Curriculum Vitae

Name Soman Ninan Abraham, Ph.D.

Title Grace Kerby Distinguished Professor of Pathology with tenure
Professor of Molecular Genetics & Microbiology
Professor of Immunology, Duke University, Durham
Professor, Program in Emerging Infectious Diseases, Duke-National University of Singapore, Singapore
Adjunct Professor, Department of Population Health & Pathobiology
North Carolina State Veterinary School, Raleigh

Address Department of Pathology
Duke University Medical Center (DUMC)
Durham, NC 27710

Personal

Place Birth : Harar, Ethiopia
Citizen : USA

Education:

1973-76	B.Sc. Ahmadu Bello University, Zaria, Nigeria (Microbiology)
1976-78	M.Sc. Ahmadu Bello University, Zaria, Nigeria (Medical Microbiology)
1978-81	Ph.D. University of Newcastle Upon Tyne, UK (Microbiology)

Professional Training

Post-Doctoral Research Training:

1982-86	Postdoctoral fellowship, University of Tennessee, Memphis, TN Preceptor: Edwin H. Beachey, M.D.

Clinical & Academic Career

University Appointments

1986-90	Assistant Professor, Dept of Medicine, Division of Infectious Diseases University of Tennessee, Memphis, TN.
1990-90	Assistant Professor, Department of Microbiology and Immunology University of Tennessee, Memphis, TN.
1990-97	Assistant Professor, Department of Pathology Washington University School of Medicine, St. Louis, MO.
1990-97	Assistant Professor, Department of Molecular Microbiology Washington University School of Medicine, St. Louis, MO.
1997-03	Associate Professor of Pathology, DUMC
1997-	Associate Professor of Molecular Genetics & Microbiology, DUMC

2000-03	Associate Professor of Pathology with tenure, DUMC
2002 -03	Associate Professor of Immunology, DUMC
2002 -	Professor of Pathology, DUMC
2009 -	Professor, Program in Emerging Infectious Diseases, Duke-NUS Singapore
2010 -	Adjunct Professor, Department of Population Health and Pathobiology, North Carolina State University Veterinary School
2017-	Duke-Duke NUS Faculty Liaison Officer for Graduate Studies

Research Appointments

1989-90	Research Microbiologist, Research Service Veterans Administration Medical Center, Memphis, TN.

Hospital Appointments

1990-93	Associate Clinical Director, Microbiology/Serology Laboratory Jewish Hospital, St. Louis, MO.
1993-97	Clinical Director, Serology Laboratory Barnes-Jewish Hospital, St. Louis, MO.

Professional Awards & Special Recognitions

Awards & Honors

1988	Visiting Research Scientist Fellowship (Swedish Medical Research Council)
1989	Merit award (Veterans Medical Affairs Medical Center)
1996	Elected Member, Association of University Pathologists (Pluto Club)
1999	MERIT award from the NIDDK, NIH
1999	Senior Investigator Award from the Sandler Foundation for Asthma Research
2007	Elected Fellow of the American Society for Microbiology
2011	Recipient of Merlion Award from Singapore/French Governments
2012	Elected Fellow of American Association for the Advancement of Science
2016-	Part Owner and Chief Scientific Officer, Mastezellen Bio
2018	Grace Kerby Distinguished Professorship in Pathology

Editorial Boards

Board Member:

1989-97	Infection and Immunity
1994-01	Journal of Clinical Microbiology
1996	Frontiers in Bioscience
2012-2017	Associate Editor, Journal of Clinical Investigation
2017-	Consulting Editor, Journal of Clinical Investigation
2020-	Cells

Peer Reviewer:

1989 -	Journal of Bacteriology
1991 -	American Journal of Respiratory Cell and Molecular Biology
1994 -	American Journal of Physiology
1995 -	Journal of Clinical Investigation
1995 -	Science

1996 - Journal of Immunology
1997 - EMBO Journal
1995 - Journal of Infectious Diseases
1999 - Journal of Cell Biology
2000 - Journal of Experimental Medicine
2000 - Immunology
2001 - Journal of Cellular Microbiology
2002 - Proceeding of National Academy of Sciences
2002 - Journal of Virology
2002- Blood
2003- Nature
2002- Cell
2003- PLoS Pathogens
2008- Cell Host & Microbe
2009- Immunity
2013- Cell Reports
2014- Cell Metabolism

Organizations & Participation

Memberships, Offices & Committee Assignments in Professional Societies

1982 American Society for Microbiology
1990 Sigma Xi, The Scientific Research Society
1991 American Association for the Advancement of Science
1994 The Academy of Clinical Laboratory Physicians and Scientists
1996 Elected Member, Association of University Pathologists (Pluto Club)

