### Polly J. Ferguson, M.D.

### **July 2023**

### I. EDUCATIONAL AND PROFESSIONAL HISTORY

### A. <u>EDUCATION</u>

1986 B.S. University of Iowa

Iowa City, Iowa

1990 M.D. University of Iowa

Iowa City, Iowa

### **CERTIFICATION**

1990 Federal LICENSURE

Examination

1993, 2000, 2007 ABP-General Pediatrics

1996, 2002, 2010 ABP-Pediatric Rheumatology

### **LICENSURE**

1996 - 2000 Virginia License

2000 - 2005 Alabama License

2002 - pres lowa License

### B. PROFESSIONAL AND ACADEMIC POSITIONS HELD

#### **POST GRADUATE TRAINING**

Pediatric Intern 1990-1991 University of Virginia

Charlottesville, Virginia

Pediatric Resident 1991-1993 University of Virginia

Charlottesville, Virginia

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Pediatric Immunology & Rheumatology Fellow	1993-1997	University of Virginia Charlottesville, Virginia	
Post-Doctoral Research Fellow	1997-1999	University of Virginia Charlottesville, Virginia	
Research Associate (50%) Pediatric Fellow (50%)	1999-2000	University of Virginia Charlottesville, Virginia	
FACULTY APPOINTMENTS			
Assistant Professor, Pediatrics	2000-2002	University of Alabama at Birmingham Birmingham, Alabama	
Assistant Professor, Pediatrics	2002-2011	University of Iowa Iowa City, IA	
Director, Pediatric Rheumatology 2007-present (Pediatric Allergy, Immunology added in 2019)			
Associate Professor, Pediatrics	2011-2016	University of Iowa	
Tenure	2011	University of Iowa	
UI Inflammation Program	2015 - present	University of Iowa	
Professor, Pediatrics	2016 - present	University of Iowa	
Chair Transition Assistant	09/2021-12/2022	University of Iowa	
Executive Vice Chair, Pediatrics	2022- present	University of Iowa	

### C. HONORS, AWARDS, RECOGNITIONS, OUTSTANDING ACHIEVEMENTS

1985	Phi Beta Kappa (elected junior year) University of Iowa
1985	Steven's Memorial Scholarship (Phi Beta Kappa) Iowa
1994	University of Virginia Children's Medical Center Research Grant
1996-97	Fellow, Diabetes and Hormone Action Training Grant (UVA)
1996-97	University of Virginia Children's Medical Center Research Grant

1997-99	Juvenile Diabetes Foundation Post-Doctoral Fellowship Grant (UVA)
1997	Kendig Pediatric Research Award (University of Virginia)
1998	University of Virginia Children's Medical Center Research Grant
1999	Sandra Tate Russell Memorial Research Award (UVA)
2003	National Institutes of Health Pediatric Research Loan Repayment Grant
2004	National Institutes of Health Loan Repayment Grant
2006	Society for Pediatric Research
2007	American College of Rheumatology/European Union League Against Rheumatism (ACR/EULAR) International Academic Exchange Program (1 of 3 ACR members chosen)
2008	Nominated for the 2008 ACR Henry Kunkel Young Investigator Award
2009 - pres	Best Doctors in America (Pediatric Rheumatology)
2010	Healthcare Hero (Corridor Business Journal, physician category)
2010	Leadership Recognition Award, Department of Pediatrics and Carver College of Medicine, University of Iowa
2017	Member, American Pediatric Society
2017	Inaugural Award: Castle Connolly Exceptional Women in Medicine
2017	NIH Board of Scientific Counselors, NIAID and NIAMS, ad hoc
2017-2018	Kate Daum Professorship
2018- 2023	NIH Board of Scientific Counselors, NIAID (5 yr term); co-chair x 2 yrs.
2018- pres	Marjorie K. Lamb Professorship
2019	American College of Rheumatology Distinguished Service Award

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#### II. TEACHING

### Patient/Lay Education

- 03/01 "Spring Break Out" (Alabama Chapter of the Arthritis Foundation),
  Birmingham, AL, featured speaker: "New treatments for Juvenile Rheumatoid
  Arthritis"
- 07/01 Camp M\*A\*S\*H (for children with rheumatologic disorders) Arthritis Foundation Alabama Chapter. Birmingham, AL. Group leader, two panel discussions, featured speaker.
- 03/03 KXIC Radio Interview for UIHC Today: "New Treatments for Juvenile Arthritis"
- 04/03 Juvenile Arthritis Awareness Conference (Iowa Chapter of the Arthritis Foundation) featured speaker.
- 10/03 Camp M\*A\*S\*H, Arthritis Foundation Alabama Chapter, Mobile, AL. Featured speaker.
- 01/04 WBHM, National Public Radio Birmingham, AL affiliate: "Shortage of Pediatric Rheumatologists"
- 02/04 Get Away for JRA, Arthritis Foundation Iowa Chapter, Des Moines, IA. Featured speaker.
- 03/04 KXIC Radio Interview for UIHC Today: "Juvenile Arthritis Awareness Week"
- 04/04 KXIC Radio Interview for UIHC Today: "Juvenile Arthritis"
- 05/04 Health Beat Radio Interview with Dean Borg: "May is National Arthritis Month"
- 09/04 Arthritis Foundation's Cedar Rapids Arthritis Walk. Medical Ambassador.
- 10/04 Arthritis Foundation, Iowa Chapter, Sleepy Hollow Juvenile Arthritis Event, Des Moines, IA
- 10/04 Camp M\*A\*S\*H, Arthritis Foundation Alabama Chapter, Mobile, AL. Featured speaker.
- 04/05 Get Away for JRA, Arthritis Foundation Iowa Chapter, Des Moines, IA. Featured speaker.

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- 05/05 KXIC Radio Interview for UI Health Care Today: "Juvenile Arthritis"
- 08/05 Camp M\*A\*S\*H, Arthritis Foundation Alabama Chapter, Mobile, AL. Featured speaker.
- 10/05 Arthritis Foundation, Iowa Chapter, "Science to the MAX" Juvenile Arthritis Family Event. Event planning and featured speaker.
- 08/06 Camp M\*A\*S\*H, Arthritis Foundation Alabama Chapter, Mobile, AL. Featured speaker.
- 08/07 Camp M\*A\*S\*H, Arthritis Foundation Alabama Chapter, Mobile, AL. Featured speaker; camp doctor.
- 08/08 Camp M\*A\*S\*H, Arthritis Foundation Alabama Chapter, Mobile, AL. Featured speaker; camp doctor.
- 07/09 Camp M\*A\*S\*H, Arthritis Foundation Alabama Chapter, Mobile, AL. Featured speaker; camp doctor
- 03/10 KXIC Radio Interview for UI Health Care Today: "Pediatric Rheumatology"
- 07/13 National Juvenile Arthritis Conference sponsored by the Arthritis Foundation. Featured speaker on research in pediatric rheumatology. July 2013, Anaheim, CA

### High School Research and/or Job Shadowing

01/98 Jessica Cross Job Shadowing (Med	cai Genetics)
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2006 Erin Sullivan Murray Summer Research Program

### Undergraduate Job Shadowing

11/07	Whitney M Leverich
01/11	Madeline Knott
04/11	Nikki Goldman
09/14	Russell Valentin

#### Undergraduate Research Supervision

1993-1995 Kirsten Greene

1995-1996 Kathryn Lopez, MD (Unknown practice location)

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2006	Sara Francis, PhD; UI SUMR summer research program for prospective MSTP students [graduated with MD, PhD University of Iowa] (Current Position: Pediatric Resident, Case Western)
2015-2016	Rory Metcalf – UI Undergraduate Honors Research Program (Current position: University of Iowa Medical Student)
2015 – 2016	Caleb Wassink, UI undergraduate
2016- 2018	Cassie Wassink, UI post-baccalaureate student (Current position: University of Iowa Medical Student)
2018	Jessica Knobbe, UI SUMR program (Undergrad, Univ of Oklahoma)
2021	Ben Madden UI undergraduate

### Post-baccalaureate

2022-2023 Swetha Ramachandran (current position – medical student 2023)

### Medical Student Research Mentor (Summer Research Fellowships)

2004, 2005	Luis Ochoa	Role of <i>LPIN2</i> in psoriasis Immunologic abnormalities in the cmo mouse (Current: Assistant Prof, Peds Cardiology, University of Iowa)
2004	Amar Mahgoub	Genetics of murine chronic multifocal osteomyelitis (Current: Assistant Prof, Peds GI, University of Minnesota)
2006	Roya Ijadi-Maghsoodi	Role of <i>LPIN2</i> and <i>PSTPIP2</i> in sporadic CRMO (Current: Assistant Prof, Pediatric and Adolescent Psychiatry, UCLA)
2006	Leah Muhle	Role of <i>LPIN2</i> in psoriasis (Current: Psychiatry, private practice)
2016	Rachel Ullrich	Pstpip2 interacting partners

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(Current: Pediatric Resident, Children's Hospital of Wisconsin, Milwaukee, WI)

# Medical Student Research Distinction Track Mentor (4-year research mentorship)

2004-2008 Luis Ochoa, MD; Graduated with Research Distinction, May 2008 2016- 2019 Rachel Ullrich, MD; Graduated with Research Distinction, May 2019

#### **Medical Student Research Elective**

- 07/08 M4 Research Elective co-mentor: Shawn Sato. Radiologic and clinical presentations of CRMO.
- 04/20 MSTP M3 Research Elective mentor: Mathew Grunewald. Dissecting genetically driven mechanisms of autoinflammatory disease.

#### **Medical Student Clinical Mentor**

- 07/01 UAB Scholar's Week: Alyce Oliver, PhD, 4th year medical student. "Pediatric Rheumatology"
- Clinical Connections Program for MSTP students: "Pediatric Rheumatology"

  Attend pediatric rheumatology clinic (1/2 day) on > or = 4 occasions to learn about the pathogenesis of pediatric rheumatologic disorders and to explore pediatric rheumatology as a possible career.
  - 2005 Becky Benson
  - 2010 Sara (Francis) Reed
  - 2012 Gwendolyn M. Clay [also did M4 Peds Rheum elective in 2015]
  - 2013 Dorthea "Lori" Wheeler
  - 2014 Michael Zhang
  - 2014 Matthew Grunewald
  - 2018 Shakoora Sabree
- 2013 2014: Longitudinal Clinical Mentorship Preceptor for Michael Dunlay 09/15: M4 Pediatric Rheumatology Elective Gwen Clay

### **Medical Student (MSTP) Career Mentor**

2020- present Shakoora Sabree, University of Iowa MSTP student

#### **Pediatric Resident Mentor**

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07/07- 07/10 07/11- 0/6/14 01/21-01/21	Rebecca Benson, MD, PhD Lyndsay Harshmann (Physician Scientist Training Pathway) Jeremy Sandgren, MD, PhD (PSTP rotation in lab 3 weeks)	
Research Elective	Internal Medicine Residents (one month in lab)	
2010 2010 2010	Abha Goyal, MD Lindsay Orris, MD Amanda Steele, MD	
Pediatric Fellowsh	nip Scholarship Oversight Committee	
2005-2008 2011-2014 2012-2015 2018-2020 2019-2021 2019-2021 2023- pres	Marie-Ellen Sarvida, MD; Hematology/Oncology Fellow Luis Ochoa, MD; Pediatric Cardiology Fellow Govinda Paudel, MD; Pediatric Cardiology Fellow Catherina Pinnaro, MD: Pediatric Endocrinology Fellow Neeraja Swaminathan, MD; Pediatric Heme/Onc Fellow Rhanda Darville, MD; Pediatric Gastroenterology Fellow Benjamin Palmer, MD; Pediatric Endocrinology Fellow	
Fellowship/Post D	Ooctoral Research Mentor	
2007–2009	Firas Rabi, MD (Fellowship research co-mentor with Dr. El-Shanti) (Current: Director Pediatric Critical Care, Dubai, UAE)	
2011-2012	Monica Sandu (Budianu), MD [Current: Scripps, LaJolla, CA]	
2012-2013	Manisha Sharma, MD [Current: Fresno, CA]	
2019- 2021	Rhanda Darville, MD	
2019 - 2021	Barun Poudel, PhD	
Graduate Student Supervision		
2003 – 2008	Shilpi Verma, PhD (Thesis Committee Member) Interdisciplinary Immunology Graduate Program, University of Iowa	
2005 – 2011	Carla-Maria Alexander, PhD (Thesis Committee Member) Interdisciplinary Immunology Graduate Program, University of	

