

CURRICULUM VITAE

ANIL D. KULKARNI, M.Sc., Ph.D.
Professor, Department of Surgery
The University of Texas Medical School
6431 Fannin Street, MSB Suite 4.164
Houston, Texas 77030-1503

Office Address: University of Texas Houston Medical School
Department of Surgery
6431 Fannin Street, MSB 4.022B
Houston, Texas 77030
anil.d.kulkarni@uth.tmc.edu

Citizenship USA

Family: Sulabha Sardesai Kulkarni, MSc., Ph.D.-(Wife)

EDUCATION:

Graduate and Undergraduate Education:

M.Sc. (Biochemistry-Immunology) (Research), 1970

B.Sc. (Chemistry-Physics), 1963

Bombay University, Bombay, India

Postgraduate Education:

Ph.D. (Immunology) (Thesis), Faculty of Medicine, 1988

The Queen's University of Belfast

Belfast, N. Ireland, UK

Academic Leadership Development Program, UTHSC, Houston 2002

Business Administration Certificate Course, UH/UTHSC, Houston, 2001

NIH Course Certification on Protection of Human Subjects Research, UTHSC, Houston, 2001

Concepts in Molecular Biology workshop- VA Hospital System, 1994

ACADEMIC APPOINTMENTS:

1964-70 Junior Scientific Officer & Senior Technical Assistant
Depts. of Immunology and Analytical & Quality Control
Haffkine Institute, Bombay, India

1971-72 Research Scientist Assistant
University of Texas at Austin, Texas

1972-73 Research Assistant
Division of Experimental Biology
Baylor College of Medicine, Houston, Texas

1973-74 Senior Research Fellow
Department of Biochemistry
Haffkine Institute, Bombay, India

1974-79 Research Associate & Research Assistant
Division of Experimental Biology
Baylor College of Medicine, Houston, Texas

- 1979-89 Research Associate (1979-86)
 Research Scientist (1986-88)
 Senior Research Scientist (1988-89)
- 1985-92 Adjunct Senior Research Associate
 Department of Biochemistry
 Rice University, Houston, Texas 1993-99
- 1989-92 Assistant Research Professor of Surgery
 Department of Surgery
 The University of Texas Medical School at Houston, Texas
- 1990-92 Assistant Professor, Program In Immunology
 Graduate School of Biomedical Sciences
 University of Texas Health Science Center at Houston
- 1993-99 Associate Professor of Surgery,
 Department of Surgery,
 St. Louis University Health Sciences Center, and
 Research Biologist - 1/93 to present
 John Cochran VA Medical Center
 St. Louis, Missouri
- 1999-2003 Faculty Associate
 Department of Biochemistry and Cell Biology, Rice University, Houston
- 1999- Professor of Surgery
 Department of Surgery, UTHSCH/UTMS, Houston

HONORS:

- Marquis First Edition of Who's Who in Science and Engineering, 1992
US. Patent Title: Ribonucleotide Preparations and Uses Thereof. (# 5,712,256)
US. Patent Title: "Methods & compositions for promotion of wound healing.(# 6,342,484)
Outstanding Service Award Certificate, VAMC, St. Louis, 1995
Mentorship Service Appreciation Award Certificate, UTHSC, Houston 1990-1992
Women's Mentorship Recognition Honor list, American Women in Science, 2004, 2005
President, UT Medical School Faculty Senate 2005
International University Exchange Program Development Program Award, UT at Houston, 2005
Dean's Teaching Excellence Award UTMS at Houston, 2005
International University Exchange Program Development Award, UT at Houston, 2007
President, Minority Faculty Association, TMC, Houston 2008-09
1999 to Present Professor, Department of Surgery, The UT Medical School at Houston, Texas

SOCIETY MEMBERSHIPS, HONORS, AWARDS, AND EDITORIAL AND JOURNAL REVIEW BOARDS:

- The Amer. Assoc. of Immunology, The Amer. Soc. of Parenteral and Enteral Nutrition, The Soc. for Leukocyte Biology, The Transplantation Soc., The Amer. Assoc. for the Advancement of Science, The International Soc. for Exper. Hematology (1999), The New York Academy of Sciences (until 1996), Amer. Soc. Microbiology.
Marquis First Edition of Who's Who in Science and Engineering, 1992
US. Patent- Title: Ribonucleotide Preparations and Uses Thereof. (U. S. Patent No. 5,712,256)
US. Patent Title: Methods & Compositions for Promotion of Wound Healing. (U. S. Patent No. 6,342,484)

Outstanding Service Award Certificate, VAMC, St. Louis, 1995
Mentorship Service Appreciation Award Certificate, UTHSC, Houston 1990, 1991, 1992
Editorial Board, Journal of Parenteral & Enteral Nutrition, 2005-2007
International Editor, Japanese J of Medical Use of Functional Foods, 2003-
Editorial Board, Journal of Parenteral & Enteral Nutrition, 2005-2007
Standing Editor. Surgery: Current Research
Dean's Teaching Excellence Certificate, Univ of Texas Med School, 2006
International Exchange Program Development Awards, UTHSC, 2005, 2007
Dean's Teaching Excellence Certificate, Univ of Texas Med School, 2009
Dean's Teaching Excellence Award, Univ of Texas Med School, 2010-13
"Hind Rattan (Jewel of India)" Award, NRI Welfare society, Delhi, India 2014

PROFESSIONAL ORGANIZATIONS (Past and Present):

The American Association of Immunology
The American Society of Parenteral and Enteral Nutrition
The Society for Leukocyte Biology
The Transplantation Society
The American Association for the Advancement of Science
The International Society for Experimental Hematology
The New York Academy of Sciences
The American Society of Gravitational and Space Biology
The American Society of Microbiology

Manuscript Reviewer:

'Nutrition' -An International J. of Applied and Basic Nutritional Science.
'Journal of Parenteral and Enteral Nutrition'
'Metabolism' - Clinical and Experimental Journal.
'In Vitro Cellular & Developmental Biology' -Basic and Developmental Science Journal.
'Life Sciences' -Multidisciplinary Science Journal
'Journal of Applied Physiology'
'Journal of Proteomic Research'
'Journal of Pharmacological and Experimental Therapeutics,
'Journal of Leukocyte Biology'
'FASEB Journal'
'European J Clinical Nutrition'
'British J Pharmacology'

Ad hoc Grant reviewer for the American Association for the Advancement of Science, 2004
Ad hoc Grant Reviewer for Swiss Federal Institute of Technology Zurich, 2005
Co-Chair, FASEB Symposium on Nutrition and Immunity, FASEB 2002
Chair, Scientific Paper Session on Gut Disuse and Response, Nutritionweek, ASPEN, 2007
Annual ASPEN Congress Abstract Review Committee, 2007
Chair, Medical Use of Functional Foods, Nutritionweek 08, ASPEN, Chicago 08
ASPEN, Nutritionweek 09 organizing committee member, 2008
ASPEN, Research Section member, 2008-
Chair, Nutritional Nucleotides Continuum Symposium, Nutritionweek, ASPEN 2009

Chair, New Dietary Substrates: Plant and Fruit Symposium Nutritionweek, ASPEN 2009
Chair, Research Section, ASPEN, 2010-2013

SERVICE ON UNIVERSITY/HOSPITAL COMMITTEES:

1. Member, UTHSCH, Diversity Advisory Council, 2006-2008
2. At-Large Member (UTMS), Inter Faculty Council, Chair Subcommittee on Faculty Academic Affairs UTHSCH, 2005-2009
3. Chair, Faculty Senate, UT Medical School, 2004-2005, Senator 2007-
4. Director of Compliance, Surgery, Institutional Anatomical Oversight Review Committee 2004-
5. Ad hoc member, Executive Council Committee, UTHSCH, 204-2005
6. Ad hoc member, Administrative Council, UTMS, 2004-2005
7. GSBS Curriculum Committee, UT-GSBS 2004-
8. Scientific Advisory Committee for Clinical Research Center, UTMS/HH, 2004-
9. Research Committee, UTMS, 2005-2008
10. Inter Faculty Council, UTHSCH, 2005-2007
11. Member, Intellectual Property Committee of UTHSC, 2004-
12. Member, Multicultural Affairs Committee of UTHSC, 2004-2006
13. Chair-elect of Faculty Senate, UT Medical School 2003-2004
14. Faculty Senator, Department of Surgery, UTMS 2000-
12. Member, Committee on Committees, UTHSC/UTMS
13. Member, Curriculum Committee, GSBS/UTHSC
14. Member: Executive Committee for NIH-T32 Training Grant of UT/Surgery Trauma Center
14. Member: Admissions Committee, The UTMS, Houston (1999-present)
16. Member: Animal Welfare Committee, The UTHSCH, Houston, (2000- 2005)
17. Member: Student and Faculty Development Committee, Saint Louis University, 1998.
18. Animal Research Facility Committee, VA medical Center, St. Louis. (1994-Present)
19. Set up and Direction of Surgical Research Laboratories for St. Louis University, Surgery Department at John Cochran VA Medical Center, St. Louis. (1993-95)
20. Member: Surgical Research Committee of Theodore Cooper Surgical Research Institute, Saint Louis University. (1993-95)
21. Education Policy Committee's Curriculum Review Committee. Pathology Course. SLUMC member, (1993-95).
22. Member-Student Development Committee, St. Louis University (1994-1996)
23. Member of The Minority Faculty Association and coordinator for the Medical School. UT Health Science Center, Houston. (1988-1992)
24. Mentor Program Committee, Office of the Vice President for Minority and Multicultural Affairs, The Univ. of Texas Health Science Center, Houston, Texas.(1989-92)
25. Member: Student Interview/Admissions Committee, The University of Texas Medical School, Houston.(1989-1992)
26. Member: Animal Welfare Committee, Univ. of Texas Medical School. (1989-1992)
27. Faculty senator: Dept. of Surgery representative to the Medical School Faculty Senate at the University of Texas Medical School.(1989-1992)
Member: Faculty Senate Subcommittee member of the Disposition of Legal Fees. Faculty Senate at the University of Texas Medical School.(1989-1992)

28. Member: Animal Welfare Committee, Univ. of Texas Medical School (1989-1992)
29. Faculty Senator, Medical School 1999-2006
Senate President, Medical School 2005-2006
30. Interfaculty Council, Medical School representative UTHSC-H, 2006-2010
Coordinator of Faculty Satisfaction Survey for UTHSC, 2007-2008
Chair, IFC Subcommittee of Academic Affairs, 2007-2010
Chair, IFC Subcommittee for Dr. Tom Burks Fellowship Program 2008-2009
31. Graduate Student (GSBS) thesis committee, 2006-2008
32. UTHSC-H Biotechnology and Intellectual Property Committee 2010-
33. Graduate Students Education Committee, UTMS 2008-
34. Member, Immunology Program, GSBS/UT and Program Committee Member 2008-

External Advisory and Consultant Positions:

Consultant to NRC at Texas Southern University at Houston 2003-2008

Advisor for NSF Funded Program [RISE] at TSU, 2004-2007

Advisory Member to Novartis Nutrition in Surgical and Critical Nutrition R & D 2005

Consultant to Ross Labs, Pediatrics Nutritional Products R & D, 1996-1997

Professional Institutional and Community Service:

Judge, Post-graduate biomedical poster competition, UTHSC and UTMS, 2003-2008

Judge, Houston area schools Science Poster Competition, 2003, 2004

Judge, Poster competition for Graduate Students and Medical Students at UTH, 2004

Judge, Poster competition, Medical Students Research, UTMB 2005

Judge, Houston area schools Science Poster Competition, 2006

Judge, Houston area schools Science Poster Competition, 2008

Judge, Poster competition, Medical Students Research, UTMB 2009

RESEARCH GRANTS:

Current Support:

Current Support:

- 1) **P-Investigator: Anil D. Kulkarni, Ph.D.**
Pre-germinated brown rice and white rice efficacy in metabolic syndrome.
FANCL, Tokyo, Japan
\$200,000 (2008-10)
- 2) **P-Investigator: Anil D. Kulkarni, PhD.**
AHCC effect on ischemia/reperfusion injury
Amino Up Chemical Company, Sapporo, Japan.
\$75,000 (20010-2011)
- 3) **P-Investigator: Anil D. Kulkarni, PhD.**
Fordays Life Sciences Co; Tokyo, Japan
\$18,000 (2007-) Gift for research support.
- 3) **PI, Anil D. Kulkarni, PhD.**
Nucleotide Nutrition and Gut injury protection.
\$205,000 (2010 -11), Nestle' Nutrition Division, USA/SW

Submitted:

- 4) PI, Dr. Marie-Francoise Doursout, PhD. **Co-PI, Anil D. Kulkarni, PhD** (multi-investigator application)
NASA- Basic Mechanisms of Effects of Microgravity on Healing of Traumatic Skeletal Injuries in Rodent and Cell Culture Models. 10% effort.

