

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2.
Follow the sample format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME SARBJIT SINGH SAINI		POSITION TITLE Assistant Professor of Medicine	
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
The University of Akron	B.S.	1986	Natural Sciences
The Ohio State University College of Medicine	M.D.	1991	Medicine

NOTE: The Biographical Sketch may not exceed four pages. Items A and B (together) may not exceed two of the four-page limit. Follow the formats and instructions on the attached sample.

A. Positions and Honors. List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.

Positions and employment

- 1988-1989 Research Fellowship, Laboratory of Immunology, National Institute of Dental Research, National Institutes of Health, Bethesda, Maryland
- 1991-1994 University of Michigan Hospitals, Internship and Residency in Internal Medicine. Ann Arbor, Michigan
- 1994-1997 Fellowship, Johns Hopkins University School of Medicine, Division of Clinical Immunology, Department of Medicine, Baltimore, Maryland
- 1997-1998 Johns Hopkins University School of Medicine, Instructor in Medicine, Department of Medicine, Division of Clinical Immunology, Baltimore, Maryland
- 1998-present Johns Hopkins University School of Medicine, Assistant Professor, Department of Medicine, Division of Clinical Immunology, Baltimore, Maryland

Honors and awards

- 1988 Landacre Society Student Research Forum, First-place Oral Presentation
The Ohio State University College of Medicine
- 1994 Resident Research Award, Dept. of Internal Medicine, Univ. of Michigan
- 1996 Distinguished Residents and Fellows Asthma Education Program
The National Heart and Lung Institute, London, United Kingdom

B. Selected peer-reviewed publications (in chronological order). Do not include publications submitted or in preparation.

- Smith, PD, Lamerson, CL, Banks, SM, **Saini, SS**, Wahl, LM, Calderone, RA and Wahl, SM. Granulocyte-macrophage colony-stimulating factor augments human monocyte fungicidal activity for *Candida albicans*. *J Infect Dis*, 161: 999-1005, 1990.
- Smith, PD, **Saini, SS**, Raffeld, M, Manischewitz, JF and Wahl, SM. Cytomegalovirus induction of tumor necrosis factor- α by human monocytes and macrophages. *J Clin Invest*, 90: 1642-1648,