Iowa

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2010- 2011	Beichen Chen, MS (Master's Thesis Committee Member) Biology Program, University of Iowa
2012 - 2016	Allison Cox, PhD (Doctoral student in Bassuk/Ferguson lab; Thesis Committee Member & Co-Mentor): 'Use of whole exome sequencing to delineate the genetic basis of CRMO' PhD bestowed Dec 2016. Winner of the Outstanding Dissertation in the Genetics Program and the 2017 Rex Montgomery Dissertation Prize from the University of Iowa Graduate College. (Current: Fellow, Molecular Genetics Laboratory program, Yale University, New Haven, CT)
2016 - 2021	Marcus Toral (Thesis Committee Member) Molecular & Cellular Biology Program, Univ of Iowa
2016 - 2021	Kellie Schaefer (Thesis Committee Member) Molecular & Cellular Biology Program, Univ of Iowa
2018- 2021	Lucy Evans (Thesis Committee Member) Molecular & Cellular Biology Program, Univ of Iowa
2019- 2020	Lindsay Agostinelli (Thesis Committee Member) Neuroscience Program, University of Iowa
2019-2022	Shakoora Sabree (Thesis Committee Member) Interdisciplinary Program [Immunology], U of Iowa
2020-2021	Lalita Mazgaeen (Comprehensive Exam Committee) Toxicology Program, University of Iowa
2023	Sammy Santiago Valle (Comprehensive Exam Committee)

#### **Medical Student Education**

- 05/04 Foundations of Clinical Practice IV, Rheumatology Small Group Session, "Introduction to Rheumatology". 90-minute session.
- 09/04 UI Medical Student Research Club: "The Unique Opportunities of the Physician Scientist"
- 04/05 Foundations of Clinical Practice IV, Rheumatology Small Group Session "Introduction to Rheumatology" Two, 90 minutes sessions (4/27 & 4/28)

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- 04/07 Foundations of Clinical Practice IV, Rheumatology Small Group Session "Introduction to Rheumatology" Two, 90 minutes sessions (4/21)
- 05/07 Foundations of Clinical Practice IV, Rheumatology Small Group Session "Rheumatology Case-Based Wrap Up" One, 120 minutes sessions (5/4)
- 05/08 Foundations of Clinical Practice IV, Rheumatology Small Group Session "Rheumatology Case-Based Wrap Up" Two, 120 minutes sessions (5/5)
- 04/11 Hot Topics M1 Immunology: "Hereditary Autoinflammatory Bone Disorders"
- 09/16 Plenary Speaker for Summer Medical Student Research Banquet: "Autoinflammatory Bone Disease".
- 2016 present Early Clinical Experiences (fall and spring semesters)

### Graduate (MD/PhD & PhD) Student Education

- 09/98 Clinical Correlation: "The Immunology of Mycobacteria" UVA Medical Microbiology
- 04/99 "Genetic Control of Autoimmunity", UVA Molecular Medicine for MD/PhD program
- 05/99 "Genetic Control of Autoimmunity", UVA Molecular Medicine for MD/PhD program
- 10/09 "Development/relevance of genetically modified animals", Lecture as part of the Translational Histopathology Course
- 11/10 "Application of Genetically Modified Animals", Lecture as part of the Translational Histopathology Course
- 06/11 "Autoinflammatory Bone Disorders"; Lecture to undergrads and MSTP students as part of the summer research series
- 11/11 "Autoinflammatory Disorders: Application of Genetically Modified Animals", Lecture as part of the Translational Histopathology Course
- 07/20 "Mentoring" MSTP Analyzing and Presenting Medical Literature Series (2<sup>nd</sup> year students) 1 hour session led in 2020, 2021 and 2022.

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#### Pediatric Resident Education -Didactic

- 02/96 UVA Pediatric Noon Conference: "Systemic Onset Juvenile Rheumatoid Arthritis"
- 06/96 UVA Pediatric Noon Conference: "Clinical Manifestations of Systemic Lupus Erythematosus"
- 01/01 UAB Pediatric Noon Conference: "Clinical Manifestations of Systemic Lupus Erythematosus"
- 02/01 UAB Pediatric Noon Conference: "Juvenile Dermatomyositis"
- 05/01 UAB Pediatric Noon Conference: "Henoch-Schönlein Purpura"
- 08/01 UAB Pediatric Noon Conference: "Positive ANA: What does it mean?"
- 10/01 UAB Med/Peds Noon Conference: "Differential Diagnosis of Childhood Arthritis"
- 11/01 UAB Pediatric Noon Conference: "Juvenile Rheumatoid Arthritis"
- 01/02 UAB Pediatric Noon Conference: "Periodic Fever"
- 06/02 UAB Pediatric Noon Conference: "Non-Rheumatic Causes of Joint Complaints"
- 09/02 UI Pediatric Resident Core Curriculum Conference: "JRA"
- 10/02 UI Pediatric Resident Core Curriculum Conference: "Non-Rheumatologic Disorders Presenting with Rheumatologic Manifestations"
- 01/03 UI Pediatric Resident Core Curriculum Conference: "Pediatric SLE"
- 03/03 UI Pediatric Resident Case Conference: "15 year old with Renal Failure: What is the Diagnosis?" presented by Dr. Sita Canady, Pediatric Resident. P. Ferguson, C. Porter, M. Abu-Hasan, S. Sethi, Faculty.
- 05/03 UI Pediatric Resident Core Curriculum Conference: "Juvenile Dermatomyositis"

- 05/03 Pediatric Therapeutics and Toxicology Conference: "Biologic Agents in the Treatment of Childhood Inflammatory Diseases"
- 12/04 UI Pediatric Resident Core Curriculum Conference: "Henoch Schönlein Purpura"
- 1/04 UI Pediatric Resident Core Curriculum Conference: "Interpretation of a positive ANA test"
- 02/04 UI Pediatric Resident Core Curriculum Conference: "Juvenile Idiopathic Arthritis"
- 03/04 UI Pediatric Resident Core Curriculum Conference: "Rheumatologic Manifestations of Non-Rheumatologic Diseases"
- 03/04 UI Pediatric Resident Core Curriculum Conference: "Periodic Fever Syndromes"
- 05/04 UI Pediatric Resident Case Conference: "ANCA Positive Vasculitis", presented by Dr. Adam Paul. Faculty Advisor: P. Ferguson.
- 10/04 UI Pediatric Resident Core Curriculum Conference: "Systemic Lupus Erythematosus"
- 11/04 UI Pediatric Resident Core Curriculum Conference: "Juvenile Dermatomyositis"
- 02/05 UI Pediatric Resident Core Curriculum Conference: "How to Interpret an Antinuclear Antibody Test"
- 04/05 UI Pediatric Resident Core Curriculum Conference: "Juvenile Arthritis"
- 06/05 UI Pediatric Resident Core Curriculum Conference: "Henoch-Schonlein Purpura"
- 10/05 UI Pediatric Resident Core Curriculum Conference: "Rheumatologic Manifestations of Non-Rheumatologic Diseases"
- 10/05 UI Pediatric Resident Core Curriculum Conference: "Autoinflammatory and Periodic Fever Syndromes"
- 03/06 UI Pediatric Resident Core Curriculum Conference: "SLE"

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- 04/06 UI Pediatric Resident Core Curriculum Conference: "Juvenile Dermatomyositis"
- 09/06: UI Pediatric Resident Core Curriculum Conference: "How to Interpret an ANA Test"
- 09/06 UI Pediatric Case Conference: "Systemic Lupus Erythematosus: The Great Imitator" presented by Dr. Lana Hattar, PL3. Faculty advisor: P. Ferguson
- 10/06 UI Pediatric Resident Core Curriculum Conference: "Rheumatologic Manifestations of Non-Rheumatologic Diseases"
- 05/07 UI Pediatric Resident Core Curriculum Conference: "Henoch-Schonlein Purpura"
- 05/07 UI Pediatric Case Conference: "HSP" presented by Dr. Sarah Haskell, PL3. Faculty advisors: P. Ferguson and C. Porter
- 09/07 UI Pediatric Resident Core Curriculum Conference: "Juvenile Idiopathic Arthritis"
- 06/08 UI Pediatric Resident Core Curriculum Conference: "Autoinflammatory/Periodic Fever syndromes
- 02/09 UI Pediatric Resident Core Curriculum Conference: "Rheumatologic Manifestations of Non-Rheumatologic Diseases"
- 09/09 UI Pediatric Resident Core Curriculum Conference: "Monogenic Autoinflammatory Syndromes"
- 12/09 UI Pediatric Resident Core Curriculum Conference: "Musculoskeletal Manifestations of Non-Rheumatologic Diseases"
- 04/10 UI Pediatric Resident Core Curriculum Conference: "Juvenile Dermatomyositis and Scleroderma"
- 06/10 UI Pediatric Resident Core Curriculum Conference: "Henoch-Schönlein Purpura and Kawasaki Disease"

### Pediatric Resident Morning Report/Case Conference

07/05- 07/09: Faculty Facilitator (Biweekly)

#### Fellow Education

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- 05/01 UAB Pediatric ER Fellows Conference: "Cutaneous Manifestations of Rheumatologic Illness"
- 10/02 UI Rheumatology Fellow's Conference: "JRA and Juvenile Spondyloarthropathy"
- 01/04 UI Rheumatology Fellows Case Conference: "The Stiff Twin, Multicentric Reticulohistiocytosis in Childhood" and "Juvenile Dermatomyositis Presenting with Severe Rhabdomyolysis"
- 03/06 UI Allergy and Immunology Fellow Conference: "Introduction to Pediatric Rheumatology"
- 07/08 UI Pediatric Fellows' Core Curriculum Seminar: Research Survival Skills Series #1: "Is Basic Research Right for You?" Role: Commentator
- 08/09 UI Pediatric Fellows' Core Curriculum Seminar: "Is Basic Research Right for You?" Role: Commentator
- 08/09 UI Pediatric Fellows' Core Curriculum Seminar: "Collaborative Science", Role: Commentator
- 09/10 UI Pediatric Fellows' Core Curriculum Seminar: "Laboratory Transition from Fellow to Faculty". Role: Commentator
- 07/14 UI Pediatric Fellows' Core Curriculum Seminar: "Is Basic Research Right for You?" Role: Presenter
- 12/14 UI Allergy and Immunology Fellow Conference: "Periodic Fever Syndromes"
- 07/15 UI Pediatric Fellows' Core Curriculum Seminar: "Is Basic Research Right for You?" Role: Presenter
- 2008-present: UI Pediatric Fellows' Core Curriculum Seminar when fellows present their research (as available)

