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RESIDENT  
RESEARCH  
OPPORTUNITIES

DIVISION OF  
IMMUNOLOGY,  
UNIVERSITY OF IOWA

JANUARY 30<sup>TH</sup>, 2026

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# ABOUT US

The Division of Immunology is composed of two halves:

- Rheumatology
- Allergy/Immunology

Trainees of all levels are invited to join us in our mission to uncover the mysteries of the immune system

We accommodate trainee interests in conducting the research that they would like to do

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# HOW WE SUPPORT OUR TRAINEE RESEARCHERS

- We want to engage with resident physicians who wish to make meaning out of their scholarly work
- We routinely apply for grants and awards for our trainees
  - RRF Medical Student Preceptorship
  - RRF Resident Research Awards
- Trainees that lead the research tend to publish in high-impact journals and present at national conferences
- We have our Scholarly Works Appreciation Group (#SWAG)
- These are virtual and in-person meetings to discuss our scholarly projects
  - The aim is to develop actionable skills
  - It's also a support group to promote activity



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# OVERVIEW OF RESEARCH PROJECTS - RHEUMATOLOGY

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# BRITTANY BETTENDORF

## Rheumatology

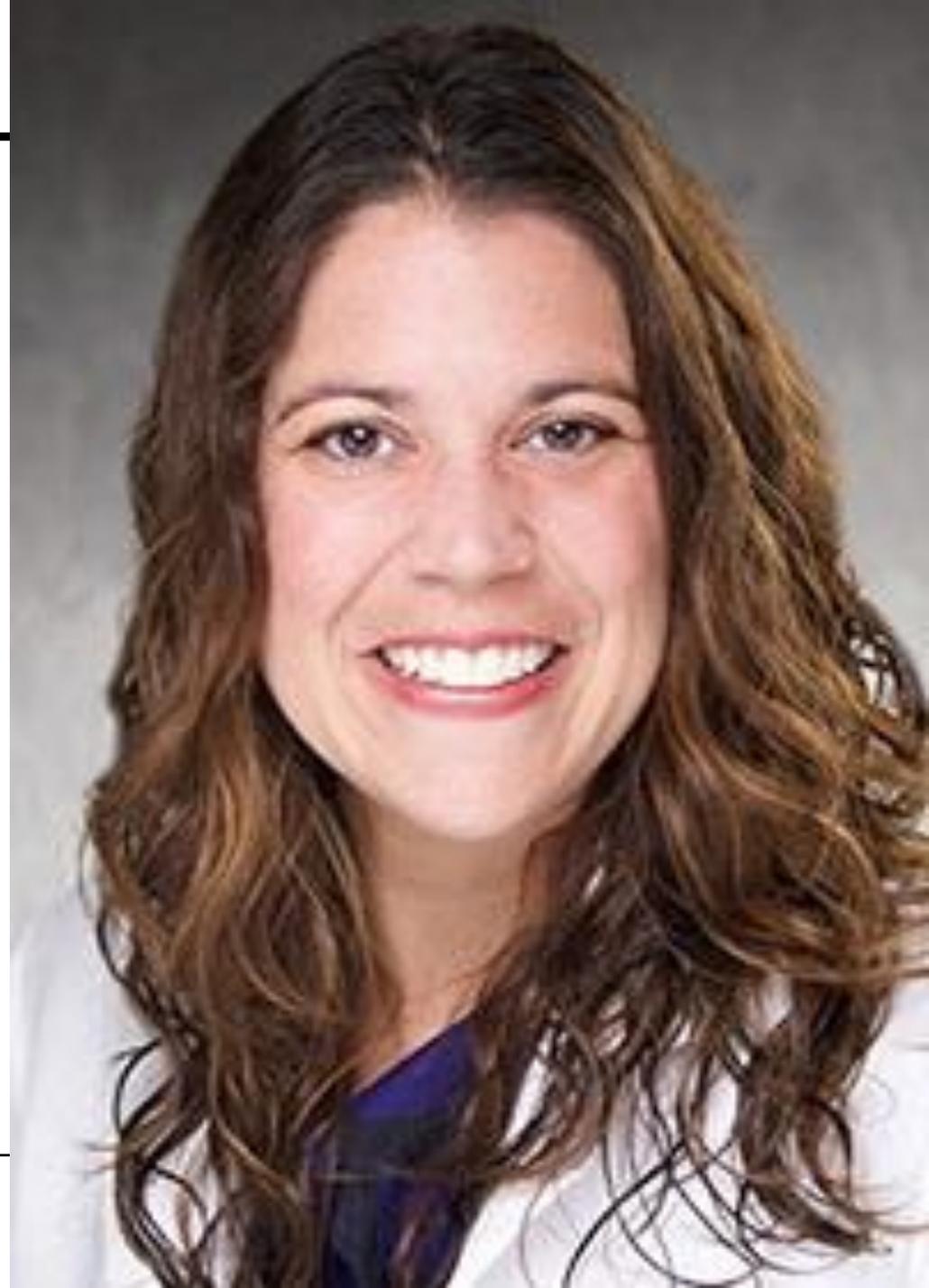
- Pre-PARA (pre-pregnancy antibody risk assessment in autoimmune disease) with Dr. A Lenert- ongoing project
- Transition of pediatric patients to adult rheumatology
  - Does higher transition readiness score correlate to improved patient outcomes? (hospital admissions, lost to follow up, disease flares, cumulative prednisone dose)- Transition readiness questionnaire data

## Bioethics and Humanities

- Narrative reflections such as JAMA Piece of My Mind
- Analysis of a creative work such as JAMA "The Arts and Medicine" section
- Opinion editorials for medical or general audience
- Qualitative analysis of student reflections on ethical principles in healthcare

## Education

- Curriculum development and medical education
  - Rheumatology 101 injection workshop series
  - Interdisciplinary topics (Sharing the Rheum series) with Dr. Strouse



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# BHARAT KUMAR

## Fields of Interest

- Patient Experience (Tobii Eye Glasses)
  - Artificial Intelligence & Large Language Models
  - Medical Education
    - Professional Identity Formation
    - Appreciative Inquiry [AI]
    - Feedback & Evaluation
    - Graded Spaced Repetition
  - Quality Improvement & Implementation Science
    - Use of LLM's to improve care [AI]
    - Lean Six Sigma
    - