJIT (joint Biomed Engineer Program) (08)
* Member Faculty, Research Tracks (13-)
* Interviewer for the three graduate school tracks (13-)

**SERVICE ON HOSPITAL COMMITTEES:** None

**SERVICE TO THE COMMUNITY:**

* Organizes and oversee the Stem Cell Education Society for students at Rutgers programs at the Medical (2006-)
* Establish a website for the general public to gather information on stem cell:

(<http://njms.rutgers.edu/departments/medicine/divisions/stemcell/>)

* Present scientific information on stem cell (including cancer stem cell) to teachers and high school students, including those in the inner city (2006-)
* Mentor for Women In Science Education Program at William Patterson, Wayne, NJ (2005-)
* Involved in the development of a wet laboratory at the Liberty Science Center. The laboratory integrates molecular biology with an understanding of stem cell biology. The laboratory is intended for middle and high schools students (2006-)

**SPONSORSHIP (Primary Mentorship) OF CANDIDATES FOR POSTGRADUATE DEGREE:**

**Graduate Students:**

### PhD:

### Kelly Corcoran (03-06)

### Steven J. Greco (03-07)

### Kathy Trazska (04-08)

### Sarah Bliss (07-15)

### Garima Sinha (13-)

Nykia Walker (13-)

Lauren Sherman (13-)

Caitlyn Moore (16-)

Marina Gergues (17-)

Alexandra Ferrer (18-)

Vebha Harindra Savanur (18-)

MD/PhD

Shakti H. Ramkissoon (03-06)

Shyam Patel (08-11)

Karim Helmy (08-11)

Jessian Munoz (11-13)

Kent Horvath (11-13)

Sara Morelli (Faculty, Ob/Gyn, 13-17)

### MS:

Jing Qian (98-00)\*

Julius Potian (01-03)\*

Rebecca Metz (02-03)\*

Helen S. Kang (03-04)\*

 Annabella Moharita (03-04)\*

 Suvarnamala Pushkaran (03-04)\*

Jennifer Chan (03-04)\*

 Kathryn Tang (04-06)\*

Elaine Wong (05-06)\*

Joseph Fernandes (04-05)\*

Marcello Taborga (04-06)\*

Marianne Castillo (05-06)

Monique Johnson (05-06)\*

Nitixa Patel (05-07)\*

Raghav Murthy (05-07)\*

Katherine Liu (06-07)\*

Bobby Reddy (06-07)\*

Michael Riccardo (06-07)\*

Lisamarie Moore (06-08)\*

Rachel Ricart (08-10)\*

Cecile King (08-10)

Kimberly Silverio (10-11)

Agata Giec (10-11)\*

Justin Sweet (10-11)

Jianjun Liu (12-13)

Bernadette Bibber (12-13)

Garima Sinha (12-13)

Vipul Nagula (13-14)\*

Zahra A. Adahman (15)

Anna Pang (15-16)

Lisa Williams (14-16)\*

Allan Singh (15-16)

Ronak Barucha (15)

Piotr Pobiarzyn (14-17) \*

Clara Gabra (15)

Sai Vemula (15)

Maran Shaker (15-16)\*

Emily Byrne (15)

Peter Conaty (16-18)\*

Heidi Cho (16)

Niloy Shay (17-18)\*

Christopher Jose (18)

Mathieu Boulad (17-18)\*

Samir Jani (18-)\*

Samantha Lemus (18)

**\*** Thesis; Others: rotating students

**Undergraduates:**

Medical Students: 32 students (1997-Present)

 Gabriel R. Arismendi (16-);

Other Colleges: 35 students (1997-present)

**High School Students:** 30 students (1997-present)

**SPONSORSHIP (Primary Mentorship) OF POSTDOCTORAL FELLOWS:**

**Post-Doctoral Fellows:**

Persis S. Bandari, Ph.D., (00-03)

Selvaraj Sundararajan, M.D. (02-03)

Kavitha K.R. Reddy, M.D. (02-03)

Steven Greco (08-12)

Seda Ghazaryan (15-)

Khadidiatou Guiro (15-)

**Clinical Fellows:**

|  |  |
| --- | --- |
| **NAMES** | **CURRENT POSITION** |

Simi Kapoor, Allergy-Immunology (10-12) Private Practice (CA)

Mauli Desai, Allergy-Immunology (10-12) Faculty, Mount Sinai (NY)

Tatyana Gavrilova, Allergy-Immunology (12-15) Faculty, Einstein Medical Sch (NY)

Matthew Romagano (18-)

### Residents:

### Medicine:

### Lia Mataresse McGibbon (11) …………… Rheumatology Fellowship

### Saritha Kartan (11-14) ……………… Allergy Immunology Fellowship

### George Nahas (12-15) ……………… Hematology Oncology Fellowship

 Veronica Mariotti (15-18)

 Hussam Eltouky (15-18)

 Medicine-Pediatrics:

### Leidy L. Soriano (11-13) …………………….. Pediatrics and Adult Hem/Onc Fellowship

### Surgery:

###  Devashish Anjaria (General) …………………. Faculty, Trauma, Rutgers New Jersey Medical School

###  Dennis Quinlan (General) ……………………. Private Practice, Cardiothoracic surgery

###  Jonathan Wu (General) ………………………. Private Practice, General surgery

 **Junior Faculty/Senior Research Associate**

 Eliana Antoniou, Ph.D, (Faculty, William Patterson University, Wayne, NJ, 2005-2009)

 Alicia Mohr, MD (Faculty Dept of Surgery, NJ Med Sch; K08 followed by R01, 2005-2014)

 Devashish Anjaria (Faculty, Dept of Surgery, NJ Med Sch, 2008-2015)

Sara S. Morelli (Faculty, Dept of Ob/Gyn, Reproductive, Endocrinology and Infertility, NJ Med Sch; 3-yr Training grant from Am Board of Obstetricians and Gynecologists Foundation, 2010-2013)

Steven Greco (Research Associate, 2012-2018)

Rekha Rao Manepalli, Ph.D. (Assist Prof, Dept of Internal Med, Sch of Medicine, KUMC, Kansas City, KS, 2018-)

**Visiting Scholars/Students/FELLOWS**

* Xiaosong Song, M.D., China Medical Univ (12/98-8/99).
* Hyun Sook Oh, Ph.D., Professor, Wonkwang Health Science College, Iksan, South Korea (01-03).
* Kyung Jin Cho, Professor, Korea Univ, Seoul, Korea (03-04).
* Tilman E. Klassert, Ph.D. candidate, Univ of La Laguna, Canary Island, Spain (9/09-12/09).
* Aline R.M. Lobba, Ph.D. candidate, Univ of São Paulo, Sᾶo Paulo, Brazil (10/12-4/13)
* Refia Sultan Katmer, Medical Student, Marmara Univ Sch of Medicine, Istanbul, Turkey (Summer 2015)
* Fernando Velloso, Ph.D., Post-doctoral Fellow, Univ of Sᾶo Paulo, Sᾶo Paulo, Brazil (6/17)
* Du Jun, Ph.D., Assoc Prof, Nanjing Medical Univ, Dept of Physiology(6/17-12/17)
* Yahaira Maria Naaldijk Palma, Ph.D., Post-Doctoral Fellow, Univ of Sao Paolo, Dept of Biochemistry (1/18-12/18)
* Keybell M. Diaz, M.D., Professor, Central Univ of Venezuela Medical School, via Intl Atomic Energy Agency (IAEA with US partner at Argonne Labs) fellowship program, Nuclear Engineering Division (2-3/18)
* Maria Carolina Bittencourt Goncalves, Doctoral student, Univ of São Paulo, São Paulo, Brazil (4-5/18)
* Nikhil Granauel, Undergraduate, India Inst of Technology (Summer 2018)
* Celiane Cardoso Carvalho, Sao Paulo, Brazil (4-8/18)

**History of Students with Notable Awards**

* Annemarie Fernandes, Goldwater Scholar for Undergraduate through University of Pennsylvania, 2003.
* Anoop Patel, Howard Hughes Future Scientist Fellowship, Undergraduate, Yale Univ, 2003; Beckman Science Scholar for 2003-2004.
* Shakti Ramkissoon, Howard Hughes Scholar, Cloister Program, NIH, 2003-2005; Stanley S. Bergen, Jr. M.D. Medal of Excellence, GSBS (2007).
* Hiral Patel, Howard Hughes Scholar, Cloister Program, NIH (2004-2005); AMA fellowship; Stanley S. Bergen Jr M.D. Award, NJMS (2007).
* Katarzyna Trzaska, Dennis Benigno Fellowship, 2005; Selection for the Second Annual NIH Nat’l Graduate Student Res Festival, 2007; Award by Executive Women of NJ, 2007; NJMS Faculty Organization Award for Outstanding Grad Student, 2008; S. Bergen, Jr., M.D. Medal of Excellence (2008).
* Kelly E. Corcoran, Stanley S. Bergen, Jr., M.D. Medal of Excellence, GSBS (2006).
* Steven Greco, Selection for the First Annual NIH Nat’l Grad Student Research Festival, 2006.
* Marianne Castillo, Howard Hughes Cloister Program, NIH (2008-2009)
* Bobby Reddy, AOA research award, 2008; Howard Hughes Cloister Program, NIH (2009-2010).
* Shyam Patel, AOA research award, 2010; Dean Morris Shaffer Award (2010)
* Phillip Lim, Howard Hughes Cloister Program, NIH (2010-2011)
* Simi Kapoor, Am College of Allergy, Asthma & Immunol; von Pirquet Award for outstanding abstract (2010); Best Poster, Dept of Medicine Research Day (2011).
* Jessian Munoz, Stanley S. Bergen, Jr., M.D. Medal of Excellence, GSBS (2013); AOA research award (2014)

**TEACHING RESPONSIBILITIES:**

A. Lectures or Course Directorships

**Director, Certificate Program in Stem Cell Biology (2006-):**

Graduate School of Biomedical Science at New Jersey Med Sch, “Stem Cells Concentration for Graduate students”, Three full graduate courses in stem cell biology required + 15 other credits.

**Course Director:**

* + Graduate School of Biomedical Sciences at New Jersey Medical Sch, “Stem Cell Biology Applications (MSBS 5130)”, 45 h, (Fall 2001-).
	+ Graduate School of Biomedical Sciences at New Jersey Medical Sch, “Advanced Stem Cell Biology (MSBS 520A)”, 30 h (Fall 2002-).
	+ Graduate School of Biomedical Sciences at New Jersey Medical Sch, “Hematopoietic Stem Cell Biology and Dysfunction (MSBS N5134)”, 30 h (Spring 2006-).
	+ Graduate School of Biomedical Sciences at New Jersey Medical Sch, “Topics/Cancer Stem Cell Biology (MSBS N512)”, 30 h (Spring 2007-)
	+ New Jersey Medical School, “Non-elective credit in Stem Cell Biology for Medical Students, Residents and Fellows” 15 h (Spring 2007-).

**Participant – Lectures:**

* Rutgers University, Newark, NJ, “Undergraduate Laboratory course in Basic Immunology”, Teaching Assistant for laboratory section 6 h (Fall 1992).
* Neuroscience and Psychiatry Graduate Program at New Jersey Medical School, “Psychoneuroimmunology”, 3 h (1994).
* Dept of Pathol and Lab Med Graduate Program at New Jersey Medical School, “Molecular and Cellular Immunol”, Lectured on Hematopoiesis, 3 h (1996-2001).
* Dept of Pathol and Lab Med Graduate Program at New Jersey Medical School, “Molecular & Immunopathologic Mechanisms of Cancer (Path5600)”, Lectured on Cancer metastasis to the bone marrow 3 h (2001-2005).
* New Jersey Medical School, “Cell and Tissue Biology”, Lectured on Overview of Stem Cell, 2h (Spring 2003).
* Fellowship program in Dept of Medicine at New Jersey Medical School, “Educational program in Allergy/Immunology”, Lectured and demonstrated on the immune properties of mesenchymal stem cells, 3 h (7/2003).
* Graduate Program at Cancer Institute of New Jersey - New Brunswick, “Genomics in Cancer Therapeutics”, Lectured on cancer dormancy, 3 h (Spring 2006 - 2010).
* Graduate program in Cell Biology at New Jersey Medical School, “Cell Biology of the Host Response to Injury”, Lectured on bone marrow fibrosis, 2 h (Spring 2007)
* New Jersey Institutes of Technology, “Principles of Tissue Engineering”, Lectured on an Overview of Stem Cells, 3h, (Spring 2002; Fall 2008; Spring 2014)
* Graduate School of Biomedical Sciences at New Jersey Medical School, “Seminar in Biomedical Science/Basic Research (GSBS591)”, 2 h (Fall 2003-)
* Graduate Ethics Course, Lecture on Stem Cell Ethics (2009-).
* Mini Med Program at New Jersey Medical School, `Stem Cell in Medicine’ (Fall and Spring, 2009-)
* Graduate Course in Regenerative Medicine, RWJ, Piscataway, Lectured on Hematopoiesis (2 lectures) (Fall 2014-)
* Undergraduate Program in Biomedical Engineering, NJIT, Tissue Engineering Course, Lectured on “Stem Cell for the Engineer” (Fall 2015)
* Graduate Course in `The Host Response to Injury”, Lectured on Bone marrow, anemia, WBC production and stem cells (Spring 2016-)
* Graduate Course in `Developmental Biology and Stem Cells”, Lectured on Hematopoietic stem cells (Spring 2017)

**Technique Courses:**

* Dept of Neuroscience Integrated Graduate Program between UMDNJ and Rutgers-Newark, “Neuroscience Methods”, Discussed and lectured on different bone marrow stem cells and parallels with neural stem cells, 3 h (2002-2004).
* Dept of Pathology and Laboratory Medicine Graduate Program at New Jersey Medical School, “Current Molecular Techniques”, Demonstrates Nuclear Run-on Assay 5 h (01-10).
* Governor’s School of NJ, “Introduction to Biomedical Science”, Lectured and demonstrated on Non-Embryonic Stem Cells in Repair Medicine, 2 h (Summers 03-05).

**Online Teaching:**

School of Allied Health Profession, “Advanced Hematology’, Instructs the first unit on Anatomy and Physiology of Hematopoiesis, 21 h (Fall 2003-)

**Workshop:**

* School of Health Related Professions & New Jersey Organ and Tissue Sharing Network, “Workshop on Stem Cell Biology” 3 h (11/2000).

