

Division of Immunology - Research Projects -

January 31st, 2024

Aleksander Lenert, M.D. M.S. FRCPC

Clinical Associate Professor

Division of Immunology-Allergy & Rheumatology

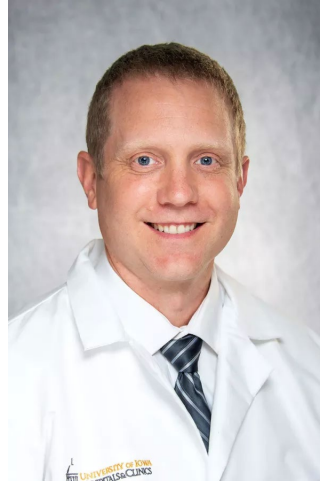
Dept. of Internal Medicine

University of Iowa

ALLERGY & IMMUNOLOGY



Zuhair K. Ballas MD



Benjamin P. Davis MD, PhD



Amy M. Dowden MD

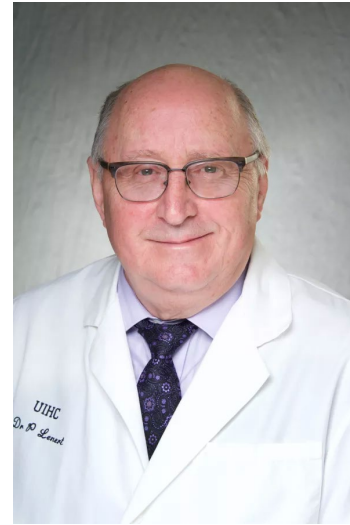
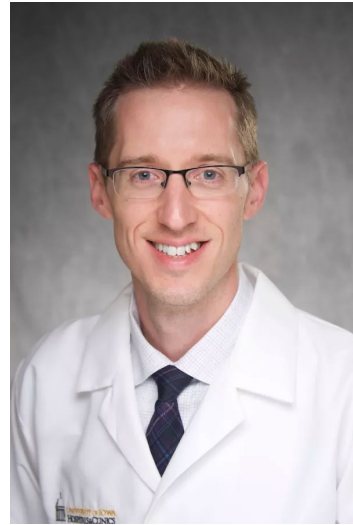
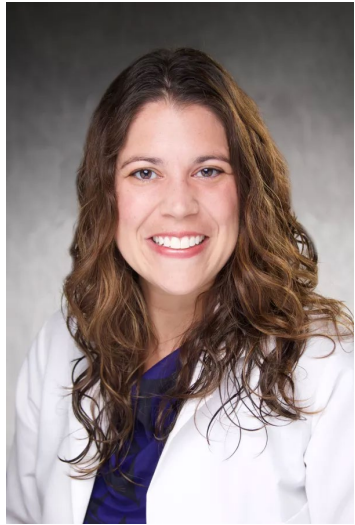


Bharat Kumar* MD, MME, FACP, RhMSUS



Jeffrey Zavala MD

RHEUMATOLOGY

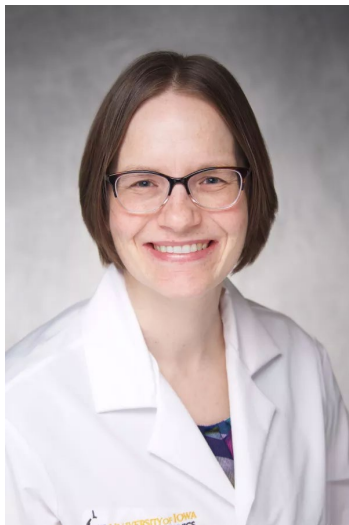


Brittany Bettendorf MD

Aleksander Lenert MD, MS

Petar Lenert MD, PhD

Craig Morita MD, PhD



Jennifer Strouse MD



Rebecca Tuetken MD, PhD



Hanna Zembrzuska MD, MME

Research Topics in Immunology

- Adult-Onset Still's Disease, Autoinflammatory diseases and Periodic Fever Syndromes
- Clinical trials
- Drug allergy
- Eosinophilic Esophagitis (EoE)
- Hemophagocytic lymphohistiocytosis (HLH/MAS)
- Immunodeficiency
- Immunotherapy related rheumatic adverse effects
- Reproductive health in rheumatic diseases
- Qualitative research
- Qualitative improvement
- SAPHO syndrome, chronic nonbacterial osteomyelitis and chronic recurrent multifocal osteomyelitis

Let the Program Evaluation Committee SOAR: Applying the Strengths, Opportunities, Aspirations, and Results (SOAR) Framework for Program Evaluation