- 5) PI. Dr. Hisayuki Uneyama, PhD, Japan, **Co-I Anil D. Kulkarni, PhD.** Evaluation of taste/flavor enhancement on nutritional outcome in patient populations. This is multi-international application with Japan, UTMS, MD Anderson Cancer center, USRA-Space Life Sciences (USA), Mongolia, Thailand, and Malaysia. 5% effort
- 6) PI. Dr. Nachum Dafny, PhD, **Co-I Anil D. Kulkarni PhD.** The endocrine, immune and the brain multidirectional interaction with Ritalin psychotherapy, NIH-5% effort

To be Submitted:

- 7) **Co-PI : Anil D. Kulkarni, PhD.; and Marie-Francoise Doursout, PhD.**
Department of Defence, Enhanced Wound Healing using Novel Substrates, Agonists, and Endothelia Cell Regenerators. 15% effort+ RA support
- 8) **Co-Investigator: Anil D. Kulkarni, PhD., PI Ray Grill, PhD.**
Department of Defence, Combining enhanced dietary nucleotides with rehabilitation to improve outcome following spinal cord injury (SCI). 5% effort+part time RA
- 9) **Co-Investigator: Anil D. Kulkarni, PhD., PI Ray Grill, PhD.**
Dietary nucleotides to maintain muscle mass and bone density following peripheral nerve injury. 5% effort +part time RA

Planned:

- 10) **P-Investigator: Anil D. Kulkarni, PhD.**
R21 Grant application submitted: Role of AHCC and Oligonol in Aging and Immune Function.
\$393,825 (2013-2015)
- 11) **CO-Investigator: Anil D. Kulkarni, PhD., PI: Alamelu Sundaresan, PhD., TSU.**
Technologies for Elucidation and Mitigation of Bone Loss in Microgravity.
\$144,000/year for 2012-15,.
- 12) **P-Investigator: Anil D. Kulkarni, PhD.**
Modulation of diet-induced Atherosclerosis and hyperlipoproteinemia by components of Oryzanol in genetically susceptible and resistant mice.
American Heart Association, TX chapter
- 13) **P-Investigator: Anil D. Kulkarni, PhD.**
Nutritional Nucleotides as Immunomodulators in an in vivo analog of microgravity
NASA, \$581,000
- 14) Nutritional Countermeasure for radiation effects, Role of nucleotides in collaboration at Loma Linda U, 2009

Past Funded-Principal Investigator: Anil D. Kulkarni, Ph.D.

- 15) Topical Applications of Wound Healing in Mice. Zhen Ao Co., China
\$65,000 (2004-2006)
- 16) **CO-Investigator: Anil D. Kulkarni, Ph.D., P.I. Dr. Ramesh at TSU, Houston**
Studies with α -Tocopherol on Microgravity-induced Oxidative Stress, **Funded**
\$750,000, NASA-NCC9-165, (2003-2008), \$7,000/yr Consultation for UT-H
- 17) **P-Investigator: Anil D. Kulkarni, Ph.D.**
AHCC and nitric oxide pathways in hepatocytes.
Amino Up Chemical Company, Sapporo, Japan.
\$26,000 (2006-07)
- 18) **P-Investigator: Anil D. Kulkarni, Ph.D.**
Nutritional nucleotides and muscular atrophy,

BIOIBERICA Co., Ltd; Barcelona, Spain
\$53,300 (2007-09)

- 19) P-Investigator: Anil D. Kulkarni, PhD.**
AHCC effect on ischemia/reperfusion injury
Amino Up Chemical Company, Sapporo, Japan.
\$65,000 (2008-09)
- 20) P-Investigator: Anil D. Kulkarni, PhD.**
Fordays Life Sciences Co; Tokyo, Japan
\$18,000 (2007-) Gift for research support

CLINICAL INVESTIGATION AND COLLABORATION:

1. CO-Principal Investigator: IRB #7829 -- "The Role of Dietary Nucleotides in the Immune Response in Surgical Intensive Care Patients." St. Louis University Medical Center. PI. DR. V. Herrmann, M.D.
2. CO-Investigator: IRB #7902 -- "Topical Gastric Application of Congo Red." PI C. H. Andrus, M.D. St. Louis University Medical Center. (1994-1996)
3. Consultant Advisor: Investigators at Stanford U., Ryukyus U., Univ. of Florida, M. D. Anderson Cancer Center, Texas A & M U., Cornell U. and Ross Laboratories.
4. Coordinator of the UTHSC for Exchange Program with the University of Tokushima, Japan
5. Effects of AHCC in humans at U of Nottingham, UK and UT at Houston, USA, 2008
6. Effect of white rice and brow wild rice on metabolic syndrome, Ochanomizu U, Japan and UT at Houston, 2008

PRESENTATIONS:

1. Preparation of active insoluble pepsin. Haffkine Institute Research Conference. Bombay, 1970.
2. Prolongation of cardiac survival by pretreatment of recipient mice with donor blood of spleen cells and cyclophosphamide. Fed. Proc. 37:1576, 1978.
3. Amelioration of graft-versus-host disease (GVHD) mortality of bone marrow chimeras by pretreatment of donor cells with Fab fragments of horse anti-mouse thymocyte globulin (Fab). FASEB, 1979.
4. Inhibition of natural killer (NK) cell activity by plasma or lipoprotein fractions of hyperlipidemic patients. FASEB, 1980.
5. Spontaneous leukocyte blastogenesis in cardiac allografted mice. FASEB, 1980.
6. Effect of nucleotide free diet on EL4 tumor growth in the C57BL/6 host. FASEB, 1981.
7. Genetic susceptibility and resistance to diet-induced atherosclerosis and hyperlipoproteinemia. I. Atherosclerosis. FASEB, 1981.
8. Effect of dietary nucleotides on immune function. FASEB, 1981.
9. Suppression of delayed hypersensitivity (DTH) to SRBC in mice fed nucleotide-free diet. FASEB, 1982.
10. Differential tumor growth in mice on a nucleotide-free diet (NFD). FASEB, 1982.
11. Nucleotide deprivation enhances bacterial sepsis. The 9th Congress of The American Society for Parenteral and Enteral Nutrition at Miami Beach, Florida, January, 1985.
12. Similarity of cell-mediated immunosuppression due to cyclosporine-A (CyA) and nucleotide-free diet (NFD) in mice. FASEB, 1985.
13. Suppression of cell-mediated immune responses in mice by a nucleotide-free diet (NFD): Effects on suppressor (TS) and helper cell (TH) activity. FASEB, 1985.
14. Role of nutritional nucleotides in transplantation. Department of Surgery, Kyoto Prefectural University, Kyoto, Japan, August, 1985.
15. Role of nutritional nucleotides in patient care. Department of Clinical Nutrition, Veterans Administration Hospital of Taiwan, Taipei, Taiwan, August, 1985.
16. Adenosine deaminase levels influenced by dietary nucleotide restriction. FASEB, 1986.
17. Impaired natural killer cell activity in experimental cholestasis. Society of Leukocyte

- Biology Annual Conference, Denver, Colorado, 1986.
18. Exogenous nucleotide dependent alteration of immune response is associated with ADA and PNP enzyme activity in mice. Presented at the 15th Annual Meeting of the Internat. Society of Experimental Hematology Society. Exp. Hematology, Buffalo, NY, 1986.
 19. Dietary nucleotides and immune response in mice. Presented at the International Update in Pediatrics Int. College of Pediatrics, Bombay, Dec. 20-21, 1986.
 20. Role of nutritional nucleotides in host immune response and in hospitalized patients. Invited Lecture at the Jaslok Hospital Medical Grand Rounds, Bombay, India, December, 1986.
 21. Dietary nucleotide restricted production of lympho-hemopoietic growth factors. Presented at the 16th Annual Meeting of the International Society of Experimental Hematology, Tokyo, Japan, 23-27 August, 1987.
 22. In vivo outgrowth of the T cell lymphoma (5F-4) is suppressed by a nucleotide-free diet. FASEB, 1988.
 23. Immunosuppression by nucleotide-free diet and cyclosporine modulates brain function. FASEB, 1988.
 24. Expression of immune cell surface markers in vivo and immune competence in mice by dietary nucleotides. Presented at the XII International Congress of The Transplantation Society, Sydney, Australia, August 14-19, 1988.
 25. Influence of dietary nucleotides in host immune response. Department of Surgery, The Queens University of Belfast, Belfast, Northern Ireland, UK.
 26. Dietary nucleotides and host defense response, Immunology Program of the Graduate School of Biomedical Sciences, Houston, 1989.
 27. Immunosuppression and immunosuppressive drugs. Department of Dermatology, Univ. of Texas Medical School, 1989.
 28. Dietary nucleotides reverse malnutrition and starvation induced immunosuppression. Surgical infection Society, IX Annual Meeting, Denver, Colorado, April 13-14, 1989.
 29. Influence of dietary glutamine and IMPACT* on in vivo cell-mediated immune response in mice. Presented at the Update on Immunonutrition Symposium, Minneapolis, Minnesota, July 12-15, 1989.
 30. Nutrition and host defense response. Houston Community College, Invited Lecture, 1989.
 31. Influence of dietary nucleotides on immune response in cyclosporine (CsA) treated rats. FASEB, Washington, DC, April 1-5, 1990.

32. In vivo immunohemopoietic effects of chronic morphine treatment. FASEB, Washington, DC, April 1-5, 1990.
33. Effect of dietary nucleotides on brain function and possible association with immune response. FASEB, Washington, DC, April 1-5, 1990.
34. Effect of in vivo and in vitro administration of morphine on bone marrow CFU-C, CFU-S, and IL-3 production. Presented at the 19th Ann. Meeting of ISEH. Exp. Hematol., 1990.
35. Nucleotide dependent immunosurveillance function in mice. The 12th International Reticulo-Endothelial Society Congress, Heraklion, Crete, Greece, October 14-18, 1990.
36. Role of dietary nucleotides in immune response. Department of Surgery, University of Texas Medical School, Houston, Texas, 1991.
37. Nucleotide Nutrition and Immunity. Invited Speaker at the Symposium on Nutrition and Immunity, FASEB meetings, New Orleans, LA, March, 1993.
38. Morphine administration and its immunohemopoietic effects. Annual Meeting of the Amer. Coll. of Surgeons, Missouri Chapter at the Lake of the Ozarks, MO, June, 1993.
39. Role of dietary nucleotides in Immunomodulation and wound healing. Grand Rounds and Surgical Residents Conference, Dept. of Surgery, St. Louis University, February, 1994.
40. Impact of nutritional immunology. Division of Gastroenterology, Department of Internal Medicine, St. Louis University, St. Louis, Missouri, April, 1994.
41. Nutrition and immune response. Special Invited Lecture to the Nutrition Class and Division of Nutrition of the University of the Ryukyus, Okinawa, Japan, September, 1994.
42. Role of nutritional nucleotides in host immune response. Special Invited Lecture to the Joint Grand Rounds and Faculty of Medicine of the University of the Ryukyus, Okinawa, Japan, September, 1994.
43. Nutritional modulation of immune system. Abdominal Organ Transplantation Division Seminar, St. Louis University, Department of Surgery. February, 1995.
44. Prolongation of cardiac allograft survival by cyclocreatine. The 9th International Congress of Immunology, San Francisco, CA, USA, 23-29 July, 1995.
45. Nucleotide nutrition and wound healing. Seminar at the ConvaTec, Mead Johnson, and Bristol Meyers Squibb Research Headquarters, Princeton, New Jersey October 10-11, 1995
46. Role of Nucleotides/Nucleosides (NUCL) in management of sepsis, shock and trauma. The Third International Congress of Shock, Hamamatsu, Japan, October 21-23, 1995.