B. Research Training (other than Primary Mentorship)

**Doctoral Student Rotations:**

PhD (14)

**Advisory Member, Ph.D. Thesis:**

*Rutgers School of Graduate Studies:*

Kenneth Goldstein (98-01)

Tammy Castro (99-05)

Amal Mansour (01-04)

Leopoldo Luistro (01-05)

Mohammed Hassanain (02-04)

Ralph Alcendor (02-06)

Nitu Tibrewal (04-07)

Gwendolyn Mahon (05-07)

 Pedro Rodriguez 06-09)

Homer Adams III (06-10)

Jaeyon Cho (06-09)

 Shweta Rane (07-09)

Ji Yeon Park (09-12)

Dan Li (11-13)

Neha Sharma (14-17)

Kalkal Trivedi (RCINJ, 15-)

*Other Universities:*

NJIT, Biomed Engineering:

Yee-Shuan Lee (07-10)

Ali Hussain (08-11)

Prabhjot Saini (11-13)

Neha M. Jain (12-14)

Sita D. Damaraju (13-15)

Nancy Sehgel (13-15)

Gabrielle Busto (15-17)

 Derek Yip (13-16);

Venkatakrishnan Rengarajan (15-16)

Gabrielle Busto (14-16)

Jessica Cardenas Turner (16-)

Roseline Menezes (16-)

 Atekamohdarabi Khader (16-18)

Matthew Kuriakose (16-18)

Daniel Younger (18-)

Rutgers, Biology Dept:

Wei Sun (02); Xiao-Ming Jiang (03)

Boston Univ, Pharmacol Dept:

Earl Gillespie (10-12)

**Advisory Member, MD/Ph.D. Thesis (Rutgers Sch of Biomed Sci):**

Tilak Gauri (05); Leila Mady (10-12)

**Ph.D. Thesis Defense, Member:**

*Rutgers School of Biomed Sciences:*

Joseph W. Cheu (98)

Gregory Erianne (98)

Ruoxu You (99)

Lan Jiang (00)

Mohamad A. Khodair (02)

William Simmons (02)

Marlene Healey (04)

Stacy Brown (07)

Edward Garay (07)

Jiaying Huang (07)

Nadia Hedhli (08)

Mellisa Baralt (09)

Pan Zhang (09)

Xin Zhao (12)

Lo Lai (12)

Adetola L. Shodeinde (13)

*Other Universities:*

McGill Univ, Canada: Moira Agathe Francois (10)

Aalborg Univ, Denmark: Mayuri Prasad (13)

**Ph.D. Qualifying Examination Member:**

Rutgers School of Biomedical Sciences (99-present):

Tammy Castro

Leopoldo Luistro

Amal Mansour

Parul Singh

Chuan Wang

Thelma Thompson

Joseph Quispe

Debra Cinco

Jiaying Huang

Cristina Rozo

Edward Garay

Jing Zhang

Kendra Vance

Gwendolyn Mahon

Homer Adams III

Zhaoyu Sun

Xiangwen Chen

Anton Kolomeyer

Jiyeon Park

Jing Deng

Ji Yeon Park

Shweta Rane

Reema Patel

Ju Youn Lee

Dan Li

Leila Mady

Daniel Vollenweider

Tanya Seth

Eric Neuberger

Neha Sharma

Paul Castellano

Amy Pitler

Brian Vega

Everett Henry

 Luipa Khandker

Julie Nouet

Other Universities (99-present):

NJIT:

Neha M. Jain

Sita D. Damaraju

Derek Yip

Venkatakrishnan Rengarajan

Roseline Menendezes

Matthew Kuriakose

Marwa Choudhury

Jose Rodriguez

Richard Vincent

**M.S Thesis Committee Member:**

Reza Razavi (01)

Raghu R. Krishnan (05)

Parul Singh (05)

Kathleen Coakley (05)

Kimberly Sokol (08)

Sarker Mosharrrof (12-13, NJIT)

Dennis Chang (09)

Jessyca Campos (09-10)

Kiruba Dharaneeswaran (09-10)

Joshua Urban (11)

Timothy Buirkle (11, NJIT)

Jung Hwan Kim (14-15)

Kathleen J. Magner (16-7)

**CLINICAL RESPONSIBILITIES:** None

**GRANT SUPPORT:**

A. Principal Investigator

PENDING (In negotiation)

*Agency:* Aryeh Foundation

*Title*: Restoring the brain: An approach to treating Alzheimer's disease.

*Date*: 7/1/18-5/31/21

*Award*: $5,000,000 (Total)

ACTIVE

*Agency:* U.S. - Egypt Joint Fund Grant

*Title*: Engineered mesenchymal stem cells as a therapeutic strategy in glioblastoma for targeting the initiating stem cells

*Date*: 3/1/18-2/28/21

*Award*: $190,000 (Total)

*Agency:* NJMS Annual Core Facilities

*Title*: Determining heterogeneity among dedifferentiated non-cycling breast cancer cells

*Date*: 7/1/16-6/30/18

*Award*: $3,000 (Total) $3,000 (Matching)

*Agency:* Advance Regen

*Title*: Reprogramming aging stem cells

*Date*: 1/1/13-4/1/19

*Award*: $184,873 (Total); $562,500 (Total, renewed 7/1/13); $3,955,750 (Total, renewed 4/1/15)

*Agency:* Kirby Foundation Award (#230-05-5)

*Title:* Synaptic Interactions: Formation and Plasticity

*Date:* 12/1/01, renewed each year up to present

*Award*: $8,200 (01); $8,000 (02); 11,000 (03); 15,000 (04); 20,000 (05-06); $40,000 (07-10); $45,000 (11-18)

*Agency:* Biomet

*Title*: Allogeneic response to bone chip

*Date*: 02/1/11 (Open); 4/1/15 (renewed)

*Award*: $20,000 (Total); $10,000

*Agency:* Novartis Pharmaceuticals

*Title:* Effects of AEW541 on in vitro hematopoiesis using bone marrow collected from clinically healthy adult humans and Rhesus macaques (Laboratory Studies)

*Date:* 4/1/05 (Open)

*Award*: $295,000 (Total)

*Agency:* Novartis Pharmaceuticals Co.

*Title*: Effects of NKP608 on *in* *vitro* hematopoiesis using bone marrow collected from clinically healthy human adults (Protocol No. 008046)

Effects of NKP608 on in vitro proliferation and differentiation using HL-60 cell lines characterized as zero or high for NK-1 expression (Protocol No. 008046)

*Date*: 8/1/00 (Open)

*Award*: $85,392 (Total)

COMPLETED AWARDS:

*Title*: EnhancedOCT4 expression imparts a primitive phenotype in breast cancer cells and explains cancer dormancy in bone marrow

*Agency:* Dept of Defense

*Date*: 8/1/10-7/31/15

*Award*: $117,000 (Total)

*Agency:* Dept of Defense (W81XWH-11-1-0276)

*Title*: Delivery of miRNA to breast cancer cells through exosomes released from bone marrow stroma and mesenchymal stem cells

*Date*: 8/1/11-7/31/15

*Award*: $117,000 (Total)

*Agency:* Neostem

*Title*: Fat and Dermal mix on mesenchymal stem cells and adipose tissue

*Date*: 02/1/11 (Open)

*Award*: $62,500 (Total)

*Agency:* Dance for Life

*Title:* Stem Cell Research

*Date*: 10/6/10 (Open)

*Award*: $1,000 (Total)

*Agency:* BASF

*Title*: Identifying efficient surfaces for the expansion of human mesenchymal stem cells

*Date*: 11/1/10 (Open)

*Award*: $50,000 (Total)

*Agency:* New Jersey Commission on Cancer Research (09-1097-CCR-EO)

*Title:* Mesenchymal stem cell as cancer target in bone marrow

*Date:* 7/1/08-6/30/10

*Award*: $66,000 (Total)

*Agency:* UH Cancer Center

*Title:* Rho signaling in SDF-1α-mediated entry of breast cancer cells into the bone marrow during the early phase of the disease

*Date:* /1/06-5/31/10

*Award*: $160,000 (Total)

*Agency:* Immuneregen Biosciences

*Title:* Hematopoietic effects of Sar9, Met(O2)11-Substance P

*Date:* 2008 (Open)

*Award*: $29,125 (Total)

*Agency:* Academic Information Technology Advisory Committee, Rutgers (formerly UMDNJ)

*Title:* Laboratory simulation for stem cell research (Online teaching course)

*Date:* 7/1/03-8/31/06

*Award*: $14,996

*Agency:* NIH, R01 CA89868

*Title:* Mechanisms of breast cancer-bone marrow stromal interactions

*Date:* 7/1/00 - 6/30/05

*Award*: $873,116 (Total)

*Agency:* NIH, R01 HL57675

*Title:* Regulation of neurokinin receptors in bone marrow stroma

*Date:* 8/1/96 - 7/31/01

*Award*: $556,381 (Total)

*Agency*: Foundation of UMDNJ

*Title*: Cloning of the preprotachykinin I promoter

*Date*: 7/1/96 - 12/31/99

*Award*: $22,801

*Agency*: Ruth Estrin Goldberg Memorial for Cancer Research

*Title*: Relevance of the preprotachykinin-I peptides in breast cancer:

Role in metastasis and interactions with bone marrow stroma

*Date*: 7/1/98 - 6/30/99

*Award*: $10,000

*Agency*: NIH, R01 HL54973

*Title*: Regulation of hematopoiesis by the neuropeptide substance P

*Date*: 5/1/99 - 4/30/01

*Award*: $240,107 (Total)

*Agency:* DOD (Concept, W81XWH-0610689)

*Title:* Gap Junctions between breast cancer cells and bone marrow stroma account for cancer cell quiescence and their evasion from current therapies

*Date:* 9/1/06-8/31/08

*Award*: $108,300 (Total)

*Agency:* NIH, AI063578

*Title:* Vaccine hurdle to anthrax and the emerging immune system

*Date:* 3/1/05 - 2/28/09

*Award*: $597,025 (Total)

B. Co-Investigator

ACTIVE

*Agency*: NIH, R01 GM105893 (P.I.: Alicia Mohr, Univ of Florida)

|  |
| --- |
| *Title*: Anemia and the Chronic Hyperadrenergic State following Major Trauma  |

*Date*: 8/1/13 – 7/31/18

*Award*: $1,125,000 (Total Indirect)

COMPLETED AWARDS:

*Agency*: NIH, R01 HL63097 (P.I.: David Livingston)

*Title*: Anemia and the chronic hyperadrenergic state following trauma

*Date*: 9/5/00 – 8/31/05

*Award*: $787,500 (Total Indirect)

*Agency*: The Milheim Foundation, #95-17 (P.I.: Nicholas M. Ponzio)

*Title*: The use of umbilical cord blood cells in cancer therapy

*Date*: 7/31/95 - 6/30/96

*Award*: $10,000

*Agency*: State of New Jersey Commission on Cancer Research, #795-031 (P.I.: Nicholas M. Ponzio)

*Title*: Use of human umbilical cord blood cells for adoptive therapy

*Date*: 7/1/95 - 2/28/97

*Award*: $42,020

*Agency*: NIH, R01HL54973 (P.I. Pedro Gascon)

*Title*: Regulation of hematopoiesis by the neuropeptide substance P

*Date*: 5/1/95 - 4/30/99

*Award*: $939,653

*Agency*: NIH, R01HL54973 (P.I.: Ann Bartlett)

*Title*: Mood and immunity in inner city children

*Date*: 12/1/94 - 12/30/99

*Award*: $104,787 (Total Indirect)

*Agency*: Elsa U. Pardee Foundation (P.I.: Nicholas M. Ponzio)

*Title*: Cancer Immunotherapy using human umbilical cord blood cells

*Date*: 7/1/96 - 6/30/01

*Award*: $160,000

*Agency*: Christopher Reeve Paralysis Foundation (P.I.: Denise Dixon)

*Title*: Sympathetic Nervous System Dysregulation and Diminished Cellular Immunity in Spinal Cord Injury

*Date*: 12/15/01 - 12/14/03

*Award*: $150,000

Agency: NIH, U01-AI32247

*Title:* Continuation of the New Jersey CFS Cooperative Research Center

*P.I.*: Benjamin Natelson, M.D., Dept of Neuroscience and E.O. VA Hospital

*Date:* 9/30/99-7/31/04

*Award*: $2,461,744 (Total Indirect)

Agency: NIH, AI42520 (P.I.: Virendra B. Pandey)

*Title:* Genome Targeted Inhibitor of Retroviruses

*Date:* 8/1/03-7/31/07

*Award*: $1,000,000 (Total Indirect)

*Agency*: NJ Commission on Science & Technology

*Title:* Mechanisms of Mesenchymal Stem Cell Differentiation (P.I.: Junichi Sadoshima)

*Date:* 8/1/06-7/31/08

*Award*: $300,000 (Total Indirect)

*Agency*: NIH, R01 NS07941-32

*Title*: Role of the limbic-midbrain axis in aggressive behavior (P.I.: Allan Siegel)

*Date*: 1/1/00 - 12/31/04 - extended to 12/31/10

*Award*: $704,529 (Total Indirect); $1,650,000 (Total Indirect)

Consultant (Completed)

*Agency*: NIH, R43 AG044153-01

 *Title:* Innovative Biofabrication of 3D Nano-Biocomposites for Repair of Osteochondral Defects

*P.I.*: Paul Gatenholm, PhD, BC GENESIS LLC, Virginia

*Date:* 9/1/12 – 6/2/13

*Award*: $150,000 (Total Indirect)

International Collaborative Grant (Past):

Korean Univ: PI: Kyung Jin Cho, Ph.D.

"A Study on Transdifferentiation of Mesenchymal Stem Cells into Neurons", 2008-2013

Korean Univ: PI: Kyung Jin Cho, Ph.D.

"A Study on Transdifferentiation of Mesenchymal Stem Cells into Neurons", 2008-2013

*Title*: Role of leukocytes in patients with venous stasis ulcers (P.I.: Peter Pappas)

*Agency*: NIH/NHLBI, K08

*Date*: 7/1/95 - 6/30/00

*Award*: $83,700 (annual)

*Title*: Biochemistry and genetics of vitamin D receptor actions (P.I.: Rajbir K Gill)

*Agency*: NIH, R01 DK52146

*Date*: 9/28/98 - 9/30/02

*Award*: $548,069

**mentored grants:**

Dr. Sara Morelli (Ob/Gyn):

*Title*: Cellular origins of endometrial cells

*Agency*: Am Board of Ob/Gyn/Am Assoc of Ab/Gyn Scholarship award

*Date*: 7/1/10 - 6/30/13

*Award*: $100,000 (annual)

*Title*: Cellular origins of endometrial cells

*Agency*: Am Board of Ob/Gyn/Am Assoc of Ab/Gyn Scholarship award

*Date*: 7/1/13 - 6/30/14

*Award*: $50,000 (annual)

*Title*: Cellular origins of endometrial/decidual cells in a murine model

*Agency*: Am Board of Ob/Gyn/Am Assoc of Ab/Gyn Scholarship award

*Date*: 1/1/11 - 12/31/12

*Award*: $25,000 (annual)

Caityln Moore (Doctoral Student):

*Title*: Role of perivascular bone marrow microenvironment in breast cancer dormancy

*Agency*: New Jersey Cancer Commission (DFHS18PPC012)

*Date*: 6/1/18 - 5/31/20

*Award*: $25,000 (annual)

Lauren Sherman (Doctoral Student):

*Title*: Adult mesenchymal stem cells in drug delivery for solid tumors

*Agency*: New Jersey Cancer Commission

*Date*: 1/1/16 - 12/31/18

*Award*: $25,000 (annual)

Nykia Walker (Doctoral Student):

*Title*: Macrophage subtypes in breast cancer dormancy/resurgence

*Agency*: New Jersey Cancer Commission

*Date*: 7/1/15 - 6/30/17

*Award*: $25,000 (annual)

Gabriel Arismendi (Medical Student):

*Title*: Exosomes and/or soluble mediators from irradiated human microglia in neuronal damage

*Agency*: Am Acad Neurology

*Date*: 6/1/16 - 8/1/16

*Award*: $3,000 (Summer Fellowship)

C. Pending

Submitted as Principal Investigator:

NIH “Reversing breast cancer dormancy for targeted treatment”

 Total: $2,235,738

NIH “T-cell outcomes to specific breast cancer cell subsets and mesenchymal stem cells”

 Total: $1922,000

NIH “A multi-chamber system of neurons and bone marrow functions towards investigations into early neuro-immune regulation”

 Total: $1,902,400

NIH “Targeting NFκB in the differentiation of breast cancer stem cells to reverse dormancy”

 Total: $1,902,000

NIH “Substance P-mesenchymal stem cell interaction in response to antigen challenge”