#### **Mentor for Junior Faculty – career mentor (Current = bold)**

2008-	Sandy Hong MD, clinical track (pediatric rheumatology)
2010-	Carla Nester MD, tenure track (pediatric nephrology)
2010 - 2022	Jennifer Jetton MD, clinical track (pediatric nephrology)
2011-	Janice Staber MD, tenure track (pediatric hematology)
2012 - 2016	Ghada Abusin MD, clinical track (pediatric oncology)
2012 - 2018	Yuri Chaly PhD, tenure track (pediatric rheumatology)

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Diana Zepeda-Orozco MD, (peds nephrology)
Alvaro Serrano Russi, MD, clinical track (genetics)
Beth Newell, MD, tenure track (PICU)
Scott Lieberman, MD, PhD, tenured (ped rheumatology)
Takashi Shawn Sato, MD, clinical track (radiology)
Luis Ochoa, MD, clinical track (pediatric cardiology)
Satsuki Matsomoto, MD, clinical track (child neurology)
Diana Bayer, DO, clinical track (ped allergy/immunology)
Aleksander Lenert, MD, (adult rheum)
Katherine Schultz, MD, clinical track (ped rheumatology)
Shima Yasin, MD, MS, tenure track (ped rheumatology)
Dan Hinds, MD, clinical track (ped pulmonary)
Karen Cyndari, MD, PhD (emergency medicine)

### **Individual K Award Mentoring**

Beth Newell- K08 co-Mentor – awarded R01 2023 Aleksander Lenert – K23 Primary Mentor – 2023 - pres

# CHRC Scholar Mentoring - Departmental K12 entitled "Molecular and Cellular Research to Advance Child Health" (Current PI: Hirsch)

2008 - 2011 Recruiter (20% effort)

2011 - present Program Director (10% effort)

Provide mentorship to ~ 3 junior faculty per year on the Departmental K12 Child Health Research Career Development Award (Hirsch: PI). This program will support and fosters research training of junior pediatric physician-scientists in cellular and molecular biology, applied genetics and genomics, animal models of human disease, and translational research.

#### CHRC Scholars (2008 – present):

Rajeev Vibikar MD, PhD	7/01/05 - 1/31/08	Pediatric Oncology
Oscar Gomez MD, PhD	7/31/06 - 9/2/08	Pediatric Infectious Disease
Carla Nester, MD	7/01/08-6/30/13	Pediatric Nephrology
Heather Bartlett, MD	1/01/09 -12/31/11	Pediatric Cardiology
Christoph Randak, MD, PhD	2/15/09 - 3/31//09	Pediatric Pulmonary
Alexandria Paige Volk, MD	7/1/09 - 3/31/10	Pediatric Intensive Care
Janice Staber, MD	7/15/10- 7/15/14	Pediatric Hematology
Sarah Haskell,, MD	1/1/2012-12/31/14	Pediatric Intensive Care
Oleg Shchelochkov MD	7/1/14-6/30/15	Genetics
Jane Brumbaugh MD	7/1/14-6/30/15	Neonatal Intensive Care
Lyndsay Harshman, MD	7/1/16-8/31/16	Pediatric Nephrology
Elizabeth Newell MD	4/1/15 - 3/31/19	Pediatric Intensive Care
Anthony Fischer MD, PhD	7/27/15 - 7/01/17	Pediatric Pulmonary
Aaron Boes MD, PhD	7/31/16 - 7/01/17	Pediatric Neurology

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Diana Zepeda-Orozco MD	11/14/16 - 1/01/20	Pediatric Nephrology
Christina Cifra, MD	4/01/18 - 4/01/20	Pediatric Intensive Care
Catherine Pinnaro, MD	7/01/20 - 6/30/23	Pediatric Endocrinology
Jessica Zimmerman, MD	7/01/20 - present	Pediatric Heme/Oncology
Hua Sun, MD, PhD	9/01/20 - present	Pediatric Nephrology
Lauren Bodilly, MD	07/12/23- present	Pediatric Critical Care

### CTSA KL2/K12 (role MPI with Alexander Bassuk, MD, PhD) 2022-pre

Xiaoyang Hua, MD Martha Carvour, MD Jacob Simmering, PhD Michelle Howard, PhD Raul Villacreses, MD Sarah Beattie, PhD Melissa Swee, MD

### Inflammation Program Mentoring (Junior Faculty Tenure Track)

2017 - 2022 Prajwal Gurung, PhD 2018 - 2020 Christine Cho, MD

### **Inter-institutional Mentoring**

2015-2018: AMIGO Mentor – **ACR/CARRA** inter-institutional mentoring program in pediatric rheumatology (**AMIGO**) mentor - Olha Halyabar, MD, Fellow, Boston Children's, Harvard University, Boston, MA

2014- present: Yongdong (Dan) Zhao, MD – **CARRA CRMO Workgroup** junior faculty leader (Ferguson senior faculty lead and career/research mentor), University of Washington/Seattle Children's, Seattle, WA

#### Clinical Based Education

2002 - 2008: Pediatric Resident in Pediatric Rheumatology Clinic ½ day per week

2002 - present: Adult Rheumatology Fellow in Pediatric Rheumatology Clinic  $\frac{1}{2}$  day per week

2006 - present: Adult Allergy Fellow in Pediatric Rheumatology Clinic ½ day per week (~ 2 mo/yr)

2009: Intermittently have M3 rotate with Pediatric Rheumatology Clinic ( $\sim \frac{1}{2}$  day 2 to 3x/yr).

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2011: Pediatric Rheumatology elective for residents: supervise 0 to 1 resident, 1 day/week

2015: Ambulatory Care Pharmacy Resident – Brittany Bruch, Pharm D (1 month)

### **Contributions to Institutional Educational Programs (University of Iowa)**

2002-2003:	Immune Disorde	rs Clinical (	Conference	(monthly	/)
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2002-2009: Internal Medicine Rheumatology Clinical Conference

2005-2008: Pediatrics Morning Report/Case Conference

2008-2012: Pediatric Fellow Research Conference (~ twice monthly)

#### <u>ADVOCACY</u>

- 09/01 American College of Rheumatology Governmental Advocacy for Arthritis Legislative Reception 9/11/01, Washington, DC—Canceled due to terrorism
- 02/02 American College of Rheumatology Governmental Advocacy for Arthritis Advocates for Arthritis, Washington, DC
- 09/02 American College of Rheumatology Legislative Reception, Washington, DC
- 02/03 American College of Rheumatology Governmental Advocacy for Arthritis Advocates for Arthritis, Washington, DC
- 04/03 National Women's Health Resources Center: "Immune Mediated Inflammatory Disorders", Chicago, IL
- 03/04 Arthritis Foundation Advocacy Summit, Washington, DC
- 09/04 American College of Rheumatology Legislative Reception, Washington, DC
- 02/05 American College of Rheumatology Governmental Advocacy for Arthritis, Washington, DC
- 03/07 American College of Rheumatology Governmental Advocacy, Washington, DC
- 05/13 American College of Rheumatology Governmental Advocacy, Washington, DC

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05/14 American College of Rheumatology Governmental Advocacy, Washington, DC

05/15 American College of Rheumatology Governmental Advocacy, Washington, DC

### **COMMUNITY SERVICE**

2001- 2011	Arthritis Foundation, Alabama Chapter Consultant for issues pertaining to Pediatric Rheumatology
2003-2011	Camp MD for CAMP M*A*S*H (Make Arthritis Stop Hurting), Mobile, AL [month/year 07/03, 10/04, 08/05, 08/06, 08/07, 08/08, 07/09, 06/10, 07/11]
01/05- 05/11	Board of Directors, Arthritis Foundation, Iowa Chapter Served two 3-year terms
2005- 2011	Arthritis Foundation, Alabama Chapter Juvenile Arthritis Fund Task Force
02/23/06	Judge, "Invent Iowa" regional competition, Cedar Rapids, IA
02/09/07	Arthritis Foundation, benefit planning committee, SALUT, M.C. Ginsberg's, Iowa City, IA.
02/15/07	Judge, "Invent Iowa" regional competition, Cedar Rapids, IA
05/11-present	Arthritis Foundation, Heartland Region Consultant for issues pertaining to Pediatric Rheumatology
2013	Arthritis Foundation, speaker at National Juvenile Arthritis Conference, Anaheim, CA
2014-2016, 2018	Iowa Ladies Football Academy, volunteer physician
2022	Cassie and Friends, Canadian Parent/Patient support group Talk on CNO/CRMO (zoom, attended by ~ 400 individuals from 15 countries; and translated to French)
2022	Iowa Ladies Football Academy, volunteer physician

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2023

2<sup>nd</sup> annual 'Bone Dash' volunteer (fund raiser for Pediatric Rheumatology patient support group – co-founded by Courtney Kremer and Emma Leisinger)

#### III. SCHOLARSHIP

# A. <u>Publications of Creative Works [H-index = 38, Times cited > 7250 excluding group publications with the CARRA Registry]</u>

- 1. Finkel TH, Török TJ, **Ferguson PJ**, Durigon EL, Zaki SR, Leung DYM, Harbeck RJ, Gelfand EW, Saulsbury FT, Hollister JR, Anderson LJ: Chronic Parvovirus B19 infection and systemic necrotizing vasculitis: Opportunistic pathogen or aetiologic agent? Lancet 343:1255-1258, 1994. [Times cited: 278]
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### **ABSTRACTS** - not shown

#### B. AREAS OF RESEARCH

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#### GENETICS OF CHRONIC AUTOINFLAMMATORY DISORDERS

#### **Autoinflammatory bone disorders**

CRMO is an autoinflammatory disease of unknown etiology. It primarily affects children and results in recurrent fever and the development of multiple inflammatory bone lesions. It is frequently seen in association with other, more common, inflammatory disorders such as psoriasis, inflammatory bowel disease and cutaneous pustulosis. Our research has led to the discovery of several genes that when mutated can cause chronic sterile bone inflammation including LPIN2, Pstpip2 (in mice), IL1RN, FBLIM1 and FGR. We discovered the critical role of IL-1 in osteomyelitis in murine cmo (due to Pstpip2 deficiency) and demonstrated that blocking IL-1 $\beta$  pharmacologically results in resolution of sterile osteomyelitis in Majeed syndrome. We are studying the genetics of non-syndromic CRMO utilizing whole exome sequencing. These studies will lead to improved understanding of autoinflammatory disorders, sterile bone inflammation, the pathogenesis of psoriasis and inflammatory bowel disease.

#### **Other Rare Genetic Disorders**

In addition to our work on autoinflammatory bone disorders, my laboratory has continued to study pediatric conditions with early onset or family clustering of disease with the goal of identifying the causative gene. The focus is on individuals with chronic inflammatory disorders and in collaboration with Dr. Alex Bassuk, inherited neurologic disorders.

### Role of inflammation in pediatric neurologic disease

In collaboration with Drs. Alexander Bassuk, Vinit Mahajan and Elizabeth Newell we are studying the role of inflammation in traumatic brain injury, retinal trauma, uveitis and seizure disorders. The goal is to identify key inflammatory pathways with goal of translating this into effective treatments to improve outcomes.

#### CARRA (Childhood Arthritis & Rheumatology Research Alliance) Registry

This organization of pediatric rheumatologists was awarded a Grand Opportunity Grant entitled "CARRAnet" to establish the network as well as a NIH Challenge Grant, "CARRARX", subsequent funding has come from the Arthritis Foundation. CARRA is now incorporated and continues to fund comparative effectiveness studies and registries. Ferguson and Hong are site co-PIs.

#### CARRA/Rare Disorders Section/Linear Scleroderma working group

Serve as a member of the CARRA working group studying juvenile linear scleroderma (jLs), a highly disfiguring disease. This group designed a comparative effectiveness trial which was funded by the Arthritis Foundation (Ferguson site co-PI).

