

**APPLICANT/FELLOW BIOGRAPHICAL SKETCH****USE ONLY FOR INDIVIDUAL PREDOCTORAL and POSTDOCTORAL FELLOWSHIPS. DO NOT EXCEED FOUR PAGES.**

NAME OF APPLICANT/FELLOW Shervin Rabizadeh	POSITION TITLE -- Staff Physician, Assistant Professor – Pediatric Gastroenterology, Cedars-Sinai Medical Center		
eRA COMMONS USER NAME Srabiza1	-- Assistant Professor - David Geffen School of Medicine, UCLA -- Adjunct Assist Prof, Johns Hopkins University		
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
University of California, Los Angeles	BS	1996	Biochemistry
University of California, Los Angeles	BA	1996	Economics
Tufts University School of Medicine	MD	2001	Medicine
Tufts University School of Medicine	MBA	2001	Health Management

**A. Personal Statement**

As a Pediatric Gastroenterologist, I have always had an interest in Inflammatory Bowel Disease (IBD), a lifelong disorder that affects ~150,000 American children. While sympathetic for the plight of the patient and his or her family, I was fascinated by the pathogenesis and treatment of the disease especially in regards to the interplay of inflammation, immunity and microflora. I have been fortunate to have had the mentorship and opportunity to work in the laboratories of Dr. Cynthia Sears in the Department of Medicine, Division of Infectious Disease and Division of Gastroenterology at Johns Hopkins University and now Dr. Moshe Arditi at Cedars-Sinai Medical Center. I have studied a human commensal, a toxigenic subclass of *Bacteroides fragilis*, induced murine colitis model. With co-mentoring by Dr. Drew Pardoll at Johns Hopkins University and Dr. Stephan Targan at Cedars-Sinai Medical Center, my work has entailed characterizing the colitis provoked by this toxigenic form of the bacterium in mice, investigating the stat-3 (signal transducer and activator of transcription-3) driven IL-17 producing immunologic cascade and colonic inducing tumor potential of the bacterium, and the interplay of the bacterium with innate immunity. My work has led to a first author publication in the journal *Inflammatory Bowel Disease* and co-authored manuscripts in *Infection and Immunity*, *Nature Medicine*, and *PNAS*. In addition, besides these peer-reviewed manuscripts, I have published reviews and chapters on various topics including pediatric gastroenterology, pediatric IBD, probiotics, and the human microbiome. Also I am an editor for a Pediatric Board review book. As director of the Pediatric IBD Program at Cedars-Sinai Medical Center, not only my clinical practice has supplemented my research duties as I treat children with Inflammatory Bowel Disease but I am able to partake in clinical and translational research looking at the risk factors for developing IBD and how that can influence outcome. My experiences have put me in an ideal position to blend my laboratory and clinical experience in my future research and apply lessons learned from the bedside to the bench and vice versa in efforts to help patients with IBD.

**B. Positions and Honors**

ACTIVITY/OCCUPATION	BEGINNING DATE (mm/yy)	ENDING DATE (mm/yy)	FIELD	INSTITUTION/COMPANY	SUPERVISOR/ EMPLOYER
Laboratory Tech	1992	1994	Neurology	UC Los Angeles	Dr. Dale Bredesen
Intern	7/01	6/02	Pediatrics	Johns Hopkins Univ	Dr. Julia McMillan
Resident	7/02	6/04	Pediatrics	Johns Hopkins Univ	Dr. Julia McMillan
Fellow	7/04	6/05	Pediatric GI	Johns Hopkins Univ	Dr. Carmen Cuffari
Chief Resident	7/05	6/06	Pediatrics	Johns Hopkins Univ	Dr. Julia McMillan
Fellow	7/06	6/08	Pediatric GI	Johns Hopkins Univ	Dr. Carmen Cuffari/ Dr. Cynthia Sears
Staff Physician – full time	7/08	present	Pediatric GI	Cedars-Sinai Medical Center	Dr. Charles Simmons

### Academic and Professional Honors

- 2014 - Director, Pediatric Gastroenterology and Pediatric IBD Program, Cedars-Sinai Medical Center
- 2014 - Medical Director, Children's Health Center Clinic, Cedars-Sinai Medical Center
- 2013 - Invited as the Visiting Young Investigator, Pediatric Gastroenterology, Baylor College of Medicine
- 2011 - CTSI Maternal Child and Adolescent Health Junior Investigator Award
- 2005 - Scholarship to Attend Mentoring Program in Inflammatory Bowel Disease, Annenberg Center
- 2001 - Worth F. Bloom M'25 Prize, High Standard of Excellence and Compassion Through Medical School, Tufts University School of Medicine
- 2000 - Massachusetts Medical Society Scholars Program Scholarship
- 1996 - B.S. awarded Magna Cum Laude, UC Los Angeles