 Total: $1,963,900

**PUBLICATIONS:**

A. Refereed Original Article in Journal

1. Ende N, **Rameshwar P**, Ende M. Fetal cord blood's potential for bone marrow transplantation. *Life Sci*. 44:1987-90, 1989. PMID:2661947
2. **Rameshwar P**, Gascón P, Ganea D. Immunoregulatory effects of neuropeptides stimulation of IL-2 production by substance P. *J. Neuroimmunol.* 37:65-74, 1992.
3. Lin TZ, Svetic A, Ganea D, **Rameshwar P**, Gascón P, Gause W, Raveche E. Cytokines in NZB CD5+ B clones. *Ann. N.Y. Acad. Sci.* 651:581, 1992. PMID:1376082
4. Gascón P, Sathe S, **Rameshwar P**. Impaired erythropoiesis in the acquired immunodeficiency syndrome with disseminated *Mycobacterium Avium complex*. *Am. J. Med.* 94:41-48, 1993. PMID:8093587
5. **Rameshwar P**, Gascón P. Release of IL-1 and IL-6 from human monocytes by antithymocyte globulin. Requirement for *de novo* synthesis. *Blood* 80:2531-8, 1992. PMID:1421374
6. **Rameshwar P**, Ganea D, Gascón P. *In vitro* stimulatory effect of substance P on hematopoiesis. *Blood* 81:391-8, 1993. PMID:7678516
7. **Rameshwar P**, Gascón P, Ganea D. Stimulation of interleukin 2 production in murine lymphocytes by substance P and related tachykinins. *J. Immunol.* 151:2484-96, 1993. PMID:7689609
8. **Rameshwar P**, Ganea D, Gascón P. Induction of IL-3 and GM-CSF by substance P in bone marrow cells is partially mediated through the release of IL-1 and IL-6. *J. Immunol.* 152:4044-54, 1994. PMID:7511664
9. **Rameshwar P**, Denny T, Stein D, Gascón P. Monocyte adhesion in patients with bone marrow fibrosis is required for the production of fibrogenic cytokines. Potential role for IL-1 and TGF-ß. *J. Immunol.* 153:2819-30, 1994. PMID:7521370
10. **Rameshwar P**, Gascón P. Substance P (SP) mediates production of stem cell factor and interleukin-1 in bone marrow stroma: Potential autoregulatory role for these cytokines in SP receptor expression and induction *Blood* 86:482-90, 1995. PMID:7541664
11. Raff GW, Livingston DH, Wang MT, **Rameshwar P**. Hemorrhagic shock abolishes the myelopoietic response to turpentine induced soft tissue injury. *J. Surg. Res.* 59:75-79, 1995.
12. **Rameshwar P**, Chang VT, Gascón P. Implication of CD44 in adhesion-mediated overproduction of TGF-ß and IL-1 in monocytes from patients with bone marrow fibrosis. *Br. J. Haematol*. 93:22-29, 1996. PMID:8611464
13. **Rameshwar P**, Gascón P. Induction of negative hematopoietic regulators by neurokinin-A in bone marrow stroma. *Blood* 88:98-106, 1996. PMID:8704207
14. **Rameshwar P**, Denny TN, Gascón P. (1996) Enhanced HIV-1 activity in bone marrow can lead to myelopoietic suppression partially contributed by *gag* p24. *J. Immunol.* 157:4244-50. PMID:8892663
15. **Rameshwar P**, Poddar A, Zhu G, Gascón P. Receptor induction regulates the synergistic effects of substance P with IL-1 and PDGF on the proliferation of bone marrow fibroblasts. *J. Immunol.* 158:3417-24, 1997. PMID:9120302
16. Mohr AM, Upperman JS, Taneja R, Wang MT, **Rameshwar P**, Livingston DH. The differential effects of acute hypoxia and endotoxin on the secretion and expression of bone marrow interleukin-1 and interleukin-6. *Shock* 7:1-8, 1997. PMID:9165666
17. **Rameshwar P**, Chang VT, Thacker UF, Gascón P. Systemic transforming growth factor-beta in patients with bone marrow fibrosis. Pathological implications. *Am. J. Hematol*. 59:133-42, 1998. PMID:9766798
18. Quinlan Jr. D, **Rameshwar P**, Qian J, M aloof PB, Mohr AM, Hauser CJ, Livingston DH. Effect of hypoxia on the hematopoietic and immune modulator preprotachykinin-1. *Archives of Surg*. 133:1328-34, 1998. PMID:9865651
19. Quinlan Jr. D, **Rameshwar P**, Hauser C, Livingston D. (1998) The effect of hypoxia on bone marrow myeloid and erythroid progenitor cells. *Surg. Forum* 49:35-37.
20. **Rameshwar P**, Smith I, Ende N, Batarseh HE, Ponzio NM. Endogenous hematopoietic reconstitution induced by human umbilical cord blood cells in immunocompromised mice: Implications for adoptive therapy. *Exp. Hematol.* 27:176-85, 1998. PMID:9923457
21. Yao R, **Rameshwar P**, Donnelly RJ, Siegel A. Neurokinin-1 expression and colocalization with glutamate and GABA in the hypothalamus of the cat. *Mol*. *Brain* *Res*. 71:149-58, 1999. PMID:10521569
22. Pappas PJ, You R, **Rameshwar P**, Gorti R, DeFouw DO, Phillips CK, Padberg Jr. FT, Silva Jr. MB, Simonian GT, Hobson II RW, Duran WN. (1999) Dermal tissue fibrosis in patients with chronic venous insufficiency is associated with increased transforming growth factor-β1 gene expression and protein production. *J. Vasc. Surg.* 30:1129-42. PMID:10587400
23. Singh D, Joshi DD, Hameed M, Qian J, Gascón P, Maloof PB, Mosenthal A, **Rameshwar P**. Increased expression of preprotachykinin-I and neurokinin receptors in human breast cancer cells. Implications for bone marrow metastasis. *Proc. Nat’l Acad. Sci. USA* (Track II/Direct submission) 97:388-93, 2000. PMID: 10618428
24. Taneja R, **Rameshwar P**, Upperman J, Wang MT, Livingston DH. Effects of hypoxia on granulocytic-monocytic progenitors in rats. Role of bone marrow stroma. *Am. J. Hematol.* 64:20-25, 2000. PMID:10815783
25. **Rameshwar P**, Narayanan R, Qian J, Denny TN, Colon C, Gascón P. NF-κB as a central mediator in the induction of TGF-β in monocytes from patients with idiopathic myelofibrosis: An inflammatory response beyond the realm of homeostasis. *J. Immunol.* 165:2271-7, 2000. PMID:10925316
26. Gascón P, Qian J, Joshi DD, Teli T, Haider A, **Rameshwar P**.Effects of Preprotachykinin-I peptides on hematopoietic homeostasis. A role for bone marrow (BM) endopeptidases. *Ann.* *N.Y.* *Acad*. *Sci*. 917:416-23, 2000. PMID:11268369
27. Anjaria DJ, **Rameshwar P**, Xu Da-Zhong, Adams CA, Forsythe RM, Sambol JT, Hauser CJ, Deitch EA, Livingston DH. Hematopoietic failure following hemorrhagic shock is partially mediated by the gut. *Surg*. *Forum* 51:169-71, 2000.

**2001- 2003:**

1. Maloof PB, Joshi DD, Qian J, Gascón P, Singh D, **Rameshwar P**. Induction of Preprotachykinin-I and Neurokinin-1 by adrenocorticotropin and prolactin. Implication for neuroendocrine-immune-hematopoietic axis. *J. Neuroimmunol*. 112:188-96 (PRF/LITDB, accession number 2707865), 2001.PMID:11108948
2. Wu CJ, Livingston DH, Hauser CJ, Deitch EA, **Rameshwar P**. Trauma inhibits BFU-E and CFU-GM colony growth through the production of TGF-β1 by bone marrow stroma. *Ann. Surg.* 234:224-32, 2001. PMID:11505069
3. Qian J, Yehia G, Molina C, Fernandes A, Donnelly RJ, Anjaria DA, Gascón P, **Rameshwar P**. Cloning of human preprotachykinin-I promoter and the role of cyclic adenosine 5΄-monophospage response elements in its expression by IL-1 and stem cell factor. *J. Immunol.* 166:2553-61, 2001. PMID:11160316
4. **Rameshwar P**, Joshi DD, Yadav P, Gascón P, Qian J, Chang VT, Anjaria A, Harrison JS, Xiaosong S. Mimicry between neurokinin-1 and fibronectin may explain the transport and stability of increased substance P-immunoreactivity in patients with bone marrow fibrosis. *Blood* 97:3025-31, 2001. PMID:11342427
5. Yao R, **Rameshwar P**, Gregg T, Siegel A. Co-localization of NK-1 receptor with glutamate immunopositivity in cat hypothalamic neurons by the combination of *in* *situ* hybridization and immunohistochemistry. *Brain Res. Protocols* 7:154-61, 2001. PMID:11356382
6. Anjaria DJ, **Rameshwar P**, Deitch EA, Xu Da-Zhong, Adams CA, Forsythe RM, Sambol JT, Hauser CJ, Livingston DH. Hematopoietic failure following hemorrhagic shock is mediated partially through mesenteric lymph. *Crit*. *Care* *Med*. 29:1780-5, 2001.
7. Joshi DD, Dang A, Yadav P, Qian J, Bandari PS, Chen K, Donnelly R, Castro T, Gascón P, Haider A, **Rameshwar P**. Negative feedback on the effects of stem cell factor on hematopoiesis is partly mediated through neutral endopeptidase activity on substance P: A combined functional and proteomic study. *Blood* 98:2697-706, 2001. PMID:11675340
8. Qian J, Ramroop K, McLeod A, Bandari P, Livingston DH, Harrison JS, **Rameshwar P**. Induction of hypoxia-inducible factor-1α and caspase-3 in hypoxic bone marrow stroma is negatively regulated by the delayed production of substance P. *J. Immunol.* 167:4600-8, 2001. PMID:11591789
9. **Rameshwar P**, Zhu G, Donnelly RJ, Qian J, Ge H, Goldstein KR, Denny TN, Gascón P. The dynamics of bone marrow stromal cells in the proliferation of multipotent hematopoietic progenitors by substance P: An understanding of the effects of a neurotransmitter on the differentiating hematopoietic stem cell. *J. Neuroimmunol.* 121:22-31, 2001. PMID:11730936
10. Bandari, PS, Qian J, Yehia G, Seegopaul HP, Harrison JS, Gascon P, Fernandes H, **Rameshwar P**. Differences in the expression of neurokinin receptor in neural and bone marrow mesenchymal cells: Implications for neuronal expansion from bone marrow cells. *Neuropeptides* 36:13-21, 2002. PMID:12147210
11. **Rameshwar P**, Gascon P, Bandari PS, Joshi DD, Fernandes A, Dang A. Structural similarity between the bone marrow extracellular matrix protein and neurokinin 1 could be the limiting factor in the hematopoietic effects of substance P. *Can. J. Pharmacol. Physiol*. 80:475-81, 2002. PMID:12056556
12. Goldstein KR, Bhatt R, Barton BE, Zalcman S, **Rameshwar P**, Siegel A. (2002) Effects of hemispheric lateralization and site specificity on immune alterations induced by kindled temporal lobe seizures. *Brain Behav. Immunity* 16:706-719. PMID:12480501
13. **Rameshwar P**, Gascon P, Oh HS, Denny T, Zhu G, Ganea D. Vasoactive Intestinal Peptide (VIP) inhibits the proliferation of bone marrow progenitors through the VPAC1 receptor. *Exp.* *Hematol*. 30:1001-9, 2002. PMID:12225791
14. Song X, Mohr AM, **Rameshwar P**, Anjaria D, Fekete Z, Heary RF, Hauser CJ, Livingston DH. Delay in the differentiation of HL-60 cells following exposure to hypoxia. *J Surg Research* 108:243-249, 2002. PMID:12505048
15. Harrison JS, **Rameshwar P**, Chang V, Bandari P. Oxygen saturation in the bone marrow of healthy volunteers. *Blood* 99:394, 2002. (**LETTER**) PMID:11783438
16. Bandari PS, Qian J, Yehia G, Joshi DD, Maloof PB, Potian J, Oh HS, Gascon P, Harrison JS, **Rameshwar P**. *H*ematopoietic *G*rowth *F*actor *I*nducible *N*eurokinin-1 type (*HGFIN*) gene: A transmembrane protein that is similar to neurokinin-1 interacts with substance P. *Regulatory Peptides* 111:169-78, 2003. PMID:12609765
17. Bandari PS, Qian J, Oh HS, Potian JA, Yehia G, Harrison JS, **Rameshwar P**. Crosstalk between neurokinin receptors is relevant to hematopoietic regulation: Cloning and characterization of neurokinin-2 promoter. *J. Neuroimmunol.* 138:65-75, 2003. PMID:12742655
18. Bhatt R, **Rameshwar P**, Goldstein K, Siegel A. Effects of kindled seizures upon hematopoiesis in rats. *Epilepsy Res* 54:209-219, 2003. PMID:12837572
19. **Rameshwar P**, Ramkissoon SH, Sundararajan S, Gascón P. Defect in the lymphoid compartment might account for CD8+mediaed effects in the pathophysiology of Pure Red Cell Aplasia. *Clin Immunol* 108:248-56, 2003. PMID:14499248
20. Livingston DH, Anjaria D, Wu J, Hauser CJ, Chang V, Deitch EA, **Rameshwar P**. Bone marrow failure following severe injury in man. *Annals of Surg* 238:748-53, 2003. PMID:14578739
21. Potian JA, Aviv H, Ponzio NM, Harrison JS, **Rameshwar P**. Veto-like activity of mesenchymal stem cells (MSC): Functional discrimination between cellular responses to alloantigen and recall antigens. *J* *Immunol* 171:3426-34, 2003. PMID:14500637

**2004-2006:**

1. Rao G, Patel PS, Idler SP, Maloof P, Gascon P, Potian JA, **Rameshwar P**. Facilitating role of preprotachykinin-I gene in the integration of breast cancer cells within the stromal compartment of the bone marrow: A model of early cancer progression. *Cancer Res* 64: 2874-81, 2004. PMID: 15087406
2. Bhatt R, Bhatt S, **Rameshwar P**, Siegel A. Amygdaloid kindled seizures induce weight gain in rats: Dominance of the left hemisphere. *Physiol Behav* 82:581-7, 2004. PMID:15276825

# Oh HS, Moharita A, Potian JG, Whitehead IP, Livingston JC, Castro TA, Patel PS,Rameshwar P. Bone marrow stroma influences TGF-β production in breast cancer cells to regulate c-myc activation of the preprotachykinin-I gene in breast cancer cells. *Cancer Res* 64:6327-36, 2004. PMID: 15342422

1. Antoniou ES, Sund S, Homsi EN, Challenger L, **Rameshwar P**. A theoretical simulation of hematopoietic stem cells during oxygen fluctuations: Prediction of bone marrow responses during hemorrhagic shock. *Shock* 22:415-22, 2004. PMID:15489633
2. Fonseca RB, Mohr AM, Wang L, Clinton E, Sifri ZC, **Rameshwar P**, Livingston DH. (2004) Adrenergic modulation of erythropoiesis following severe injury is mediated through bone marrow stroma. *Surg* *Infect* 5:385-93. PMID:15744130
3. Cho KJ, Trzaska KA, Greco SJ, McArdle J, Wang FS, Ye JH, **Rameshwar P**. Neurons derived from human mesenchymal stem cells show synaptic transmission and can be induced to produce the neurotransmitter substance P by interleukin-1α. *Stem Cells* 23:383-91, 2005. PMID:15749933
4. Metz RL, Yehia G, Fernandes H, Donnelly R, **Rameshwar P**. Cloning and characterization of the 5′ flanking region of the HGFIN gene indicate a cooperative role among p53 and cytokine-mediated transcription factors: Relevance to cell cycle regulation. *Cell Cycle* 4:78-85, 2005. PMID:15684612
5. Mukerji I, Ramkissoon SH, Reddy KKR, **Rameshwar P**. Autocrine proliferation of neuroblastoma cells is partly mediated through neurokinin receptors: Relevance to bone metastasis. *J Neuro-Oncol* 71:91-8, 2005. PMID:156900122
6. Corcoran K, Patel PS, **Rameshwar P**. An in vitro method to select malignant cells from surgical biopsies of breast cancer patients. *Biol Proc Online* 7:7-15, 2005. PMID:15678170
7. Kang HS, Habib M, Chan J, Abavana C, Potian JA, Ponzio NM, **Rameshwar P**. A paradoxical role for IFNγ in the immune properties of mesenchymal stem cells during viral challenge. *Exp Hematol* 33:796-803, 2005. PMID:15963855
8. Bhatt R, Bhatt S, **Rameshwar P**, Siegel A. Long term kindled seizures induce alterations in hematopoietic functions: Role of serum leptin. *Epilepsy Res* 65:169-78, 2005. PMID:16040233
9. Patel H, Ramkissoon SH, Patel PS, **Rameshwar P**. Transformation of breast cells by truncated neurokinin-1 receptor is secondary to activation by preprotachykinin-I peptides. *Proc Natl Acad Sci USA* (Track II) 102:17436-41, 2005. PMID:16291810
10. Fonseca RB, Mohr AM, Wang L, Sifri ZC, **Rameshwar P**, Livingston DH. The impact of a hypercatecholamine state on erythropoiesis following severe injury and the role of IL-6. *J Trauma* 59:884-90, 2005. PMID:16374277
11. Castro TA, Cohen MC, **Rameshwar P**. The expression of neurokinin-1 and preprotachykinin-1 in breast cancer cells depends on the relative degree of invasive and metastatic potential. *Clin Exp* *Metastasis* 22:621-8, 2005. PMID:16642400
12. Sifri ZC, Kaiser VL, Ananthakrishnan P, Wang L, Mohr AM, Hauser CJ, **Rameshwar P**, Deitch EA, Livingston DH. Bone marrow failure in male rats following trauma/hemorrhagic shock (t/hs) is mediated by mesenteric lymph and modulated by castration. *Shock* 25:12-16, 2006. PMID: 16369180
13. Vishalakumar S, Patel H, Moharita AL, Harrison JS, **Rameshwar P**. The anti-proliferative effect of neurokinin-A on hematopoietic progenitor cells is partly mediated by p53 activating the 5′ flanking region of neurokinin-2 receptor. *Cell Signaling* 18:422-32, 2006. PMID:16009534
14. Bhatt R, Bhatt S, Hameed M, **Rameshwar P**, Siegel A. (2006) Amygdaloid kindled seizures can induce functional and pathological changes in thymus of rat: Role of the sympathetic nervous system. *Neurobiol* *Disease* 21:127-37. PMID:16084731
15. Harrison JS, Corcoran KE, Joshi D, Sophacleus C, **Rameshwar P**. Peripheral monocytes and CD4+ cells are potential sources for increased circulating levels of TGF-β and Substance P in autoimmune myelofibrosis. *Am J Hematol* 81:51-8, 2006. PMID:16369977
16. Chan JL, Tang KC, Patel AP, Bonilla LM, Pierobon N, Ponzio NM, **Rameshwar P**. Antigen presenting property of mesenchymal stem cells occurs during a narrow window at low levels of interferon-γ. *Blood* 107:4817-24, 2006. PMID:16493000