Bharat Kumar¹, Alick Feng¹, Gatr-Alnada Gheriani², Ayesha Iftexhar¹, Ruoning Ni¹, Shadeh Ghaffari-Rafi³, Svjetlana Dolovcak², Patricia Bruffey Thoene¹, Aaron Knaack¹, Melissa L Swee⁴, Benjamin Davis¹, Manish Suneja⁵

ACG CASE REPORTS JOURNAL



CASE REPORT | ESOPHAGUS

Refractory Pediatric Fibrostenotic Eosinophilic Esophagitis Treated With Dupilumab

Gopinathan Gangadharan Nambiar, MD^{1,2}, Riad Rahhal, MD, MS¹, Benjamin P. Davis, MD, PhD³, Yiqin Xiong, MD, PhD⁴, and Donna Cheung, MBBS¹

> J Clin Rheumatol. 2022 Mar 1;28(2):62-68. doi: 10.1097/RHU.0000000000001800.

Development of a COVID-19 Vaccine Readiness Kit for Veterans With Rheumatologic Diseases on Immunomodulators: A Quality Improvement Project

Bharat Kumar¹, Benjamin Fick², Lisa Seeman³, Lori Levins³, Benjamin Davis, Melissa L Swee⁴

> J Allergy Clin Immunol Pract. 2022 Jan;10(1):346-348. doi: 10.1016/j.jaip.2021.09.013.

Epub 2021 Sep 16

The journal of allergy and clinical immunology. In practice

Relabeling of penicillin drug allergy after evaluation in a drug allergy clinic

Deanna McDanel¹, Lyvia Hosch², Kassi D Pham², Abbey Schwery², Karlie Seiler², Amy M Dowden³

> EJHaem. 2020 Sep 1;1(2):537-544. doi: 10.1002/jha2.95. eCollection 2020 Nov.

Prevalence and the impact of hypogammaglobulinemia in newly diagnosed chronic lymphocytic lymphoma patients

Namrata Singh^{1,2}, Sarah L Mott², Grek Sutamtewagul^{2,3}, Ashley McCarthy², Susan L Slager⁴, James R Cerhan⁵, Zuhair Ballas^{2,3}, Brian K Link^{2,6}

The Role of Clinical Features and Serum Biomarkers in Identifying Patients with Incomplete Lupus Erythematosus at Higher Risk of Transitioning to Systemic Lupus Erythematosus: Current Perspectives

Erin Sternhagen, Brittany Bettendorf, Aleksander Lenert, Petar S Lenert

Division of Immunology, Department of Internal Medicine, Carver College of Medicine, The University of Iowa, Iowa City, IA, 52242, USA

Correspondence: Petar S Lenert, Clinical Professor of Medicine, C428-2GH, 200 Hawkins Drive, Iowa City, Iowa City, 52242, USA, Email petar-lenert@uiowa.edu

> Autoimmun Rev. 2019 Sep;18(9):102355. doi: 10.1016/j.autrev.2019.102355. Epub 2019 Jul 16.

Interstitial lung disease associated with anti-PM-Scl antibody: A single center experience

Kamonpun Ussavarungsi, Kenneth Nugent, Alicia K Gerke, Matthew D Krasowski, Rebecca S Tuetken, Petar S Lenert

Clinical Rheumatology (2023) 42:2437–2444
<https://doi.org/10.1007/s10067-023-06606-8>

ORIGINAL ARTICLE

Racial/ethnic disparities in the risk of preterm birth among women with systemic lupus erythematosus or rheumatoid arthritis

Jennifer Strouse, Lena Sabih, Gretchen Bandoli, Rebecca Baer, Laura Jelliffe-Pawlowski, Christina Chambers, Kelli Ryckman, Namrata Singh

Dermatomyositis presenting with diffuse calcinosis

Madalyn Walsh, Brittany Bettendorf, Carleigh Zahn

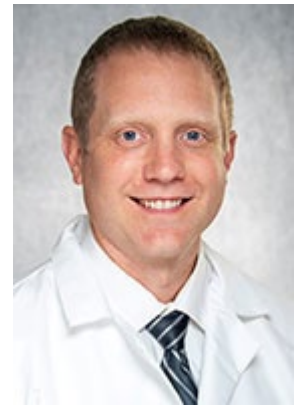
Case Reports > Arthritis Rheumatol. 2022 Mar;74(3):474. doi: 10.1002/art.41956.

Epub 2022 Jan 12.