Other Professional Positions Nationally & Major Visiting Appointments

1988 Ad hoc member, Veterans Administration Merit Review Board
1995 Special review board for Disorders of the Urinary Bladder, NIDDK, NIH
1995 Ad hoc member, Israel-US Binational Research Agreement grant review board
1995 Visiting Professor (Government of Japan, Ministry of Education)
1999 NIDDK, NIH site visit team
2000 NIDDK, NIH site visit team
2002 Welcome Trust Grant Reviewer
2003 NIH Bacteriology-Mycology-1 UTI Special emphasis Panel
Urology Special emphasis Panel
Urology Special Emphasis Panel
2004 NIAID, Innate Immunity Special Emphasis Panel
NIDDK, Renal and Urology Panel
2004 NIAID, Special Emphasis Panel in Innate Immunity
2006 NIAID, Special Emphasis Panel Innate Immunity & Inflammation
2006 NIH ZRG Renal and Urology study section (Chairman)
NIH, Innate Immunity and Inflammation (III)
2005 NIH, Urologic and Kidney Development and Genitourinary Diseases Study Section

2007	NIH, Immunity and Host Defense Study Section
2007	NIH, Special Nephrology Study Section
	NIH, Urologic and Kidney Development and Genitourinary Diseases Study Section
2006	American Urological Association Summit to Determine Research Priorities (September)
2020	NIH, ZRG1 DKUS-B (90) - Urology & Urogynecology
2022	NIH Center for Scientific Review (CSR) blue-ribbon ENQUIRE 13 advisory panel
2023-2028	Standing member, Maximizing Investigators' Research Award - D Study Section

External examiner

1998	External Examiner in PhD thesis defense (Univ. Umea, Sweden)
2001	External Examiner in PhD thesis defense (Univ. Tel Aviv, Israel)
2003	External Examiner in PhD thesis defense (Karolinska Institute, Sweden)
2009	External Examiner in PhD thesis defense (University of Alberta, Canada)
2020	External Examiner in PhD thesis defense (Lund University, Sweden)

University Services

Duke University & Duke Health Care System

1997-present	PhD thesis advisory committees of over 30 graduate students in Pathology, Biochemistry, Immunology, Cell Biology, and Molecular Genetics & Microbiology Departments. Currently on thesis committee of 16 students.
2012-present	PhD thesis advisory committees of over 5 graduate students, at Duke Emerging Infectious Diseases Program, Duke NUS
2000- present	Director of Graduate Studies, Pathology Department
2000- 2002	Basic Sciences Faculty Steering Committee
2001-present	Summer Research Opportunities Admissions Committee
2001-present	Department of Pathology Graduate Students Admissions Committee
2001-2010	Member, University Academic Council
2002-2003	University Committee on Misconduct in Science
1998-present	Co- Director, Duke Summer Research Opportunity Program
2003-present	Faculty Mentoring Committee to 2 Faculty, Department of Molecular Microbiology & Immunology
2004-present	Faculty Mentoring Committee to 5 faculty, Department of Pathology
2005-present	Faculty Mentoring Committee to 2 Faculty, Department of Pediatrics
2005-present	Faculty Mentoring Committee to 1 Faculty, Department of Medicine

2005-2007	Tenure Committee for Dr. Meta Kuehn, Department of Biochemistry
2006-2007	University Search Committee for Leader in Emerging Infections and Biodefense
2006- 2008	University Program Priorities Committee
2010-present	Global Health Clinical Department Committee
2007	University Search Committee for Flu experts in the Human Vaccine Institute
2012-present	Appointments and Promotions Committee for Program in Emerging Infectious Diseases, Duke NUS
2016-present	Duke-Duke NUS Graduate Programs Faculty Liaison Officer