Singh AS, Caplan A, Corcoran KE, Fernandez JS, Preziosi M, **Rameshwar P**. Oncogenic and Metastatic Properties of Preprotachykinin-I and Neurokinin-1 genes. *Vascular Pharmacol* 45:235-42, 2006. PMID:16901764

Moharita AL, Taborga M, Corcoran KE, Bryan M, Patel PS, **Rameshwar P**. PMID: SDF-1α regulation in breast cancer cells contacting bone marrow stroma is critical for normal hematopoiesis. *Blood* 108:3245-52, 2006. PMID:16857992

**2007-2009:**

1. Corcoran KE, Patel N, **Rameshwar P**. Stromal Derived Growth Factor-1α: Another mediator in neural-emerging immune system through *Tac1* expression in bone marrow stromal cells. *J Immunol* 178:2075-82, 2007. PMID:17277111
2. Smirnov SV, Harbacheuski R, Lewis-Antes A, Zhu H, **Rameshwar P**, Kotenko SV.Bone-marrow-derived mesenchymal stem cells as a target for cytomegalovirus infection: Implications for hematopoiesis, self-renewal and differentiation potential. *Virology* 360:6-16, 2007. PMID:17113121
3. Ramkissoon SH, Patel PS, Taborga M, **Rameshwar P**. NFκB is central to the expression of truncated neurokinin-1 receptor in breast cancer: Implication for breast cancer cell quiescence within bone marrow stroma. *Cancer Res* 67:1653-59, 2007. PMID: 17308106
4. Sifri ZC, Cohen D, Ananthakrishnan P, Wang L, Kaiser VL, Mohr AM, Hauser CJ, **Rameshwar P**, Deitch EA, Livingston DH. (2007) Sex hormones affect bone marrow dysfunction after trauma and hemorrhagic shock. *Crit Care Med* 35:864-69. PMID:17255869
5. Corcoran KE, **Rameshwar P**.(2007)NFκB and not receptor desensitization accounts for the repressor effects of high SDF-1α levels on *Tac1* expression in non-tumorigenic breast cells. *Mol Cancer Res* 5:373-81. PMID:17409218
6. Greco SJ, Zhou C, Ye J-H, **Rameshwar P**. An interdisciplinary approach and characterization of neuronal cells transdifferentiated from human mesenchymal stem cells. *Stem Cells and Dev* 16:811-826, 2007. PMID:17999602
7. Greco SJ, **Rameshwar P**. Enhancing effect of IL-1α on neurogenesis from adult human mesenchymal stem cells: Implication for inflammatory mediators in regenerative medicine. *J Immunol* 179:3342-50, 2007. PMID:17709551
8. Trzaska KA, Kuzhikandathil EV, **Rameshwar P**. Specification of a dopaminergic phenotype from adult human mesenchymal stem cells. *Stem Cells* 25:2797-808, 2007. PMID:17656644
9. Greco SJ, **Rameshwar P**. MiRNAs regulate synthesis of the neurotransmitter substance P in human mesenchymal stem cell-derived neuronal cells. *Proc Natl Acad Sci USA* (Track II) 104:15484-9. 2007. PMID:17855557
10. Greco SJ, Smirnov SV, Murthy RG, **Rameshwar P.**Synergy between RE-1 silencer of transcription and NFκB in the repression of the neurotransmitter gene *Tac1* in human mesenchymal stem cells. *J Biol Chem* 282:282:30039-50, 2007. PMID:17709376

### Greco SJ, Liu K, Rameshwar P. Functional similarities among genes regulated by OCT4 in human mesenchymal and embryonic stem cells. *Stem Cells* 25:3143-54, 2007. (Discussed by Josh P. Roberts, *The Scientist*, 10th Oct, 2007). PMID:17761754

1. Metz R, Patel PS, Hameed M, Bryan M, **Rameshwar P**. Molecular analyses on the metastatic role of human *HGFIN*/*nmb* in breast cancer. *Breast Cancer Res* 9:R58, 2007. PMID:17845721
2. PatelN, Castillo M, **Rameshwar P**. An *in vitro* method to study the effects of hematopoietic regulators during immune and blood cell development. *Biol Procedures Online* 9:56-64, 2007. PMID:18335004
3. Murthy RG, Greco SJ, Taborga M, Patel N, **Rameshwar P**. *Tac1* regulation by RNA-binding protein and miRNA in bone marrow stroma: Implication for hematopoietic activity. *Brain Behav Immunity* 22:442-50, 2008. PMID:18061399
4. Tang KC, Trzaska KA, Smirnov SV,Kotenko SV, Schwander SK, Ellner JJ, **Rameshwar P**. Down regulation of MHC-II in mesenchymal stem cells at high IFNγ can be partly explained by cytoplasmic retention of CIITA. *J Immunol* 180:1826-33, 2008. PMID:18209080
5. Corcoran KE, Malhotra A, Molina CA, **Rameshwar P**. SDF-1α induces a non-canonical pathway to activate the endocrine-linked *Tac1* gene in non-tumorigenic breast cells. *J Mol Endocrinol* 40:113-123, 2008. PMID:18316470
6. Castillo MD, Trzaska KA, Greco SJ, Ponzio NM, **Rameshwar P**. Immunostimulatory effects of mesenchymal stem cell-derived neurons: Implications for stem cell therapy in allogeneic transplantations. *Clin Translational Sci* 1:27-34, 2008. (Article discussed in *Nature Reports Stem Cells*, Coombs A. 2008, Questioning the self cell, 5 June 2008 | doi:10.1038/stemcells.2008.86). PMID:20443815

# Corcoran KE, Trzaska KA, Fernandes H, Bryan M, Taborga M, Srinivas V, Packman K, Patel PS, Rameshwar P. Mesenchymal stem cells in early entry of breast cancer into bone marrow. *Plos* *ONE* 3:e2563, 2008. (Article highlighted in Medwirenews, By Andrew Czyzewski, 6/30/08) PMID:18575622

1. Trzaska KA, Reddy BY, Munoz JL, Li K-Y, Ye J-H, **Rameshwar P**. Loss of RE-1 Silencing Factor in mesenchymal stem cell-derived dopamine progenitors induces functional maturity. *Mol Cellular Neurosci* 39:285-290, 2008. PMID:18691653
2. Ricardo M, Trzaska KA, **Rameshwar P**. Neurokinin-A inhibits cell cycle activators in K562 cells and activates Smad 4 through a non-canonical pathway: A novel method in Neural-Hematopoietic Axis. *J Neuroimmunol* 204:85-91, 2008. PMID:18760489
3. Greco S, **Rameshwar P**. A method to generate human mesenchymal stem cell-derived neurons which express and are excited by multiple neurotransmitters. *Biol Procedure* 10:90-101, 2008. PMID:19461957
4. Liu K, Wong EW, Schutzer SE, Connell ND, Upadhyay A, Bryan M, **Rameshwar P**. Non-canonical effects of anthrax toxins on hematopoiesis: implications for vaccine development. *J Cellular Mol Med* 13:1907-1919, 2009. PMID:18752638
5. Reddy BY, Greco SJ, Patel PS, Trzaska KA, **Rameshwar P**. RE-1 silencing transcription factor shows tumor suppressor functions and negatively regulates the oncogenic *TAC1* in breast cancer cells. *Proc Natl Acad Sci USA* (Track II) 106:4408-13, 2009. PMID:19246391
6. Trzaska KA, King CC, Le K-Y, Kuzhikandathil EV, Nowycky MC, Ye J-H, **Rameshwar P**. Brain derived neurotrophic factor facilitates maturation of mesenchymal stem cell-derived dopamine progenitors to functional neurons. *J Neurochem* 110:1058-1069, 2009. PMID:19493166
7. Cho J, **Rameshwar P**, Sadoshima J. Distinct roles of GSK-3a and GSK-3β in mediating cardiomyocyte differentiation in murine bone marrow derived mesenchymal stem cells. *J Biol Chem* 284:36647-58, 2009. PMID:19858210

**2010-2012:**

1. Patel SA, Meyer J, Greco SJ, Corcoran KE, Bryan M, **Rameshwar P**. Mesenchymal stem cells protect breast cancer cells through regulatory T cells: Role of mesenchymal stem cell-derived TGF-β. *J Immunol* 184:5885 -5894, 2010. PMID:20382885
2. Penn A, Mohr AM, Shah SG, Sifri ZC, Kaiser VL, **Rameshwar P**, Livingston DH. Dose-response relationship between norepinephrine and erythropoiesis: Evidence for a critical threshold. *J Surg R*es 163:e85-90, 2010. PMID:20605580
3. Beiermeister KA, Keck BM, Sifri ZC, Elhassan IO, Hannoush EJ, Alzate WD, **Rameshwar P**, Livingston DH, Mohr AM. Hematopoietic progenitor cell mobilization is mediated through beta-2 and beta-3 receptors after injury. *J Trauma* 69:338-43, 2010. PMID:20699742
4. Lim PK, Bliss SA, Patel SA, Taborga M,Dave MA, Gregory LA, Greco SJ, Bryan M, Patel PS, **Rameshwar P**. Gap junction-mediated import of microRNA from bone marrow stromal cells can elicit cell cycle quiescence in breast cancer cells. *Cancer Res* 71:1550-1560, 2011. PMID: 21343399
5. Mohr AM, Elhassan IO, Hannoush EJ, Sifri ZC, Offin MD, Alzate WD, **Rameshwar P**, Livingston DH. Does Beta blockade post-injury prevent bone marrow suppression? *J Trauma* 70:1043-1050, 2011. PMID:21610422
6. Greco SJ, Patel SA, Bryan M, Pliner LF, Banerjee D, Rameshwar P. AMD3100-mediated production of interleukin-1 from mesenchymal stem cells is key to chemosensitivity of breast cancer cells. *Am J Cancer Res* 1:701-715, 2011. PMID:22016821
7. Elhassan IO, Hannoush EJ, Sifri ZC, Jones E, Alzate WD, Rameshwar P, Livingston DH, Mohr AM. Beta-Blockade prevents hematopoietic progenitor cell suppression after hemorrhagic shock. *Surg* *Infect* 12:273-278, 2011. PMID:21790478
8. Baranski GM, Offin MD, Sifri ZC, Elhassan IO, Hannoush EJ, Alzate WD, **Rameshwar P**, Livingston DH, Mohr AM. β-Blockade protection of bone marrow following trauma: The role of G-CSF. *J Surg* *Res* 170:325-31, 2011. PMID:21571320
9. **Rameshwar P**, Wong EW, Connell ND. Effects by anthrax toxins on hematopoiesis: A key role for cytokines as mediators. *Cytokines* 57:143-149, 2012. PMID:22082805
10. Patel N, Klassert TE, Greco SJ, Patel SA, Munoz JL, Reddy BY, Bryan M, Campbell N, Kokorina N, Sabaawy HE, Rameshwar P. Developmental regulation of *TAC1* in peptidergic-induced human mesenchymal stem cells: Implication for spinal cord injury in zebrafish. *Stem Cell Dev* 21:308-320, 2012. PMID:21671725
11. Kapoor S, Patel SA, Kartan S, Axelrod D, Capitle E, **Rameshwar P**. Tolerance-like mediated suppression by mesenchymal stem cells in dust mite allergic asthma. *J Allergy Clin Immunol* 129:1094-1101, 2012. (Cited and discussed on *World Biomed Frontiers*, <http://biomedfrontiers.org/allergy-2013-11-30/> , 2013-September – November) PMID:22196773
12. Luistro LL, Rosinski JA, Bian H, Bishayee S, **Rameshwar P**, Ponzio NM, Ritland SR. Development and characterization of a preclinical ovarian carcinoma model to investigate the mechanism of acquired resistance to trastuzumab. *Intl J Oncol* 41:639-651, 2012. PMID:22580986
13. Jessian L. Munoz, Greco SG, Patel SA, Sherman LS, Bhatt S, Bhatt RS, Shrensel JA, Guan Y-Z, Xie G, Ye J-H, **Rameshwar P**, Siegel A. Feline bone marrow-derived mesenchymal stromal cells (MSCs) show similar phenotype and functions with regards to neuronal differentiation as human MSCs. *Differentiation* 84:214-22, 2012. PMID:22824626
14. Navarro P, Ramkissoon SH, Shah S, Park JM, Murthy RG, Patel SA, Greco SJ, **Rameshwar P**. An indirect role for the oncomir-519b in the expression of truncated neurokinin-1 in breast cancer cells. *Exp* *Cell Res* 318:2604-2615, 2012. PMID:22981979
15. Patel SA, Ramkissoon SH, Bryan M, Pliner LF, Dontu G, Patel PS, Amiri S, Pine SR, **Rameshwar P**. Delineation of breast cancer cell hierarchy identifies the subset responsible for dormancy. *Scientific* *Reports* 2, 906, 2012; DOI:10.1038/srep00906. PMID:23205268