#### CARRA/Rare Disorders Section/CRMO working group

Serve as a member of the CARRA working group studying chronic recurrent multifocal osteomyelitis. As part of that work group, we are designed a comparative effectiveness trial. (Ferguson and Zhao co-leaders of the project).

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### C. PUBLISHED REVIEWS OF SCHOLARSHIP

- Ashman, Robert F; Ferguson, Polly J; Ijdo, Jacob W; Lawry, George V, II; Moore, Mary M; Peloso, Paul M; Rachow, John W; Stafford, Haraldine A; Tuetken, Rebecca S; and Vogelgesang, Scott A: Rheumatic Diseases: Diagnosis and Management. Chapter: Juvenile Idiopathic Arthritis (a.k.a. Juvenile Rheumatoid Arthritis). In Turek's Orthopaedics: Principles and Their Application, 6/e, edited by Stuart L. Weinstein and Joseph A. Buckwalter. Philadelphia, Lippincott Williams & Wilkins, 2005.
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### D. GRANT FUNDING (University of Iowa)

**ACTIVE** 

NIH R01EY031952: (MPI Bassuk, Ferguson, Mahajan\*) 08/20 – 07/24 Proteomic Biomarkers of Intraocular Infection \$410,002/yr

Role: MPI, 1.2 CM

NIH R01 NS127844: (PI: Newell; co-I Ferguson 0.6 CM) 09/23 – 07/28 Mechanisms of type I interferon neuropathology following traumatic brain injury The goal of this project is to determine the regulation of type I interferon signaling following TBI and the cell-specific effects of type I interferon signaling on neuropathology following TBI

K12 HD27748: (PI: Bassuk; Training Dir = Ferguson)

NIH/NICHD: Child Health Career Development Award

Role: Director, 1.2 CM

The goal is to train young investigators in molecular genetics and molecular biology

for use in pediatric research.

K12TR004382 (MPI: Ferguson and Bassuk) 1.2 CM 12/23-11/28

NIH/NCAS: CTSA K12 Program at the University of Iowa

The goal is to develop translational scientists at the University of Iowa

Total award \$3,774,000

CARRA: Observational Study of Pediatric Rheumatic Disease 01/15 - present The CARRA Registry (Site co-PI with Hong) - \$ based on enrollment

CARRA: Observational Study of Pediatric Rheumatic Disease 09/16 - present STOPJIA (Site co-PI with Hong) - \$ based on enrollment

PCORI (PI: Weiss at CHOP; role site-PI at Iowa)

06/21-present
Biologic Abatement and Capturing Kids' Outcomes and Flare Frequency in Juvenile
Spondyloarthritis (BACK OFF JSpA) - \$ based on enrollment

Spondylitis Association of America 07/21-present (PI: Weiss/CHOP; site-PI Ferguson/UI)

Anti-drug antibody development and the role of imaging to screen for axial disease flare after TNFi de-escalation - \$ based on enrollment

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### PENDING NIH PROPOSALS

NIH R01AR083929 (PI: Zhao)

Assessment of treatment effectiveness for children with chronic nonbacterial osteomyelitis (CBNO) – subcontract Seattle Children's Research Institute (Role; Co-I; CM 1.8) – pending review

NIH (PI: Canna – CHOP) – pending review. (Ferguson 0.6 CM - \$103,565) An Integrated Genomics Resource for Autoinflammatory and Immune Dysregulation Diseases

Major Goal: Establish a Genomics Resource for the Translational Autoinflammatory Research Network which includes housing clinical and genomic data from individuals with autoinflammatory disorders.

### PAST FUNDING (University of Iowa) - chronological order

NIH/NICHD: Molecular Cell Biology in Pediatric Research (PI: F. Morriss)

The Children's Health Research Center Grant 7/01/02-6/30/05
Genetic Resistance to Murine Lupus (PI: Ferguson) \$50,000/yr

Children's Miracle Network Project #1615 (PI: El-Shanti/Ferguson) 2/1/04-1/30/06

Role of LPIN2 in CRMO \$40.000

Carver MRIG Pilot Project Grant (PI: El-Shanti) 02/05-01/07 Role of LPIN2 in the Etiology of Psoriasis \$30,000

Role: Co-investigator

1 R21 AR053924-01: NIH/NIAMS (PI: El-Shanti) 08/06-04/08

Examination of the role of LPIN2 variations in skin and bone inflammation

Role: Co-investigator, 5% effort \$275,000 total

1 R03 AR051130-01: NIH/NIAMS (PI: Ferguson) 4/01/05-3/31/08 Genetic Basis of Chronic Recurrent Multifocal Osteomyelitis \$150,000 total

Children's Miracle Network 01/08-12/09

The role of SH3BP2 in a unique familial autoinflammatory disorder \$40,000

affecting the bone and skin

Role: PI

Peregrine Charities 04/08 Autoinflammatory Bone Disorders \$22,500

Role: PI

Carver Collaborative Pilot Grant 02/09

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A novel microarray based technique for mapping human disease causing mutations Role: PI (co-investigators: John Manak, Alex Bassuk) \$50,000 total

Care for Kids 02/09

Autoinflammatory disorders \$22,000 total

510-17-3255-81000-12194900-20: (PI: Carol Wallace) 07/09-12/13

NIH/NIAMS: ARRA - CARRA Registry

Subcontract: Duke University – \$ based on enrollment

Role: Site co-PI (no salary support)

1R01AR059703 07/10-05/20 NIH/NIAMS: Parent R01 (PI: Ferguson) \$337,500/yr Genetic & immunologic etiology of chronic recurrent multifocal osteomyelitis-CRMO Role: PI (35% effort) 4.2 mon/cal yr

Friends of CARRA: (PI: Stoll; site PI: Ferguson) 06/14- 06/16

Enteric Flora in Newly Diagnosed Spondyloarthritis

Subcontract: University of Alabama at Birmingham - \$ based on enrollment

Carver College of Medicine Bridge Funding (PI: Ferguson) 07/15 – 06/16
Genetic and Immunologic Etiology of CRMO \$100,000

Arthritis Foundation: (PI: Li; site co-PI: Ferguson, Hong) 01/13-2016

CARRA Registry:

Localized Scleroderma Consensus Treatment Plan 0.15 mon/cal yr

Subcontract: Hakensack University – \$ based on enrollment

CARRA & AF Study Coordinator Grant (Ferguson and Hong) 04/18
Fifty percent of study coordinator salary \$27,000

2R01AR059703-10A1 (MPI: Ferguson [contact], Bassuk) 07/10-08/20

NIH/NIAMS: Parent R01

Genetic & Immunologic Etiology of Chronic Recurrent Multifocal Osteomyelitis-CRMO \$380,684/yr

Role: PI (30% effort- 3.6 cal mo.)

Total award: \$1,919,298

R01NS098590 (PI: Bassuk; co-I: Ferguson) 07/16-06/21 NIH/NINDS: Parent R01 \$354,532/yr

Exploring Novel Epilepsy Pathways, 10% effort – 1.2 cal mo.

CARRA-Arthritis Foundation Small Grant Application 07/19- 6/30/20

(PI: Hedrich, co-I Ferguson) \$23,000

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Patient Stratification through Molecular Immune Phenotyping in Psoriasis and Psoriatic JIA)

Children's Miracle Network (PI: Ferguson) 07/21-06/22 Role of fat metabolism in Sterile Osteomyelitis \$50,000

#### OTHER GRANTS SCORED IN FUNDING RANGE BUT NOT FUNDED

1K08AR052685-01: NIH/NIAMS (PI Ferguson) Feb 2005

Chronic Multifocal Osteomyelitis

Score: 161

Administratively withdrawn by IC because 1 R03 AR051130-01 was awarded to Ferguson as PI which per NIAMS institute specific rule made PI ineligible for K award.

Carver Medical Research Initiative Grant (Role: PI) 02/09-01/10
Gene identification in Familial Rheumatic Disorders \$30,000 total

[Scored in fundable range but could not accept 2 Carver grants in same year, accepted Carver Collaborative Grant instead]

### E. <u>INVITED LECTURES</u>

#### Local

- 06/97 UVA Beirne B. Carter Center RIP: "Genetics of Type I Diabetes, from Mice to Men", Charlottesville, VA
- 05/99 UVA Beirne B. Carter Center RIP: "The role of CD8+ T cells in diabetes in the NOD mouse", Charlottesville, VA
- 08/01 UAB Pediatric Grand Rounds: "The Genetics of Autoimmune Disease", Birmingham, AL
- 10/01 UAB 46<sup>th</sup> Annual Lowe Conference on Rheumatic Diseases "How to Become More Comfortable Caring for Children with Rheumatic Diseases", Camp McDowell, Nauvoo, AL
- 09/02 UI Rheumatology Clinical Conference: "Chief Compliant of Arthritis or Arthralgia; Clues to Non-Rheumatic Etiology", Iowa City, IA
- 11/02 UI Internal Medicine Rheumatology Research Conference: "Genetic Resistance to Murine Lupus", Iowa City, IA
- 05/03 UI Pediatric Research Day: "Genetic Resistance to Murine Lupus", Iowa City, IA

- 10/03 UI Internal Medicine Rheumatology Research Conference: "Chronic Recurrent Multifocal Osteomyelitis: A monogenic model for multifactorial inflammatory disorders", Iowa City, IA
- 10/03 Iowa Dermatologic Society Meeting: "Genetics of SLE", Iowa City, IA
- 12/03 Department of Pediatrics Faculty Research Presentation: "Genetic Resistance to Murine Lupus", Iowa City, IA
- 05/04 UI Pediatric Research Day: "Genetically Determined Inflammatory Abnormalities in the cmo Mouse", Iowa City, IA
- 05/04 Iowa Rheumatology Symposium: "Rheumatologic Manifestations of Non-rheumatic Diseases in the Pediatric Population", Coralville, IA
- 04/05 UI Department of Pediatrics Grand Rounds: SLE: "What's New with this Old Disease?", Iowa City, IA
- 05/05 Iowa Rheumatology Symposium: "Oh, By The Way, He Is Sort Of Short Of Breath: The shrinking lung syndrome in SLE", Coralville, IA
- 09/05 UI Internal Medicine Rheumatology Research Conference: "Genetics of Murine Lupus", Iowa City, IA
- 05/06 Iowa Rheumatology Symposium: "Thick Skin in Children", Coralville, IA
- 10/06 University of Iowa Allergy Symposium: "Pediatric Rheumatology Update: The Autoinflammatory Syndromes", Iowa City, IA
- 01/07 UI Immunology Seminar: "Chronic Recurrent Multifocal Osteomyelitis", Iowa City, IA
- 04/07 Pediatric Hematology & Oncology Noon Conference: "Autoinflammatory Disorders"
- 12/08 Internal Medicine Allergy & Immunology Grand Rounds: "Monogenic Autoinflammatory Disorders"
- 01/09 UI Department of Pediatrics Grand Rounds: "Autoinflammatory Bone Disorders: From the Bench to the Bedside and Back"
- 03/09 UI Pediatric Research Day: "Deficiency of the Interleukin-1 Receptor Antagonist (DIRA) causes autoinflammatory bone and skin disease"

- 09/09 **Plenary** Talk for the University of Iowa Roy J. and Lucille A. Carver College of Medicine's Medical Student Research Day "What You Can Learn from a Few Interesting Patients".
- 11/09 UI Department of Dermatology Grand Rounds: "Autoinflammatory Disorders that Affect the Bone and Skin"
- 05/10 UI Pediatric Grand Rounds: "Pediatric Rheumatology: Where we've been, where we are, where we are going"
- 05/10 Iowa Rheumatology Symposium: "Autoinflammatory Disorders: What a Rheumatologist Needs to Know"
- 05/11 Iowa Rheumatology Symposium (Hong and Ferguson): "Night-time Limb Pain in Children"
- 06/11 MSTP and undergraduate summer research program CCOM: "Autoinflammatory Disorders of the Bone"
- 09/11 University of Iowa Orthopedics Conference "Inflammatory Bone Disorders"
- 12/11 University of Iowa Immunology Grand Rounds: "Bones and Crohn's and Skin... Oh My"
- 10/12 University of Iowa Pediatric Grand Rounds. "Genetic Approach to Understanding Autoinflammatory Disorders"
- 09/13 University of Iowa Orthopedics Conference: "Autoinflammatory Disorders of the Bones and other Rare Bone Disorders"
- 02/15 University of Iowa Frontiers in Pediatric Research: "Sterile Osteomyelitis and Innate Immunity"
- 09/15 University of Iowa Orthopedics Conference: "Chronic Recurrent Multifocal Osteomyelitis"
- 04/16 University of Iowa Pediatric Research Day: "Autoinflammatory Bone Disease -Finding the Genes"
- 06/16 UI MSTP and undergraduate summer research program CCOM: "Immunologic and genetic basis of CRMO".