National & International Scientific Meetings and Invited Lectures

3/88 Bacteriology Department, University of Umea, Sweden
4/88 Immunology Symposium, Dept Microbiology & Immunology, University of Gothenburg, Sweden
5/88 Department of Infectious Diseases, Pasteur Institute, Paris, France
5/89 Symposium on Vaccines, Annual Meeting of the American Society for Microbiology, New Orleans, LA
1/90 Department of Pathology, Washington University, St. Louis, MO
6/90 Department of Microbiology, University of Tennessee, Memphis, TN
7/89 Gordon Conference on Microbial Toxins, Plymouth College, Plymouth, NH
7/91 Gordon Conference on Microbial Adhesion and Cell Signaling, Newport, RI.
7/92 Gordon Conference on Microbial Toxins, Plymouth College, Plymouth, NH.
10/9 46th National Conference on Cell Surfaces and Colloidal Science, Zichron-Akov, Israel
11/9 4Department of Microbiology, University of Texas, San Antonio, TX
10/9 58th National Interstitial Cystitis Association Meeting, San Diego, CA
2/95 Department of Microbiology, University of Colorado, Denver, CO
3/95 Department of Microbiology, University of Vermont, Burlington, VT
4/95 Department of Obstetrics and Gynecology, Emory University, Atlanta GA
8/96 Department of Pathology, Duke University, Durham, NC
11/96 Int'l Symposium on Specific Adherence Mechanisms in Microbiology & Immunology, Cologne, Germany
11/96 Department of Cellular Pharmacology, Pasteur Institute, Paris, France
01/97 Keystone Symposia on Innate Immunity, Park City, UT
2/97 Meeting of the Interstitial Cystitis Association, Santa Monica, CA
10/97 Department of Microbiology, School of Veterinary Medicine, Azabu University, Japan
10/97 Department of Cell Biology, Osaka University, Osaka, Japan
10/97 Department of Biochemistry, Kobe University, Kobe, Japan
10/97 Symposium on Urinary Tract Infections, Kyushu, Japan (Keynote Speaker)
10/97 Department of Biochemistry, Tokyo Univ of Agriculture and Technology, Japan
5/98 Department of Tumor Biology, Karolinska Institute, Stockholm, Sweden
5/98 Department of Bacteriology, University of Umea, Sweden
1/99 5th Int'l Symposium on Biochemical Roles of Eucaryotic Cell Surface Macromolecules. Bangalore, India
2/99 Department of Microbiology, North Carolina State University, Raleigh, NC
2/99 Symp. Mast cells in Innate Immunity: American Academy of Allergy, Asthma &

Immunology, Orlando Fl
3/99 Mast cells and Basophils in Physiology, Pathology and Host Defense. Rome, Italy
3/99 Department of Hematology, Faculty of Pharmacy, Paris, France
5/99 Department of Microbiology, Public Health Research Institute, New York, NY
8/99 Gordon Research Conference on Microbial Mechanisms of Signaling and Adhesion, Newport, RI
10/99 Bat-Sheva Seminar on Innate Immunity. Zichron Yaaakov, Israel
11/99 Pluto Club Meeting, Nevis, West Indies
5/00 Millenium Symposium on Pyelonephritis & UTI, Lund, Sweden
11/00 United Biochemical Incorporated, New York, NY.
11/00 Department of Medicine, University of North Carolina, Chapel Hill, NC
2/01 Department of Microbiology, Kansas University Medical Center, Kansas City, MO.
3/01 Department of Cell Biology, UT Southwestern, Dallas, TX
3/01 Department of Microbiology, University of Washington, Seattle, WS
8/01 Department of Pathology, DUMC, Durham, NC
10/01 Department of Microbiology, University of Iowa, Iowa City, IA
11/01 Department of Immunology, DUMC, Durham, NC
11/01 Department of Microbiology, University of Colorado, Denver, CO
2/02 Keystone Symposia "Rethinking the Pathogenesis of Asthma", Santa Fe, NM
5/02 Department of Pathology, DUMC, Durham, NC
5/02 Sandler Foundation for Asthma Research Conference, San Francisco, CA
7/02 14th World Conference in Pharmacology, San Francisco, CA
11/02 N.Carlina American Society for Microbiology Meeting, Raleigh, NC (Keynote Speaker)
1/03 8th Int'l Symposium on Biochemical Roles of Eucaryotic Cell Surface Macromolecules. Bangalore, India
1/03 Department of Microbiology, Karolinska Institute, Stockholm, Sweden
2/03 American Association of University Pathologists, Cabo San Lucas, Mexico
3/03 National Bladder Foundation Annual Meeting, Washington, DC (Keynote Speaker)
3/03 Amer Acad of Allergy, Asthma and Immunology: Symposium Mast cells in Innate Immunity, Denver, CO
5/03 American Society for Microbiology: Symposium on caveolae-mediated pathogen entry, Washington, DC
5/03 Sandler Foundation for Asthma Research Conference, San Francisco, CA
7/03 Department of Pathology, DUMC, Durham, NC
3/04 Keystone symposia "Molecular Biology of Lipid domains", Vancouver, Canada
3/04 Keystone symposia "Mast Cells in Physiology, Host defense and Disease", Taos, NM
1/05 Department of Microbiology University of the Virgin Islands
2/05 International workshop on "Mast Cell Signaling and Function", Eilat, Israel
3/05 Amer Soc.Pharmacology and Experimental Therapeutics, San Diego, CA
8/05 Department of Biochemistry, University of South Carolina
3/06 Department of Microbiology and Immunology, Dartmouth College, NH
6/06 International Conference on "New Strategies for the Control of Infectious Diseases", Zacatecas, Mexico
10/06 Department of Medicine Pulmonary Conference DUMC, Durham, NC
10/06 Duke University Department of Immunology Retreat, Beaufort NC
12/06 The 36th Annual meeting of the Japanese Society for Immunologists (JSI), Osaka, Japan