47. Nutrition and Immunity: Role of dietary nucleotides, and studies on the role of orotic acid and calcium orotate. Research Laboratories, R. & D. Division, Kyowa Hakko Kogyo, Ltd., October 23-24, 1995, Tokyo and Tsukuba, Japan, Japan.
48. Nutritional Immunology: Overview and collaborative update of the role of dietary and supplemental nucleotides. Nutrition Department, Faculty of Medicine, The University of the Ryukyus, October 24-November 1, 1995 Okinawa, Japan.
49. Invited Discussant- Nutritional immunomodulation in disease and health promotion, Fifteenth Ross Research Conference on Medical Issues, November 12-14, 1995. Sanibel Island, Florida,
50. Nutrition and Immunity: Depts. of Pharmacology and Physiological Sciences, St. Louis University Health Sciences center, St. Louis, Missouri, September 10, 1996
51. Nucleotide nutrition and murine allergic rhinitis, Joint Meeting of the AAAAI/AAI/CIS, San Francisco, CA February 23-27, 1997
52. Invited Symposia Speaker: Nucleotide nutrition and its applications in infant nutrition, Golden Anniversary Conference of Philippine Pediatric Society, Manila, Philippines. April 6-9, 1997
53. Invited Speaker: Role of nucleotides in Immune Function. National Academy of Sciences Workshop on Macronutrients in Washington D.C. May 2000
54. Invited Plenary Speaker: Microgravity and Immunomodulation. American Institute of Aeronautics and Astronautics (AIAA), Reno, Nevada, January 2002
55. Visiting Professor, Invited Lecture, Space Immunobiology, German Research Center for Biotechnology, Braunschweig, Germany, September 2002
56. Visiting Professor, Invited Lecture. Space Immunobiology and Nutritional Immunomodulation, University of Ulm, Germany, September 2002
57. Invited Lecture: Nutritional nucleotides and clinical significance. June 3, 2002 Otsuka Co., Japan
58. Invited Lecture: Immunomodulation in microgravity, University of Tokushima, Department of Nutrition, Japan, June 3-4, 2002, Japan
59. Visiting Professor, University of Nottingham, September 2002, UK
60. Visiting Professor, University of Tokushima, Department of Nutrition, Japan, October 2004, Japan
61. Invited Visiting Professor, Otsuka Pharmaceuticals Co., Japan, 2004

- 62 Visiting Professor, Kyowa Hakko Research Laboratories, Tsukuba, Japan, November 2004
- 63 Invited Plenary Lecture at the Annual PENSA Conference in Goa, India, November 2004
- 64 Nucleotides and wound healing, ESPEN Congress, Lisbon, September, Portugal 2004
- 65 Visiting Professor and University Exchange Program Coordinator, University of Tokushima, Tokushima, Japan, October 2005
- 66 Research Collaboration Exploration, Visiting Professor, University of Hiroshima, Hiroshima, Japan, October 2005
- 67 Invited Lecture, Nucleotides in Clinical Nutrition, Visiting Professor, Osaka University Medical School, Osaka, Japan, October 2005
- 68 Invited Visiting Professor, Amino Up Chemical Company, Sapporo, Japan, October 2005
- 69 Invited Visiting Professor, Tokushima University, Tokushima, Japan, 2006
- 70 Invited Visiting Professor, Hiroshima University, Hiroshima, Japan 2006
- 71 Invited Visiting Professor, University of Osaka Medical School, Osaka, Japan, 2006
- 72 Plenary Lecturer, International Congress of Medical Use Functional Foods, Tokyo, Japan 2006
- 73 Keynote Address, Immunomodulation, International Congress of Medical Use Functional Foods, Tokyo, Japan 2006
- 74 Invited Faculty Speaker, IPaNEMA Symposium, ASPEN Congress, Phoenix, AZ, USA 2007
- 75 Invited Visiting professor under the International Exchange Program, Tokushima University, Tokushima, Japan, May 2007
- 76 Keynote Address at the AHCC Annual Symposium, Sapporo, Japan, July 2007
- 77 Invited Visiting professor, Lectured at the Mukogawa Women's University, Mukogawa, Japan, July 07
- 78 Research Presentation at BioIberica Co, Barcelona, Spain, September 07.
- 79 Visiting Professor, University of Auckland and Massey University, Auckland, New Zealand, December 07
- 80 Invited Speaker and Visiting Professor, University of Sao Paulo, Sao Paulo, Brasil, March 08

- 81 Invited Speaker and Visiting Professor, Universidad Caxias Do Sul, Caxias Do Sul, Brasil, March 08
- 82 Invited Faculty, AHCC Foundation Symposium, Sapporo, Japan, July 08
- 83 Invited Visiting Professor, Department of Surgery, Osaka University Medical School, Osaka, Japan, July 08
- 84 Invited Visiting Professor, National Institute of Biomedical Innovations, Osaka, Japan 08
- 85 Invited Speaker for MuFF Congress, and Visiting Professor, Nutrition Department, Mukogawa University, Mukogawa, Japan 08
- 86 Invited Speaker at the 'Ganepao' Brazilian Nutrition Congress, Sao Paulo, Brasil, June 2009
- 87 Visiting Professor and Speaker at the 17th AHCC Congress, Sapporo, Japan, July 2009
- 88 Invited Visiting Professor, Surgery Department of The University of Nottingham and the Queen's Medical Center, Nottingham, UK 2009
- 89 Invited Speaker. Oligonol and Aging, ISNFF Conference in San Francisco, 2009
- 90 Invited Speaker. Role of Nutrition in Cancer Prevention and Therapy, Ulan Bator, Mongolia, 2010
- 91 Invited Speaker. Functional Foods and Cancer, Ulan Bator, Mongolia, 2010
- 92 Invited Speaker. Health Sciences University of Mongolia, Lessons from Space Medicine Research, Ulan Bator, Mongolia, 2010
- 93 Invited Professor, 18th International Congress of Nutrition and Integrative Medicine, Sapporo, Japan, July 2010.
- 94 Visiting Professor, University of Tokushima, Tokushima, Japan August 2011
- 94 Invited Speaker, 50th Anniversary Symposium of Mongolian National Cancer Center, Ulaanbaatar, Mongolia, October 2011
- 95 Visiting Professor, Surgery Department, Qingdao University & Affiliated Hospitals, Qingdao, China, October 2011
- 96 Invited Professor, 18th International Congress of Nutrition and Integrative Medicine, Sapporo, Japan, October 2011.
- 97 Invited Professor, Ebetsu Symposium on Food & Nutrition, Ebetsu, Hokkaido, November 2011

- 98 Invited Speaker, Int. Soc of Nutrition and Functional foods (ISNFF), Sapporo, Japan November 2011
- 99 Special Topic Presentation, Nutritional Preparedness in Natural Disasters, Research Section, ASPEN Society, Orland, Florida, January 2012
- 100 Global Health Concentration Seminar, Ethnic and Cultural nutrition in Global Health Era UTHealth & Medical School, Houston, Texas, USA April 2012
- 101 Cultural/Ethnic nutrition in Global Health Era: Functional Foods, Immunonutrition, and Non-Communicable Diseases University of Panama & Endocrine Society of Panama July 2, 2012
- 102 Functional Foods, Immunonutrition, and Non-Communicable Disease, University of Costa Rica & Caribbean Endocrine Society Conference, in Costa Rica July 4, 2012
- 103 Cultural/Ethnic nutrition in Global Health Era: Functional Foods and Non-Communicable Diseases, Central American Endocrine Society & Physicians Group of Guatemala, Guatemala, July 5, 2012
- 104 Invited Speaker, Targeted Immunonutrition For Chronic Non-communicable Diseases (NCD) In Resource Limited Settings. Int. Conference on Nutrition and Integrative Medicine, Sapporo, Japan, July 21, 2012

PUBLICATIONS:

A. REFEREED ORIGINAL ARTICLES:

1. KULKARNI AD: Studies on pepsin digestion of horse antitoxic sera. M.S. Thesis, Bombay University, Bombay, India, 1970.
2. Rao SS, Patki VM, and KULKARNI AD: Preparation of active insoluble pepsin. *Indian J Biochem.* 7(3):210, 1970.
3. Phillips JP, Forrest HS, and KULKARNI AD: Terminal synthesis of xanthematin pigment formation in *Drosophila Melanogaster*. III. Mutational pleiotropy and pigment granule association of phenoxazinone synthetase. *Genetics* 73:45, 1973.
4. Kulkarni SS, KULKARNI AD, Gallagher MT, and Trentin JJ: Prolongation of cardiac allografts in mice using donor specific antigen and cyclophosphamide. *Cellular Immunology* 47:192, 1979.
5. Kulkarni SS, KULKARNI AD, Gallagher MT, and Trentin JJ: Amelioration of graft-versus-host disease (GVHD) by pretreatment of allogeneic cells with Fab fragments. *Transplantation* 31:72, 1980.

6. VanBuren CT, KULKARNI AD, Schandle VB, and Rudolph FB: The influence of dietary nucleotides on cell-mediated immunity. *Transplantation* 36:350-352, 1983.
7. VanBuren CT, KULKARNI AD, and Rudolph FB: Synergistic effect of nucleotide-free diet and cyclosporine on allograft survival. *Transpl. Proc.* 15(4) 2: 2967-2968, 1983.
8. Rudolph FB, KULKARNI AD, Schandle VB, and VanBuren CT: Involvement of dietary nucleotides in T-lymphocyte function. *Adv. Exp. Med. and Biol.* 165B:175-178, 1984.
9. Kulkarni SS, Bhatelty DB, Zander AR, VanBuren CT, Rudolph FB, Dicke KA, and KULKARNI AD: Functional impairment of T-lymphocytes in mouse radiation chimeras by a nucleotide-free diet. *Exp. Hematol.* 12:694-699, 1984.
10. VanBuren CT, KULKARNI AD, Fanslow WC, and Rudolph FB: Dietary nucleotides: A requirement for helper-suppressor T-lymphocytes. *Transplantation* 40(6):694-697, 1985.
11. Rudolph FB, Fanslow WC, KULKARNI AD, Kulkarni SS and VanBuren CT: Effect of dietary nucleotides on lymphocyte maturation. *Adv. in Exp. Med. Biol.* 195: 497-501, 1985.
12. KULKARNI AD, Fanslow WC, Rudolph FB, and VanBuren CT: Effects of dietary nucleotides on bacterial infections. *J Parent. and Ent. Nutrition* 10(2):169-171, 1986.
13. KULKARNI AD, Fanslow WC, Drath DB, Rudolph FB, and VanBuren CT: Influence of dietary nucleotide restriction on bacterial sepsis and phagocytic cell function in mice. *Archives of Surgery* 121:169-172, 1986.
14. Roughneen PT, Gouma DJ, KULKARNI AD, Fanslow WC, and Rowlands BJ: Impaired cell-mediated immunity in extrahepatic cholestasis and its reversibility by internal drainage. *J Surg. Res.* 41:113-125, 1986.
15. Roughneen PT, KULKARNI AD, Gouma DJ, Fanslow WC and Rowlands BJ: Suppression of host-versus-graft response in experimental biliary obstruction. *Transplantation* 42:687-689, 1986.
16. Roughneen PT, Drath D, KULKARNI AD, and Rowlands BJ: Extra-hepatic cholestasis alters neutrophilic tissue without phagocytic and metabolic activity. *Surg. Forum* 37:148-151, 1986.
17. KULKARNI AD, Fanslow WC, Rudolph FB, and VanBuren CT: Modulation of delayed hypersensitivity in mice by dietary nucleotide restriction. *Transplantation* 44(6): 847-849, 1987.
18. Roughneen PT, Drath DB, KULKARNI AD, and Rowlands BJ: Impaired nonspecific cellular immunity in extrahepatic cholestasis. *Ann Surg.* 206(5):578-582, 1987.
19. VanBuren CT, Kim EE, KULKARNI AD, Fanslow WC, and Rudolph FB: Nucleotide free