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- 02/17 UI Rheumatology/Immunology Grand Rounds: "Genetics and Immunologic Basis of CRMO".
- 05/17 UI Immunology Research in Progress: "Autoinflammatory Bone Disease"
- 04/19 Blank Children's Hospital Pediatric Grand Rounds: "Bones and Crohns and Skin: Oh My", Des Moines, IA
- 05/19 UI Dermatology Grand Rounds: "Autoinflammatory Disorders and their Treatment"
- 05/19 Iowa Rheumatology Symposium: "Sterile osteomyelitis in children and adults", Coralville, IA
- 06/21 University of Iowa Dermatology Grand Rounds: "Clinical Features of Autoinflammatory Disorders"
- 06/22 University of Iowa Adult Rheumatology Faculty and Fellows: "Autoinflammatory Disorders"

#### **National/International Invited Talks**

- 01/04 American Academy of Pediatrics, Alabama Chapter, Winter Meeting 2004: "Juvenile Idiopathic Arthritis/Diagnosis and Treatment", Birmingham, AL
- 01/04 American Academy of Pediatrics, Alabama Chapter, Winter Meeting 2004: "Rheumatologic Manifestations of Non-Rheumatologic Disorders", Birmingham, AL
- 11/05 University of Alabama at Birmingham Pediatric Grand Rounds: "Systemic Lupus Erythematosus: What is New with this Old Disease?" Birmingham, AL
- 11/05 University of Alabama at Birmingham Cystic Fibrosis Center, CF Round Table: "Rheumatic Manifestations of Cystic Fibrosis", Birmingham, AL
- 11/05 University of Alabama at Birmingham Rheumatology Grand Rounds: "Genetic Basis of CRMO", Birmingham, AL
- 10/06 Cassidy Symposium to honor Dr. Cassidy's outstanding contributions to the field of Pediatric Rheumatology as part of the festivities surrounding his retirement from the University of Missouri: "Chronic Recurrent Multifocal Osteomyelitis", Columbus, MO

- 11/06 National Institute of Health/NIAMS Rheumatology Grand Rounds: "Genetics of CRMO", Bethesda, MD.
- 11/06 American College of Rheumatology Annual Scientific Meeting. "The Genetics of CRMO: Lessons Learned from Mice and Men" as part of the ACR Clinical Symposium entitled "Chronic Recurrent Multifocal Osteomyelitis (CRMO) and Related Conditions". Tuesday, November 14, 2006.
- 03/07 Harvard/Boston Children's Pediatric Rheumatology Grand Rounds. "CRMO: The new kid on the autoinflammatory block", Boston, MA
- 06/07 ACR/EULAR International Exchange: Vienna General Hospital and Hietzing Hospital. "Update on the Genetics and Immunology of CRMO", **Vienna**, **Austria**
- 06/07 ACR/EULAR International Exchange: German Rheumatism Research Centre (DRFZ) and Charite Medical School. "Genetics and Immunology of CRMO", **Berlin, Germany**
- 03/08 ACR Keystone Pediatric Rheumatology Symposium Bench to Bedside Symposium, "Autoinflammatory Disorders of the Bone", Keystone, CO.
- 09/08 NIH/NIAMS sponsored conference on CRMO/SAPHO and Behcet syndrome, Bethesda, MD
  - "The clinical and genetic spectrum of CRMO/SAPHO"
  - "Pathophysiology of CRMO recent discoveries in a mouse model"
  - Workshop: Clinical Criteria and Definition of Entry Criteria into a Clinical Trial
- 05/09 Pediatric Academic Societies' Annual Meeting, Osteoarticular Disease and Infection Symposium, "Genetics of Multifocal Osteomyelitis", Baltimore, MD
- 05/09 NIH/NIAMS sponsored conference on DIRA (Deficiency of Interleukin 1 receptor antagonist). "Autoinflammatory Bone Disorders", Bethesda, MD
- O9/09 Food and Drug Administration Seminar: Meet the Experts: Pediatric Orthopaedics
   "Introduction to Pediatric Musculoskeletal Disease: Unmet Device Needs or Understanding device treatment options within a Regulatory Framework: Why are we troubleshooting from the back table?" Ferguson presentation 'Juvenile Idiopathic Arthritis and the Spondyloarthropathies', Silversprings, MD

- 10/09 American College of Rheumatology (ACR) Annual Scientific Meeting. Meet the Professor Session "Periodic Fevers in Children", Philadelphia, PA
- 10/09 American College of Rheumatology Basic Research Conference: "Autoinflammatory Bone Disorders", Philadelphia, PA.
- 12/09 Citywide Rheumatology Conference, "An Overview of the Autoinflammatory Disorders", Minneapolis, MN
- 12/09 Pediatric Grand Rounds at the University of Minnesota, "Rare inflammatory bone disorders a window into the pathogenesis of psoriasis and IBD", Minneapolis, MN
- 05/10 Rheumatology Grand Rounds at Georgetown University, "Autoinflammatory Bone Disorders", Washington, DC.
- 09/10 Autoinflammation 2010: The 6<sup>th</sup> International Meeting on Familial Mediterranean Fever and Systemic Autoinflammatory Syndromes. "Mouse Models of CRMO", **Amsterdam, The Netherlands**
- 11/10 American College of Rheumatology (ACR) Annual Scientific Meeting. Meet the Professor Session "Periodic Fevers in Children", Atlanta, GA.
- 01/11 Pediatric Grand Rounds at Indiana University/Riley Children's Hospital, "Rare inflammatory bone disorders: insights into the pathogenesis of psoriasis and IBD", Indianapolis, IN
- 01/11 Visiting Professor, Pediatric Rheumatology, University of Texas Southwestern, Children's Hospital, Dallas, TX
  - Pediatric Grand Rounds: "Autoinflammatory Bone Disorders"
  - Pediatric Resident Noon Conference: "Pediatric vasculitis syndromes: Henoch-Schonlein Purpura and Kawasaki syndrome"
- 01/11 Rheumatology Grand Rounds, University of Texas Southwestern, "Autoinflammatory Disorders: What an Adult Rheumatologist Needs to Know", Dallas, TX
- 03/11 Pediatric Grand Rounds, DuPont Children's Hospital. "Chronic inflammation of the bone—is the answer in the genes?", Wilmington, DE
- 04/11 Visiting Professor, Department of Pediatrics, University of Virginia Charlottesville, VA
  - Pediatric Grand Rounds: "Bones and Crohn's and Skin.... Oh my"
  - Pediatric Resident Noon Conference: "Pediatric Rheumatology Cases"

- Pediatric Fellowship Program Annual Symposium invited guest & judge
- 11/11 American College of Rheumatology (ACR/ARHP) Annual Scientific Meeting: Meet the Professor: "Hereditary Autoinflammatory Disorders", Chicago, IL.
- 11/11 ACR/ARHP Annual Scientific Meeting: "Chronic Non-Infectious Osteitis Associated Inflammatory Conditions", Chicago, IL.
- 11/11 Southern California Rheumatology Society Meeting: "Bones and Crohn's and Skin... Oh My", Los Angeles, CA
- 12/11 University of California at Los Angeles Pediatric Immunology and Rheumatology Conference: "Bones and Crohn's and Skin...
  Oh My", Los Angeles, CA
- 02/12 American College of Rheumatology Research and Education Fund/Amgen Pediatric Rheumatology Visiting Professorship Award. St. Joseph's Hospital & Medical Center, Phoenix, AZ. Included the following talks:
  - -Phoenix Children's Hospital Grand Rounds: "CRMO", Phoenix, AZ
  - -Phoenix Children's Hospital Noon Conference: "Periodic Fever Syndromes"
  - -St. Joseph's Hospital Pediatric Residency Noon Conference: "The Pediatric Musculoskeletal Examination"
- 06/12 Annual European Congress of Rheumatology "EULAR 2012", Session Title: "Emerging genetics and molecular aspects of autoinflammatory bone disease", **Berlin, Germany**
- 11/12 American College of Rheumatology Annual Scientific Meeting. State-of-the-Art session on "Chronic Recurrent Multifocal Osteomyelitis". Washington, DC
- 04/13 Rheumatology Grand Rounds Northwestern University, Department of Internal Medicine, Chicago, IL.
- 04/13 Pediatric Grand Rounds Northwestern University, "Bones and Crohn's and Skin, Oh My" Chicago, IL.
- 05/13 Pediatric Grand Rounds, "Bones and Crohn's and Skin, Oh My" at The University of Utah, Department of Pediatrics, Salt Lake City, UT
- 05/13 Research Seminar at the National Institutes of Health/NIAMS, "Autoinflammatory Bone Disease: Role of IL-1 in disease pathogenesis". Bethesda, MD

- 06/13 2<sup>nd</sup> International Meeting on Nonbacterial Osteitis, "Genetics of the syndromic forms of CRMO". **Munich, Germany**
- 07/13 National Juvenile Arthritis Conference, Keynote speaker, "Autoinflammatory disease", Anaheim, CA
- 12/13 Pediatric Grand Rounds, "Bones and Crohn's and Skin, Oh My" at Goryeb Children's Hospital, Morristown, NJ
- 12/13 Pediatric Grand Rounds, "Bones and Crohn's and Skin, Oh My" at Overlook Medical Center, Summit, NJ
- 04/14 American College of Rheumatology's Pediatric Rheumatology Symposium, "Roundtable presentation on chronic recurrent multifocal osteomyelitis, Orlando, FL
- 04/14 American College of Rheumatology State-of-the-Art (SOTA) Fellows' Conference,— Round Table Career Mentoring, Chicago, IL
- 05/14 First Annual Frank Saulsbury Lectureship in Lateral Thinking, "It's not just bad luck: What I learned from Frank Saulsbury and children with rare disorders" at the University of Virginia, Charlottesville, VA
- 12/14 NIH/NIAMS Rheumatology Grand Rounds, Autoinflammatory Bone Disease; An Update on Genetics, Bethesda, MD
- 02/15 University of Pennsylvania/Children's Hospital of Philadelphia Grand Rounds, "Bones and Crohn's and Skin, Oh My": Autoinflammatory Bone Disease, Philadelphia, PA
- 03/15 New York University Pediatric Rheumatology Course, "Chronic Recurrent Multifocal Osteomyelitis", New York City, NY
- 09/15 3rd International Meeting on Nonbacterial Osteitis (CNO), "Animal Models of CNO", **Dresden, Germany**
- 10/15 8th International Congress of Familial Mediterranean Fever and Systemic Autoinflammatory Diseases (ISSAID), "Autoinflammatory Bone Disease", Dresden, Germany
- 11/15 American College of Rheumatology Annual Scientific Meeting, part of the Clinical Symposium entitled "Chronic Nonbacterial Osteomyelitis