12/06 Department of Microbiology, School of Veterinary Medicine, Azabu University, Japan
2/07 Amer Acad of Allergy, Asthma and Immunology: Symposium Mast cells in Immunity, San Diego,CA
4/07 International Soc. Heart &Lung Transplantation."Interplay Innate and Adaptive Immunity" San Fran, CA
07/07 Department of Medicine Division of Infectious Diseases,Grand Rounds, Duke, Durham, NC
10/07 New York Society of Nephrology "Pathophysiology of Urinary Tract Infections"
1/08 8TH International Symp on Eukaryotic Cell Surface Macromolecules. Hyderabad, India
1/08 Duke –National University of Singapore, Singapore
2/08 Immunology Branch Biopolis, Singapore
3/08 Department of Microbiology Univ. North Carolina, Chapel Hill
9/08 Department of Pathobiology, North Carolina State Veterinary School
10/08 Department of Medicine, University of Pittsburgh
10/08 International Workshop "Mast Cell Signaling and Function", Jerusalem, Israel
12/08 Institute of Molecular and Cellular Biology, Singapore
01/09 Department of Immunology, DUMC, Durham NC
03/09 American Academy of Allergy, Asthma & Immunology: Symposium on Mast cells in Immunity, Washington DC
03/09 Department of Medicine Pulmonary Conference DUMC, Durham, NC
05/09 American Thoracic Society: Symposium on Innate Immunity in the Lung, San Diego
06/09 Workshop on Mast Cells in Inflammation, Infection and Adjuvant development, NIH, Maryland
07/09 Chinese Center of Disease Control, Beijing China
09/09 Department of Medicine, University of Alberta, Edmonton Canada
10/09 Department of Pathology, Duke University, Durham, NC
12/09 NIDDK meeting on "Genetics of Vesicoureteral Reflux." NIH Bethesda, Maryland
01/10 NAID Reverse Site visit to NIH panel of Program officers, Baltimore Maryland.
02/10 Society for Urodynamics and Female Urology, State of the Art Presentation St. Petersburg FL
05/10 Department of Immunology, Montana State University, Bozeman MT
05/10 American Assoc of Immunol Symposium "New Insights into Mast Cell Function" Baltimore, MD
08/10 National University of Singapore, Symposium on Models of Physiology and Disease, Singapore
11/10 Society for Glycobiology Meeting "Pathogen-host cell interactions in infection" St. Pete Beach Fl
2/11 Department of Molecular Microbiology, Washington University, St. Louis
2/11 Department of Microbiology and Immunology, University of Michigan, Ann Arbor.
3/11 School of Dental Medicine, University of Pennsylvania, Philadelphia
4/11 Program in Emerging Infections, Annual Retreat, Duke-NUS, Singapore
4/11 Department of Microbiology& Immunology, University of North Dakota
4/11 Sloan Kettering, Weill Cornell & Hospital for Special Surgery combined seminars, New York
5/11 American Thoracic Society: Symposium on Innate Immunity in the Lung, Denver
11/11 61st annual meeting of the Japanese Society of Allergology, Tokyo