- diet and suppression of immune response. *Transplantation Proceedings* 19(4):57-59, 1987.
20. Fanslow WC, KULKARNI AD, Rudolph FB and VanBuren CT: Effect of nucleotide restriction and supplementation on resistance to experimental murine candidiasis. *J Parent and Ent. Nutrition* 12:49-52, 1988.
 21. Roughneen PT, Kulkarni S, Kumar S, KULKARNI AD, Fanslow WC, Pellis NR, and Rowlands BJ: The influence of hepatocellular function on NK and T cell tumoricidal activity. *Surgery* 104:888-893, 1988.
 22. KULKARNI AD, Fanslow WC, Higley H, Pizzini RP, Rudolph FB, and VanBuren CT: Expression of immune cell surface markers in vivo and immune competence in mice by dietary nucleotides. *Transplant. Proc.* 21(1):121-124, 1988.
 23. KULKARNI AD: Effects of dietary nucleotide restriction on the immune response. Ph.D. (Immunology) Thesis. The Queen's University of Belfast, Belfast, N. Ireland, UK, 1988.
 24. Roughneen PT, KULKARNI AD, Kumar S, Fanslow WC, and Rowlands BJ: Splenic macrophages induce T cell suppression in experimental hepatic failure. *Current Surgery* 46(1):36-38, 1989.
 25. McVaugh W, Lawrence B, KULKARNI AD, Pizzini R, VanBuren C, Rudolph F, Wolinsky J, and Dafny N: Suppression of opiate withdrawal by cyclosporine A and dietary modification. *Life Sciences* 44:977-983, 1989.
 26. VanBuren CT, Rudolph FB, KULKARNI AD, Pizzini RP, Fanslow WC and Kumar S: Reversal of immunosuppression induced by protein-free diet: A comparison of nucleotides, fish oil, and arginine. *Critical Care Medicine* 18(Suppl.):114-117, 1990.
 27. Roughneen PT, Drath DB, KULKARNI AD, Kumar S, Andrassy RJ, and Rowlands BJ: Inflammatory cell function in young rodents with experimental cholestasis: Investigations of function deficits, their etiology and their reversibility. *J Pediat. Surgery* 24:668-673, 1990.
 28. Roughneen PT, KULKARNI AD, Thompson DA, Kumar S, Kahan BD, and Rowlands BJ: Temporal T cell suppression and impaired host responsiveness to non-vascularized neonatal cardiac allografts in experimental hepatic failure. *Transplant. Proc.* 22(1):291-293, 1990.
 29. KULKARNI AD, Pizzini RP, Fanslow WC, Kumar S, Higley H, Rudolph FB, and VanBuren CT: Immunohistochemical studies of in vivo immune response by exogenous dietary nucleotides. *Proc. of the Int. Sympo. on Nutritional Support in Organ Failure*, 1990.
 30. KULKARNI AD, Kumar S, Pizzini R, Rudolph F, and VanBuren C: Influence of dietary glutamine and IMPACT on in vivo cell-mediated immune response in mice. *Nutrition* 6:66-69, 1990.
 31. Rudolph F, KULKARNI AD, Fanslow W, Pizzini R, Kumar S, and VanBuren C: Role of RNA as a dietary source of pyrimidines and purines in immune function. *Nutrition* 6:45-51,

- 1990.
32. VanBuren C, Rudolph F, KULKARNI AD, Fanslow W, Pizzini R, and Kumar S: Effect of diet on transfusion induced immune suppression. *Nutrition* 6:63-65, 1990.
 33. Pizzini R, Kumar S, KULKARNI AD, Rudolph F, and VanBuren C: Dietary nucleotides reverse malnutrition and starvation induced immunosuppression. *Arch of Surgery* 124:86-90, 1990.
 34. Roughneen PT, KULKARNI AD, Andrassy RJ, and Rowlands BJ: A potential basis for suppressed inflammatory cell function in pediatric cholestatic hosts. *J Pediatr. Surgery* 25:204-207, 1990.
 35. KULKARNI AD, Fanslow WC, Rudolph FB and VanBuren CT: Immuno-hemopoietic effects of dietary nucleotide restriction in mice. *Transplantation* 53(2): 467-472, 1992.
 36. Lamire JM, Archer DC, KULKARNI AD, Ince A, Uskokovic MR, and Stepkowsky S: The vitamin D3 analogue, 1,25-dihydroxy-14-cholecalciferol, prolongs the survival of murine cardiac allografts. *Transplantation* 54(4):762-763, 1992.
 37. VanBuren CT, KULKARNI AD, and Rudolph FB. The role of nucleotides in adult nutrition. *J of Nutrition* 124:160s-164s, 1994.
 38. KULKARNI AD, Rudolph FB, and VanBuren CT: The role of dietary sources of nucleotides in immune function: A review. *J. of Nutrition* 124:1442s-1446s, 1994.
 39. Longo WE, Polites G, Vernava AM, III, Deshpande Y, Niehoff M, Chandel B, KULKARNI AD, and Kaminski DL: Platelet-activating factor (PAF) mediates trinitrobenzene (TNB) induced colitis. *Prostagland. Leukotri. and Essential Fatty Acids.* 51:419-424, 1994.
 40. Longo WE, Carter JD, Chandel B, Niehoff M, Standeven J, Deshpande Y, Vernava AM, Polites G, KULKARNI AD, and Kaminski DL: WEB 2170 inhibition of stimulated colonic eicosanoid release: Evidence for a colonic receptor. *J Surg. Research* 58:12-18, 1995.
 41. Adjei AA, Yamamoto S. and KULKARNI AD: Nucleic acids and/or their components: A possible role in immune function. *J Nutr. Sci. Vitaminol. (Japan)* 41:1-16, 1995.
 42. Yamauchi K, Adjei AA, Yin-Ching C, Ameho CK, KULKARNI AD, Sato S, Okamoto K, and Yamamoto S: Modulation of in vivo specific cell mediated immunity: lymphoproliferative response and delayed hypersensitivity in mice by individual components of nucleoside-nucleotide mixture. *J. Nutrition* 126: 1571-1577, 1996
 43. Adjei AA, Yamauchi K, Al-Mansouri HSMH, Yin-Ching C, KULKARNI AD, Konishi M, and Yamamoto S: Dietary nucleosides and nucleotides improve cell-mediated immunity in mice. *J Nutr. Immunol.* 4(4): 23-35, 1996

44. Adjei AA, Morioka T, Yamauchi K, KULKARNI AD, Chan YC, Ameho CK and Yamamoto S. Nucleoside-nucleotide free diet protects rat colonic mucosa from damage induced by trinitrobenzene sulphonic acid. *Gut*, 39: 428-433, 1996
45. Al-Mansouri HMSH, Yamamoto S, KULKARNI AD, Ariizumi M, Adjei AA, and Yamauchi K. Effect of dietary nucleosides and nucleotides on murine allergic rhinitis. *Am. J. Med. Sciences*, 312(5):202-205, 1996
46. Ameho C, Adjei AA, Yamauchi K, Harrison EK, KULKARNI AD, Sato, S, and Yamamoto, S.: Modulation of age-related changes in immune function of protein-deficient senescence accelerated mice by dietary nucleoside-nucleotide mixture supplementation. *Brit. J. Nutr.* 77:795-804,1997.
47. KULKARNI AD, McVaugh B, Lawrence B, Pizzini RP, Dafny N, Wolinsky I, Rudolph FB, and VanBuren CT: Nutritional supplementation of nucleotides restores opioid CNS mediated phenomena in mice. *Life Sciences*, 61(17), 1691-696, 1997
48. Ameho CK, Adjei AA, Yamauchi K, Asato L, Kakinohana S, KULKARNI AD, Hiroi Y, and Yamamoto S. Dietary nucleoside-nucleotide mixture aggravates nasal allergic responses by toluene diisocyanate in mice. *Nutrition Research*, 17(10):1597-1605, 1997
49. Adjei AA, Ameho CK, Harrison EK, Yamauchi, K, KULKARNI AD, Kawajiri A, and Yamamoto S. Nucleoside-nucleotide free diet suppresses cytokine production and contact sensitivity in rats to trinitrobenzene sulphonic acid induced colitis. *Am. J. Med. Sci.* 314(2):89-96, 1997
50. Yamauchi K, Adjei AA, Ameho, CK, Yin-Ching C, Sato S, Okamoto K, AlMonsouri HMSH, KULKARNI AD, and Yamamoto S. Nucleoside-nucleotide mixture increases bone marrow cell number and small intestinal growth in protein-deficient mice after an acute bacterial infection. (In Press; *J. Nutrition*)
51. Ameho CK, Adjei AA, Harrison EK, Takeshita K, Morioka T, Arakaki E, KULKARNI AD, and Yamamoto S. Prophylactic effect of dietary glutamine supplementation on IL-8 and TNF-alpha production in TNBS induced colitis. *GUT*, 41(4): 487-493, 1997.
52. El-Gazzawy AG, Gupta N, Swope TJ, KULKARNI AD, Panneton W, Robinson SM, Niehoff ML, Kaminski DL, and Andrus CH. Evaluation of benzalkonium chloride chemoneurolytic proximal gastric vagotomy. *Surgical Endoscopy*, 12:207-211, 1997
53. Yamauchi K, Minami H, KULKARNI AD, and Yamamoto S. Glutamine, arginine, and affect Caco-2 cell proliferation by the promotion of nucleotide synthesis. *Nutrition*, 18:329-333, 2002.
54. KULKARNI AD, Robinson S, and Furukawa S. Immunologic efficacy of supplemental pyrimidine precursor, orotic acid. Submitted to *European J. of Nutrition*, 2002
55. KULKARNI AD, Yamauchi K, Pellis NR. Nutritional countermeasure and immune function

- in microgravity. Proceedings of the 2nd Pan Pacific Workshop on Microgravity, Pasadena, CA., May 2001.
56. KULKARNI AD, K. Yamauchi, N.W. Hales, V. Ramesh, G.T. Ramesh, A. Sundaresan, R.J. Andrassy, Neal R. Pellis. Nutrition Beyond Nutrition: Plausibility of Immunotrophic Nutrition for Space Travel. *Clinical Nutrition*, 21(3):231-268, June 2002
 57. Hales NW, Yamauchi K, Martinez AA, Sundaresan A, Pellis NR and KULKARNI AD. A countermeasure to ameliorate immune dysfunction in *in vitro* simulated microgravity environment: Role of cellular nucleotide nutrition. *In Vitro Cell. Dev. Biol. Animal*, 38(4):213-217, April 2002
 58. Yamauchi K, Hales N.W, Robinson SM, Niehoff ML, Ramesh V, Pellis NR, and KULKARNI AD. Nutritional requirement of nucleotides for cellular immunity in simulated microgravity. *J. Appl. Physiology*, 93:161-166, 2002
 59. KULKARNI AD, Yamauchi K, Taga M, Savary CA, Sundaresan A and Pellis NR. Space immunology and countermeasure research in modeled microgravity. Proceedings of the Aerospace Sciences Conference, AIAA-2002-0325: 1-6, 2002.
 60. Yamauchi K, Sundaresan A, Hales NW, Yamamoto S, Pellis NR, KULKARNI AD. Nutritional countermeasure to obviate immune dysfunction in microgravity. May 2002, Proceedings of the 23rd ISTS Conference, Matsue, Japan
 61. Sundaresan A, Yamauchi K, KULKARNI AD, and N.R.Pellis³. Microgravity and modeled microgravity effects on lymphocyte signal transduction: Comparisons between human and mouse lymphocyte signaling. May 2002, Proceedings of the 23rd ISTS Conference, Matsue, Japan
 62. Yamamoto S, KULKARNI, AD, Yamauchi k, Sundaresan A, Fujiwara, A. Maintenance of immunity by nutrition in space. *Shikoku Acta Medica*, 58 (6):302-307, 2002 (article in Japanese)
 63. Taga M, Yamauchi K, Odle J, Furian L, Sundaresan A, Pellis N, Andrassy R, KULKARNI A. Altered tumor cell growth and tumorigenicity in models of microgravity, *Aviation Space Medicine and Biology*, Vol. 77 (11) :1113-1116, 2006
 64. KULKARNI, A. Evidence Strategy for Functional Foods. (*Japanese Journal for Medical Use of Functional Foods*), JMUFF, Vol. 1 (4): 183-188, 2003, article in English and Japanese
 65. K. Felix, K. Wise, S. Manna, K. Yamauchi, B. L. Wilson, R. Thomas, A.KULKARNI, N. R. Pellis and G. T. Ramesh. Altered Cytokine Expression in Tissues of Mice Subjected to Simulated Microgravity. *Molecular and Cellular Biochemistry*, 2004, 266: 79-85