**2013-2015**

1. Chang VT, Yook C, **Rameshwar P**. Synergism betweenfibronectin and TGF-β1 in the production of substance P in monocytes of patients with myelofibrosis. *Leuk Lymphoma* 54:631-638, 2013. PMID:22906243
2. Park JM, Munoz JL, Won BW, Bliss SA, Greco SJ, Patel SA, Kandouz M, **Rameshwar P**. Exogenous CXCL12 activates protein kinase C to phosphorylate. *Cancer Lett* 331:84-91, 2013. PMID: 23262036
3. Hoover DJ, Zhu V, Chen R, Briley K, **Rameshwar P**, Cohen S, Coffman FD. Expression of the Chitinase Family Glycoprotein YKL-40 in Undifferentiated, Differentiated and Trans-Differentiated mesenchymal stem cells. *PloS One* 8:e62491, 2013. PMID:23671604
4. Rodgerson DO, Harris A, Giampapa VC, Greco SJ, O'Neill D, **Rameshwar P**. Novel Regenerative Solutions Induce Rapid Adipogenic Differentiation of Mesenchymal Stem Cells with No Evidence of Transformation or Osteogenic Differentiation. *Adv Stem Cells* Article ID 716906, DOI: 10.5171/2013. 716906, 2013.
5. Morelli SS, **Rameshwar P**, Goldsmith LT. Experimental Evidence for Bone Marrow as a Source of Nonhematopoietic Endometrial Stromal and Epithelial Compartment Cells in a Murine Model *Biol of Reprod* 89:1-7, 2013. PMID:23699390
6. Munoz JL, Bliss SA, Greco SJ, Ramkissoon SH, Ligon KL, **Rameshwar P**. Delivery of functional anti-miRNA-9 by mesenchymal stem cells-derived exosomes to Glioblastoma Multiforme conferred chemosensitivity. *Mol Ther - Nucleic Acids* 2:e126, 2013. (featured in Mesenchymal Stem Cell news 5.3, Oct 8, 2013) PMID: 24084846
7. Desai MB, Gavrilova T, Liu J, Patel SA, Kartan S, Greco SJ, Capitle E, **Rameshwar P**. Pollen-inducedantigen presentation by mesenchymal stem cells and T-cells from allergic rhinitis. *Clin* *Transl Immunol* 2: e7, 2013. PMID:25505949
8. Baranski GM, Pasupuleti LV, Sifri ZC, Cook KM, Alzate WD, **Rameshwar P**, Livingston DH, Mohr AM. Beta blockade protection of bone marrow following injury: A critical link between heart rate and immunomodulation. *J Bone Marrow Res* 1: 124, 2013. PMID:25621308
9. Marlow R, Honeth G, Lombardi S, Cariati M, Hessey S, Pipili A, Mariotti V, Buchupalli B, Foster K, Bonnet D, Grigoriadis A, **Rameshwar P**, Purushotham A, Tutt A, Dontu G. A novel model of dormancy for bone metastatic breast cancer cells. *Cancer Res* 73; 6886–99, 2013. PMID:24145351
10. Sarker MMH, Zhou MC, **Rameshwar P**, Hanover JA. Functions and roles of a protein associated factor. *Cell Biochem and Biophysics* 68: 577-82, 2014. PMID:24036680
11. Munoz JL, Rodriguez-Cruz V, Greco SJ, Ramkissoon SH, Ligon KL, Rameshwar P. Temozolomide resistance in glioblastoma cells occurs partly through epidermal growth factor receptor-mediated induction of connexin 43. *Cell Death Dis* 5:e1145, 2014. PMID:24675463
12. Sarker MMH, Zhou MC, **Rameshwar P**, Hanover JA. Functions and roles of proteins on diabetes. *Prog Biophysics Mol Biol* 114:2-7, 2014. PMID:24239502
13. Patel SA, Dave MA, Bliss SA,Giec-Ujda AB, Bryan M, Pliner LF, **Rameshwar P**. Treg/Th17 polarization by distinct subsets of breast cancer cells is dictated by the interaction with mesenchymal stem cells. *J Cancer Stem Cell Res* 2:e1003, 2014. PMID:25705705
14. Munoz JL, Rodriguez-Cruz V, Greco SJ, Nagula V, Scotto KW, **Rameshwar P.** Temozolomide induces the production of epidermal growth factor to regulate *MDR1* expression in glioblastoma cells. *Mol Cell Ther* 13:2399-2411, 2014. PMID:25053824
15. Munoz JL, Rodriguez-Cruz V, Ramkissoon SH, Ligon KL, Greco SJ, **Rameshwar P**. Temozolomide resistance in glioblastoma occurs by miRNA-9-targeted PTCH1, independent of sonic hedgehog level. *Oncotarget* 6:1190-1201, 2015. PMID:25595896
16. Guiro K, Patel SA, Greco S, **Rameshwar P**, Arinzeh TL. Investigating breast cancer cell behavior using tissue engineering scaffolds. *PLoS One* 10:e0118724, 2015. PMID:25837691
17. Munoz JL, Rodriguez-Cruz V, **Rameshwar P**. High expression of miR-9 in CD133+ glioblastoma cells in chemoresistance to temozolomide. *J Cancer Stem Cell* 3:e1003, 2015. PMID:25705705
18. Munoz JL, Walker ND, Scotto KW, **Rameshwar P**. Temozolomide competes for P-glycoprotein and contribute to chemoresistance in glioblastoma cells. *Cancer Lett* 367:69-75, 2015. PMID:26208431
19. Fernandez-Moure JS, Corradetti B, Chan P, Van Eps JL, Janecek T, **Rameshwar P**, Weiner BK, Tasciotti E. Enhanced osteogenic potential of mesenchymal stem cells from cortical bone: a comparative analysis. *Stem Cell Res* *Ther* 6:203, 2015. PMID:26503337

**2016-**

1. Nahas GR, Murthy RG, Patel SA. Ganta T, Greco SJ, **Rameshwar P**. The RNA-binding protein Musashi 1 stabilizes the onco tachykinin 1 mRNA in breast cancer cells to promote cell growth. *FASEB J* 30:149-159, 2016. PMID:26373800
2. Bliss SA,Sinha G, Sandiford OA, Williams L, Engelberth DJ, Guiro K, Isenalumhe LL, Greco SJ, Ayer S, Bryan M, Kumar R, Ponzio NM, **Rameshwar P**. Mesenchymal stem cell-derived exosomes stimulates cycling quiescence and early breast cancer dormancy in bone marrow. *Cancer Res* 76;5832-5844, 2016. PMID:27569215
3. Khader A, Sherman L, **Rameshwar P**, Arinzeh TL. Sodium Tungstate for promoting mesenchymal stem cell chondrogenesis. *Stem Cell Dev* 25:1909-1918, 2016. PMID:27615276
4. Greco SJ, Yehia G, Potian JA, Molina CA, **Rameshwar P**. Constitutive expression of inducible cyclic adenosine monophosphate early repressor (ICER) in cycling quiescent hematopoietic cells: Implications for aging hematopoietic stem cells. *Stem Cell Rev Reports* 13:116-126, 2017. PMID:27822872
5. Walker ND, Mourad Y, Liu K, Buxhoeveden M,Schoenberg C, Eloy JD, Wilson DJ, Brown LG, Botea A, Chaudhry F, Greco SJ, Ponzio NM,Pyrsopoulos N,Koneru B, Gubenko Y, **Rameshwar****P**. Steroid-mediated decrease in blood mesenchymal stem cells in liver transplant could impact long-term recovery. *Stem Cell Rev Reports* 13:644-658, 2017. PMID:28733800
6. Kakar SS, Parte S, Carter K, Joshua IG, Worth C, **Rameshwar P**, Ratajczak MZ. Withaferin A (WFA) inhibits tumor growth and metastasis by targeting ovarian cancer stem cells. *Oncotarget* 8:74494-74505, 2017. PMID:29088802
7. Wu Q, Pi L, Le Trinh T, Zuo C, Xia M, Jiao Y, Hou Z, Jo S, Puszyk W, Pham K, Nelson DR, Robertson K, Ostrov D, **Rameshwar P**, Xia CQ, Liu C. A Novel Vaccine Targeting Glypican-3 as a Treatment for Hepatocellular Carcinoma. *Mol Ther* 25:2299-2308, 2017. PMID:28865999
8. Geng K, Kumar S, Kimani SG, Kholodovych V, Kasikara C, Sandiford O, **Rameshwar P**, Kotenko SV, Birge RB. Requirement of gamma-carboxyglutamic acid modification and phosphatidylserine binding for the activation of TAM receptors by Gas6. *Frontiers Immunol*- Mol Innate Immunity 8:1521, 2017. PMID:29176978
9. Carter K, **Rameshwar P,** Ratajczak MZ, Kakar SS. Verrucarin J inhibits ovarian cancer and targets cancer stem cells. *Oncotarget* 8:92743-92756, 2017. PMID:29190952
10. Bliss SA, Paul S, Pobiarzyn PW, Ayer S, Sinha G, Pant S, Hilton H, Sharma N, Cunha MF, Engelberth DJ, Greco SJ, Bryan M, Kucia MJ, Kakar SS, Ratajczak MZ, **Rameshwar P**. Evaluation of a developmental hierarchy for breast cancer cells to assess risk-based patient selection for targeted treatment. *Sci Report* 8:367, 2018. PMID:29321622
11. Lobba ARM, Carreira ACO, Cerqueira OLD, Fujita A, DeOcesano-Pereira C, Osorio CAB, Soares FA, **Rameshwar P**, Sogayar MC. High CD90 (THY-1) expression positively correlates with cell transformation and worse prognosis in basal-like breast cancer tumors. *PLoS One* 13:e0199254, 2018. PMID: 29949609
12. Abdelbaset-Ismail A, Cymer M, Borkowska-Rzeszotek S, Brzeźniakiewicz-Janus K, **Rameshwar P**, Kakar SS, Ratajczak J, Ratajczak MZ. Bioactive Phospholipids Enhance Migration and Adhesion of Human Leukemic Cells by Inhibiting Heme Oxygenase 1 (HO-1) and Inducible Nitric Oxygenase Synthase (iNOS) in a p38 MAPK-Dependent Manner. *Stem Cell Rev Reports* PMID:30302660
13. Walker ND, Elias M, Guiro K, Bhatia R, Greco SJ, Bryan M, Gergues M, Sandiford OA, Ponzio NM, Leibovich SJ, **Rameshwar P**. Exosomes from differentially activated macrophages influence dormancy or resurgence of breast cancer cells within bone marrow stroma. Cell Death Dis (Revised manuscript submitted)
14. Munoz JL, Walker ND, Greco SJ, **Rameshwar P**. Cycling quiescence in temozolomide resistant glioblastoma cells is partly explained by microRNA-93 and -193-mediated decrease of Cyclin D. (Submitted).
15. Nahas GR,Sinha G, Shaker M, Sherman LS, Greco SJ, Boulad M, Silverio KA, Mariotti V, **Rameshwar P**. The RNA-binding protein Musashi 1 protects breast cancer by binding to binding to genes linked to multipotency and PD-1L/1. (Submitted).
16. Greco SJ, Sinha G, Ayer S, Guiro K, Sandiford OA, Jung S, **Rameshwar P**. Hematopoietic restoration of the aged mobilized blood by its young counterpart correlated with functional increase in natural killer cells. (Submitted)

**Editorials/Commentaries/Perspectives/Research Highlight/Short Communication:**

1. **Rameshwar P**. (2008) IFNγ and B7-H1 in the immunology of mesenchymal stem cells. *Cell Res* 18:805-806. PMID:18679174 (**EDITORIAL)**
2. **Rameshwar P**. (2008) Is substance P central to the biology of acute lymphoblastic leukemia? *Leuk Res* 32:3-4.PMID:17618685 **(EDITORIAL)**
3. **Rameshwar P.** (2009) Casting doubt on the safety of `off-the-shelf' mesenchymal stem cells for cell therapy. *Mol Therapy* 7:216-218. PMID:19180113 (**COMMENTARY**).
4. **Rameshwar P.** (2009) Microenvironment at tissue injury, a key focus for efficient stem cell therapy: A discussion of Mesenchymal Stem Cells. *World J Stem Cells* 1:3-7. (**EDITORIAL)**
5. **Rameshwar P.** Breast cancer cell dormancy in bone marrow: Potential therapeutic targets within the marrow microenvironment. *Expert* *Rev Anti Cancer Therapy* 10:129-132, 2010. (**EDITORIAL)**
6. **Rameshwar P**. Post-identification of Cancer Stem Cell: Ethical and Scientific Dilemmas in Therapeutic Development? *J Stem Cell Ther* doi: 10.4172/2157-7633.1000e101, 2011. **(EDITORIAL)**
7. **Rameshwar P.** Implications for breast cancer dormancy in other areas of medicine. *Breast* *Cancer: Targets and Therapy* 4:193-195, 2012. **(EDITORIAL)**
8. **Rameshwar P.** Would cancer stem cells affect the future investment in stem cell therapy? 2:26-29, 2012. **(EDITORIAL)**
9. **Rameshwar P.** Mesenchymal Stem Cells can be a Conduit for the Delivery of Therapeutic MicroRNA. *Stem Cell Res Ther* 3:1, 2013. **(EDITORIAL)**
10. Bhartiya D, Boheler K, **Rameshwar P**. (2013) Multipotent to Pluripotent Properties of Adult Stem Cells. *Stem Cell Intl* 2013:813780. **(EDITORIAL)**
11. Bliss SA, Greco SJ, **Rameshwar P**. (2014) Hierarchy of breast cancer cells: Key to reverse dormancy for therapeutic intervention. *Stem Cells Transl Med* 3:782-786. (**PERSPECTIVE)**
12. **Rameshwar P**. Future challenges to target cancer stem cells. *Enliven: Challenges in Cancer* 1:e2, 2014. **(SHORT COMMUNICATION)**
13. Singh SR, Tan M, **Rameshwar P**. Cancer metabolism: Targeting metabolic pathways in cancer therapy. *Cancer Let* 356:147-148, 2015 **(EDITORIAL)**
14. Munoz JL, Rodriguez-Cruz V, Walker ND, Greco SJ, **Rameshwar P**. Temozolomide resistance and tumor recurrence: Halting the Hedgehog. *Cancer Cell Microenvironment* 2:e747, 2015. **(Research Highlight)**
15. **Rameshwar P**. The economic impact in biosecurity breach – The perspective of a translational scientist. *J Cyber Security* 5: 1-4, 2016. (**PERSPECTIVE**)
16. Singh SR, **Rameshwar P**, Siegel P. Targeting tumor microenvironment in cancer therapy, *Cancer* *Lett* 380:203-204, 2016. PMID:27060765 (**EDITORIAL**)

B. Books, Monographs and Chapters

Book Edited:

1. Cancer Metastasis (2010). Transworld Research Network, Kerala, India.
2. MicroRNA in development and in the progression of cancer (2013) Co-editor, Shree Ram Singh, Springer, USA.
3. The stem cell microenvironment and its role in regenerative medicine and cancer pathogenesis (2016). Co-editors Cristian Pablo Pennisi, Mayuri Sinha Prasad, River Publisher, Aalborg, Denmark.
4. Exosomes, Stem Cells, MicroRNA – Aging, Cancer and Age-related (2018) Co-editors, Karl Mettinger and Vinod Kumar, Springer Nature, Gewerbestrasse, Switzerland.