- (CNO): From the Bedside to the Bench" Ferguson talk entitled, "The Genetics of Chronic Nonbacterial Osteomyelitis", San Francisco, CA
- 01/16 Children's Mercy Hospital: Pediatric Grand Rounds (CRMO), Pediatric Resident Noon Conference (Periodic Fevers) and Academic Scholarship Conference presentations (Sterile Osteomyelitis and Innate Immunity). Kansas City, MO
- 02/16 Vanderbilt University Special Seminar for Peds ID and Vanderbilt Center for Bone Biology entitled "Sterile Osteomyelitis and Innate Immunity", Nashville, TN
- 04/16 Hospital for Sick Children, University of Toronto: Abraham Shore Memorial Lecture in Pediatric Rheumatology during Department of Pediatric Grand Rounds. **Toronto, Ontario, Canada**
- 09/16 Cassidy Symposium: "Bones and Crohns and Skin: Oh My!", Columbus, MO
- 06/17 4th International Meeting on Chronic Nonbacterial Osteomyelitis
  "Autoinflammatory Bone Diseases Insights from Animal Models and
  Monogenic Diseases", **Würzburg, Germany**
- 11/17 2017 ACR/ARHP Annual Scientific Meeting "The Role of Clinical Pharmacy Specialists in a Pediatric Rheumatology Clinic", San Diego, CA
- 11/17 2017 ACR/ARHP Annual Scientific Meeting "IL-1 mediated diseases through the lifespan", San Diego, CA
- 09/18 Pediatric Rheumatology European Society Annual Meeting "Animal Models of CNO" **Lisbon, Portugal**
- 10/18 CHRCDA Annual Meeting "Finding a Good Mentor & Being a Good Mentee"; Michael DeBaun, Polly Ferguson and Alexander Bassuk, Vanderbilt, Nashville, TN.
- 11/18 2018 ACR/ARHP Annual Scientific Meeting "SAPHO syndrome in adults", Chicago, IL
- 12/18 Hospital for Special Surgery Rheumatology Department of Medicine Grand Rounds "Chronic recurrent multifocal osteomyelitis and other autoinflammatory bone disorders", NYC, NY
- 01/19 CARRA Registry Retreat: "Study Coordinator Grant Success at UI", (Jan 2019) Orlando, FL

- 06/19 Annual European Congress of Rheumatology (EULAR) 2019: Session: Tackling inflammatory bone disorders in children and adults. "CRMO/CNO: Diagnosis and clinical management from bench to beside". **Madrid, Spain**
- 12/19 NIH/NIEHS Clinical Research Branch Meeting, invited speaker. "Autoinflammatory bone disease". Bethesda, MD.
- 04/20 Pediatric Rheumatology Society of India, **Bangalore, India**"Autoinflammatory Bone disease". Given via Zoom. Arranged by Dr. Anand Rao at Manipal Hospital.
- 05/20 ACR Pediatric Rheumatology Symposium, invited speaker, New Orleans cancelled due to COVID19
- 05/20 Pediatric Grand Rounds, Albert Einstein Medical School, Bronx, NY virtual visit. "Chronic recurrent multifocal osteomyelitis: From bench to bedside"
- 08/20 Pediatric Grand Rounds, Emory University, Atlanta, GA. "Sterile Osteomyelitis in Children" given via zoom.
- 10/20 Pediatric Grand Rounds, University of Pittsburgh (zoom). CNO
- 11/20 American College of Rheumatology Annual Meeting, invited speaker (virtual)
- 11/20 8th Annual Kennedy Lecture, University of Alabama at Birmingham (zoom)
- 11/20 Alabama Society of Rheumatic Diseases, Birmingham, AL (zoom)
- 01/21 Pediatric Grand Rounds, Rutgers University (zoom)
- 04/21 Institute of Life Course and Medical Sciences Seminar Series, **University of Liverpool**, **UK** (zoom)
- 05/21 ACR Pediatric Rheumatology Symposium, invited speaker (zoom)
- 08/21 Pan-American League of Associations for Rheumatology (PANLAR), 'Autoinflammatory Syndromes that Affect the Bone'; International virtual meeting in 2021.
- 09/21 UCSF Pediatric Rheumatology Educational Conference, San Francisco (zoom)
- 11/21 Cornell University, Pediatric Grand Rounds, New York, NY (zoom)

- 12/21 Feinstein Research Institute/Cohen Children's Hospital Pediatric Rheumatology Educational Conference, New Hyde Park, NY (zoom)
- 04/22 Peds Rheum Fellows Conference Albert Einstein Medical School, Bronx, NY (zoom)
- 05/22 Genetics of CNO 1<sup>st</sup> International Conference on CNO & Autoinflammatory Bone Disease in **Liverpool**, **UK** (meeting co-organizer with Drs. Christian Hedrich and Alex Theos)
- 10/22 Ohio Association of Rheumatology (and hopefully also OSU Rheumatology Grand Rounds if the timing can work out) for the annual OAR meeting 10/7-8 in Columbus October 7 & 8, 2022 Columbus, OH
- 11/22 Pediatric Grand Rounds, 'Autoinflammatory Bone Disease', University of Texas Southwestern, Dallas, TX (zoom).
- 11/22 Pediatric Rheumatology Conference (peds rheum, ortho), UTSW. CRMO, DDx and Interesting Cases. (zoom)
- 03/23 XIX Congreso Colombiano de Reumatologia and X Congreso Colombiano Reumatologia Pediatricia. "Osteomielitis Cronica no Bacteriana", **Medellín, Columbia, South America.**
- 05/23 Pediatric Grand Rounds at Brown University, Providence, RI
- 05/23 Society for Pediatric Radiology (SPR) 2023 Annual Meeting and Postgraduate Course Keynote address, 'CRMO/CNO Clinical Perspective: How Imaging Affects Treatment', Austin, Texas
- 06/23 European League Against Rheumatism International Congress, Milan, Italy.
- 08/23 Primary Children's Hospital, Special Pediatric Rheumatology Lecture, Salt Lake City, Utah. 'Clinical case review CRMO/CNO'.
- 08/23 Musculoskeletal Infection Society (MSIS) Annual Meeting, 'Mimics of Sterile Osteomyelitis CRMO'. Salt Lake City, UT.
- 09/23 University of Florida Gainesville, Pediatric Rheumatology Conference. 'CRMO/CNO Diagnosis and Management'. (virtual)

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- 10/23 IDWeek 2023- Pathophysiology and management of chronic recurrent osteomyelitis and other autoinflammatory disorders resembling infectious diseases. Boston, MA
- 10/23 Newman Lecture, Department of Pediatrics Grand Rounds: 'Chronic Non-Bacterial Osteomyelitis'. Rainbow Babies Hospital, Case Western Reserve, Cleveland, OH

#### Future:

11/23 American College of Rheumatology Annual Meeting invited speaker "Expanding Clinical presentations of CNO" during the session entitled "Current Approaches To Chronic Non-Bacterial Osteomyelitis (CNO) Care", San Diego, CA

### IV. SERVICE

### **Editorships**

2009 - present: Section Editor, <u>Current Opinion in Rheumatology</u> section on Pediatrics and Heritable Disorders.

#### Websites

- 2009- Reviewer of Majeed Syndrome and LPIN2 material
  Genetics Home Reference staff at the U.S. National Library of Medicine
- 2009- INFEVERS database on autoinflammatory syndromes Editor of the *IL1RN* mutation database for DIRA (deficiency of the interleukin-1 receptor antagonist) http://fmf.igh.cnrs.fr/ISSAID/infevers

### Reviewer (grants/manuscripts/research programs/abstracts)

Reviewed for the following journals:

Acta Paediatrica
Acta Rheumatologica Portuguesa
Annals of Rheumatic Disease
Arthritis & Rheumatology
Arthritis Care and Research
Autoimmunity
British Journal of Dermatology
Case Reports in Orthopedics
Cell Reports
Clinical and Experimental Rheumatology

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Clinical Immunology

Expert Reviews of Clinical Immunology

Frontiers in Immunology

Gene Reviews

International Journal of Pediatrics

Journal of the American Podiatric Medical Association

Journal of Biomedicine & Biotechnology

Journal of Cell Biology

Journal of Clinical Rheumatology and Musculoskeletal Medicine

Journal of Clinical Immunology Journal of Clinical Investigation

JCI Insight

Journal of Experimental Medicine

Journal of Investigative Dermatology

Journal of Investigative Medicine

Journal of Pediatrics

Journal of Rheumatology

Molecular Biology Reports

Molecular Immunology

Molecular Pain

Nature

Nature Communications

New England Journal of Medicine

Pediatric Pulmonology

Pediatric Radiology

Pediatric Rheumatology

Pediatrics PLoS ONE

Seminars in Arthritis & Rheumatism

2005 University of Iowa's GCRC, grant review

2006 Arthritis Foundation's Iowa Chapter, grant review

University of Iowa's GCRC, grant review

Reviewed 2 manuscripts

2007 Carver Collaborative Pilot Grant, grant review

Carver Medical Research Initiative Grant, 3 grants reviewed

Reviewed 5 manuscripts

2008 Arthritis Foundation: Molecular Biology/Genetics section, 4 grants

reviewed.

Carver Medical Research Initiative Grant, 1 grant reviewed

	UI Med Student Research Council: 2 M1 and 1 pre-M1 research grants Reviewed 14 manuscripts
2009	UI Med Student Research Council: 4 M1 summer research grants T32 UI institutional grants: 3 proposals reviewed Reviewed 8 manuscripts
2010	Carver Collaborative Pilot Grant, 2 grants review Carver Medical Research Initiative Grant, 2 grants reviewed Arthritis Foundation: Juvenile Arthritis Section, 5 grants reviewed Arthritis Foundation, leadership panel to rank JA grants Medical Research Council, <b>United Kingdom</b> (expert review) Reviewed 10 manuscripts
2011	Carver Collaborative Pilot Grant, 2 grants review Carver Medical Research Initiative Grant, 2 grants reviewed Sultan Qaboos University, <b>Oman</b> , (expert grant review) Reviewed 11 manuscripts
2012	Carver Collaborative Pilot Grant, 3 grants reviewed Carver Medical Research Initiative Grant, 1 grant reviewed Netherlands "Horizon Program: Zenith Project", 1 grant reviewed NIH/NIAMS P30 RDCC Applications, ad hoc reviewer Reviewed 11 manuscripts
2013	Carver Medical Research Initiative Grant, 4 grants reviewed NIH/NIAMS Intramural clinical trials, reviewer Reviewed 9 manuscripts
2014	Carver Medical Research Initiative Grant, 4 grants reviewed Pre-M1 Student Summer Research Fellowship proposals, 3 reviewed Reviewed 16 manuscripts
2015	Carver Collaborative Grant, 1 grant reviewed CCOM Student Summer Research Fellowship proposal reviews CCOM Immunology T32, 2 applications reviewed NIH/NICHD CHRCDA K12 applications, ad hoc reviewer Arthritis Research United Kingdom grant review, ad hoc reviewer Arthritis Foundation grant review, ad hoc reviewer Reviewed 4 manuscripts
2016	Reviewed CCOM Student Summer Research Proposals Reviewed CCOM Medical Student RDT applications

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NIH/NIAMS P30 Rheumatology Research Core Center grants, *ad hoc* Arthritis Research United Kingdom - 1 grant reviewed Canada Foundation for Innovation – 1 grant reviewed Reviewed 13 manuscripts