Clinical Images: Extranodal Natural Killer/T Cell Lymphoma As a Rare Mimicker of Granulomatosis With Polyangiitis

Jennifer Strouse, Anand Rajan, He B Chang, Mohamad D Dimachkie, Christopher Halbur, Brittany Bettendorf

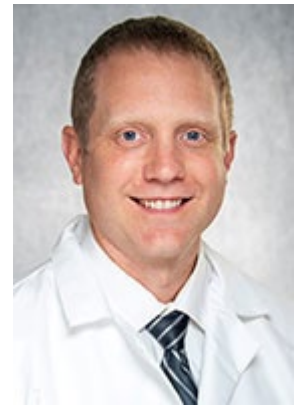
AI: Dr. Ben Davis



Current Projects:

- Prospective analysis of Immunoglobulin and/or scheduled antibiotic therapy effects on chronic rhinosinusitis (CRS) in immunodeficiency
 - Driven by ENT resident, Brady Anderson but looking for AI counterpart
 - Goal is to recruit 25 patients and follow for a year.
 - Prior local study that looked at this was retrospective but done with our group here.
 - Will need help with recruitment and administering SNOT-22 survey.
 - Will analyze snot-22 survey, sinus CT data, and possibly rhinoscope data.
- Eosinophilic Esophagitis (EoE) prevalence based on rural vs urban living
 - Major Duke national study that suggest EoE is rural living associated which goes against the trend for all other atopic disease.
 - Pediatric data suggest the opposite-association with urban living
 - Review of national Epic and VA database

AI: Dr. Ben Davis

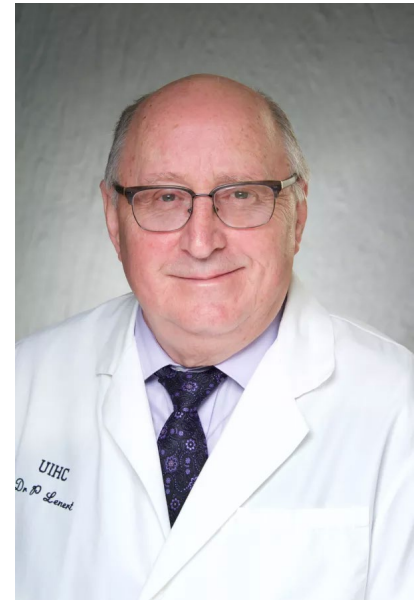


Future / Potential Projects:

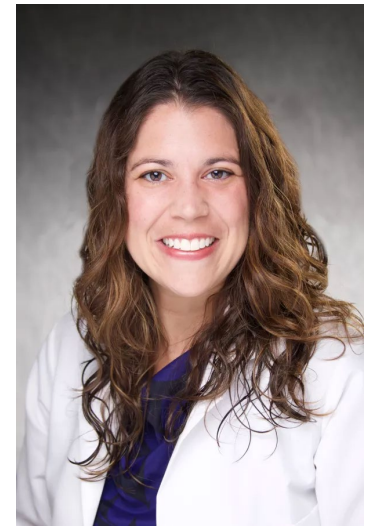
- Eosinophilia with Vedolizumab
 - A case series
 - >12 peds patients treated with Vedolizumab (Entyvio, anti- $\alpha 4\beta 7$ integrin), gut homing molecule expressed on lymphocytes
 - Subsequently developed eosinophilia
- Small intestinal bacterial overgrowth co-association with hives
 - Noticing anecdotal clinical association
 - Chart review (retrospective) for possible association

Rheum: Dr. Petar Lenert

- Clinical outcomes in patients with ANCA-associated vasculitis
- Minocycline induced vasculitis: case-based review
- Clinical significance of reactivity to common motif autoantigen in patients with connective tissue diseases

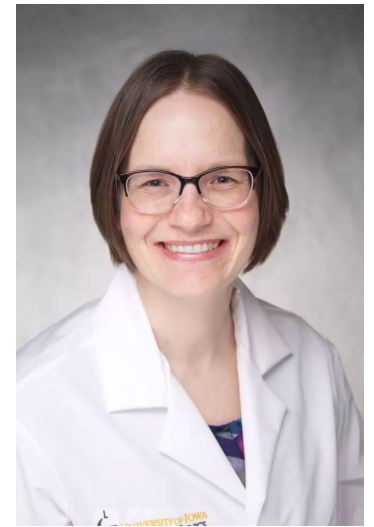


Rheum: Dr. Bettendorf



- Rheumatology
 - Pregnancy and rheumatologic disease (retrospective chart reviews)
 - Transition of pediatric patients to adult rheumatology (retrospective chart reviews)
 - Case Reports and Clinical Images
- Bioethics and Humanities
 - Narrative reflections (example JAMA's Piece of My Mind section)
 - Analysis of creative works pertinent to medicine (example JAMA's The Arts and Medicine section)
 - Opinion editorials: for medical or general audience
- Education
 - Curriculum development and medical education projects

Rheum: Dr. Jenny Strouse



- Immune related adverse events from checkpoint inhibitors
 - Retrospective study
 - Plans for prospective study (in the near future)

Thank You

- Questions?