**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
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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.
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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)
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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)
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D. Other Articles

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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.
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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
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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.

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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
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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
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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
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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
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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.

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* 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>

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| * 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