2017	NIH/NIAMS P50 Centers of Research Translation, ad hoc 03/17 NIH/NIAMS Board of Scientific Counselors, ad hoc 04/17 NIH/NIAID Board of Scientific Counselors, ad hoc 06/17 NIH/NIAID Board of Scientific Counselors, ad hoc 12/17 Swedish National Science Foundation – 1 grant reviewed Reviewed 5 manuscripts
2018	Arthritis Research <b>United Kingdom</b> – 1 grant reviewed <b>NIH/NIAID Board of Scientific Counselors</b> (5 year term) Reviewed 6 manuscripts
2019	Dance Marathon/CMN Grant Review – 1 grant Reviewed 1 manuscript NIH/NIAID Board of Scientific Counselors – 2 times/yr NIH/NIAMS P30 Rheumatology Research Core Center grant review NIH/NIAMS Rare Disease SBIR Grant review
2020	Reviewed 9 manuscript (JCI x 3, A&R x 2, ARD, JOCI, J Rheum) CARRA abstract reviewer NIH/NIAMS Board of Scientific Counselors (ad hoc) NIH/NIAID Board of Scientific Counselors co-Chair, twice/yr
2021	Reviewed 5 manuscript (JCI x 2, JCI Insight, J Rheum) NIH/NIAMS P30 Rheumatology Research Core Center, reviewer NIH/NIAMS Board of Scientific Counselors (ad hoc) NIH/NIAID Board of Scientific Counselors co-Chair, twice/yr United Kingdom Medical Research Council Grant Review
2022	Reviewed 3 manuscripts (Nature Comm, Frontiers Immunol, Clinical Immunol) NIH/NIAID Board of Scientific Counselors co-Chair, June 2022 ACR Abstract Review Committee – Innate Immunity, June 2022
2023	NIH/NIAMS P30 Rheumatology Research Core Center grant review French National Research Agency (ANR) AAPG 2023 [grant review] Deutsche Forschungsgemeinschaft (DFG) – Grant review, 2023

Manuscripts reviewed - 1

ACR Abstract Reviewer -- Innate Immunity, June 2023

NIH/NIAMS Board of Scientific Counselors – standing member

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# **University Service**

09/02	Judge, U of I Medical Student Research Day Poster Presentations
09/04	Judge, U of I Medical Student Research Day Poster Presentations
04/05	Judge, U of I Doris Duke Research Day Presentations
05/05	Judge, Graduate Student Poster Session of COM/CPH/VA Iowa City Health Care System Research Week
05/05	Judge, Postdoctoral Fellows/Resident Poster Session of COM/CPH/VA Iowa City Health Care System Research Week
09/05	Judge, U of I Medical Student Research Day Poster Presentations
09/06	Judge, U of I Medical Student Research Day Poster Presentations
09/07	Judge, U of I Medical Student Research Day Poster Presentations
09/09	Judge, U of I Medical Student Research Day Poster Presentations
03/10	Judge, U of I, Department of Pediatrics Research Day Poster Presentations
04/10	Judge, U of I Doris Duke Research Day Presentations
09/10	Judge, U of I Medical Student Research Day Poster Presentations
08/11	Faculty Facilitator, CCOM New Faculty Orientation Session (for new tenure track faculty).
04/12	Judge, U of I Department of Pediatrics Research Day Poster Presentations
04/12	Judge, U of I Doris Duke Research Day Presentations
09/12	Judge, U of I Medical Student Research Day Presentations
04/13	Judge, U of I Pediatric Research Day Poster Presentations

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09/13	Judge, U of I Medical Student Research Day Poster Presentations
03/14	Co-facilitator for CCOM session for junior faculty entitled "Are You Ready for Promotion? Is Your Work Achieving the Depth & Breath for Promotion?"
04/14	Judge, U of I Pediatric Research Day Poster Presentations
09/14	Judge, U of I Medical Student Research Day Poster Presentations
01/16	Panelist: CCOM session "Management Skills for the Academician"
04/16	Judge, U of I Pediatric Research Day Poster Presentations
12/16	Co-facilitator for CCOM session for junior faculty entitled "How Our Unconscious Interpretations and Behaviors Influence Our Collegial Relationships" with Dr. Laura Croft and Joe Szot
09/20	Judge, U of I Interdisciplinary Graduate Program in Genetics Student Retreat Poster Session
11/21	Volunteer, Animal Care Facility, PDBD Barrier. Restock PPE for those using the animal facility (help needed due to short staffing in the animal facilities post-pandemic)
2022	Judge, Pediatric Research Day
2023	Judge, Pediatric Research Day
2022- pres	Member, Faculty Senate

# **University Committees**

2002-2003	Steering Committee Formation of The University of Iowa's Federation of Clinical Immunologic Society (FOCIS) designated Immune Mediated Inflammatory Disorder (IMID) Center; Deputy Director Advocacy & Patient Education
05/03	UI IMID Center Representative at the Federation of Clinical Immunologic Society (FOCIS) Center Meeting, Paris, France
07/03	UI IMID Center Representative (with Zuhair Ballas) at the Federation of Clinical Immunologic Society (FOCIS) Center Meeting, Montreal, Canada

09/06-present	Medical Student Research Council, Univ of Iowa Carver College of Medicine
2007	Department of Pediatrics Compensation Plan Committee
2010	CCOM Psychiatry DEO Search Committee
05/10	Department of Psychiatry Departmental Review Committee
2010	Department of Pediatrics Compensation Plan Committee
2011	Pediatric Hematology/Oncology Division Director Search Committee
02/12-present	Immunology Post-Doctoral T32 Executive Committee (PI: Harty)
2012	Carver College of Medicine Curriculum Renewal Mechanism of Health and Disease (MOHD) Immunology/Infection Subcommittee
07/12-present	Diagnostic Services Subcommittee: Genetic Testing Working Group, UIHC
2013	Distinguished Alumni Awards Selection Committee
03/13	CCOM panel participant; "Establishing a Timeline, Markers and Goals to achieve Promotion on the Tenure Track"
2013	CCOM Orthopedics DEO Search Committee
04/13 – 05/16	CCOM Executive Committee
05/14 – 05/16	Chair, CCOM Executive Committee (1 year term)
12/13 - present	Pediatric Scientist Training Program Selection Committee
11/13	Pediatric Allergy/Pulmonary Division Director Search Committee
05/14	General Pediatrics Division Director Search Committee

01/15	Chair, Pediatric Infectious Disease Division Director Search Committee
02/15	CCOM Dermatology Departmental Review Committee
2015 - 2018	CCOM Medical Student Appeals Committee
2015 - 2022	Department of Pediatrics Promotion Advisory Committee
11/17	Burroughs Welcome Fund Physician Scientist Institutional Award Planning Grant – Steering Committee Member (Jeff Murray PI)
2017-2018	Medical Genetics Division Director Search Committee
2019	UI Stead Family Children's Hospital Executive Director Search Committee
2020-pres	Department of Pediatrics Diversity Equity and Inclusion Committee
2021	CCOM Dermatology DEO Search Committee
2021	Search Committee Division Director for Pediatric Intensive Care
2022 - pres	Planning Committee for Pediatric Research Day
2022 – pres	Department of Pediatrics Research Leadership Group
2022 – pres	Medical Laboratories and Medical Research Center Renovation Planning Group (Department of Pediatrics research space)
2022	Committee to Hire a Scientific Editor for the Department of Pediatrics (Harshman and Ferguson)
2022	Department of Pediatrics Cultural Awareness Day (volunteer)
2022-pres	Search Committee Division Director for Pediatric Cardiology
2023	Chair, Search Committee for Division Director for Pediatric Hematology/Oncology
2023 -pres	Search Committee Division Director for Pediatric Pulmonology

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2023 – pres CCOM Mandatory Compliance Training Review Working Group

#### State of Iowa

11/11- present **Iowa Newborn Screening** Severe Combined Immune

Deficiency (SCID) Implementation Workgroup and

Medical Consultant

01/20 - present lowa Department of Human Services, lowa Medicaid

Enterprise Quality Improvement Organization, Clinical Advisory Committee Member (5-year position; meets quarterly). The purpose of the CAC is to increase the efficiency, quality, and effectiveness of the Medicaid healthcare system. The CAC is charged with recommending clinically appropriate healthcare utilization management and coverage decision to the Department of Human Services (DHS) for the

Iowa Medicaid program.

#### **National Committees and Service**

2004-present: Childhood Arthritis & Rheumatology Research Alliance (CARRA)

- Juvenile Idiopathic Arthritis Protocol Evaluation Committee (2005-2012)
- Juvenile Arthritis Disease Specific Subcommittee (2004present)
- Systemic Lupus Erythematosus Disease Specific Subcommittee (2004-2009)
- Scleroderma, Vasculitis and Rare Disease Specific Subcommittee (2009-present)
- Linear Scleroderma Core Workgroup (2010-present)
- CRMO Core Workgroup co-Leader (2012-present)

11/06 Moderator for Concurrent Abstract Session: "Pediatric

Rheumatology: Pathogenesis and Genetics", American College of Rheumatology Annual Scientific Meeting, Washington, DC

02/08-04/13 **Chair**, Data and Safety Monitoring Board "Randomized,

Controlled, Double blind, Placebo Phase Study of Rilonacept in the Treatment of Systemic Juvenile Idiopathic Arthritis

(RAPPORT)"; NIH funded clinical trial.

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2008	Arthritis Foundation,	Grant Review	Committee,	Molecular
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Biology/Genetics section

2008 **Organizing committee** for International Conference on

CRMO/SAPHO and Behçet syndrome. NIH/NIAMS, Bethesda,

MD, September 3 – 5, 2008. Co-organizers: Raphaela Goldbach-Mansky, Dan Kastner, Karryl Barron, Ahmet Gul.

10/08-09/10 American College of Rheumatology, Pediatric

Rheumatology Section Executive Committee

- ➤ Spring 2009: Attended ACR Peds Executive Committee Meeting. Dr. Anne Stevens and Polly Ferguson assigned to plan the ACR Study Group Sessions for the next 3 years.
- Fall 2009: Attended the ACR Peds Section Executive Committee Meeting. Dr. Anne Stevens (Seattle) and Dr. Polly Ferguson (Iowa) proposal for 2010 ACR study group session on Kawasaki Syndrome approved.
- March 2010: Attended ACR Pediatric Rheumatology Section Executive Committee Meeting in Chicago, IL. At this meeting the section committee members developed a plan for developing an ACR Committee on Pediatric Rheumatology. This will be reviewed and voted on by the ACR Board of Directors and if approved, the Pediatric Rheumatology Section will dissolve. Nominees for Awards were chosen. Dr. Stevens and Ferguson announced that the study section they proposed on Kawasaki Syndrome was accepted by the ACR and that the speakers had accepted the invitation. The Pediatric Residents Annual Meeting Program, Visiting Professor Program, Pediatric Information Sheets, CoPS coding revisions, Pediatric Referral Guidelines and 2010 ACR Annual Meeting Planning for pediatric events were topics dealt with during this meeting.
- Summer 2010: Conference calls with pediatric leadership within the ACR (Hirsch, Colbert, Klein-Gitelman) in planning for Pediatric Rheumatology to become a special committee within the ACR (instead of a special section).
- ➤ August 2010: Ferguson presented proposal to change pediatric rheumatology from a section to a special committee to the ACR Board of Directors. Resultant action: Pediatric Section dissolved; Pediatric Committee approved.

# 10/08-09/10: American College of Rheumatology Committee on Research (CoR)

The Committee on Research is responsible for encouraging clinical and health services research on the organization of medical and health care as they may affect patients with rheumatic diseases; maintaining an updated rheumatology research agenda; appointing a liaison to the Committee on Government Affairs and working

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with that committee on advocacy, and; working to coordinate the research efforts of the ACR and the Arthritis Foundation.