66. A. P.Sommer, A.D. KULKARNI, A-M Pretorius, U. Oron, N. Ciftcioglu, C. Wickramasinghe, A. R. Mester. Light and Nutrients- Multidisciplinary Responses to the Novel Climatic Challenges. Submitted to Int. J. of Environmental Sciences, 2005
67. A.D. KULKARNI , K Yamauchi, A Sundaresan, G.T. Ramesh, N.R. Pellis. Countermeasure for space flight effects on immune system: Nutritional nucleotides. *Gravitational and Space Biology*, 2005:18(2), 101-102
68. KULKARNI AD. Functional Foods: Factual or Fictional, *Japanese J of Medical Use of Functional Foods*, 2005:1 (2),269-270.
69. Ramesh GT, Wise K, Ramesh V, Yamauchi Y, KULKARNI AD, Wilson B. Activation of immediate early response genes in mouse brain induced by simulated microgravity. *Proceedings of International Astronautics Federation Conference*, 2005, Fukuoka, Japan.
70. Sundaresan A, KULKARNI AD, Pellis NR, Yamauchi K. Biomarkers of cell and tissue injury in analog microgravity. *Proceedings of International Astronautics Federation 2005*, Fukuoka, Japan.
71. KULKARNI AD, Yamauchi K, Sundaresan A, Ambrose C, Ramesh GT, Pellis NR. An evidence- based countermeasure for spaceflight: Nutritional nucleotide augmentation of immunity. *Proceedings of International Astronautics Federation Conference*, 2005, Fukuoka, Japan.
70. Wise KC, Manna SK, Yamauchi K, Ramesh V, Wilson BL, Thomas RL, Sarkar S, KULKARNI AD, Pellis NR, And Ramesh GT. *In Vitro Cell. Dev. Biol.-Animal* 2005, 41:118–123.
71. Sarkar P, Sarkar S, Ramesh V, Hayes BE, Thomas RL, Wilson BL, Kim H, Barnes S, KULKARNI AD, Pellis NR, and Ramesh GT. Proteomic Analysis of Mice Hippocampus in Simulated Microgravity Environment. *Journal of Proteome Research* 2006, 5, 548-553
72. Sundaresan A, KULKARNI AD, Yamauchi K and Pellis NR. The Role of Nucleotides in Augmentation of Lymphocyte Locomotion: Adaptional Countermeasure Development in Microgravity Environments. *Microgravity Sci.Technol.XVIII-3/4* (2006)
73. Sarkar S, Wise KC, Manna SK, Ramesh V, Yamauchi K, Thomas RL, Wilson BL, KULKARNI AD, Pellis NR and Ramesh GT. Activation of activator protein-1 in mouse brain regions exposed to simulated microgravity. *J of In vitro Cell and Developmental Biology-Animal*, 42(3): 96-99; 2006.
74. Kogiso M, Yamauchi K, Taga M, Wakame K, KULKARNI AD., Nucleotides as functional food component. *JJSMUFF*, 4(5):275-283, 2007 (English)
75. Kogiso M, Yamauchi K, Taga M, Wakame K, KULKARNI AD., Nucleotides as functional food component. *JJSMUFF*, 4(5):285-292, 2007 (Japanese)

76. KULKARNI AD, Kogiso M, Wakame K. Space Nutrition: Effects of Microgravity and Immunonutritional Nucleotides, *Current Opinion in Critical Nutrition and Metabolic Care*, (in press 2008)
77. Sarkar P, Sarkar S, Ramesh V, Kim H, Barnes S, KULKARNI AD, Hall JC, Wilson BL, Thomas RI, Pellis NR, Ramesh GT. Proteomic analysis of mouse hypothalamus under simulated microgravity. *Neurochem Res.* 33(11):2335-41, 2008
78. Mari Kogiso, Koji Wakame, Mehran Haidari, Eva B. Golunski, Mohammad Madjid, Tohru Sakai, Shigeru Yamamoto, ANIL D. KULKARNI. Active hexose correlated compound and T cell response in hind-limb-unloaded BALB/c mice. In revision for JPEN
79. L Yuge, ST Tahara, Y Kawahara, AD KULKARNI. Inhibition of cell differentiation and aging in the microgravity environment. Published report Symposium on Space Applications, January 2008
80. L Yuge, ST Tahara, Y Kawahara, AD KULKARNI. Usefulness of bone marrow stromal cells grown in the microgravity environment for nerve regeneration. Published report Symposium on Space Applications, January 2009
81. F Shen, B Zhang, Y Feng, Z Jia, Bing An, C Liu, X Deng, AD Kulkarni, Yun Lu. Current research in perineural invasion of cholangiocarcinoma. *Journal of Experimental & Clinical Cancer Research* ,29:24-31, 2010
82. AD KULKARNI, Kogiso M, Wakame K, Yamauchi K. Evidential Nutritional Immunomodulation: Applications in Stress and Trauma Subjects. In: *Treaty of Human metabolism*, Ed.FJ Karkow, Rubio Publishers 2010, Chapter 11.
83. Shah SK, Walker PA, Moore-Olefumi SD, Sundaresan A, AD Kulkarni, and RJ Andrassy. An evidence based review of a Lentinula edodes mushroom extract as complementary therapy in the surgical oncology patients. *J Parenteral & Enteral Nutrition.* 2011 Jul;35(4):449-58.
84. AD Kulkarni, A Sundaresan, M Rashid, S Yamamoto, and F Karkow. Application of diet-derived taste active components for clinical nutrition: Perspectives from ancient Ayurvedic medical science, space medicine, and modern clinical nutrition, *Current Pharmaceuticals Design*, Bentham Science Publishers, In Press, 2013
85. Sundaresan A, AD KULKARNI, K Wakame. AHCC in oxidative Stress and cell. *Proceedings of the Metabolism*, In Preparation

B. Abstracts:

1. Rao SS, Patki VM, and KULKARNI AD: Preparation of active insoluble pepsin. The Second International Convention of Biochemists. Baroda, India, A-23, 1970.
2. SS, KULKARNI AD, Gallagher MT, and Trentin JJ: Prolongation of cardiac survival by

- pretreatment of recipient mice with donor blood of spleen cells and cyclophosphamide. *Fed. Proc.* 37:1576, 1978.
3. SS, KULKARNI AD, Gallagher MT, and Trentin JJ: Amelioration of graft-versus-host disease (GVHD) mortality of bone marrow chimeras by pretreatment of donor cells with Fab fragments of horse anti-mouse thymocyte globulin (Fab). *Fed. Proc.* 39:928, 1979.
 4. Datta SK, Trentin JJ, Morrisett JD, Gotto AM, Kurasige T, and KULKARNI AD: Inhibition of natural killer (NK) cell activity by plasma or lipoprotein fractions of hyperlipidemic patients. *Fed. Proc.* 39:934, 1980.
 5. SS, KULKARNI AD, Harrod F, and Trentin JJ: Spontaneous leukocyte blastogenesis in cardiac allografted mice. *Fed. Proc.* 39:909, 1980.
 6. VanBuren CT, KULKARNI AD, Schandle VB, and Rudolph FB: Effect of nucleotide free diet on EL4 tumor growth in the C57BL/6 host. *Fed. Proc.* 49:928, 1981.
 7. Trentin JJ, Kim HS, KULKARNI AD, SS, and Morrisett JD: Genetic susceptibility and resistance to diet-induced Atherosclerosis and hyperlipoproteinemia. I. Atherosclerosis. *Fed. Proc.* 40:334, 1981.
 8. Morrisett JD, KULKARNI AD, SS, Kim HS, and Trentin JJ: Genetic susceptibility and resistance to diet induced atherosclerosis and hyperlipoproteinemia. II. Hyperlipoproteinemia. *Fed. Proc.* 40:328, 1981.
 9. Rudolph FB, KULKARNI AD, Schandle VB, and VanBuren CT: Effect of dietary nucleotides on immune function. *Fed. Proc.* 40:1737, 1981.
 10. VanBuren CT, KULKARNI AD, and Rudolph FB: Dietary nucleotide deprivation suppresses T-lymphocyte function. *J Parent and Enteral Nutrition* 5(6):566, 1981.
 11. KULKARNI AD, Schandle VB, Rudolph FB, and VanBuren CT: Suppression of delayed hypersensitivity (DTH) to SRBC in mice fed nucleotide-free diet. *Fed. Proc.* 41: 589, 1982.
 12. Rudolph FB, KULKARNI AD, Schandle VB, and VanBuren CT: Involvement of dietary nucleotides in T-lymphocyte function. *J Clin. Chem. Clin. Biochem.* 20:412, 1982.
 13. S, Bhateley D, Zander A, VanBuren CT, Rudolph FB, KULKARNI AD, and Dicke K: T-cell impairment in mouse rKULKARNI ADiation chimeras by nucleotide-free diet (NFD). *Blood* 60:1720, 1982.
 14. VanBuren CT, KULKARNI AD, and Rudolph FB: Nucleotide deprivation retards delayed cutaneous hypersensitivity (DCH). *J.P.E.N.* 6(6):582, 1982.
 15. KULKARNI AD, Rudolph FB, Schandle VB, Pellis NR, and VanBuren CT: Differential tumor growth in mice on a nucleotide-free diet (NFD). *Fed. Proc.* 42(4):1045, 1982.

16. VanBuren CT, KULKARNI AD, Fanslow WC, and Rudolph FB: Nucleotide deprivation enhances bacterial sepsis. *J.P.E.N.* 9(1):117, 1985.
17. KULKARNI AD, Fanslow W, Drath DB, Rudolph FB, and VanBuren CT: Influence of dietary nucleotides on bacterial sepsis and phagocytic cell function in mice. *Surg. Infection Society. Abstracts*: 3, 1985.
18. KULKARNI AD, Fanslow WC, Peng C, Rudolph FB, and VanBuren CT: Similarity of immune-suppression due to cyclosporine-A (CyA) and nucleotide-free diet (NFD) in mice. *Fed. Proc.* 44:1149, 1985.
19. Fanslow WC, KULKARNI AD, Peng C, Rudolph FB and VanBuren CT: Suppression of cell-mediated immune responses in mice by a nucleotide-free diet (NFD): Effects on suppressor (TS) and helper cell (TH) activity. *Fed. Proc.* 44:1708, 1985.
20. Rowlands BJ, Roughneen PT, Gouma DJ, KULKARNI AD, and Moody FG: Impaired cell-mediated immunity in extra-hepatic biliary obstruction. *The Ital. J Surg. Sciences*, 15(1):100, 1985.
21. Rudolph FB, Fanslow WC, KULKARNI AD, and VanBuren CT: Effect of dietary nucleotides on lymphocyte maturation. *Ped. Res.* 19(7):773, 1985.
22. VanBuren CT, KULKARNI AD, Fanslow WC, and Rudolph FB: Dietary nucleotides: A requirement for helper/suppressor T-lymphocytes. Presented at the 11th Annual Meeting of the American Society of Transplant Surgeons, May 24-25, 1985, Chicago, IL.
23. Roughneen PT, Gouma DJ, KULKARNI AD, Fanslow WC, and Rowlands BJ: Internal biliary drainage reverses T-lymphocyte function associated with jaundice. Presented at the Association of Academic Surgery Annual Meeting, Cincinnati, OH, USA, November, 1985.
24. Rowlands BJ, Roughneen PT, Gouma DJ, KULKARNI AD, and Fanslow WC: In vitro and vivo MLC response following bile duct ligation and internal biliary drainage. *International Biliary Assn.*, Sendai, Japan, May 28-30, 1986.
25. Fanslow WC, KULKARNI AD, VanBuren CT, and Rudolph FB: KULKARNI Adenosine deaminase levels influenced by dietary nucleotide restriction. *Fed. Proc.* 45:1894, 1986.
26. Roughneen PT, KULKARNI AD, Kumar S, Fanslow WC, and Rowlands BJ: The temporal nature of T-cell suppression following experimental biliary obstruction. *Gastroenterology* 90:1608, 1986.
27. Roughneen PT, S, Kumar S, KULKARNI AD, and Rowlands BJ: Impaired natural killer cell activity in experimental cholestasis. *J Leukocyte Biology* 40:289, 1986.
28. KULKARNI AD, Fanslow W, Rudolph FB, and VanBuren CT: Exogenous nucleotide dependent alteration of immune response is associated with KULKARNI ADA and PNP