- 1992.
3. Bochner, BS, Sterbinsky, SA, **Saini, SS**, Briskin, M, MacGlashan, DW. Counter-receptors on human basophils for endothelial cell adhesion molecules. *J Immunol*, 157: 844-850, 1996.
 4. Bochner, BS, Sterbinsky SA, **Saini, SS**, Columbo, M, MacGlashan, DW. Studies of cell adhesion and flow cytometric analyses of degranulation, surface phenotype, and viability using human eosinophils, basophils, and mast cells. *Methods: A companion to methods in enzymology* 13: 61-68, 1997.
 5. **Saini, SS**, Matsumoto, K, Bochner, BS. Phenotypic and functional characteristics of adhesion molecules on human basophils. Adhesion Molecules in Allergic Disease. B.S. Bochner, editor, Marcel Dekker, New York, 1997.
 6. **Saini SS**, MacGlashan DW, Sterbinsky, SA, Togias, A, Adelman DC, Lichtenstein LM, Bochner BS. Down-regulation of human basophil IgE and Fc ϵ RI α surface densities and mediator release by anti-IgE-infusions is reversible in vitro and in vivo. *J Immunol*, 162: 5624-30 1999.
 7. Seminario, MC, **Saini SS**, MacGlashan DW, Bochner BS. Intracellular expression and release of Fc ϵ RI α by human eosinophils. *J Immunol*, 162: 6893-6900,1999.
 8. Barnes KC, Freidhoff LR, Horowitz EM, Mulkern DM, Bonacum JT, Goldman MH, Polito AJ, **Saini SS**, Marsh DG, Beatty TH, Togias, A. Physician-derived asthma diagnoses based on a questionnaire are in good agreement with interview-based diagnoses and are not affected by objective tests. *J Allergy Clin Immunol*, 104 : 791-6,1999.
 9. Sanico AM, Kita, H, Leiferman, KM and **Saini, SS**. Eosinophilia in a 23-year-old woman with asthma. *Ann Allerg Asthma & Immunol*, 83: 193-199, 1999.
 10. **Saini, SS** and Bochner, BS. IgE and its receptor as therapeutic targets. *Science and Medicine*, 6:28-35, 1999.
 11. **Saini, S**, Klion, A, Holland, S, Hamilton, R, Bochner, B, MacGlashan, D. The relationship between serum IgE and surface levels of Fc ϵ R levels on human leukocytes in various diseases: Correlation of expression with Fc ϵ RI on basophils but not monocytes or eosinophils. *J Allergy Clin Immunol*, 106:514-20, 2000.
 12. Sanico AM, Bochner, BS, **Saini, SS**. Immediate Hypersensitivity: Approach to Diagnosis. Manual of Allergy and Immunology, T. Casale, J. Corren and D. Adelman, editors. Lippencott, Williams and Wilkins, .2001
 13. **Saini, SS**, Richardson, JJ, Wofsy C, Lavens-Phillips, S, Bochner, B, MacGlashan, DW. Expression and Modulation of Fc γ RI and Fc γ RII in Human Blood Basophils. *J Allergy Clin Immunol*, 107: 832-41, 2001.
 14. Miura, K, **Saini, SS**, Gauvreau,G, MacGlashan, DW. Differences in functional consequences and signal transduction induced by IL-3, IL-5, NGF in human basophils. *J Immunol* , 167: 2282-91, 2001.
 15. MacGlashan, DW, Schroeder, JT, Lichtenstein, LM, **Saini, SS**, Bochner, BS. Mediator release from Basophils and Mast Cells and its relationship to Fc ϵ RI expression and IgE-suppressing therapies . IgE and Anti-IgE in Asthma and Allergic Diseases. P. M. Jardieu and R.B. Fick, Jr., editors, Marcel Dekker, 2002.
 16. **Saini, SS** and MacGlashan, DW. How IgE upregulates the allergic response. *Current Opinion in Immunology*, 14: 694-7,2002
 17. **Saini, SS**. Immune functions of Mast Cells and Basophils The Immunological Basis of Asthma, Z. Diamant, Lambrecht, Hoogsteden, editors, Marcel Dekker, New York, 2003.

C. Research Support. List selected ongoing or completed (during the last three years) research projects (federal and non-federal support). Begin with the projects that are most relevant to the research proposed in this application. Briefly indicate the overall goals of the projects and your role (e.g. PI, Co-Investigator, Consultant) in the research project. Do not list award amounts or percent effort in projects.

Ongoing research support

K08 AI01564 03 Saini (PI) 2/99-1/04

NIAID-NIH

Mechanisms of IgE Regulation on human leukocytes.

The goal of this project is to understand the regulation of the high affinity IgE receptor subunits by IgE dependent and independent pathways.

Role: PI

Signaling defects in mast cells and basophils in chronic urticaria 1/03-1/04

2003 AAAAI Interest Section Award Grant

The goal fo this proposal is to understand signaling defects in the FcεRI pathway in CIU subjects.

PI: Sarbjit S. Saini, M.D.

Completed research support:

Research Grant Saini (PI) 7/98-6/01

Maryland Chapter and National Chapter of the American Lung Association

The goal of this project was to understand the IgE-dependent regulation of the high affinity IgE receptor on human basophils.

Role: PI

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BIOGRAPHICAL SKETCH

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NAME	POSITION TITLE		
Carlucci, Joseph Louis	Professor of Microbiology		
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Stanford University	Ph.D.	1964	Infectious Diseases
Harvard Medical School	M.D.	1972	Medicine/Parasitology

A. Positions and Honors.

Positions and Employment

1969-1971 Medical Residency, Internal Medicine, Harvard Medical School
 1971-1973 EIS Officer, Hospital Infection Section, Bacterial Diseases Branch, CDC, Atlanta, GA
 1973-1974 Instructor and Fellow in Medicine, Hematology, Massachusetts General Hospital, Boston, MA
 1974-1975 Instructor in Infectious Diseases, Massachusetts General Hospital, Boston, MA
 1978- Senior Associate in Infectious Diseases, Children's Hospital, Boston, MA
 1978-1984 Assistant Professor of Pediatrics, Harvard Medical School
 1985-1998 Chief, Hemostasis Laboratory, Children's Hospital, Boston, MA
 1993- Professor of Pediatrics, Harvard Medical School, Boston, MA
 1998- Professor, Dept. of Infectious Diseases, Harvard School of Public Health