- ➤ 12/08: Attended the American College of Rheumatology Annual Meeting Planning Committee Meeting (invited guest) held in Dallas, Texas on December 12, 13, 14, 2008.
- Attended as the representative of the ACR's Committee on Research to advocate for inclusion of basic science sessions in the ACR's annual meeting and to present the COR's proposals for the pre-conference research meetings.
- Presented proposals for the 2009 ACR Basic Research Conference, the 2009 ACR Clinical Research Conference and for a Basic Science Symposium for the ACR Annual Meeting.
- o Created and proposed basic science symposium with Dr. David Lee (Brigham and Women's) for the ACR Annual Scientific Meeting entitled "The Autoinflammatory to Autoimmune Disease Spectrum; How Genetic Studies Inform Us about Disease Pathogenesis" which was accepted by the National Planning Committee. Speakers included Dr. Dennis McGonagle (Leeds), Dr. John Reveille (Houston), Dr. Robert Plenge (Boston). Moderators: Bob Colbert (NIH) and Polly Ferguson (Iowa).
- >01/09: ACR Leadership Conference and CoR Committee Meeting, Atlanta, GA. Jan 23, 24
- ➤ 10/09: ACR Committee on Research Meeting, Philadelphia, PA, Oct 19
- ➤10/09: ACR Annual Meeting Planning Committee Meeting as CoR liaison, Philadelphia, PA, Oct 20
- ▶11/09: Proposed basic science symposia for the 2010 national meeting.
- ▶12/09: ACR CoR Meeting, Atlanta, GA. December 4, 2009
- ▶12/09: ACR Leadership Development Meeting, Atlanta, GA. December 5, 2009
- ≥01/10: ACR Annual Meeting Planning Committee Meeting, Atlanta, GA
- Attended as the representative of the ACR's Committee on Research to advocate for inclusion of basic science sessions in the ACR's annual meeting and to present the COR's proposals for the pre-conference research meetings.
- Presented proposals for the 2010 ACR Basic Research Conference, the 2010 ACR Clinical Research Conference and for a Basic Science Symposium for the ACR Annual Meeting.
- Created and proposed basic science symposium with Dr. Robert Plenge (Brigham and Women's), Ted Mikuls (University of Nebraska) and Bob Colbert (NIH) for the ACR Annual Scientific Meeting entitled "The Biology of Citrullination" which was accepted by the National Planning Committee.
- ➤05/10: Reviewed 42 abstracts for ACR Rheumatology Research Workshop
- Asked by Chair of the ACR Committee on Research to serve an additional year on the ACR CoR Committee but declined due to commitment to serve on the new Special Committee on Pediatric Rheumatology
- 06/09 American College of Rheumatology Abstract Reviewer for the 2010 ACR Annual Scientific Meeting

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Reviewed 32 abstracts in the Pediatric Rheumatology Pathogenesis and Genetics category

# 01/11 American College of Rheumatology Abstract Reviewer for the 2011 ACR Pediatric Rheumatology Symposium, Miami

Reviewed abstracts in the Pediatric Rheumatology Pathogenesis and Genetics category

# 09/10-07/12 American College of Rheumatology, Special Committee on Pediatric Rheumatology, Member

- ➤ The charge of the Special Committee on Pediatric Rheumatology is to advance knowledge, foster communication, promote professional training, care for patients, and research in pediatric rheumatology; To promote the education and understanding of childhood rheumatologic diseases among physicians, allied health personnel, parents, patients, and the general public; To promote research; To promote improved methods of care for children with rheumatic disease; To optimize the number of Pediatric Rheumatologists and support existing ones.
- Proposed and moderated Pediatric Rheumatology Study Groups with Dr. Anne Stevens
  2010 ACR Pediatric Rheumatology Study Group: "Kawasaki Disease in the 21st Century Genes, Pathogenesis, and Biologics. Speakers: Dr. Rae Yeung and Dr. Rob Sundel.
  2011 ACR Pediatric Rheumatology Study Group: "Pediatric Uveitis".
  Speakers Dr. Howard Tessler, Dr. Egla Rabinovich, Dr. Ivan Foeldvari
- Sub-committee chair aimed at improving options for Maintenance of Certification (MOC) activities for Pediatric Rheumatology

# 04/12- 10/13 American College of Rheumatology Juvenile Idiopathic Arthritis Treatment Guidelines Taskforce (update of current guidelines), Taskforce Member

Taskforce reviewed the current literature and by consensus 2013 update of the American College of Rheumatology recommendations for the use of disease-modifying anti-rheumatic drugs (DMARDs) and biologic DMARDs in the treatment of systemic juvenile idiopathic arthritis.

# 06/12 -05/13 **2012 Best Pharmaceuticals for Children Act (BPCA)**Rheumatology Therapeutic Area Working Group Member

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- Charge is to provide recommendations to the Eunice Kennedy Shriver NICHD and the U.S. Food and Drug Administration (FDA) on current therapeutic needs in pediatric rheumatology patients
- Role: Head of Juvenile Idiopathic Arthritis Working Group

# 08/12- 11/15 Chair, American College of Rheumatology, Special Committee on Pediatric Rheumatology

- ➤ The charge of the Special Committee on Pediatric Rheumatology is to advance knowledge, foster communication, promote professional training, care for patients, and research in pediatric rheumatology; To promote the education and understanding of childhood rheumatologic diseases among physicians, allied health personnel, parents, patients, and the general public; To promote research; To promote improved methods of care for children with rheumatic disease; To optimize the number of Pediatric Rheumatologists and support existing ones.
- Attend all ACR Board of Directors Meetings (~4 per year) as well as all Rheumatology Research Foundation Board of Directors Meetings (~ 3 per year)
- ▶ Development of a Pediatric Rheumatology Top 5 (leaders: Ardoin, Rouster-Stevens, Ferguson) November 2012 Feb 2014.
- ➤ Pediatric Resident's Program for the American College of Rheumatology Annual Scientific Meeting planning and implementation. Goal is to attract pediatric residents into the field of pediatric rheumatology (leaders: Moorthy, Dragon, Huttenlocher).
- AMIGO Steering Committee as Chair of the ACR Special Committee on Pediatric Rheumatology, I presented the pilot data for success of this unique mentoring program for pediatric rheumatology fellows and junior faculty to ACR Board of Directors with decision to make this pilot project a standing project (funded annually).
- Pediatric Rheumatology Town Hall Meeting held at the ACR annual meeting. Design content and moderate sessions with Dr. Anna Huttenlocher; established "Pediatric Rheumatology Year in Review" session.
- 2013 Co-Chair American College of Rheumatology Abstract
  Review Committee: Pediatric Rheumatology- Pathogenesis
  and Genetics Section for the 2013 ACR Annual Scientific Meeting [with
  Alexei Grom, MD]
- 2014 American College of Rheumatology Abstract Reviewer for the 2014 ACR Pediatric Rheumatology Symposium (PRYSM), Orlando
- 2014 Co-Chair American College of Rheumatology Abstract Review

- **Committee:** Pediatric Rheumatology Pathogenesis and Genetics Section for the 2014 ACR Annual Scientific Meeting [with Nora Singer, MD in 2014]
- 2015 Co-Chair American College of Rheumatology Abstract Review Committee: Pediatric Rheumatology - Pathogenesis and Genetics Section for the 2015 ACR Annual Scientific Meeting
- 07/15 NIH/NICHD RFA HD-16-018 K12 applications, reviewer
- 07/15 American College of Rheumatology Government Affairs
  Committee (Research Sub-Committee) The goal is to develop
  strategies to increase NIH funding through Congressional measures
- 10/15 Judge poster sessions at the 8th International Congress of Familial Mediterranean Fever and Systemic Autoinflammatory Diseases (ISSAID), "Autoinflammatory Bone Disease", Dresden, Germany
- 11/15 Poster tour guide for the Pediatric Resident's Program for the **American College of Rheumatology Annual Scientific Meeting,** San Francisco, CA
- 11/15 10/16: American College of Rheumatology Abstract Oversight Committee.
- 03/16 National Institutes of Arthritis and Musculoskeletal and Skin Diseases (NIAMS/NIH), Rheumatic Disease Core Center (P30) Review Panel
- 07/16 Arthritis United Kingdom, **CRMO Bayesian Prior Elicitation Meeting, London, UK**, role = consultant paediatric rheumatologist/CRMO expert
- 09/16 12/17 American Board of Pediatrics, subspecialty content development
- 11/16 10/18: American College of Rheumatology Committee on Nominations and Appointments (for 2 year term) The charge is to vet and nominate candidates for leadership positions in the ACR. Also makes recommendations to the ACR BOD regarding applications for membership, the ACR Awards of Distinction, and other ACR awards.
- 03/17 NIH/NIAMS P50 Centers of Research Translation, ad hoc
- 04/17 NIH/NIAMS Board of Scientific Counselors, ad hoc consultant
- 06/17 NIH/NIAID Board of Scientific Counselors, ad hoc consultant

- 11/17 American College of Rheumatology JIA Treatment Guideline Development Group (voting member), San Diego, CA
- 01/18 pres: **American Board of Pediatrics**, Pediatric Rheumatology Subboard Member (5 yr term: 01/01/18 12/31/23). **Subboard Chair** 01/21 12/22
- 03/18 02/20: Arthritis Foundation Medical & Scientific Advisory Committee
- 2017 2022: NIH/NIAID Board of Scientific Counselors, standing member, 5 year term. Review intramural research program at NIH/NIAID 2.5 days/meeting twice per year. Named BSC Co-Chair December 2019-present.
- 03/19 pres: Association of Rheumatology Professionals (affiliate of the ACR), Membership and Nominations Committee
- 05/19 NIH/NIAMS Core Centers for Clinical Research (CCCR, P30) grant review
- 08/19 American College of Rheumatology PRSYM 2020 Abstract Reviewer Genetics and Pathogenesis category
- 11/19 Poster tour guide for the Pediatric Resident's Program for the **American College of Rheumatology Annual Scientific Meeting,** Atlanta, GA
- 12/19 NIH/NIAMS Rare Disease SBIR Grant Review Meeting
- 04/20 Novartis Pharma Consultant for consideration of clinical trial
- 04/20 NIH/NIAMS Board of Scientific Counselors. ad hoc consultant
- 05/20 NIH Board of Scientific Counselors Annual Chairs Meeting
- 11/20 NIH/NICHD Pediatric K12 Program Review Meeting
- 02/21 **NIH/NIAMS** Core Centers for Clinical Research (CCCR, P30)
- 04/21 NIH/NIAMS Board of Scientific Counselors, ad hoc
- 05/21 NIH Board of Scientific Counselors Annual Chairs Meeting
- 03/22 American College of Rheumatology Vaccine Guideline Development (voting member, virtual meeting)
- 05/22 American Board of Pediatrics Subboard Chairs Committee Meeting

- 05/22 NIH Board of Scientific Counselors Annual Chairs Meeting (representing NIAID BSC)
- 11/22 American College of Rheumatology 2022 Annual Meeting: Abstract Review Committee (Innate Immunity Category) and Moderator ACR session on Classification Criteria for CRMO/CNO Nov 2022.
- 03/23 NIH NIAMS Rheumatic Disease Research Resource-based Centers (P30) Grant Review Committee
- 06/23 American College of Rheumatology 2023 Annual Meeting: Abstract Review Committee (Innate Immunity Category)
- 06/23 NIH/NIAMS Board of Scientific Counselors, standing member (3 yr term)
- 08/23 NIH/NIEHS Board of Scientific Counselors, ad hoc
- 2023 Planning committee NIH/NICHD funded CHRCDA Annual Scholars Meeting (co-host with Drs. Gabriel Haddad, Victor Nizet and Alex Bassuk), La Jolla, CA