### Memberships in professional societies:

- 2009 - present. Diplomat, Sub-board of Pediatric Gastroenterology, American Board of Pediatrics
- 2007 - present. Member, American Gastrointestinal Association (AGA)
- 2004 - present. Diplomat, American Academy of Pediatric (AAP)
- 2004 - present. Member, North American Society of Pediatric Gastroenterology, Hepatology, & Nutrition (NASPGHAN)

### C. Publications

#### Research papers:

Singh N, Rosenthal CJ, Melmed GY, Mirocha J, Fariior S, Callejas S, Tripuraneni B, **Rabizadeh S**, Dubinsky MC. Early infliximab trough levels are associated with persistent remission in pediatric patients with inflammatory bowel disease. *Inflamm Bowel Dis*. 20(10): 1708-13. Oct 2014.

Wick E\*, **Rabizadeh S\*** (\*co-first authors), Albesiano E, Wu SW, Rhee KJ, Ortega G, Wu X, Huso DL, Pardoll D, Housseau F, Sears CL. Stat3 Activation in Murine Colitis Induced by Enterotoxigenic *Bacteroides fragilis*. *Inflamm Bowel Dis*. 20(5): 821-34. May 2014.

Vahabnezhad E, **Rabizadeh S**, Dubinsky MC. A Ten-Year, Single Tertiary Care Center Experience on the Durability of Infliximab in Pediatric Inflammatory Bowel Disease. *Inflamm Bowel Dis*. 20(4):606-13. April 2014.

Singh N, Rosenthal CJ, Melmed GY, Mirocha J, Callejas S, Tripuraneni B, Fariior S, **Rabizadeh S**, Dubinsky MC. Early Infliximab trough levels predict remission at one year in pediatric IBD Patients. *Inflamm Bowel Dis*. Accepted.

Hourigan SK, Chirumamilla SR, Ross T, Golub JE, **Rabizadeh S**, Saeed SA, Elson CO, Kelly CP, Carroll KC, Oliva-Hemker M, Sears C. Clostridium difficile Carriage and Serum Antitoxin Responses in Children with Inflammatory Bowel Disease. *Inflamm Bowel Dis*. 19(13): 2744-2752, Dec 2013.

Min SB, Le-Carlson M, Singh N, Nylund CM, Gebbia J, Haas K, Lo S, Mann N, Melmed GY, **Rabizadeh S**, Dubinsky MC. Video Capsule Endoscopy Impacts Decision Making in Pediatric IBD: A Single Tertiary Care Center Experience. *Inflamm Bowel Dis*. 19(10): 2139-45, Sep, 2013.

Short SS, Dubinsky MC, **Rabizadeh S**, Fariior S, Berel D, Frykman PK. Distinct phenotypes of children with perianal perforating Crohn's disease. *J Pediatr Surg*. 48(6): 1301-5, June 2013.

**Rabizadeh S**, Gower WA, Payton K, Miller K, Vera K, Serwint JR. Restructuring the morbidity and mortality conference in a department of pediatrics to serve as a vehicle for system changes. *Clinical Pediatrics*. 51 (11): 1079-86, November 2012.

Goodwin AC, Destefano Shields CE, Wu S, Huso DL, Wu X, Murray-Stewart TR, Hacker-Prietz A, **Rabizadeh S**, Woster PM, Sears CL, Casero RA Jr. Polyamine catabolism contributes to enterotoxigenic *Bacteroides fragilis*-induced colon tumorigenesis. *Proc Natl Acad Sci U S A*. 108(37): 15354-9, September 2011.

Gidrewicz D, Lehman D, **Rabizadeh S**, Majlessipour F, Dubinsky M. Primary EBV Infection Resulting in Lymphoproliferative Disease in a Teenager with Crohn Disease. *Journal of Pediatric Gastroenterology & Nutrition*. 52(1): 103-5, January 2011.

Soliman A, Michelsen KS, Karahashi H, Lu J, Meng FJ, Qu X, Crother TR, **Rabizadeh S**, Chen S, Caplan MS, Arditi M, Jilling T. Platelet-Activating Factor Induces TLR4 Expression in Intestinal Epithelial Cells: Implication for the Pathogenesis of Necrotizing Enterocolitis. *PLoS One*. 5(10): e15044, October 2010.

Lowe EL, Crother TR, **Rabizadeh S**, Hu B, Wang H, Chen S, Shimada K, Wong MH, Michelsen KS, Arditi M. Toll-like receptor 2 signaling protects mice from tumor development in a mouse model of colitis-induced cancer. *PLoS One*. 5(9): e13027, September 2010.