2/12 Department of Microbiology, University of Wyoming, Laramie WY
2/12 Department of Microbiology, Oakwood University, Huntsville AL
3/12 Science & Medicine Graduate Seminars, University of Wisconsin, Madison WI
3/12 Amer Acad of Allergy, Asthma & Immunology: Symposium on Asthma, Orlando Fl
9/12 Department of Hematology, GH Pitié-Salpêtrière, Bld de l'Hôpital, Paris France
10/12 Department of Molecular genetics and Microbiology, Duke Univ, Durham NC
10/12 Department of Immunology, Duke University, Durham NC
2/13 Amer Acad of Allergy, Asthma & Immunol: Symposium on Mast Cells. San Antonio. TX
4/13 Department of Immunology University of Pennsylvania, Philadelphia PA
4/13 Duke-Duke-NUS Symposium on Emerging Infectious Diseases, Duke University Durham(organizer)
5/13 American Thoracic Society Annual Meeting, Mast cells and Innate Immunity, Philadelphia, PA
6/13 6th International Singapore Symposium of Immunology, Singapore
8/13 EMBRN-COST International Mast cell and Basophil Symposium Udine, Italy
9/13 Kinnesaw State University, Department of Biology, Marietta GA
10/13 Newcastle University, Department of Microbiology Seminar, Newcastle upon Tyne, UK
10/13 Department of Hematology, GH Pitié-Salpêtrière, Bld de l'Hôpital, Paris France
11/13 University of Hong Kong- Pasteur Institute Lectures, Hong Kong, China
2/14 Amer Acad of Allergy, Asthma & Immunol: Symposium on Mast Cells. San Antonio. TX
2/14 Indian Institute of Science, Bangalore, India
2/14 National Institute of Interdisciplinary Science, Trivandrum, India
2/14 7th Asian Pacific Organization of Cell Biology (APOCB) Congress, Singapore (Session Chair)
3/14 Amer Acad of Allergy, Asthma & Immunol: Symposium on Mast Cells. San Diego, CA
8/14 International meeting on UTIs, Malmo Sweden (Session Chair)
8/14 Department of Microbiology, Univ of Uppsala Sweden
11/14 Doherty Institute for Infection and Immunity, University of Melbourne, Australia
11/14 Department of Biochemistry& Molecular Biology Monash University, Australia
3/15 Duke-Duke-NUS Symposium on Emerging Infectious Diseases, Duke University Durham Symposium, Singapore
4/15 Singapore Institute of Immunology, Singapore
5/15 Departmental Retreat, Program in Emerging Infectious Diseases, Duke-NUS Singapore.
8/15 Skin Disease Research Center, Duke University, Durham, USA
10/15 Keynote address Annual retreat Institut Necker Enfants Malades, Paris, France.
10/15. Université Sorbonne Paris Cité (USPC) and the National University of Singapore (NUS) Alliance Mast cell workshop, Paris, France (Speaker and Co-organizer)
10/15.EMBR-COST International Mast cell and Basophil Symposium, Marseilles, France (Speaker and Session Chair).
11/15 Annual Adjuvant Discovery Meeting, NIH Rockville MD
11/15. Basic Science Day, Duke University Medical School, Durham, NC USA
11/15. Inflammatory Bowel Diseases Symposium, Harvard Medical School, Boston MA
11/15 Host Microbial Interactions Symposium, Duke University, Durham NC, USA
5/16 Annual American Urological Association (AUA) Symposium in San Diego, CA.
5/16 Research Training Group, University Medical Center Hamburg-Eppendorf, Germany
5/16 Leibniz-Institut für Molekulare Pharmakologie (FMP), Berlin, Germany

5/16 Key note Annual meeting Dutch Society for Immunology Utrecht, Netherlands
6/16 Southeastern Immunology Symposium At Duke University, Durham NC
7/16 International Symposium on Mucopolysaccharidoses and Related Diseases Bonn Germany.
7/16 Division of Veterinary Medicine, Paul Erlich Institute, Langen, Germany
8/16 Key note Clinical and Scientific Advances in Urinary Tract Infections Columbus, OH
9/16 Invited panel on Skin Immunology and infectious Diseases, Rockville NIH, MD
9/16 Annual Adjuvant Discovery Meeting, NIH Rockville MD
12/16 Organizer and Session Chair Duke Pathology Retreat, Durham NC
02/17 Department of Microbiology Chulalongkorn Univ. Bangkok, Thailand
05/17 Science Policy and Society, Singapore-France, National University of Singapore
08/17 Key Note Speaker, Infectious Diseases Institute Retreat, Reagent Hotel Singapore
09/17 Chair and Speaker, Panel on Skin Immunology and Infectious Diseases, NIAD, NIH, MD
09/17 Department of Microbiology and Immunology, Wake Forrest Univ, Winston Salem, NC
10/17 Department of Immunology, Duke University, Durham NC
11/17 Centenary Institute Univ of Sydney, Australia
11/17 8th Barossa Meeting on Cell Signaling, Barossa Valley, South Australia
02/18 Duke Innate Immunity Group. Duke University, Durham, NC
03/18 Cochin University, Biomedical Institute, Kerala, India
03/18 Rajiv Ghandhi Institute, Trivandrum Kerala, India
04/18 University of Connecticut, Department of Immunology, Hartford, CT
06/18 Keynote Speaker, UTI Meeting Lund, Sweden
07/18 Keynote speaker, Graduate Student Mini-Symposium National Center for Cell Science, Pune, Mahashtra, India
09/18 Department of Immunology, Seminar, Duke University, Durham NC
09/18 Department of Pathology, Grand Rounds, Duke University, Durham NC
10/18 NIAID Adjuvant Discovery Meeting, Rockville MD
11/18 Cornell University. Department of Microbiology and Immunology Seminar
01/19 Department of Microbiology, East Carolina University. Departmental Seminar
03/19 Oregon Health & Science University, Molecular Microbiology & Immunology Department Seminar
03/19 University of North Carolina Chapel Hill. Department of Pathology Grand Rounds
04/19 Duke/ Duke-NUS Symposium, Duke University, Durham NC
04/19 Korean Assoc of Urogenital Tract Infection and Inflammation, Seoul, S. Korea
05/19 11th International Singapore Symposium of Immunology, Speaker
07/19 FASEB Science Research Conference. Speaker. Sedona AZ
09/19 Discussion Leader and Speaker. Immune Mechanisms of Wound Healing in the elderly Workshop, Rockville NIH
10/19 Department of Immunology Retreat Duke University, Durham NC
03/20 AAAAI Annual Meeting. Philadelphia PA (Online)
05/20 AAI annual Meeting Honolulu HI (Cancelled)
09/20 Department of Microbiology and Immunology, Univ of North Carolina (Online)
02/21 Urinary Tract Infection Global Alliance (Online)
04/21 Korean Assoc of Urogenital Tract Infection and Inflammation, Seoul, (Online)
05/21 AAI annual Meeting (Online)
04/21 Korean Assoc of Urogenital Tract Infection and Inflammation, Seoul, (Online)
05/21 AAI annual Meeting (Online)