Chapters:

1. **Rameshwar P**, Gascón P. Neural regulation of hematopoiesis by the tachykinins. Implications for a "fine-tuned" hematopoietic regulation. *In* Molecular Biology of Hematopoiesis (N.G. Abraham, S. Asano, G. Brittinger, and R. Shadduck, eds). p. 463-470, Plenum Press, NY, 1996.
2. Qian J, Haider A, Teli T, Tuan T, Gascón P, **Rameshwar P**. Effects of SP(1-4) on cobblestone-forming cells. Implications for endopeptidases as hematopoietic regulators. *In* Proceedings of the 10th Int’l Congress of Immunol. (G.P. Talwar, I. Nath, N.K. Ganguly, K.V.S. Rao, eds.), p. 575-581,Monduzzi Editore, Bologna, Italy, 1998.
3. Keller SE, Schleifer SJ, Bartlett JA, Shiflett SC, **Rameshwar P**. Stress, Depression, Immunity, and Health. *In* Psychoneuroimmunology: Stress, Mental Disorders and Health. (K. Goodkin, A.P. Visser, eds.) p. 1-25, Am Psych Press, Inc., Washington, DC, 1999.
4. Bandari PS, Oh HS, Yook C, Potian JA, Fernandes NF, Chang VT, **Rameshwar P**. Neurokinin-1 as a potential target for treatment of myelofibrosis. *In* Proceedings of the 7th Annual Meeting of the European Haematology Association. p. 243-248, Monduzzi Editore, Bologna, Florence, Italy, 2002.
5. Gascon P, **Rameshwar P**. Transforming growth factor beta-1 (TGF-β1) in myelofibrosis. *In* Molecular Basis of Chronic Myeloproliferative Disorders. (P.E. Petrides, H.L. Pahl, eds.), p. 147-155, Springer-Verlag, Berlin, 2004.
6. Preziosi M, Arun S. Singh AS, Corcoran KE, Wong E, Ramkissoon SH, Mukerji I, **Rameshwar P**. Chapter 5, Parallels among subsets of breast cancer in bone marrow, leukemia and hematopoietic stem cells. *In* Res Adv in Cancer, p. 139-155, Global Res Network, 2005.
7. **Rameshwar P**. Chapter 5, Mesenchymal Stem Cells as bone marrow `gate-keepers': Implications for hematological disorder. *In* Stem Cell Research Advances; Ed. Lydia P. Davenport; p.137-147, Nova Publishers, Hauppauge, NY, 2007.
8. Trzaska KA, Greco SJ, Moore L, **Rameshwar P**. Part II/Chapter 8, Mesenchymal Stem Cells and Transdifferentiated Neurons in Crosstalk with the Tissue Microenvironment: Implications for Translational Science. *In* Neurovascular Medicine: Pursuing Cellular Longevity for Healthy Aging, p.215-230, Oxford Univ Press (Ed, Maiese K), 2008.
9. **Rameshwar P**, Bardeguez A. Part I/Chapter 5, Molecular Basis of Cytokine Function. *In* The Neuroimmunological Basis of Behavior and Mental Disorders, p.59-70, Springer-Verlag (Eds, Siegel A & Zalcman S), 2008.
10. Navarro P, Castillo M, **Rameshwar P**. Chapter 3, Immune threat to neurogenesis from human adult mesenchymal stem cells. *In* Stem Cell Applications in Diseases; Ed. Burnsides WB & Ellsley RH; Nova Publishers, Hauppauge, NY, 2008.
11. King C, Patel S, Arinzeh-Livingston T, **Rameshwar P**. Chapter 17, Dual roles of mesenchymal stem cells in spinal cord injury: Cell replacement therapy and as a model system to understand axonal repair. *In* Perspectives in Stem Cells: From tools for studying mechanisms of neuronal differentiation to towards therapy. p. 271-284, Springer Dordrecht Heidelberg London New York (Ed, Hennig U), 2009.
12. Lim P, Patel SA, **Rameshwar P**. Chapter 17, Effective tissue repair and immunomodulation by mesenchymal stem cells within a milieu of cytokines. *In* Stem Cell-Based Tissue Repair, p. 338-57, Royal Society of Chemistry Publishing, Cambridge, UK (Eds, Gorodetsky R & Schäfer R), 2010.
13. Patel SA, **Rameshwar P**. Co-existence of hematopoietic stem cells and cancer cells during cancer quiescence. *In* Stem Cells: Organogenesis and Cancer. p. 139-51, Transworld Res Network, Kerala, India (Eds. Singh SR, Mishra PK, Hou SX), 2010.
14. Trzaska KA, Ramkissoon S, Harrison JS, **Rameshwar P**. Chapter 4, The Biology of Metastatic Neuroblastoma. *In* Cancer Metastasis. p.39-52, (Ed, **P.** **Rameshwar**), Transworld Res Network, Kerala, India. 2010.
15. Murthy RG, Fernandez J, **Rameshwar P**. Chapter 3, Molecular and Cellular Events Preceding Bone Metastasis of Breast Cancer. *In* Cancer Metastasis. p. 29-37, (Ed, **P.** **Rameshwar**), Transworld Res Network, Kerala, India. 2010.
16. Metz RL, **Rameshwar P**. Chapter 5, HGFIN/Osteoactivin: A developing link in breast cancer biology. *In* Cancer Metastasis, p.53-62, (Ed, **P. Rameshwar**), Transworld Res Network, Kerala, India. 2010.
17. Homsi E, Grumm K, **Rameshwar P**.Chapter 11,Predictive development of cancer as stem cell therapy approaches the bedside. *In* Cancer Metastasis, p. 116-125, (Ed, **P. Rameshwar**), Transworld Res Network, Kerala, India. 2010.
18. Trzaska KA, **Rameshwar P**. Chapter 22, Dopaminergic neuronal differentiation protocol for human mesenchymal stem cells. *In* Methods Mol Biol, (Vemuri M, Chase LG, Rao MS, Eds), vol 698, p. 295-303, Human Press, 2011.
19. Munoz JL, Patel SA, Lim PK, Giec A, Silverio KA, Pliner LF, **Rameshwar P**. Potential Confounds in Stem Cell Therapy: A Case Study of Mesenchymal Stem Cells and Cancer Stem Cells. *In* Adult Stem Cell Standardization (Ed, P. DiNardo), p. 223-238, River Publisher, Aalborg, Denmark, 2011.
20. Greco SJ, Patel SA, **Rameshwar P**. A reporter assay to detect transfer and targeting of miRNAs in Stem Cell-Breast Cancer Co-cultures. *In* Somatic Stem Cells (Ed. Singh, Shree Ram) *Methods and Protocols Series*, *Methods Mol Biol*. Humana Press, Vol 879, p. 195-201, 2012.
21. Greco SJ, **Rameshwar P**. Stem cell utility in anti-aging medicine: Focus on the tissue microenvironment. *In* The principles and practice of anti-aging medicine for the clinical physician. (Ed. Vincent C. Giampapa), River Publishers, Aalborg, Denmark, 2012.
22. King C, Patel SA, **Rameshwar P**. Chapter 76, The role of human postnatal bone marrow-derived mesenchymal stem cells and their importance in growth, spinal cord injury and other neurodegenerative disorders. *In* Handbook of growth and growth monitoring in health and disease. Vol. 1, p. 1273-89, (Ed. Victor R. Preddy), Springer, 2012.
23. **Rameshwar P**. Chapter 1, Current thoughts on the therapeutic potential of stem cell. *In* Methods Mol Biol (Somatic stem cells: methods and protocols) vol. 879, p. 3-26, (Ed. Shree Singh), Humana Press, 2012.
24. Greco SJ, Patel SA, **Rameshwar P**. Chapter 13, A reporter assay to detect transfer and targeting of miRNAs in stem cell-breast cancer co-cultures, *In* Methods Mol Biol (Somatic stem cells: methods and protocols) vol. 879, p. 3-26, (Ed. Shree Singh), Humana Press, 2012.
25. Greco SJ, **Rameshwar P**. (2013) Analysis of the transfer of circulating microRNA between cells mediated by gap junction. *In* Circulating miRNA, *Methods and Protocol Series, Mol Biol* (Ed. Kosaka, Nobuyoshi), Humana Press, vol 1024, p.87-96, 2013.

# Munoz J, Greco SJ, Rameshwar P. MicroRNA in the pathophysiology of glioblastoma. *In* Tumors of the central nervous system. (Ed. MA Hyat), Springer, DOI 10.1007/978-94-007-7037-9\_10, 2013.

1. Munoz JL, Park JM, Bliss SA, **Rameshwar P**. Chapter 21, Cancer cell dormancy: Potential therapeutic targets to eradicate cancer cells within the niche. *In* Trends in stem cell proliferation and cancer research. (Eds. RR Resende & H Ulrich), p. 559-571, Springer, 2013.
2. Lim PK, Reddy BY, **Rameshwar P**. Toward Personalizing Stem Cell Therapeutic Potential: Challenges and Opportunities for Regenerative Medicine. *In* Handbook of personized medicine in nanotechnology drug delivery and therapy. (Ed. E.S. Vizirianakis), Pan Standford Publishing Pte. Ltd, Chap. 25, p. 1247-1270, 2013.
3. Mohan RD, Bibber B, Sinha G, Patel SA. **Rameshwar P**. MicroRNAs in stem cells and cancer stem cells. *In* MicroRNA in development and in the progression of cancer. (Eds SR Singh, P Rameshwar), Springer, Chapter 5, p.81, 2014.
4. Nahas GR, Bibber BM, **Rameshwar P**. MicroRNAs in epithelial mesenchymal transition and breast cancer progression. *In* MicroRNA in development and in the progression of cancer. (Eds SR Singh, P Rameshwar), Springer, Chapter 6, p. 103, 2014.
5. Greco SJ, Munoz JL, **Rameshwar P**. MicroRNA cancer therapeutics and the challenge of drug delivery. *In* MicroRNA in development and in the progression of cancer. (Eds SR Singh, P Rameshwar), Springer, Chapter 18, p. 349, 2014.
6. Sinha G, Bliss SA, Nagula V, Sherman LS, **Rameshwar P**. Immune properties of mesenchymal stem cells in the translation of neural disorders. *In* Innovative strategies in tissue engineering. (Eds. M Prasad & P Di Nardo), River Publishers, Aalborg, Denmark, p. 79-95, 2015.
7. Munoz JL, Rodriguez-Cruz V, **Rameshwar P.** MicroRNA and Gap Junctions in Glioblastoma Cells: Implications for Cellular Therapy. *In* Intercellular communication in cancer. (Ed. Kandouz M), Springer, Chapter 3, p. 43-51, 2015.
8. Bliss SA, **Rameshwar P**. Stem cell-based gene delivery methods. *In* Advances and Challenges in the Delivery of Nucleic Acid Therapeutics (Volumes 2), (Ed. Olivia Merkel), Future Medicine, Chapter 11, p. 31-40, 2015. (ebook series for `Future Science/Medicine eBooks’)
9. Guiro K, Sinha G, Sandiford O, Arinzeh TL, **Rameshwar P**. Cancer stem cells: Issues with in vitro expansion and model systems. *In* Working with stem cells (Eds. Henning Ulrich and Priscilla Davidson Negraes), Springer, Switzerland, Chapter 8, p. 127-142, 2016.
10. Gavrilova T, Kartan S, Sherman LS, Sandiford OA, **Rameshwar P**. Evaluating mesenchymal stem cells for treatment of asthma and allergic rhinitis. *In* The Biology and Therapeutic Application of Mesenchymal Cells. (Ed. K. Atkinson) John Wiley and Sons, Inc. Hoboken, New Jersey, USA. Chapter 39, p. 573-578, 2016.
11. Sinha G, Bliss SA, Sherman LS, Sandiford OA, Nagula V, **Rameshwar P**. Mesenchymal Stem Cells and Pathotropism: Regenerative: Potential and Safety Concerns. *In* The Stem Cell microenvironment and its role in regenerative medicine and cancer pathogenesis. (Eds, Pennisi CP, Orasad MS, Rameshwar P), River Publisher, Aalborg, Denmark, Chapter 6, p. 57-84, 2016.
12. Craciun L, **Rameshwar P**, Greco SJ, Deisenroth T, Hendricks-Guy C. Effect of Bioactive Growth Surfaces on Human Mesenchymal Stem Cells: A Pilot Biomarker Study to Assess Growth and Differentiation. *In* The Stem Cell microenvironment and its role in regenerative medicine and cancer pathogenesis. (Eds, Pennisi CP, Orasad MS, Rameshwar P), River Publisher, Aalborg, Denmark, Chapter 6, p. 57-84, 2016.
13. Walker ND, Nahas GR, Munoz J, Lucas J, Pobiarzyn P, **Rameshwar P**. Mesenchymal Stem/Stromal Cells and the Tumor Immune. *In* Mesenchymal stromal cells as tumor stromal modulators (Eds Bolontrade MF, Garcia MC) Elsevier, Chapter 17, p. 425-474, 2017.
14. **Rameshwar P**, Patel J, Aleynik A. Stem cells for therapeutic delivery of mediators and drugs. *In* Cell Therapy and Potential of Regenerative Medicine (Ed. Nicola Daniele) Bentham Science, Chapter 6, p. 105-120, 2017.
15. Sandiford OA, Moore CA, Du J, Boulad M, Gergues M, Eltouky H, **Rameshwar P**. Human aging and cancer: Role of miRNA in tumor microenvironment. In Exosomes, Stem Cells, MicroRNA – Aging, Cancer and Age-related (Eds Mettinger K, Rameshwar P, Kumar V), Springer Nature, Gewerbestrasse, Switzerland Chapter 6, p. 145-160, 2018.
16. Sherman LS, Condé-Green A, Kotamarti VS, Lee ES, **Rameshwar P**. Enzyme-Free Isolation of Adipose-Derived Mesenchymal Stem Cells. *Methods Mol Biol* 2018;1842:203-206. PMID:30196411
17. Moore CA, Shah NN, Smith CP, **Rameshwar P**. 3D Bioprinting and Stem Cells. *Methods Mol Biol* 2018;1842:93-103. PMID:30196404
18. Conaty P, Sherman LS, Naaldijk Y, Ulrich H, Stolzing A, **Rameshwar P**. Methods of Mesenchymal Stem Cell Homing to the Blood-Brain Barrier. *Methods Mol Biol* 2018;1842:81-91. PMID:30196403
19. **Rameshwar P**, Moore CA, Shah NN, Smith CP. An Update on the Therapeutic Potential of Stem Cells. *Methods Mol Biol* 2018;1842:3-27. PMID:30196398

C. Patents Held

1. Human Preprotachykinin gene promoter. Inventors: **Pranela Rameshwar** and Pedro Gascon. (US Patent 7,341,867, Issued 11/08).
2. Method of Reducing Fibrosis. Inventors: **Pranela Rameshwar** and Pedro Gascon. (NJMS-97-17; Identification Number: 0714201-97-007).
3. Use of human umbilical cord blood for adoptive therapy; Inventors: Nicholas M. Ponzio and **Pranela Rameshwar**. (UMDNJ Docket No. 97-33, US Patent No. 60/171,970, Filed 12/23/99).
4. Feline NK1 Receptor. Inventors: Allan Siegel, **Pranela Rameshwar** and Ruihong Yao. (NJMS-98-27; Identification #0714201-98-0005).
5. Hematopoietic Growth Factor Inducible Neurokinin-1 (HGFIN) Type Gene Which Encodes a Novel Transmembrane Glycoprotein. Inventor: **Pranela Rameshwar**. (U.S. Patent No. 6,939,955; Issued on 9/6/05).
6. Novel Method for Quantitating Neuropeptides. Inventor: **Pranela Rameshwar** and Pedro Gascon; (NJMS-97-23; Identification Number: 0714201-0008).
7. Novel Compositions and Methods for the Regulation of Proliferation of Stem Cells. Inventor: **Pranela Rameshwar** and Pedro Gascon. (NJMS-02-20; Identification Numbers: 0714201-00-0007 and 0714201-02-0009; Patent ID No. 42965; US CIP Pat. No. 10/154,332).
8. Selection of malignant cells in breast tissues. Inventor: **Pranela Rameshwar**. (NJMS 04-43, No 60/670,808; Filed 4/13/05).
9. Gap-junctions as a mediator in the quiescence of breast cancer cells in the bone marrow. Inventor: **Pranela Rameshwar**. (NJMS 06-40).
10. Combination therapy for Breast Cancer Treatment. Inventor: **Pranela Rameshwar**. (#61/216,266; NJMS 09-19)
11. US Application, “Method for Producing a functional Neuron” Inventor: **Pranela Rameshwar** (US 7,807,462 B2)
12. Provisional Application, “Immunomodulating Compositions and Methods” Inventor: **Pranela Rameshwar** (NJMS 11-111)
13. U.S. Provisional Application, “Compositions and Methods for Diagnosis and Treatment of Breast Cancer”, US2012/0295804 Inventors: **Pranela Rameshwar**, Margarette Bryan, Lillian Pliner.
14. US Patent, “Method of reversing carboplatin resistance by inhibition of HGFIN” Inventor: **Pranela Rameshwar** (Patent Number 8,383,806)
15. RU Docket, S2016-052, “3D in vitro model for breast cancer dormancy” Co-inventor: Pranela Rameshwar (Inventor: Treena Arinzeh, NJIT)

D. Other Articles

**INVITED REVIEWS:**

1. **Rameshwar P**, Gascón P. Hematopoietic regulation mediated by interactions among the neurokinins and cytokines. *Leuk Lymphoma* 28:1-10, 1998. PMID:9498698
2. **Rameshwar P**, Gascón P. Hematopoietic modulation by the tachykinins. *Acta Hematologica* 98:59-64, 1997. PMID:9286300
3. **Rameshwar P**. Substance P: A regulatory neuropeptide for hematopoiesis and immune functions. *Clin Immunol Immunopathol* 85:129-33, 1997.
4. **Rameshwar P**, Oh HS, Yook C, Gascon P, Chang VT. Substance P-Fibronectin-Cytokine interactions in myeloproliferative disorder with bone marrow fibrosis. *Acta* *Hematologica* 109:1-10, 2003*.*
5. Greco SJ, Corcoran KE, Cho KJ, **Rameshwar P**. Tachykinins in the emerging immune system: Relevance to bone marrow homeostasis and maintenance of hematopoietic stem cells. *Frontiers in Biosci* 9:1782-93, 2004.
6. Moharita A, Harrison JS, **Rameshwar P**. Neurokinin receptors and subtypes as potential targets in breast cancer: Relevance to bone marrow metastasis. *Drug Design Reviews* 1:297-302, 2004.
7. Kang HS, Trzaska KA, Corcoran K, Chang VT, **Rameshwar P**. (2004) Neurokinin Receptors: Relevance to the emerging immune system. *Archivum Immunologiae et Therapiae Experimentalis* 52:338-47.
8. Claps CM, Corcoran KE, Cho KJ, **Rameshwar P**. Stromal derived factor-1 as a beacon for stem cell homing in development and injury. *Curr Neurovascular Res* 4:319-29, 2005.