- enzyme activity in mice. *Exp. Hematology* 14:445, 1986.
29. Roughneen PT, Drath D, KULKARNI AD, and Rowlands BJ: Are septic complications of cholestasis related to impairment of non-specific host defense mechanisms? *Circ. Shock*, 18:342, 1986.
 30. KULKARNI AD, Fanslow WC, SS, Rudolph FB, and VanBuren CT: Dietary nucleotides and immune response in mice. Presented at the International Update in Pediatrics, Int. College of Pediatrics, Bombay, Dec. 20-21, 1986.
 31. Kim EK, KULKARNI AD, Fanslow WC, Rudolph FB, and VanBuren CT: Synergism between a nucleotide free diet (NF) and cyclosporine in prolongation of rat cardiac allograft survival. Presented at the 13th Annual Scientific Meeting of Amer. Soc. of Transplant Surgeons, May 27-29, 1987.
 32. KULKARNI AD, Fanslow W, S, Moon L, Rudolph R, and VanBuren CT: Dietary nucleotide restricted production of lympho-hemopoietic growth factors. The 16th Annual Meeting of the International Society of Experimental Hematology, Tokyo, Japan, 23-27 August, 1987. *Exp. Hematol.* 15(5):532, 1987.
 33. Roughneen PT, SS, Kumar S, KULKARNI AD, Pellis NR and Rowlands BJ: The dependent nature of natural killer cell cytotoxicity and lymphocytic responsiveness to tumor associated antigen on hepatocellular integrity. Presented at the 11th International Reticuloendothelial Society Congress, October 17-21, 1987, Kauai, Hawaii. *J Leuk. Biology* 42(4):391, 1987.
 34. Fanslow WC, KULKARNI AD, VanBuren CT, and Rudolph FB: In vivo outgrowth of the T cell lymphoma (5F-4) is suppressed by a nucleotide-free diet. *FASEB* 1988, 2, A864.
 35. KULKARNI AD, McVaugh W, Lawrence B, Pizzini RP, VanBuren CT, Rudolph FB, and Dafny N: Immunosuppression by nucleotide-free diet and cyclosporine modulates brain function. *FASEB* 1988, 2 (March), A485.
 36. KULKARNI AD, Fanslow WC, Higley H, Pizzini RP, Rudolph FB and VanBuren CT: Expression of immune cell surface markers in vivo and immune competence in mice by dietary nucleotides. Presented at the XII International Congress of The Transplantation Society, Sydney, Australia, August 14-19, 1988, Abstract #4C.
 37. Roughneen PT, Drath DB, KULKARNI AD, Andrassy RJ, and Rowlands BJ: Cholestasis impairs systemic polymorphonuclear leukocyte phagocytic capacity in growing rats. Presented at American Association of Pediatrics, Annual Meeting, October 15, 1988, San Francisco, California.
 38. VanBuren CT, Rudolph FB, KULKARNI AD, Pizzini RP, Fanslow WC, and Kumar S: Reversal of immunosuppression induced by a protein-free diet: A comparison of nucleotides, fish oil and arginine. Presented at the Symposium on Nutrition and Immunomodulation, Palm Springs, California, November 3-6, 1988.

39. KULKARNI AD, Pizzini RP, Fanslow WC, Kumar S, Higley H, Rudolph FB, and VanBuren CT: Immunohistochemical studies of in vivo immune response by exogenous dietary nucleotides. Presented at the "International Symposium on Nutritional Support in Organ Failure," Osaka, Japan, November 21-23, 1988.
40. VanBuren CT, Pizzini RP, KULKARNI AD, Kumar S, and Rudolph FB: Dietary nucleotides: A vital substrate in End Organ Failure. Presented at the "International Symposium on Nutritional Support in Organ Failure," Osaka, Japan, November 21-23, 1988.
41. Pizzini RP, Kumar S, KULKARNI AD, Rudolph FB, and VanBuren CT: Dietary nucleotides reverse malnutrition and starvation induced immunosuppression. Surgical Infection Society, IX Annual Meeting, Denver, CO, April 13-14, 1989.
42. KULKARNI AD, Kumar S, Pizzini RP, Rudolph FB, and VanBuren CT: Influence of dietary glutamine and IMPACT[®] on in vivo cell-mediated immune response in mice. Presented at the Update on Immunonutrition Symposium, Minneapolis, Minnesota, July 12-15, 1989.
43. Rudolph FB, KULKARNI AD, Fanslow WC, Pizzini RP, Kumar S, and VanBuren CT: Role of RNA as a dietary source of purimidine and purines in immune function. Presented at the Update on Immunonutrition Symposium, Minneapolis, Minnesota, July 12-15, 1989.
44. VanBuren CT, Rudolph FB, KULKARNI AD, Fanslow WC, Pizzini RP, and Kumar S: Effect of diet on transfusion induced immune suppression. Presented at the Update on Immunonutrition Symposium, Minneapolis, MN, July 12-15, 1989.
45. Martin J, KULKARNI AD, Kim EE, Pizzini RP, Fanslow WC, Rudolph FB, and VanBuren CT: Influence of dietary nucleotides on immune response in cyclosporine (CsA) treated rats. FASEB, Washington, DC, April 1-5, 1990.
46. Pizzini R, Lawrence B, KULKARNI AD, Kumar S, Rudolph FB, and VanBuren CT: In vivo immunohemopoietic effects of chronic morphine treatment. FASEB, Washington, DC, April 1-5, 1990.
47. KULKARNI AD, Kumar S, Pizzini RP, Fanslow WC, Rudolph FB, and VanBuren CT: Effect of dietary nucleotides on brain function and possible association with immune response. FASEB, Washington, DC, April 1-5, 1990.
48. KULKARNI AD, Pizzini R, Lawrence B, Kumar S, Martin J, Dafny N, Rudolph F, and VanBuren CT: Effect of in vivo and in vitro KULKARNI ADministration of morphine on bone marrow CFU-C, CFU-S, and IL-3 production. Presented at 19th Annual Meeting of ISEH, August 26-30, 1990.
49. VanBuren CT, KULKARNI AD, Pizzini RP, Kumar S, and Rudolph FB: Role of dietary nucleotide sources in prevention of immune function loss accompanying protein starvation.

Presented at the XII Congress of the European Society of Parenteral and Enteral Nutrition, Athens, Greece, September 14-19, 1990.

50. KULKARNI AD, Martin J, Kumar S, Rudolph F, and VanBuren CT: Nucleotide dependent immunosurveillance function in mice. Presented at the 12th International RES Congress, Heraklion, Crete, Greece, October 14-18, J Leuk. Biology, Suppl. 1:131, 1990.
51. VanBuren CT, KULKARNI AD, Martin J, Kumar S, and Rudolph FB: Dietary nucleotides maintain host immunity during protein starvation. Amer. Soc. of Transplant Physicians, Abstract #90, Chicago, May 28-31, 1991.
52. Pizzini RP, KULKARNI AD, Lawrence B, Kumar S, Rudolph FB and VanBuren CT: Morphine in KULKARNI ADdictive and low concentrations affects mouse bone marrow colony formation and IL-3 production. Presented at Annual Meeting of South Texas Chapter of American College of Surgeons, March 1992, San Antonio, TX.
53. KULKARNI AD: Nucleotide nutrition and immunity. Invited Speaker at the Symposium on Nutrition and Immunity, FASEB meetings, New Orleans, LA, March, 1993.
54. KULKARNI AD: Morphine KULKARNI ADministration and its immunohemopoietic effects. Annual Meeting of the American College of Surgeons, Missouri Chapter at the Lake of the Ozarks, MO, June, 1993.
55. Polites G, Longo WE, Vernava AM, III, Deshpande Y, Niehoff M, Chandel B, KULKARNI AD, and Kaminski DL: Platelet-activating factor (PAF) mediates trinitrobenzene (TNB) induced colitis. Annual Meeting of the American Society of Colon and Rectal Surgeons, May 8-13, 1994, Orlando, Florida.
56. KULKARNI AD, Pizzini R, Kumar C, Martin J, Goto S, Rudolph F, Walker J, and VanBuren C: Prolongation of cardiac allograft survival by cyclocreatine. The 9th Internat. Congress of Immunol. 23-29 July, 1995, San Francisco, CA.
57. KULKARNI AD, KULKARNI ADjei A, Yamauchi K, Niehoff M, Andrus C, Baue A, and Yamamoto S.: Role of nucleotides/nucleosides (NUCL) in management of sepsis, shock and trauma. Third International Shock Congress, Hamamatsu, Japan, October 21-23, 1995.
58. KULKARNI AD, Robinson S, Niehoff ML, and Andrus CH: Diet, nutrition, immunity and wound healing: Role of nucleotides. National Veterans KULKARNI ADministration Research Week, VAJC, St. Louis, Missouri, July 1995.
59. Andrus CH, KULKARNI AD, Robinson SM, Niehoff ML, Kaminski DL, Swope TJ, ElGhazzawy AG, Gupta N, Wittgen CK, Schneider TA, Fitzgerald SD, Newberger TJ, Panneton WM, LaRegina MC, and Virgo KS. Evaluation of new methods of proximal gastric vagotomy (PGV). National VA research week at VAJC, St. Louis MO, July 1995
60. KULKARNI AD, KULKARNI ADjei AA, Ameho CK, Yamauchi K, Harrison EK, Chan YC, and Yamamoto S. Protective anti-inflammatory effects of nucleotide-free diet on the

- induction of experimental colitis and contact sensitivity response and inflammatory cytokine levels in rats. Am. Assoc. of Immunology Meetings of FASEB, New Orleans, LA, June 2-6, 1996
61. KULKARNI AD, Ameho CK, KULKARNI ADjei AA, Yamauchi K, Kakinohana, and Yamamoto S, Exacerbation of induced allergic responses to toluene diisocyanate (TDI) by dietary nucleic acid components in mice. AAAI/AAI/CIS Joint Meeting, San Francisco, Feb. 21-26, 1997,
 63. ElGazzawy AG, Gupta N, Swope TJ, KULKARNI AD, Panneton W, Robinson SM, Niehoff ML, Kaminski DL, and Andrus CH. Evaluation of benzalkonium chloride chemoneurolytic proximal gastric vagotomy. Annual SAGES Meeting San Diego, CA, March 1997
 64. KULKARNI AD, Robinson SM, and Furukawa, F. Immunologic efficacy of orotic acid. Am. Assoc. of Immunology, FASEB, San Francisco, CA, April 18-22, 1998.
 65. KULKARNI AD, Robinson S, Kumar S, Pizzini, Rudolph, and VanBuen C. Parental dietary nucleotide (NT) supplementation and neonatal immunity in mice. FASEB, April/99
 66. KULKARNI AD, S. Robinson, R Graff, and NR Pellis.: Prevention of microgravity induced immunosuppression in a ground-based animal model by supplemental dietary modification. FASEB, April 9/99.
 67. KULKARNI AD, S. Robinson, Y. Deshpande, V Ramesh, K.Yamauchi, and M. Niehoff. Eicosanoid production by peritoneal exudate cells (PECs) with lipopolysaccharide (LPS) stimulation in nucleotide-supplemented diet fed mice. FASEB, May/2000.
 68. KULKARNI AD, S. Robinson, and S. Furukawa. Pyrimidine precursors improve immune function and wound healing in mice and are cost-effective. FASEB, May/2000.
 69. KULKARNI AD, Yamauchi K, Ramesh V, Ramesh GT, Bhuiyan MBA, Mailman D, Pellis NR. Nitric oxide & inducible nitric oxide synthase (iNOS) and their correlation to immune function in simulated microgravity. FASEB abstract, April 2001.
 70. Yamauchi K, KULKARNI AD, Ramesh V, Hales N, Pellis NR. Lack of inflammatory cell mediated responses in anti-orthostatic suspension (AOS) induced simulated microgravity. FASEB abstract, April 2001.
 71. Hales N, Yamauchi K, Ramesh V, Yamamoto S, Pellis NR. Immunomodulatory nutritional countermeasure maintains immune response in microgravity. FASEB abstract, April 2001.
 72. KULKARNI AD, Yamauchi K, Ramesh V, Hales N, Pellis NR. Dietary nucleotides obviate immune dysfunction in microgravity. NASA Cell Science Conference Workshop, Houston, TX, March 2001
 73. KULKARNI AD, Yamauchi K, Pellis NR. Nutritional countermeasure and immune function in microgravity. 2nd Pan Pacific Workshop on Microgravity, Pasadena, CA.,

May 2001.