Wu S, Rhee KJ, Albesiano E, **Rabizadeh S**, Wu X, Yen HR, Huso DL, Brancati FL, Wick E, McAllister F, Housseau F, Pardoll DM, Sears CL. A human colonic commensal promotes colon tumorigenesis via activation of T helper type 17 T cell responses. *Nature Medicine*. 2009. 15(9):1016-22. PMID: 19701202

Rhee KJ, Wu S, Wu X, Huso DL, Karim B, Franco AA, **Rabizadeh S**, Golub JE, Mathews LE, Shin J, Sartor RB, Golenbock D, Hamad AR, Gan CM, Housseau F, Sears CL. Induction of persistent colitis by a human commensal, enterotoxigenic *Bacteroides fragilis*, in wild-type C57BL/6 mice. *Infect Immun*. 2009. 77(4): 1708-1718. PMCID: PMC2663167.

**Rabizadeh S**, Rhee KJ, Wu S, Huso DL, Gan C, Golub J, Wu X, Zhang M, Sears CL. Enterotoxigenic *Bacteroides fragilis*: A potential instigator of colitis. *Inflammatory Bowel Diseases*. 2007: 13(12): 1475-1483. PMID: 17886290.

Rabizadeh Sha, **Rabizadeh She**, Ye X, Wang JJ, Bredesen DE. Neurotrophin Dependence Mediated by p75NTR: Contrast Between Rescue by BDNF and NGF. *Cell Death and Differentiation*. 1999: 6(12):1222-1227. PMID: 10637439.

Anton R, Kordower JH, Maidment NT, Manaster JS, Kane DC, Rabizadeh Sha, Schueller SB, Yang J, **Rabizadeh She**, Edwards RH, Markham CH, Bredesen DE. Neural-targeted gene therapy for rodent and primate hemiparkinsonism. *Exp Neurol*. 1994: 127(2):207-18. PMID: 7518394.

#### Abstracts:

**Rabizadeh S**, Wang HL, Shimada S, Chen S, Crother T, Targan S, Sears CL, Arditi M. Role of Receptor Interacting Protein 2 in IL-17A production and Stat3 activation in ETBF induced colitis. Abstract and Poster Presentation, DDW 2014.

Haas K, Wachsman A, Melmed G, Azizyan A, Vasiliauskas E, Rosenthal C, Kaur M, **Rabizadeh S**, Mirocha J, Fleshner P, Dubinsky M. Small Bowel Ultrasound Accurately Predicts Post-Operative Endoscopic Recurrence in Crohn's Disease. Abstract and Poster Presentation, DDW 2013.

Chen LA, **Rabizadeh S**, Chirumamilla S, Saeed SA, Albesiano E, Goodwin A, Wu S, Elson CO, Oliva-Hemker M, Sears CL. Detecting enterotoxigenic *Bacteroides Fragilis* carriage in pediatric inflammatory bowel disease. Abstract and Poster Presentation, DDW 2012.

Min SB, Le-Carlson M, Gebbia J, Haas K, **Rabizadeh S**, Mann NK, Lo SK, Melmed GY, Dubinsky M. Video capsule endoscopy improves clinical and growth outcomes in pediatric IBD patients. Abstract and Poster Presentation, DDW 2012.

**Rabizadeh S**, Wu S, Albesiano E, Wu X, Mirviss L, Rhee KJ, Huso D, Yen HR, Harris T, Pardoll D, Sears CL. Stat3 is activated throughout the gastrointestinal tract in enterotoxigenic *Bacteroides fragilis* colitis. 2008. Accepted Abstract and Poster Presentation, Digestive Disease Week, San Diego, California.

Rhee KJ, Wu S, **Rabizadeh S**, Wu X, Housseau F, Pardoll D, Huso D, Karim B, Sears CL. Enterotoxigenic *Bacteroides fragilis* induces E-cadherin shedding and Th17 response in C57BL/6 mice. 2008. Accepted Abstract and Poster Presentation, Digestive Disease Week, San Diego, California.

Wu S, Rhee K-J, **Rabidazeh S**, Housseau F, Huso D, Wu X, Pardoll DM, Sears CL. Enterotoxigenic *Bacteroides fragilis* (ETBF): Instigator of Colitis and Colon Cancer. 2008. Abstract and Poster Presentation, Keystone.

**Rabizadeh S**, Rhee KJ, Albesiano E, Mirviss L, Pardoll D, Sears CL. Stat3 activation in enterotoxigenic *Bacteroides fragilis* induced intestinal inflammation. 2007. Abstract and Poster Presentation, CCFA National Research and Clinical Conference 6th Annual Advances in the Inflammatory Bowel Diseases, Aventura, Florida.