# Greco SJ, Trzaska KA, Tang K,Taborga M, Rameshwar P. Current issues of neurotransmitter production in neurons derived from adult stem cells. *Curr Topics in Neurochem* 4:61-70, 2005.

1. Ramkissoon SH, Patel HJ, Taborga M, **Rameshwar P**. G-protein coupled receptors in haematopoietic disruption. *Expert Opin on Biol Therapy* 6:109-20, 2006.

# Taborga M, Corcoran KE, Fernandes N, Ramkissoon SH, Rameshwar P. G-coupled Protein Receptors and Breast Cancer Progression: Potential Drug Targets. *Mini Rev in Med Chem* 7:245-51, 2007.

1. **Rameshwar P.** Implication of possible therapies targeted for tachykinergic system with the biology of neurokinin receptors and emerging related proteins. Recent Patents on CNS Drug Discovery 2:79-84, 2007.
2. Trzaska KA, **Rameshwar P**. Current advances in the treatment of Parkinson’s Disease with stem cells. *Curr Neurovascular Res* 4:99-109, 2007.
3. Castillo M, Liu K, Bonilla L, **Rameshwar P**. The immune properties of Mesenchymal Stem Cells. *Intl J* *Biomed Sci* 3:100-104, 2007.
4. Murthy RG, Reddy BY, Ruggiero JE, **Rameshwar P**. Tachykinins and hematopoietic stem cell functions: implications in clinical disorders and tissue regeneration. *Front Biosci* 12:4779-87, 2007.
5. Liu K, Castillo DM, Murthy RG, Patel N, **Rameshwar P**. Tachykinins and Hematopoiesis. *Clinica* *Chimica Acta* 385:28-34, 2007.
6. Reddy BY, Trzaska KA, Murthy RG, Navarro P, **Rameshwar P**. (2008) Neurokinin receptors as potential targets in breast cancer treatment. *Curr Drug Discov Technol* 5:15-19.
7. Patel SA, Sherman L, Munoz J, Rameshwar P. Immunological Properties of Mesenchymal stem cells and clinical implications. *Archivum Immunologiae et Therapiae Experimentalis* 56:1-8, 2008.
8. Trzaska KA, Castillo MD, **Rameshwar P**. Adult mesenchymal stem cells in neural regeneration and repair: current advances and future prospects. *Mol Med Reports* 1:307-316, 2008.
9. Greco SJ, **Rameshwar P**. Microenvironmental considerations in the application of human mesenchymal stem cells in regenerative therapies. *Biologics* 2:699-705, 2008.
10. Patel S, Heinrich A, Reddy B, Srinivas B, Heidaran N, **Rameshwar P.** The Multifaceted Roles of Stem cells in breast cancer biology. *J Oncol* 2008: 425895, 2008.
11. Heinrich AC, Patel SA, Reddy BY, Milton R, **Rameshwar P**. Multi- and Inter-disciplinary science in personalized delivery of stem cells for tissue repair. *Current Stem Cell Res* *Ther* 4:16-22, 2009.
12. Patel SA, Heinrich AC, Reddy BY, **Rameshwar P**. Inflammatory mediators: Parallels between cancer biology and stem cell therapy. *J Inflammation* 2:13-19, 2009.
13. **Rameshwar P**. Potential novel targets in breast cancer. *Curr Pharmaceutical Biotechnol* 10:148-53, 2009.
14. Greco SJ, **Rameshwar P**. Recent Advances and Novel Approaches in Deriving Neurons from Stem Cells.*Molecular BioSystems* 6:324-328, 2010.
15. **Rameshwar P**, Qiu H, Vatner SF. Stem cells in cardiac repair in an inflammatory microenvironment. *Minerva* *Cardioangiologica* 58:127-146, 2010. PMID:20145600
16. Patel SA, Ndabahaliye A, Lim PK, Milton R, **Rameshwar P**. Challenges in the development of future treatments for breast cancer stem cells. *Breast Cancer* 2:1-11, 2010.
17. Patel SA, King CC, Lim PK, Habiba U, Dave M, Porecha R, **Rameshwar P**. Personalizing Stem Cell Research and Therapy: The Arduous Road Ahead or Missed Opportunity? *Curr Pharmacogenomics and Personalized Med* 8:25-36, 2010.

# Gregory LA, Ricart RA, Patel SA, Lim PK, Rameshwar P. MicroRNAs, Gap Junctional Intercellular Communication and Mesenchymal Stem Cells in Breast Cancer Metastasis. *Current Cancer Therapy Review* 7:176-183, 2010.

1. Klassert TE, Patel SA, **Rameshwar P**. Tachykinins and neurokinin receptors in bone marrow functions: neural-hematopoietic link. *J Receptor, Ligand and Channel Res* 3:51-61, 2010.
2. Lim PK, Patel SA, Gregory LA, **Rameshwar P**. Neurogenesis: Role for microRNAs and Mesenchymal Stem Cells in Pathological States. *Curr Med Chem* 17:2159-67, 2010.
3. Helmy KY, Patel SA, Silverio K, Pliner L, **Rameshwar P**. Stem cells and regenerative medicine: accomplishments to date and future promise. *Therapeutic Delivery* 1:693-705, 2010. PMID:21113422
4. Patel SA, Dave MA, Murthy RG, Helmy KY, **Rameshwar P**. Metastatic breast cancer cells in the bone marrow microenvironment: novel insights into oncoprotection. *Oncol Rev* 5:93-102, 2011.
5. Sherman LS, Munoz JL, Patel SA, Dave MA, Paige I, **Rameshwar P**. Movingfrom the laboratory bench to patients’ bedside: Considerations for effective therapy with stem cells. *Clin Trans Sci* 4:380-6, 2011. PMID:22029813
6. Patel SA, **Rameshwar P**. Stem Cell Transplantation for Hematological Malignancies: Prospects for Personalized Medicine and Co-therapy with Mesenchymal Stem Cells. *Curr Pharmacogenomics Person* *Med* 9:229-239, 2011. PMID:21892378
7. Patel SA, **Rameshwar P**. Exploring a stem cell basis to identify novel treatment for human malignancies. *J Stem Cells* 6:233-243, 2011. PMID:23550340
8. Reddy B, Lim P, Silverio K, Patel S, Wong BW, **Rameshwar P**. The microenvironmental effect in the progression, metastasis and dormancy of breast cancer within bone marrow. *Intl J* *Breast Cancer* 2012:721659, 2012. PMID:22482060
9. **Rameshwar P.** The Tachykinergic System as Avenues for Drug Intervention. *Recent Patents on CNS Drug Discov* 1:173-180, 2012.
10. Greco SG, **Rameshwar P**. Mesenchymal stem cells in drug/gene delivery: implications for cell therapy. *Ther Delivery* 3: 997-1004, 2012.
11. Nahas GR, Patel SA, Bliss SA, **Rameshwar P**. Can breast cancer stem cells evade the immune system? *Curr Med Chem* 19:6036-6049, 2012. PMID:22963570
12. Helmy KY, Patel SA, Nahas GR, **Rameshwar P**. Cancer immunotherapy: accomplishments to date and future promise. *Ther Delivery* 4:1307-1320, 2013. PMID:24116914
13. Bibber B, Sinha G, Lobba ARM, Greco S, **Rameshwar P**. A review of stem cell translation and potential confounds by cancer stem cells. *Stem Cell Int’l* 2013:241048, 2013. PMID:24385986
14. Aleynik A, Gernavage KM, Mourad YSH, Sherman LS, Liu K, Gubenko YA, **Rameshwar P**. Stem cell delivery of therapies for brain disorders. *Clin Transl Med* 3:24, 2014.
15. Mariotti V, Greco SJ, Mohan RD, Nahas GR, **Rameshwar P**. Stem cell in alternative treatments for brain tumors: potential for gene delivery. [*Mol Cell Ther*](http://www.ncbi.nlm.nih.gov/pubmed/26056591) 2:24, 2014. PMID:26056591
16. Nahas G, Bliss SA, Sinha G, Ganta T, Greco SJ, **Rameshwar P**. Is reduction of tumor burden sufficient for the 21st century? *Cancer Lett* 356:149-155, 2015. PMID:24632530
17. Sinha G, **Rameshwar P**. N-cadherin in cancer dormancy. *Cell Death Ther* 1:23-27, 2015.
18. Nahas GR, Walker ND, Bryan M, **Rameshwar P**. A perspective of immune therapy for breast cancer: Lessons learnt and forward directions for all cancers. *Breast Cancer: Basic Clin Res* 9:35-43, 2015. PMID:26568682
19. Sherman LS, Conde-Green A, Sandiford OA, **Rameshwar P**. A discussion on adult mesenchymal stem cells for drug delivery: pros and cons. *Ther Deliv* 6:1335-1346, 2015. PMID:26652280
20. Patel JS, Hu M, Sinha G, Walker ND, Sherman LS, Gallagher A, **Rameshwar P**. Non-coding RNA as mediators in microenvironment-breast cancer cell communication. *Cancer Lett* 380:289-295, 2016. PMID:26582656
21. Condé-Green A, Kotamarti VS, Sherman LS, Keith JD, Lee ES, Granick MS, **Rameshwar P**. Shift toward Mechanical Isolation of Adipose-derived Stromal Vascular Fraction: Review of Upcoming Techniques. *Plast Reconstr Surg Glob Open* 4:e1017, 2016. PMID:27757339
22. Walker ND, Patel J, Munoz JL, Hu M, Guiro K, Sinha G, **Rameshwar P**. Thebone marrow niche in support of breast cancer dormancy. *Cancer Lett* 380:263-271, 2016. PMID:26546045
23. Eltoukhy HS, Sinha G, Moore C, Guiro K, **Rameshwar P**. CXCL12-Abundant Reticular (CAR) Cells: A Review of the Literature with Relevance to Cancer Stem Cell Survival. *J Cancer Stem Cell Res* 4:e1004, 2016.
24. Sherman LS, Shaker M, Mariotti V, **Rameshwar P**. Mesenchymal Stem Cells in Drug Therapy – new perspective. *Cytotherapy* 19:19-27, 2017. PMID:27765601
25. Eltoukhy HS, Sinha G, Moore C, Sandiford OA, **Rameshwar P**. Immune Modulation by a Cellular Network of Mesenchymal Stem Cells and Breast Cancer Cell Subsets:Implication for Cancer Therapy. *Cell Immunol* 326:33-41, 2018. PMID:28779846
26. Fernandez-Moure J, Moore CA, Kim K, Karim A, Smith K, Barbosa Z, Van Eps J, **Rameshwar P**, Weiner B. Novel therapeutic strategies for degenerative disc disease: Review of cell biology and intervertebral disc cell therapy. *SAGE Open Med* 6:2050312118761674, 2018. PMID:29568524
27. Eltoukhy HS, Sinha G, Moore C, Gergues M, **Rameshwar P**. Secretome within the bone marrow microenvironment: A basis for mesenchymal stem cell treatment and role in cancer dormancy. *Biochimie* (In press) PMID:29859990

**Other Professional Communications**

1. Invited Lay Summary of Research:

**Rameshwar P**. (1998) Neurotransmitters derived from PPT-I as mediators of neural-hematopoietic crosstalk. Society of Neuroscience, Press Book. Part II.

1. Selected Research as one of eleven articles within the eight campuses at the University of Medicine and Dentistry of New Jersey for Research 2001, Fall issue:

**Rameshwar P.** (2001) Unraveling the complex biology of bone marrow stem cells.

**Encyclopedia and Atlas:**

* 1. **Rameshwar P**. Egg donations. *In* Encyclopedia of Stem Cell Research. Eds. Svendsen CN, Ebert AD, Golson GJ. SAGE Reference (2008). (ENCYCLOPEDIA)
	2. **Rameshwar P**. Microenvironment and Immune Issues. *In* Encyclopedia of Stem Cell Research. Eds. Svendsen CN, Ebert AD, Golson GJ. SAGE Reference (2008). (ENCYCLOPEDIA)
	3. Lim PK, Patel SA, **Rameshwar P**. TAC1 (tachykinin, precursor 1). Atlas Genet Cytogenet Oncol Haematol. June 2009.

<http://AtlasGeneticsOncology.org/Genes/TAC1ID44483ch7q21.html>

* 1. Patel SA, Lim PK, **Rameshwar P**. GPNMB (glycoprotein (transmembrane) nmb). Atlas Genet Cytogenet Oncol Haematol. October 2009 .

URL : <http://AtlasGeneticsOncology.org/Genes/GPNMBID40739ch7p15.html>

|  |
| --- |
| * 1. Munoz JL, **Rameshwar P**. (2011) Tachykinins, Bone Marrow and Hematopoiesis. *Brain Immune Interactions* neuromediators in bone marrow ([www. brainimmune.com/mockup](http://www.brainimmune.com/mockup)).
	2. Patel SA, **Rameshwar P**. (2015) Breast cancer stem cells. Ed. M. Schwab, *In* Encylopedia of Cancer. Springer-Verlag Berlin Heidelberg. [doi:10.1007/978-3-642-27841-9\_6628-3](http://link.springer.com/referenceworkentry/10.1007/978-3-642-27841-9_6628-3)
	3. Ayer S, Sinha G, Bryan M, **Rameshwar P**. (2016) Breast Cancer. Ed. M. Schwab. *In* Encylopedia of Cancer. Springer-Verlag Berlin Heidelberg. [doi:10.1007/978-3-642-27841-9\_7236-1](http://link.springer.com/referenceworkentry/10.1007/978-3-642-27841-9_7236-1)
 |

E.**Abstracts**

>250 abstracts; Data in abstracts up to 2015 are included in publications or as submitted manuscripts.

F. Reports (None)

**PRESENTATIONS:**

1. Scientific *(Basic Science)*:

**International (2007-)**

6/07 Quebec/New Jersey Stem Cell Workshop

"Embryonic and Adult Mesenchymal Stem Cells in Translational Science"

11/07 Seoul International Symposium on Stem Cell Research

 “Mesenchymal Stem Cell Therapy: Benefit or hindrance of diseased microenvironment?”

11/13/07 South Korea University

 “New Directions for Mesenchymal Stem Cells”

5/09 Mesenchymal stromal cells and tumor microenvironment: an update, Montpellier,

 France

“Mesenchymal Stem Cells (MSC): Facilitator in Breast Cancer Cell Evasion in Bone

 Marrow”

11/09 3rd Non Hematopoietic Stem Cells, Tubingen, Germany

 “Mesenchymal Stem Cell Responses in Bone Marrow-Related Dysfunctions”

9/10 Perspectives of Stem Cells, San Paulo, Brazil

“Breast Cancer Initiating Cells/Mesenchymal Stem Cells”

12/10 Adult Progenitor Cell Standardization, Rome, Italy

 “Mesenchymal Stem Cell Therapy: Good or Bad for Dormant Cancer?”

10/11 Seoul National Univ, School of Dentistry

 “Regenerative Potential of Human Mesenchymal Stem Cells: Potential Confounds”

10/11 2011 Annual Meeting of Korean Society of Stem Cell Research

 “Considerations for safe therapeutic delivery of MSCs: The Cancer Stem Cell Effect”

3/12 Seoul National Univ, School of Medicine

 “Plasticity of Human Mesenchymal Stem Cells: Potential for Neural System Disorders:

3/12 Korea FDA, Seoul, Korea

 “What are confounds with stem cell therapy to patients: Is one stem cell a hindrance to

 another?