74. KULKARNI AD, K. Yamauchi, N.W. Hales, V. Ramesh, G.T. Ramesh, A. Sundaresan, R.J. Andrassy, Neal R. Pellis. Nutrition Beyond Nutrition: Plausibility of Immunotrophic Nutrition for Space Travel. Abstract# 109, 23rd ESPEN Congress, Munich Sept. 8-12, 2001
75. KULKARNI AD, Yamauchi K, Ramesh GT, Sundaresan A and Pellis NR. Inflammatory and immunomodulatory studies in simulated microgravity. 2002 NASA Cell Science Conference. Palo Alto, CA, February 26-28, 2002.
76. KULKARNI AD, Yamauchi K, Taga M, Savary CA, Sundaresan A, and Pellis NR. Space immunology and countermeasure research in modeled microgravity. The 40th AIAA Aerospace Sciences Conference. Reno, NE, January 14-17, 2002. (Invited Presentation).
77. Yamauchi K, Sundaresan A, Hales NW, Yamamoto S, Pellis NR, KULKARNI AD. Nutritional countermeasure to obviate immune dysfunction in microgravity. May 2002, Proceedings of the 23rd ISTA Conference, Matsue, Japan
78. Sundaresan A, Yamauchi K, KULKARNI AD, and N.R.Pellis³. Microgravity and modeled microgravity effects on lymphocyte signal transduction: Comparisons between human and mouse lymphocyte signaling. May 2002, Proceedings of the 23rd ISTA Conference, Matsue, Japan
79. KULKARNI AD, Yamauchi K, Hales NW, Yamamoto S, and Andrassy RJ. Versatility of microgravity analogs and their application to research the role of nutrition in aging and immunosenescence. ESPEN 2002, Glasgow, Scotland, August 31- September 4, 2002.
80. Taga M, Yamauchi K, Furian L, Odle J, Sundaresan A, Pellis NR, Andrassy RJ, and KULKARNI AD. Tumor response, immunosurveillance and role of nutrition in microgravity. ESPEN 2002, Glasgow, Scotland, August 31- September 4, 2002.
81. KULKARNI AD, Yamauchi K, Hales NW, Sundaresan A, Pellis NR, Yamamoto S, Andrassy RJ. Yin-Yang of space travel: Lessons from the ground-based models of microgravity and their applications to disease and health for life on earth. The World Space Congress 2002, Houston, TX, October 10-19, 2002.
82. Yamauchi K, Taga M, Furian L, Odle J, Sundaresan A, Pellis NR, Andrassy RJ, and KULKARNI AD. Altered tumor cell growth and tumorigenicity in models of microgravity. The world Space Congress 2002, Houston, TX, October 10-19, 2002.
83. KULKARNI AD, Yamauchi K, Odle J, Taga M, Sundaresan A, Pellis NR. Perturbation in T cell signal transduction pathway in microgravity. The world Space Congress 2002, Houston, TX, October 10-19, 2002.

84. Mareth DR, Yamauchi K, Ramji, B, Sundaresan A, Pellis NR, KULKARNI AD., Lymphocyte activation in microgravity and nutritional countermeasure. FASEB/AAI, May 6-10, 2003.
85. KULKARNI AD, Yamauchi K, KULKARNI ADjei AA, Holcombe JB, Andrassy RJ. Biodefense Preparedness and Interdisciplinary Countermeasure: Immune system sustainment and targeted nutritional preconditioning for health and protection of defense personnel and public. ASM Biodefense Research Conference, March 9-12, 2003, Baltimore, MD, USA
86. KULKARNI AD, Nutritional immunomodulation as emerging science and technology for the space travel. Bioengineering/Biotechnology Conference, NASA, July 2003
87. KULKARNI AD, Yamauchi K, Andrassy RJ. Nutritional Immunoengineering: A reality for clinical application. Submitted to ASPEN Conference 2004, USA
88. Yamauchi, Mareth D, Ramji B, Savary C, Undaresan A, Pellis N, KULKARNI AD. Supplemental nucleotides (NT) enhance antigen presenting cell (APC) functions under environmental stress. Submitted to ASPEN, Conference 2004, USA.
89. Wise K, Wilson B, A, Yamauchi K, Pellis N, Ramesh G. Microgravity induced oxidative stress in brain regions. Submitted to NASA Cell Science Conference 2004, USA
90. A. D. , K. Yamauchi, M. Taga, S. Robinson, S. Furukawa, R.J. Andrassy\ Nutritional and topical Calcium Orotate improves immune function, wound healing and has cost benefits. 26th ESPEN Congress in Lisbon, Portugal, Sept. 11-14, 2004
91. A. Sundaresan, A.D. , K. Yamauchi and N.R. Pellis. Signaling in human and murine lymphocytes in microgravity: parallels and contrasts. ASGSB Conference, NY, Nov. 2004
92. AD. Kulkarni , K. Yamauchi, A. Sundaresan, GT. Ramesh, NR. Pellis. Countermeasure for space flight effects on immune system: nutritional nucleotides. ASGSB Conference, NY, Nov. 2004
93. Ramesh GT, Wise K, Ramesh V, Yamauchi Y, KULKARNI AD, Wilson B. Activation of immediate early response genes in mouse brain induced by simulated microgravity. International Astronautics Federation Conference, Oct.17-21, 2005, Fukuoka, Japan.
94. Sundaresan A, KULKARNI AD, Pellis NR, Yamauchi K. Biomarkers of cell and tissue injury in analog microgravity. International Astronautics Federation Conference, Oct.17-21, 2005, Fukuoka, Japan.
95. KULKARNI AD, Yamauchi K, Sundaresan A, Ambrose C, Ramesh GT, Pellis NR. An evidence- based countermeasure for spaceflight: Nutritional nucleotide augmentation of immunity. International Astronautics Federation Conference, Oct.17-21, 2005, Fukuoka, Japan.

- 96 Sundaresan A, AD KULKARNI, K Yamauchi, NR Pellis, Countermeasure development in microgravity analogue environments. ELGRA News, Vol 24, 2005
- 97 A. Invited Discussant, 14th Annual AHCC Symposium 2006., Sapporo, Japan
- 98 KULKARNI AD, Feel Good, Look Good Foods, Can they be Functional? ICMUFF, Plenary Lecture, Tokyo, Japan 2006
- 99 KULKARNI AD., Immunomodulatory Nucleotides, ICMUFF, Keynote Address, Tokyo, Japan 2006
- 100 K Wakame, M Kogiso, H Nishioka, H Fujii, T Igura, Toshinori Ito, KULKARNI AD. .Nutritional Effects of Active Hexose Correlated Compound: Immune Restoration in Stress Mouse Model, ASPEN Congress, Phoenix, USA, 2007
- 101 KULKARNI AD, Immunoengineering Health: Role of Nutrition, Keynote Address at the 15th Annual AHCC Symposium, Sapporo, Japan
- 102 MA Richardson, VD Chandwani, K Ono, EM Johnson, M Kogiso, K Wakame, CG Ambrose, D Martinez-Puig, KULKARNI AD . Dietary nucleotides and skeletal function in a mouse model of accelerated aging. ESPEN Congress, Prague, CZ 2007
- 102 M Kogiso, K Wakame, M Haidari, E Golunski, M ohammad Mdjid, T Sakai, T Igura, T Ito, S Yamamoto, KULKARNI AD · Effect of active hexose correlated compound supplementation on immune function in accelerated aging model. ESPEN. Congress, Prague, CZ 2007
- 103 Kogiso, K Wakame, M Haidari, E Golunski, M Madjid, T Sakai, S Yamamoto, KULKARNI AD · Active hexose correlated compound enhances immune function in microgravity analog for spaceflight effects in mice. PENSA Congress, Manila, Phillipines, 2007
- 104 AD KULKARNI, Immunoengineering Health: Role of Nutrition, Brazilian Clinical Nutrition Congress 2008, University of Sao Paulo, Sao Paulo, Brasil, March 2008
- 105 AD KULKARNI, Immunonutrition and Functional foods: Realm of Clinical Nutrition, Clinical Nutrition Conference 2008, University of Caxias do Sul, Caxias, Rio Grande do Sul, Brasil
- 106 AD KULKARNI, Space Immunobiology: Nutritional Countermeasure, National Insitutie of Biomedical Innovations & Osaka University Medical School, Surgery/CAM, Japan, August 2008
- 107 M Kogiso, K Wakame, M Haidari, E Golunski, M Madjid, T Sakai, S Yamamoto, KULKARNI AD . Effect of oligonol on immune cell function *in vitro*. 15th AHCC/Oligonol Symposium, Sapporo, Japan 2008

- 108 Annie Z Luo, Rongzhen Zhang, Julio Felix, Alex Nguyen, Kaori Ono, Tri Phan, Koji Wakame, ANIL D. KULKARNI. Dietary Active Hexose Correlated Compound (AHCC) decreases ischemia/reperfusion injury. ESPEN Clinical Nutrition Congress, Sept 2008, Florence, Italy
- 109 ANIL D. KULKARNI, Space Immunology, Invited Lecture, Department of Surgery, University of Nottingham, Nottingham, UK
- 110 A Z. Luo, R J. Zhang, J Felix, A Nguyen, K Wakame, A.D. Kulkarni. Dietary Ribonucleic Acid Ameliorates Gut Ischemia/Reperfusion Injury In A Superior Mesenteric Artery Occlusion Model In Mice. ASPEN Clinical Nutrition Congress, Feb 2-6, 2009, New Orleans, LA
- 111 Sundaresan A, AD KULKARNI, J Plumber, D Ford. Cell susceptibility during physiological adaptation to low and randomized gravity. ELGRA News 2009
- 112 AD KULKARNI. Dietetic Nucleotides: Present and Perspectives, June 18-20, GANEPAO and CBNI, 2009.
- 113 AD KULKARNI. Functional Foods and Cancer, June 18-20, Ganepao and CBNI, 2009.
- 114 AD KULKARNI. Medical use of functional foods, June 18-20, Ganepao and CBNI, 2009
- 115 A Z. Luo, R J. Zhang, J Felix, A Nguyen, K Wakame, A.D. Kulkarni. Dietary Ribonucleic Acid Ameliorates Gut Ischemia/Reperfusion Injury In A Superior Mesenteric Artery Occlusion Model In Mice. ASPEN Clinical Nutrition Congress, Feb 2-6, 2009, New Orleans, LA
- 116 Sundaresan A, AD KULKARNI, J Plumber, D Ford. Cell susceptibility during physiological adaptation to low and randomized gravity. ELGRA News 2009
- 117 AD KULKARNI. Dietetic Nucleotides: Present and Perspectives, June 18-20, GANEPAO and CBNI, 2009.
- 118 AD KULKARNI. Functional Foods and Cancer, June 18-20, Ganepao and CBNI, 2009.
- 119 AD KULKARNI. Medical use of functional foods, June 18-20, Ganepao and CBNI, 2009
- 120 AD KULKARNI. Oligonol and Aging, ISNFF Conference in San Francisco, 2009
- 121 AD KULKARNI. Role of Nutrition in Cancer Prevention and Therapy, Ulan Bator, Mongolia, 2010
- 122 AD KULKARNI. Functional Foods and Cancer, Ulan Bator, Mongolia, 2010
- 123 AD KULKARNI. Lessons from Space Medicine Research, Ulan Bator, Mongolia, 2010

- 124 AD KULKARNI. Organized and Chaired a Symposium on CAM at the Nutritionweek of ASPEN Society with topics of Asian, European, and Western perspectives of CAM. Vancouver, Canada January 2011.
- 125 AD KULKARNI. European perspectives of CAM. At the Nutritionweek of ASPEN Vancouver, Canada January 2011
- 126 AD KULKARNI. Discussant: Role of Nutrition in Global Health Initiatives, Univ. of Texas System Conference, San Antonio, Texas, USA March 2011
- 127 AD KULKARNI. Renaissance of Cultural and Ethnic Nutrition in Global Health Era. Invited Speaker at the 50th Anniversary of Mongolian Cancer Center, Ulaanbaatar, Mongolia October 2-8, 2011
- 128 AD KULKARNI. Dietary Nucleotides and Immunomodulation, Department of Gastroenterology Health Sciences University of Mongolia, Ulaanbaatar, Mongolia October 2-8, 2011
- 129 AD KULKARNI. Nutrition in Global Health Era. Invited Speaker at the Surgery Department, Qingdao University Hospital, Qingdao, China, October 8-12, 2011
- 130 AD KULKARNI. Dietary AHCC in intestinal ischemia and reperfusion injury, at the 19th International Conference on Nutrition and Integrative Medicine, Sapporo, Japan October 12-18, 2011
- 131 AD KULKARNI. Lessons learned from the space nutrition and microgravity analogs and the role for functional foods. Food Summit 2011 in Ebetsu, Hokkaido, Japan, November 13-14, 2011.
- 132 AD KULKARNI. Renaissance of cultural/ethnic nutrition in Global Health Era: Role of immunonutrients. Plenary Lecture at the International Conference and Exhibition on Nutraceuticals and Functional Foods (ISNFF). Nov. 14-17, 2011 Sapporo, Hokkaido, Japan
- 133 AD KULKARNI. AHCC supplementation as a potential countermeasure for space environmental effects on immune system and implications in aging and as functional foods. ISNFF, Nov. 14-17, 2011, Sapporo, Hokkaido, Japan.
- 134 AD KULKARNI. Introduced a special topic on nutritional preparedness in natural disasters including nuclear disasters. ASPEN Society Congress in Orlando, FL January 2012.
- 135 AD KULKARNI, Nutritional Supplements in Global Heath Era, ICNIM, Sapporo, July 2012