**Rabizadeh S**, Conklin L, Oliva-Hemker M, Wood R. Fundoplication in Children with Food Allergies and EE or EGE. 2007. Abstract for Poster Presentation, North American Society of Pediatric Gastroenterology, Hepatology, and Nutrition, Salt Lake City, Utah..

**Rabizadeh S**, Wu S, Rhee KJ, Huso DL, Sears CL. Dextran sulfate sodium colitis exacerbated by enterotoxigenic *Bacteroides fragilis*. 2007. Abstract and Poster Presentation, Digestive Disease Week, Washington D.C.

**Rabizadeh S**, Eidelwein A, Oliva-Hemker M, Cuffari C. 2005. CD4+ T-Lymphocyte ATP Levels: A Sensitive Marker for Infliximab Induced Immunosuppression in Pediatric Patients with IBD. *JPGN*. 41(4):547, October 2005. Abstract for Poster Presentation, North American Society of Pediatric Gastroenterology, Hepatology, and Nutrition, Salt Lake City, Utah.

Books/Chapters/Reviews:

**Rabizadeh S** and Dubinsky M. Update in pediatric inflammatory bowel disease. *Rheum Dis Clin N Am*. 39 (4): 789-799, Nov 2013.

**Rabizadeh S**, Oliva-Hemker M. Extraintestinal manifestations of inflammatory bowel disease. **Pediatric Inflammatory Bowel Disease 2<sup>nd</sup> edition**. Springer publishing. 2012.

**Rabizadeh S**, Hyams J, Dubinsky M. Crohn's disease. **Pediatric Gastrointestinal and Liver Disease**. Elsevier publishing. 4<sup>th</sup> Edition. 2011.

**Rabizadeh S** and Schwarz KB. Bacterial Infections in Solid Organ Transplants Recipients. **eTransplantID Review**. January 2010.

**Rabizadeh S**, Miller M, Sears CL. Prebiotics, probiotics, synbiotics. **Principles and Practice of Infectious Diseases**. Elsevier publishing. 7<sup>th</sup> edition. 2009.

**Rabizadeh S**, Sears CL. New horizons for the infectious diseases specialist: How gut microflora promote health and disease. *Current Infectious Disease Reports* . 2008. 10(2): 92-98.

**Rabizadeh, S**, Oliva-Hemker, M. 2008. Extraintestinal Manifestations of Inflammatory Bowel Disease. **Pediatric Inflammatory Bowel Disease**. Springer Publishing.

Le, T, Lam W, **Rabizadeh, S**, Schroeder A, Vera K. 2006. **First Aid for the Pediatric Boards**. McGraw Hill. First edition.

**Rabizadeh S**, DeRusso P. 2006. GI/Nutrition Chapter. **First Aid for the Pediatric Boards**. McGraw Hill. First edition.

#### **D. Research Support**

##### Ongoing Research Support

NIH K08. 1K08DK089076-01 Rabizadeh PI July 2010 – June 2015

Role of Innate Immunity & Stat3 Activation in Colitis Mouse Model

Mentor: Drs. Moshe Arditi and Stephan Targan

**Role: PI**

##### Completed Research Support

AGA-General Mills Bell Institute of Health and Nutrition Research Scholar Award in Gut Physiology and Health.

Rabizadeh PI July 2010 – June 2013

Role of Innate Immunity & Stat3 Activation in Colitis Mouse Model

Award was completed upon receipt of NIH K08 award.

**Role: PI**

NRSA F32 - Individual Training Grant. 1F32DK079509-01 Rabizadeh PI June 2007 – June 2009

Stat3 activation in bacteria induced murine Th17 predominant colonic inflammation.

Sponsors: Dr. Cynthia Sears/Dr. Drew Pardoll (2007-2008); Dr. Moshe Arditi (2008-present)

**Goal:** To determine the adaptive immune response and involvement of Stat3 activation in ETBF induced murine colitis.

**Role: PI**

NIH Loan Repayment Grant. Rabizadeh PI July 2008 – June 2010

Stat3 activation in Enterotoxigenic Bacteroides fragilis induced colitis

Sponsor: Dr. Moshe Arditi

**Goal:** To investigate the source of Stat3 activation in the adaptive immune response induced by ETBF colitis.

**Role: PI**

NRSA T32 - Institutional Training for Pediatricians. 5T32HD44355. Dover PI June 2006 – June 2007

Role of Bacteriodes fragilis in inflammatory and proliferative colonic disease.

Sponsor: Dr. Cynthia Sears

**Role: Co-Investigator**