10/12 Int’l Conf. on Radiation Biology, ACTREC, Tata Memorial Center, Navi Mumbai.

 “Dormancy of Breast Cancer Cells: Chemo-/Radio-Resistant Cells”

4/13 2nd Int’l Vatican adult stem cell conference, Regenerative Medicine, Vatican

 “Anti-aging potential of mobilized peripheral blood cells”

8/27/13 Seoul National Univ, Seoul. South Korea

 “MSC-derived peptidergic neurons: Protector of exacerbated inflammation”

8/29/13 Korean Society for Stem Cell Research

 “Neuronal differentiation of mesenchymal stem cells: therapeutic implications”

11/28/13 4th Disputationes, Innovative strategies in tissue engineering, River Publishers, Aalborg, Denmark

 “How can the immunology of mesenchymal stem cells facilitate the translation for neural disorders”

 CHAIR: Afternoon sessions

5/12/14 5th Disputationes, Organ Regeneration and tissue repair by artificial supports. Aalborg, Denmark

 “Challenges: Translation of stem Cells”

 CHAIR: Session 2: Cancer stem cells

5/27/14 Northeast Forestry University, College of Life Sciences, Harbin, China

 “Teaching Methods: An American Experience”

5/28/14 Northeast Forestry University, College of Life Sciences, Harbin, China

 “Translation of Stem Cell: Efficacy-Safety”

8/21/14 Swedish-American Life Science Summit (SALSS) 2014, Stockholm, Sweden

 Panel Participant, “Aging and Regenerative Research Driving the Future of Medicine”

4/16/15 Over Yonder Cay (Bahamas) Stem Cell Program, “Cellular Aging Program”

7/18-19/15 3rd Baltic Stem Cell Meeting, Warsaw, Poland

 “Mesenchymal derived exosomes in breast cancer dormancy: Development of RNA therapeutics”

11/8-11/9/15 The 6th npg Cell Death & Disease Symposium on Tissue Microenvironment and Diseases, Changzhou, China

 “Mesenchymal-Breast Cancer Stem Cell Interaction: Exploring this interaction for therapy strategies”

4/28-4/30/16 3rd Int’l Conference – Cellular Horizon, Vatican City, Rome

“Restoring the Lympho-Hematopoietic System”

4/18-4/28/16 Northeast Forestry Univ, Harbin, China

“MiRNA in Mesenchymal Stem Cell – Breast Cancer Interaction: Implication for Drug Resistance” “Moving Forward: Translating Stem Cells to Patients”

“Graduate Student Lecture: Writing skill – Scientific Paper”

10/18-10/20/16 7th Cell Death & Disease Symposium on Translational Medicine, Changzhou, China

 “Mesenchymal stem cells in drug delivery: The issue of the blood brain barrier”

9/11/17 Rajiv Gandhi Centre for Biotechnology, Thriuvananthapuram, Kerala, India

 “Overview of Stem Cell”

9/12/17 Rajiv Gandhi Centre for Biotechnology, Thriuvananthapuram, Kerala, India

 “Challenges to Target Breast Cancer Stem Cell”

9/14/17 5th Intl Conf on Drug Discovery, Bengaluru, India

 “Challenges to treat cancer stem cells in bone marrow”

9/15/17 CELLTech & Bioimaging, Bengaluru, India

 “Unmet Need: Small molecules to control stem cell behavior in vivo”

2/2/18 “Cancer Stem Cell Resistance in Bone Marrow”

 Intl Conf on Radiation Research, Univ of Hyderabad, Hyderabad

10/11/18 “Breast cancer dormancy in bone marrow: Benefit of an anti-aging strategy”

4th Intl Conference on Translational Research, Goa, India

National (**2008-**)

**2008**

02/13/08 NJMS - Dept of OB/Gyn and Women’s Health

 “Novel Concepts in Breast Cancer”

2/08 29th Annual Winter Neuropeptide Conference, Breckenridge, CO

 “*REST* in Translational Science by Adult Mesenchymal Stem Cell”

5/08 Int’l Stem Cell Therapy Soc, Miami FL

“Mesenchymal Stem Cell Therapy: Benefit or Hindrance in Translational Science?”

6/12/08 Cancer Education Program, UH Cancer Center, NJMS

 “Cancer Stem Cell”

7/2/08 GE Global Research Center, Niskayuna NY

“Facilitating effects of Mesenchymal Stem Cells in Breast Cancer Cell quiescence

in Bone marrow”

8/1/08 GSBS Undergraduate Program, NJMS

“New Concepts in Stem Cell”

9/10/08 GSBS Graduate Seminar, NJMS

 “Translational Stem Cell Research by Graduate Students”

9/17/08 2008 Annual Meeting Am Gynecological Club

 “Future of Stem Cells in Gynecologic Disease”

10/20/08 Kirby meeting, NJMS

 “Kirby Update”

11/12/08 NJ Stem Cell Institute

 “Mesenchymal Stem Cells: Key Players in Breast Cancer Biology”

11/25/08 CUNY-Queens College

 “Stem Cell Research: An Evolving Science”

**2009**

1/5/09 30th Annual Winter Neuropeptide Conference, Stem Cell Chair

 “Neural-Hematopoietic Axis: Bone Marrow Protection”

1/6/09 New Jersey Medical School – Biochemistry Department

 “Stem Cell Research in Translational Medicine”

2/4/09 Cardiology Grand Rounds, Medicine Department

 “Lessons from Stem Cell Therapy in Medicine”

4/3/09 Patent and Licensing, UMDNJ

“ IPC for Adult Mesenchymal Stem Cell”

2/11/09 New Jersey Institute of Technology, Newark, NJ

“Stem cells and tissue microenvironment: Implications for future cell therapy”

5/14/09 Cancer-Mesenchymal Stem Cell Meeting, Montpellier, France

“MSCs: Facilitator in Breast Cancer Cell Evasion in Bone Marrow”

6/5/09 GSBS Undergraduate Program

 “Stem Cells in 2009”

6/11/09 Cancer Education Program, NJMS

“Evidence of a Primitive Phenotype of Breast Cancer Cells: Dormancy in Bone Marrow?”

8/6/09 NJMS-Department of Medicine, Resident Research Seminar

 “Why research?”

8/6/09 New Jersey Medical School Summer Research Program

 “Importance of Research”

10/7/09 FM Kirby Foundation Annual Meeting

 “Translational studies with mesenchymal stem cells”

12/3/09 Division of Allergy and Immunology (UMDNJ-NJMS), Grand Rounds

"Plasticity of Mesenchymal Stem Cells: Implication for stem cell delivery in immune-mediated disorders"

12/17/09 Dept of Pathology and Laboratory Medicine (UMDNJ-NJMS)

“Mesenchymal Stem Cells in Breast Cancer Biology: Implications for dormancy in bone marrow”

**2010**

1/06/10 Hackensack Univ Hosp, Marrow Transplant

 “Mesenchymal Stem Cells in Malignancies of Bone Marrow”

3/14/10 Shiraz Univ Sch of Medical Sciences, Alumni Assoc, USA

 “Past, Current and Future Status of Stem cell Research and Therapy”

6/5/10 Dance for Life USA (NJ)

 “Adult Stem Cells: Implications for New Cancer Treatment”

6/18/10 Summer undergraduate program (Medical and College Students)

 “Stem Cells: Basic Concepts”

8/22/10 The National Black Leadership Initiative on Cancer – Savannah Coalition, GA

“Novel insights in cancer dormancy”

10/10 World Summit on Stem Cells, Detroit, MI

 “Dormancy of Breast Cancer in Bone Marrow by Breast Cancer Initiating Cells”

10/29/10 East Orange VA Hospital – Division of Hematology/Oncology

 “Breast Cancer Stem Cells”

11/22/10 UMDNJ-New Jersey Medical School, Dept of Pharmacology and Physiology

 “New concepts on breast cancer stem cells”

12/8/10 UMDNJ-New Jersey Medical School, Allergy Immunology Grand Rounds

 “Considerations for clinical application of stem cells”

**2011**

01/14/11 Medicine Grand Rounds, Staten Island Univ Hospital, Staten Island, NY

 “Mesenchymal Stem Cells: Issues for effective therapy to suppress inflammation”

02/16/11 Psychiatry Grand Rounds, UMDNJ-New Jersey Medical School, Newark, NJ

 “Update: Current status on translation of stem cells”

03/30/11 Surgery, UMDNJ-New Jersey Medical School, Newark, NJ

 “Stem Cell Safety: Consideration for the Surgeon”

05/12/11 Regenerative Medicine & Stem Cell Seminars, RWJ Med Sch, Piscataway

 “Stem Cells & Stem Cells in Cancer Biology”

6/24/11 NJMS-GSBS lecture series for summer students, Newark, NJ

 “Overview of Stem Cells”

6/28/11 BASF, Tarrytown, NY

“Regenerative Potential of Mesenchymal Stem Cells”

6/30/11 Cancer Education Program, NJMS

 “Cancer Stem Cells”

9/13/11 NJMS-GSBS, seminar for new graduate students, Newark, NJ

 “Translational studies on mesenchymal stem cell-derived neurons”

12/7/11 2011 Golden Seeds Annual Meeting / Life Sciences, NY

 “Current perspective in the translation of stem cells”

**2012**

1/25/12 NIKSUN Cybersecurity Summit & Mobility, Princeton, NJ

 “Current status of stem cell therapy in the USA: Positive and Negative Implications for IT”

4/3/12 Boston Univ Medical School, Dept of Pharmacology

 “*TAC1* gene: Its place in medicine”

6/7/12 Summer Cancer Program, NJMS

 “Cancer Stem Cell”

6/8/12 GSBS-Summer Undergraduate Program

 “An introduction to stem cell biology”

7/12/12 AAOGF/SMFMABOG Scholars’ Retreat, UMDNJ-NJMS

 “Stem Cell in Medicine: Current Status”

7/25/12 NJMS- Office of Research, Summer Program

 “Physician scientist track – Future for Stem Cell in Medicine”

12/3/12 Dept of Medicine, Resident lecture

 “Status of Stem Cell Therapy”

12/20/12 Division of Allergy Immunology

 “Implication for stem cell delivery in immune-mediated disorders”

**2013**

4/19/13 Science High School, National Honor Society

 Keynote speaker: “Path towards a career”

5/24 /13 East Orange VA Hospital

 “Stem Cells: How close are we to the bedside?”

6/6/13 Cancer Education Program, New Jersey Medical School

“Overview of Cancer Stem Cell”

6/7/13 Graduate School of Biomedical Sciences, Summer Undergraduate Program

“An introduction to stem cell biology”

 9/12/13 Graduate School of Biomedical Science, Rutgers-New Jersey Medical School

 “Cancer Dormancy: The stem cell hypothesis”

 10/22/13 Dept of Medicine, New Jersey Medical School

 “Stem cell therapy: Can the Research Overcome External Pressure?

 12/13/13 IEE Engineering in Medicine and Biology Society North Jersey Section, NJIT

 “An experimental model of neural differentiation: A model for engineering techniques”

 12/17/13 Medical Resident, NJMS

 “Hematopoietic Stem Cell Transplantation”

 **2014**

 06/05/14 Cancer Education Program for Medical Students (NCI funded)

“Cancer Stem Cell: An update”

 07/17/14 The Human Genetics Inst of NJ Stem Cell Program

 “Molecular and safety issues in stem cell translation”

 09/09/14 Graduate School of Biomedical Science, Rutgers-New Jersey Medical School

 “Cancer Stem Cell- Mesenchymal Stem Cell –Immune Axis”

 10/15/14 Randolph Cancer Center, West Virginia Univ.

 “Breast cancer dormancy & resurgence: The bone marrow microenvironment”

 **2015**

 1/7/15 Dept of Ob/Gyn, Rutgers New Jersey Medical School

 “Normal-Cancer Stem Cell Interactions: Implication for Regenerative Medicine”

1/22/15 Dept of Surgery, Rutgers New Jersey Medical School

 “An Update on Stem Cell in Regenerative Medicine”

 2/5/15 DoD Meeting in Cellular Therapies in Trauma and Critical Care Medicine

“Molecular pathways in balance between multipotency and differentiation of mesenchymal stem cells: Therapeutic implication for hemorrhagic shock-induced injury”

 5/7/15 Grand Rounds, Division of Allergy and Immunology (New Jersey Medical School)

 “Licensing of Mesenchymal Stem Cells in an Inflammatory Microenvironment”

 5/21/15 Annual Retreat on Cancer Research in New Jersey

 “Mesenchymal Stem Cell – Derived Exosomes in Cycling Quiescence of Breast Cancer Cells: Implications for Dormancy”

6/4/15 Cancer Education Program, New Jersey Medical School

“New concepts in Cancer Stem Cell”

6/26/15 Undergraduate Program, Rutgers School of Graduate Studies at New Jersey Medical School

 “An introduction to stem cell biology”

 9/15/15 Graduate School of Biomedical Science, Rutgers-New Jersey Medical School

 “Cancer Stem Cell- Mesenchymal Stem Cell-Immune-Msi1 Axis”

 9/18/15 New Jersey Institute of Technology, Dept of Biomedical Engineering

 “Cancer-Mesenchymal Stem Cell Axis: Safety Issue”

 10/16/15 Boonton High School, Boonton, NJ, Gateway Program

 “Facts on stem cell”

 10/27/15 New York University, School of Dental Medicine

“Mesenchymal Stem Cell – Breast Cancer Interaction: A Safety Issue for Therapy**”**

**2016**

6/1/16 Horizon Blue Cross Blue Shield of New Jersey

 “Immune Restoration in Bone Marrow: Maintaining Health in Older Individuals”

6/10/16 Undergraduate Program, School of Graduate Studies at New Jersey Medical School

 “Introduction of Stem Cell”

7/14/16 Cancer Educational Program, Cancer Center at New Jersey Medical School

 “Cancer Stem Cell”

9/8/16 CTIF Global Capsule (CGC), New Jersey Institute of Technology

 “Healthy Aging: A Global Issue”

11/1/16 Univ of Louisville, Louisville, Kentucky, Department of Physiology and Cancer Center

 “Reversal of cancer stem cell dormancy with mesenchymal stem cell-mediated delivery of antagomiRs changes the physiological function of the bone marrow”

11/30/16 Mini-Med Graduation Speaker, Rutgers, New Jersey Medical School

 “Becoming a Scientist”

12/1/16 Student Society for Stem Cell Research, Rutgers Univ (New Brunswick)

 Delivering small non-coding RNA via mesenchymal stem cell

12/16/16 Allergy-Immunology Grand Rounds, NJMS

 “Concept in stem cell: Translational Issues”

**2017**

3/23/17 Parotid gland stem cell research meeting, Morristown ENT center

 “Stem Cell Biology: An introduction”

4/24/17 Child Health Inst of NJ, Rutgers

 “Mesenchymal Stem Cell-Macrophage Axis in Breast Cancer Dormancy in Bone Marrow”

5/4/17 Mini-Med Graduation Speaker, Rutgers, New Jersey Medical School

 “The Career Journey of a Scientist”

5/27/17 Celebrating courage, breast cancer survivor group, East Orange, NJ

 “Hope for cancer cure”

6/9/17 Undergraduate Program, School of Graduate Studies at New Jersey Medical School

 “Introduction of Stem Cell”

10/2/17 Rowan Univ Sch of Osteopathic Medicine, Stratford, NJ

 “Alternate methods to target cancer stem cells in bone marrow”

11/8/17 Rutgers Cancer Inst of NJ (RCINJ), Grand Rounds

 “Dormancy-Reversed Dormancy via Mesenchymal Stem Cell-derived exosomes”

**2018**

4/4/18 Mini-Med Graduation Speaker, Rutgers, New Jersey Medical School

 “Towards a career in Science: My story”

5/11/18 Rutgers President-Foundation joint seminar

 “Hematopoietic restoration: the journey with Dr. Bosarge”

7/2/18 Undergraduate Program, Rutgers School of Graduate Studies at New Jersey Medical School

 “Stem Cell Biology: An Introduction”

7/26/18 The 2018 Summer Research Program, NJMS Office of Research

 “Mesenchymal Stem Cell Secretome in Breast Cancer Dormancy”

B. Professional *(Clinical)*: Not applicable