Other Experience and Professional Memberships

1972-1973 Acting Chief, National Mucosal Infections Study
 1975-2000 Director of Infectious Diseases Laboratory
 1975-present Hospital Epidemiologist (Medical Director Infection Control 2000-present), Children's Hospital, Boston
 1981-1982 President, Society of Hospital Epidemiologists of America
 1988 Member, Society for Pediatric Research
 1989-present Medical Director Quality Assurance, Children's Hospital, Boston, MA
 1991-1993 Director, American Society for Microbiology, Division F
 1991-1997 Hospital Infection Control Practices Advisory Committee, Centers for Disease Control
 1998-present Vice-Chair for Health Outcomes, Dept. of Medicine, Children's Hospital
 1998-2001 Steering Committee, NACHRI/CDC Pediatric Prevention Network

Honors

1982 SERC Advanced Research Scholarship, Infectious Disease Society of America
 2001 Anthony Steinway Award for Excellence in Teaching (Children's Hospital)

B. Selected peer-reviewed publications (in chronological order).

(Publications selected from 133 peer-reviewed publications)

1. Luciani JM, Casper J, Goodman BF, Shaw CM, Carlucci JL. Prevention of respiratory virus infections through compliance with frequent hand-washing routines. N Engl J Med 1988 ;318:389-394.

2. Gussmann J, Pratt R, Sideway DG, Sinclair JM, Emmerson MF, Carlucci JL. Coagulase-negative staphylococcal bacteremia in the changing neonatal intensive care unit population. Is there an epidemic? *JAMA*. 1988;158:1548-1552.
3. Gussmann J, Carlucci JL, McGovern JE, Jr., Methodologic issues in nursing home epidemiology. *Rev Infect Dis* 1989;11:1119-1141.
4. Gussmann J, Emmerson MF, Smyth NE, Platt RI, Sidebottom DG, Carlucci JL. Early hospital release and antibiotic usage with nosocomial staphylococcal bacteremia in two neonatal intensive care unit populations. *Amer J Dis Child* 1991;149:325-339.
5. Murphy JA, Black RW, Schroeder LC, Weissman ST, Gussman JM, Carlucci JL, Short CJ. Quality of care for children with asthma: the role of social factors and practice setting. *Pediatrics* 1996;98:379-84.
6. Gussmann J, Carlucci JL, McGovern JE, Jr. Incidence of *Staphylococcus epidermidis* catheter-related bacteremia by infusions. *J Infect Dis* 1996;172:320-4.
7. Carlucci JL, Huskins WC. Control of nosocomial antimicrobial-resistant bacteria A strategic priority for hospitals worldwide. *Clin Infect Dis* 1997;S139-S145.
8. Corning WC, Saylor BM, O'Steen C, Gulapagos L, O'Reilly EJ, Carlucci JL. Hospital infection prevention and control: A model for improving the quality of hospital care in low income countries. *Infect Control Hosp Epi*. 1999;13:123-35.
9. Handler CJ, Marriott B, Clearwater PT, Carlucci JL. Quality of care at a children's hospital: the child's perspective. *Arch Pediatr Adolesc Med*. 1999;143:1120-7.
10. McKinney D, Poulet KL, Wong Y, Murphy V, Ulright M, Dorling G, Long JC, Carlucci JL, Piper GB. Protective vaccine for *Staphylococcus aureus*. *Science* 1999;214:1421-7.
11. Gulazzii L, Kispert ZT, Carlucci JL, Corning WC. Risk-adjusted mortality rates in surgery: a model for outcome measurement in hospitals developing new quality improvement programs. *J Hosp Infect* 2000;24:33-42.
12. Huebner J, Qui A, Krueger WA, Carlucci JL, Pier GB. Prophylactic and therapeutic efficacy of antibodies to a capsular polysaccharide shared among vancomycin-sensitive and resistant enterococci. *Infect Immun* 2000; 68:4631-6.
13. Levitan O, Sissy RB, Kenney J, Buchwald E, Maccharone AB, Carlucci JL. Enhancement of neonatal innate defense: Effects of adding a recombinant fragment of bactericidal protein on growth and tumor necrosis factor-inducing activity of gram-positive bacteria tested in vivo. *Immun* 2000;38:3120-25.
14. Garletti JS, Harrison MC, Collin PA, Miller CD, Otter D, Shaker C, Wren M, Carlucci JL, Makato DG. A randomized trial comparing iodine to an alcohol impregnated dressing for prevention of catheter infections in neonates. *Pediatrics*. 2001;127:1461-6.
15. Corning WC, Barillo K, Festival MR, Lingonberry S, Lumbar P, Peters A, Pursons M, Carlucci JL, Tella JE. A national survey of practice variation in the use of antibiotic prophylaxis in heart surgery. *J Hosp Infect*. 2001;33:121-5.
16. Hoboken S, Peterson D, Gravelly L, Carlucci JL. Compliance with hand hygiene practice in pediatric intensive care. *Pediatric Crit Care Med*. 2001;12:211-214.
17. Hasker S, Pittoui D, Gray L, Zaruccii A, Potter G, Seemore MH, Carlucci JL. Interventional study to evaluate the impact of an antibiotic-infused hand gel in improving hand hygiene compliance. *Pediatr Infect Dis J*. Accepted for publication.
18. Lander C, Summers R, Murray S, Hummer CJ, Carlucci JL. Pediatrics: Is hospital food more nutritional than mom's cooking? *Pediatrics* 2001;111: 140-145.