09/21 University College London Bladder Immunity (Online)
11/21 Escient Pharmaceuticals CA (Online)
12/21 Univ of Michigan Dept of Pathology Departmental Seminar (Online)
05/22 Worldwide Immune Zoom seminar series (online)
08/22 2022 Joint Symposium on Immunology IITU+IMSYSU China (Online)
09/22 Department of Cell Biology Yale University, New Haven CT
10/22 Duke-NUS Program in Emerging Diseases Retreat, Singapore
11/22 Center for Molecular and Cellular Biosciences, Univ of Southern Mississippi, MS
01/12/23 Institute for Stem Cell Science and Regenerative Medicine, Bangalore, India
04/25/23 18th Annual Meeting of French Allergy Society, Paris France (Online).
05/08/23 Department of Life Sciences, Korea University, Seoul, S. Korea
05/12/23 Plenary Speaker KSBMB International Conference, Busan S. Korea
05/14/23 Chosun University, Gwangju, S. Korea
06/4/23 XXV _National Congress of Immunology, Santiago De Queretaro, Mexico
08/17/23 Infectious Diseases Research Institute Seminar SingHealth, Singapore
10/23/23 Duke-Duke-NUS symposium, Durham NC Session Chair
11/ 05/23 The Granulocyte Meeting, Singapore

Teaching Experience

Duke Medical School Courses

Medical students 1998-2014	Participating Lecturer:	Body and Diseases

Graduate School Courses DUMC

Graduate Students	Participating Lecturer:	Molecular Aspects of Disease
	Participating Lecturer:	Microbial Pathogenesis
	Participating Lecturer	Immunology 800

Summer Research Opportunities Program Lecture Series DUMC

Undergraduate students	Course Director:	Professional Opportunities in Science

Trainees	**Position at the end of Training**	
Undergraduate School		
Amit Kumar	MD student	Syracuse University
Michael Cohen	MD student	New York University
Alan Brown	MD student	University of Michigan
Ankur Shah	Ph.D student	Northwestern University
Jennifer McGregor	Ph.D student	Northwestern University
Fatima McKendra	MD/Ph.D	Case Western University
Herbert Chiang	MD/Ph.D	Washington University
Elena Mann	MD student	University of Georgia
Michael Zeringue	MD student	Tulane University
Prabhu Pravakaran	MD student	Rush Medical School
Glory Zhu	MD student	University of Ohio Medical School
Lilliane Lewis	MD student	Duke University

Rajan Goyal	MD Student	University of Dublin, Ireland
Kamil Farid	MD students	Duke University
Jessica Ferreyra	PhD student	Stanford University

Graduate School	**Training Duration**	**Position at the end of training and beyond**
Bereniece Madison	1986-90	Scientist-Senior Scientist, CDC, Atlanta
Jeoung-Sook Shin	1997-02	Post Doc, Yale University-Assoc. Professor UCSF
Matthew Duncan	1998-05	Founder, Air filteration Company, Greenville SC
James McLachlan	1998-03	Post Doct. Univ of Minnesota-Assoc. Prof Tulane Uni
Brian Bishop	2001-2007	Director of Regulatory Affairs, Emergent BioSolutions
Yuvon Mobley (PREP Student)	2007-2008	Graduate Student MGM Department Duke University
Ashley St. James	2005-2010	Post Doc and Associate Prof Duke-NUS, Singapore
Rhea Brooking	2002-2008	Senior Consultant, Booz, Allen, Hamilton Tech.firm
Christian Kunder	2004-2009	Medical school DUMC-Associate Prof Stanford Univ.
Cong Jin	2005-2010	Post Doc, Duke University, Full Professor Chinese Center for Disease Control
Jeongmin Song	2004- 2008	Post Doc. Yale University, Assoc Prof. Cornell Univ
Chery Chan	2006- 2012	Medical Laboratory Director, Melbourne Australia
Joseph Onyiah (Med.III elective)	2005-2006	Assistant Prof, University of Colarado
Samantha Bowen	2007- 2013	Senior Grants Manager, Duke Univ
Yuvon Mobley	2008-2013	Post Doc Clin Immunolgy Lab, Chicago
HaeWoon Choi	2008-2014	Post Doc Duke, Assist Prof. Korea University, Seoul.
Yuxuan Phoenix Miao	2010-2015	Post Doc Rockefeller Univ, Assist Prof Univ Chicago.
Gladys Ang	2010-2017	Instructor, University of Cincinati
Viraj Parekh	2009-2016	Managing Partner Clear Insights Consulting
Arif Mohammed	2011-2018	Post Doc Cornell University
Byron Hayes	2014-2020	K12 NIH Scholar (Duke University)
Jason Iskarpatyoti	2015-2021	Post Doc Duke
Jianxuan Wu	2015-2020	Post Doc Univ Cal San Francisco
Evangeline Bao	2018-2023	Scientist, Roche Shanghai, China
Emily Engeman	2021-present	
Michael Kim	2021-present	