C. Book Chapters:

1. VanBuren CT, Pizzini RP, AD, Kumar S, and Rudolph FB: Dietary nucleotides: A vital substrate in end organ failure! In Nutritional Support in Organ Failure, Eds: Tanaka T, and Okada A. Elsevier Scientific Publications. pp. 404-410, 1990.
2. AD, Rudolph FB, and VanBuren CT: Nucleotide nutrition dependent immunosurveillance: Natural killer cell cytotoxicity, gamma-interferon production and polymorphonuclear cell function. CRC Hand Book-Diet, Nutrition and Immunity, Chapter 17:229-235, 1994.
3. ANIL D KULKARNI, Mari Kogiso, Koji Wakame, Keiko Yamauchi, Evidential Nutritional Immunomodulation: Applications in Stress and Trauma Subjects. Surgical Nutrition Book Chapter, Editor Francisco Karkow MDPHd, Caxias do Sul, Brasil

CURRENT AND PAST TEACHING RESPONSIBILITIES:

1. PBL Facilitator, UT Medical School 2006-
2. Special Seminar Series Lecturer for Immunology Course, UT Medical School, Houston
3. Faculty Moderator for the Clinical Correlates in Immunology for the UT Medical School Course. Course Directors Norris and Marshall, 2001-
4. Lecturer: Nutrition and Immune Response, Nutrition Course for 1st year Medical students, UT Medical School, Course Director Dr. Edwards, 2000-
5. Lecturer: Graduate Immunology Course at UT School of Public Health, 2004-2005
6. Lecturer: Nutrition and Immune Response, Human Nutrition Course for 1st year Medical students, St. Louis University Medical School, 1997.
Course Director: Dr. V. Herrmann, MD.
7. Conference Teaching Instructor:
Freshman Immunology Course at University of Texas Medical School, Houston, Texas,
Course Director: Neal R. Pellis, Ph.D. 1980-1985
8. Invited Visiting Scientist:
Dept. of Surgery, Kyoto Prefectural University, Kyoto, Japan, and
Dept. of Clin. Nutrition, National Taiwan Univ./Veterans Hospital, Taipei, Taiwan, and
Zongshan Medical College and Hospital, Canton, China. August, 1985.
9. Instructor: 1985-1992
Methods in Immunology Course at the Graduate School of Biomedical Sciences, UTHSC, "In Vivo" Methodology in Transplantation
Immunology Research Course Director: Ronald H. Kerman, Ph.D.
10. Faculty Research Associate: Instructor and Supervisor for undergraduate research course tutorials and research projects for doctoral graduate students from Biochemistry and Cell Biology Department of Rice University, assigned by Professor F.B. Rudolph, Rice University (1983-1992)
11. Course Director: Nutritional Immunology: Graduate Course at the School of Biomedical Sciences, UTHSC-Houston (1991-1992)
12. Speaker in the Nutrition Health and Disease area to the Nutrition team: faculty and students of Houston Community College and School of Allied Health Sciences, UTHSC, Houston.
13. Student Advisor-general advising of two medical students per year. University of Texas Medical School at Houston.(1989-1992)

14. Minority Student Advisor and Mentor: Program of the University of Texas Health Science Center, Houston.(1989-1992)
15. Invited Visiting Professor, Dept. of Nutrition, Faculty of Medicine, University of the Ryukyus, Okinawa, Japan, August 26 - September 4, 1994.
16. Invited Visiting Professor, Dept. of Nutrition, Faculty of Medicine, University of the Ryukyus, Okinawa, Japan, October 24-November 1, 1995
17. Visiting Professor, Department of Microbial Pathogenesis and vaccines, German Research Center for Biotechnology, Braunschweig, Germany September 3-5, 2001.
18. Visiting Professor, Department of Biomaterials, University of Ulm, Germany, September 5-7, 2001
19. Visiting Professor, Dept of Nutrition, The University of Tokushima, Tokushima, Japan.
20. Visiting Professor, The University of Nottingham, Department of Surgery, Nottingham, UK
21. Visiting Professor, University of Tokushima, Otsuka Pharmaceuticals Labs, and Tsukuba Research Labs, Kyowa Hakko Kogyo
22. Invited Visiting Professor, University of Tokushima, Hiroshima, and Amino Up Chemical Company, Sapporo in Japan
23. Invited Visiting Professor, University of Tokushima and Amino Up Chemical Company, Sapporo in Japan
24. Invited Visiting Professor, The Mukogawa Womens' University, Mukogawa, Japan
25. Visiting Professor, BioIberica Co., Barcelona, Spain
26. Invited Visiting Professor, Universidade de Caxias Do Sul, Caxias Do Sul, Brasil 2008
27. Invited Visiting Professor, Ajinomoto Co., Yokohama, Japan 2008
28. Invited Visiting Professor, FANCL Co., Yokohama, Japan 2008
29. Invited Visiting Professor, Ochanomizu University, Tokyo, Japan 2009
30. Invited Visiting Professor, Health Sciences University of Mongolia, Ulaanbaatar, Mongolia 2010

Academic Activities:

Medical School Representative on the Diversity Advisory Board, UTHSCH, 2006-Member, Strategic Planning Committee for International Affairs of UTHSC, Houston.

Member, Strategic Planning Committee for Biotechnology of UTHSC, Houston.

Participation in Medical School Immunology Course lectures. UTMS, 2001-.

Participation in Medical School Nutrition Course lectures. UTMS-2000.

Participation in Immunology Course at UTHSC-SPH. 2005-

Research training of high school, undergraduate, medical students, and fellows.

Student counseling (past)

1. Student Advisor-general advising of 2 medical students per year
2. Minority Student Advisor and Mentor: Program of the University of Texas Health Science Center, Houston

Community Oriented Services (past)

Speaker in the Nutrition Health and Disease area to the Nutrition team: faculty and Students of Community College and UTHSC- Allied Hlth. Sci. School in Houston

Thesis, dissertation, doctoral thesis supervision:

Vicki Schandle, Ph.D., Rice University, Houston, TX., Advisor F.B. Rudolph, Ph.D.

William Fanslow, Ph.D., Rice University, Houston, TX., Advisor F.B. Rudolph, Ph.D
GSBS thesis committees of Master and PhD candidates
Several Students, Under Graduate Tutorial Supervisor, Dept. of Biochemistry, Rice Univ.,
Houston, TX.
Doctoral Thesis Examination Committee, GSBS, UTHSC, Houston, Texas 2009-

Research Students: (since 2000)

International Students:

Keiko Yamauchi, Predoctoral Fellow, Tokushima University, Japan
Masaki Taga, Predoctoral Fellow, Kitasato University, Japan
Mari Kogiso, MS, Pre-doctoral Research Fellow, Tokushima U, Japan
Koji Wakame, Ph.D. Post Doctoral Scientist, Sapporo, Japan
Kaori Ono, Ph.D. Post Doctoral Fellow, Tokushima U, Japan
Ayako Kakehashi, Ochanomizu U, Japan
Hiromi Tanuguchi, Ochanomizu U, Japan
Atsuko Fujiwara, Tokushima U, Japan
Alistair Simpson, Final year Medical Student, University of Nottingham, UK
Steve Hornby, Final year Medical Student, University of Nottingham, UK
Zoe Higgs, Final Year Medical Student, University of Nottingham, UK
Czolt Csapo, M.D. Research Fellow, Simmleweis U, Hungary
Adail Alicia-Martinez, Ponce` U, Puerto Rico
Anbar Khiyani, Dow Medical College, Karachi, Pakistan
Bilal Sheikh, Karachi, Pakistan
Hiromi Taniguchi, MS, Ochnaomizu U, Tokyo, Japan
Ayako Kakehashi, MS, Ochanomizu U, Tokyo, Japan
Austin Lin, St. Geoge`s U, Granada, W. Indies
Kumiko Imada, MS-4, University of Tokushima, Tokushima, Japan

National and Local Students:

Nathan Hales, UT Medical Student
Mark Sultenfuss, UT Medical Student
David Mareth, UT Medial Student
Bao Minh, First Year Medical Student, UTMS
Matthew Richardson, Medical Student, UTMSH
Brannon George, UT Medical Student
Jesse Odle, Under graduate from UT-Austin
Behnoosh Mehta, Undergraduate from Texas A & M University
Arjun Tarkad, Highschool Scholar, Clemens Highschool, Sugarland, Texas
Saimun Chakrabarty, Highschool Scholar, Clemens Highschool, Sugarland, Texas
Bradley Saunders, UT Medical Student
Keiko Yamauchi, Postdoctoral Fellow, UTHSC/MS
Katharine McNamara, UT-GSBS, Houston
Michelle Garcia, UH, Houston
Kelvin Kemp, UTHSC, Houston
Vinita Chandawani, Senior, Emory University, Atlanta, GA
Alex Nguyen, UT-Austin, TX. 2008

Julio Felix, UT Pan Am, TX
Alex Ngyuen, UT-Austin, TX. 2009
Gregory Catlett, MS-I, UTMS, Houston, TX
Rehman Sheikh, MS-I, UTHSC-SA, San Antonio, TX
Aiko Hyakutake, MS, Ochanomizu U, Tokyo, Japan

Supplemental Material:

Research Training and supervision of Trauma Research Training Fellowship Program, residents, and students, UT Medical School at Houston, 2001-

Research training and supervision of residents and fellows in the Nutritional Immunology Laboratory in the Immunology and Organ Transplant Division of Surgery Department, UT Medical School at Houston. (1989-1992)

Research training and supervision of technicians, residents and fellows in the laboratory, SLU Medical School, Dept. of Surgery. (1993-1999)

Established of Exchange Program with the University of Tokushima, Japan with UTHSC, Houston

Established of Exchange Program with the University of Massey, Auckland, NZ

Established n of Exchange Program with the University of Sao Polo, Sao Paolo, Brasil

Established of Exchange Program with the University of Caxias do Sul, RioGrande do Sul, Brasil

Established of Exchange Program with the Manipal University of Sikkim, Sikkim

Appeared in News Media:

All press articles with photos and reference dates since 2000-2004.

These several reports are from three UTHSC/TMC News publications- Distinctions, Scoop, and Texas Medical Center News.

Reports from Japan that appeared in scientific journals in Japan- One in Shikoku Acta Medica with face page photo. This issue of the journal has an article on space nutrition co-authored by the PI. The second one is a report on TMC and UTMS with interview and photos from Japanese J of Clinical Nutrition, 2004

Local community news paper, The Houston Star with report on the PI's work in an international collaboration in China.

Scientific Citation Index: Our research is highly specific and restricted to space life sciences addressing nutritional immune modulation in microgravity. The readership is limited to some extent to investigators in space life sciences, thus insufficient to accumulate enough citation. However, there have been few citations of our publications.

Research Significance:

Our research at present is primarily useful to space research community only. As we progress in our pre clinical and clinical-human models we will have a greater readership. We hope this to be in near future.

Potential scientific impact is that our research will allow us to develop a feasible nutritional methodology and technology to develop a countermeasure for the immune suppression observed in space/microgravity environment. Our innovative assays and methods will expedite such countermeasure development. Societal impact will be the efficacious, economic development and advancement for such preventive and therapeutic aspects of health maintenance with improvement and restoration.

Our current research developed from our findings led us to design nutritional therapeutic approaches for the aging induced immune system dysfunction and aberrations. This will have significant impact on the life on Earth. First of all our research has provided us a tool to expedite research and its finding which will have significant economic benefit in the conduct of aging research. The ultimate goal is to design and develop a nutritional supplement and therapy that will have impact on future human health on Earth and beyond in space.