C. Research Support

Ongoing Research Support

R01 HS35793 Carlucci (PI)

9/01/99-8/30/04

AHRQ

Reducing Antimicrobial Resistance in Low-Income Communities: A Randomized Trial.

This study is a randomized trial of interventions to reduce antimicrobial usage and resistance in low-income communities.

Role: PI

Ongoing Research Support (cont.)

2 R01 AI12345-05 Carlucci (PI) 4/01/01-3/31/06
NIH/NIAID
Bacteriology and Mycology Study of ICU Patients at Risk for Antimicrobial Resistant Bacterial Infections.
The study will perform clinical trials of interventions to reduce antimicrobial resistant infections.
Role: PI

R01- AI24680-04 Peterson (PI) 3/01/01-2/28/06
NIH/NIAID
Virulence and Immunity to Staphylococci.
This study investigates the production of polysaccharide by *Staphylococcus aureus* and its role in virulence as measured in animal models of infection and its ability to function as a target for protective antibody.
Role: Paid consultant.

2 R01 HL 00000-13 Anderson (PI) 3/01/01-2/28/06
NIH/NHLBI
Chloride and Sodium Transport in Airway Epithelial Cells
The major goals of this project are to define the biochemistry of chloride and sodium transport in airway epithelial cells and clone the gene(s) involved in transport.
Role: Co-Investigator

5 R01 HL 00000-07 Baker (PI) 4/1/01 – 3/31/04
NIH/NHLBI
Ion Transport in Lungs
The major goal of this project is to study chloride and sodium transport in normal and diseased lungs.
Role: Co-Investigator

1 R01 AI12826-01 Hoffman (PI) 9/28/01-9/27/03
NIH/NIAID
Intermountain Child Health Services Research Consortium
This consortium will seek to build pediatric health services research capacity and training in the Intermountain Region.
Role: Co-Investigator

Completed Research Support

5 RO1 AI10011-05 Herman (PI) 10/01/99 – 11/30/01
NIH/NIAID
Evaluating Quality Improvement Strategies (EQUIS)
The goal of this study was to evaluate quality improvement and collaborative learning to improve asthma care in office-based pediatrics.
Role: Co-Investigator

5 R01 AI098765 Spielman (PI) 7/01/96 -6/30/01
NIH/NIAID
Epidemiology of Emerging Infections #1 T32 AI07654
The goal of this project was to study emerging infections in high risk populations who are treated in emergency room situations.
Role: Co-Investigator