Postdoctoral Fellow

Rupinder Tewari, PhD	1991-93	Professor, Chairman, Univ. Chandigar, India
Teruo Ikeda, PhD,DVM	1992-96	Associate Professor, Azabu Univ, Japan
Sandhya Jaiswal, PhD	1993-94	Not known
Ravi Malaviya, PhD	1992-96	Senior Scientist, Johnson & Johnson, NJ
David Baorto, MD, PhD	1994-96	Lecturer, Columbia Univ. NY
Krishnan Thankavel, PhD	1995-99	Research Associate, Univ. S. Alabama, AL
Tong-Jun Lin, MD, PhD	1996-97	Professor, Dalhousie Univ., Canada
Zhimin Gao, MD.	1996-2002	Senior Scientist, Research Triangle Park, NC
Yasheng Gao, PhD.	2002-03	Research Fellow, Duke University Medical School.
David Zaas MD	2003-05	CEO, Medical Univ South Carolina, Charleston, SC.

Chris Shelburne, PhD	2002-2011	Senior Scientist, Private firm Washington DC.
Goujie Li	2002-2012	Senior Scientist, Dept of Medicine, DUMC
Alison Hofmann MD	2007-2010	Vice President, Glaxo Smith Kline, Durham, NC
Adam Moeser, PhD, DVM	2009-2015	Professor, Michigan State Vet School, MI
Jorn Karhausen MD	2010-present	Assistant Professor, Department of Anesthesia, DUMC
Ezmin George, MD	2010-2012	Pulmonary fellow, DUMC, Private Practice, VA
Ashley St. John, PhD	2012-2014	Assoc Professor, PEID, Duke-NUS, Singapore
HaeWoon Choi, PhD	2014-2019	Assistant Prof Korea University, Seoul S. Korea
Yuxuan Miao, PhD	2015-2015	Assistant Prof Univ of Chicago
Abhay Rathore	2016-present	
Pradeep Bist	2016-2022	Senior Scientist, Duke-NUS, Singapore
Andrea Menceralli	2017-2022	Principal Investigator
Byron Hayes	2021-present	
Jason Iskarpatyoti	2022-2023	Postdo Scientist, Eldec Pharmaceuticals, Durham NC

Visiting Scientists (including sabbaticals) to this laboratory

Itzhak Ofek, PhD	1996	Professor, Tel Aviv Univ. Israel
Michel Arock, PhD, PharmD	1997	Professor, Fac. Pharmacy, France
Natalie Melcarek, PhD	1998	Scientist. Univ. of Gothenburg, Sweden
Antonio Encisco, Ph.D	2000	Professor, UIMEIP-PEDIATRIA, Mexico
Jung Min Kim, MD, PhD	2001-3	Associate Professor, Yonsei University, South Korea
Donghoon Lim MD	2020-2021	Professor, Chosun University, South Korea

Principal Academic & Administrative Activities

Director of Graduate Studies in Pathology (Since 2002)
Co-Director of Duke Summer Research Opportunities Program (Since 1998)

Grant & Contract Support

Present Grant Support

NIAID-DAIT-NIHAI201700100 NIH Contract. (PI: Jay Evans and Herman Staats)
Role: Co-investigator
Vaccine Adjuvant Discovery Program: Discovery of Novel Synthetic IL-1 Adjuvants
010/01/2019-09/31/2024

R01 DK121032 (PI: Abraham, SN)
NIH/NIDDK
Aberrant remodeling of the bladder following infection 04/01/2019-03/31/2023

R01-GM144606 (PI: Abraham SN)
NIH/NIGMS

Platelet- mast cell interactions as determinants of the vascular pathology in septic shock.
9/22/2021 - 8/31/2025

NIH/NIAID R21AI170985 (PI: Abraham SN)
A novel vaccination strategy to curb recUTIs 01/12/2023-01/11/ 2025

R01 DK121969 (PI: Abraham SN)
NIH/ NIDDK
Loss of Bladder Control Following Recurrent Infections 04/23/2020- 03/31/2024

North Carolina Biotechnology Center Flash Grant (PI: Abraham SN) 08/1/2020-07/31/2021
Developing a SARS-CoV-2 subunit vaccine for nasal immunization

Duke University Summer Research Opportunities Program
Andrew W. Mellon Foundation & Duke University(Co-PI Abraham SN)
Entire Project: 5/01/2010-8/31/23

Past Grant Support

		Direct Cost
1986	FIRST Award (NIH)	$375,000/ 5yrs
1988	Swedish Medical Research Council Grant	$30,00/ 6 mths
1989	VA Merit Award	$240,000/ 3yrs
1993	Washington University/Monsanto-Searle Research Agreement	$240,400/ 4yrs
1995	Interstitial Cystitis Society of America	$10,000/ 1yr
1996	Barnes-Jewish Endowment Fund	$55,000/ 1yr
1996	NIH, R01 Masts Cells in Pulmonary Inflammation	$780,000/5yrs
1997	Barnes-Jewish Endowment Fund	$55,000/ 1yr
1999	Duke Breast Cancer Program	$15,000/yr
1999	NIH MERIT Award	$220,000/1yr x10yrs
2001	Sandler Foundation for Asthma Research	$750,000/3yrs
2004	NIH R21 Proteome Mining in Caveolae	$480,000/2yr
2006	NIH, R01 Caveolae Mediated Bacterial Uptake	$1,250,000/5yrs
2007	NIH Modulation of Bladder cAMP to combat UTIs	$1,365,179/5 yrs
2008	NIH R21 Development of Efficacious Vaccine against UTIs	$350,000/2yr
2008	Duke University Translational Research Institute Pilot Program	$175,000/1yr
2008	NIH, R56 Small cationic antimicrobial adjuvants	$250,000/yr
2011	NIH, R21 Nasal Adjuvant for anti-cocaine vaccines.	$150,000/yr x 2yrs
2009	NIH, U01 (Staats/Abraham)Efficacious and Stable Nasal Vaccine Formulations	$521K/yr x5 yrs

2012	NIH, R01 Mucosal vaccination to protect against HIV-1 infection	$450,000/yr x4yrs
2012	NIH, R01 Overcoming Immunosenescence	$250,000/yr x4yrs
2012	NIH, R01 Mechanisms of bacterial expulsion	$230,000/yrx4yrs
2012	NIH, R01 Mast cells in Dengue Pathology	$225,000/yr x 5yrs
2014	NIH, Contract Adjuvant Discovery program	$1,701,156/yr x 5
2019	NIH, R56 Immunotherapy to combat skin infections	$150,000 x1 yr
2019	NCI CA Controlling bladder cancer	$150,000x2 yr

Patents

A novel adjuvant capable of specifically activating the adaptive immune response. USPTO #8,076,059. Issued: December 13, 2011. Inventors: Salvatore V. Pizzo, Justin P. Hart, James B. McLachlan, Herman F. Staats, and Soman N. Abraham.

Lymph-node targeting nanoparticles. USPTO #8,802,076. Issued: August 12, 2014. Inventors: Soman Abraham, Kam Leong, Herman Staats, Ashley St. John.

Peptide, adjuvants, vaccines, and methods of use. USPTO #9,301,999. Issued: April 5,2016. Herman F. Staats; Soman, N. Abraham and Salvatore Pizzo.

Method of treating food allergies by administering a nanoparticle comprising heparin and chitosan encapsulating IL-12. USPTO #9,782,475. Issued: October 10, 2017. Soman Abraham , Kam Leong, Herman Staats and Ashley St. John

Lymph node-targeting nanoparticles. USPTO #10,245,319.Issued: April 2, 2019. Soman Abraham, Kam Leong, Herman Staats and Ashley St. John

Host Biomarkers Differentiating Dengue Fever (DF) and Dengue Hemorrhagic Fever (DHF) for Development of Prognostics and Diagnostics. Inventors: Abraham, SN, St. John, AL, Ng, MM, Raghavan, B. US Patent Application #61/677,041

Research Interests

Mast cell modulation of innate and adaptive immunity to bacterial infections and to allergens. Molecular aspects of bacteria-host cross talk during infection, Immunology of Urinary Tract Infections.

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Articles (Peer Reviewed)

Published

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7. Parry SH, Boonchai S, **Abraham SN**, Salter JM, Rooke DM, Simpson JM, Bint AJ, Sussman M. A comparative study of the mannose-resistant and mannose-sensitive haemagglutinins of Escherichia coli isolated from urinary tract infections. **Infection**. 1983;11(2):123-128. 1983/03/01. PubMed PMID: 6134680.
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Chapters & Invited Reviews

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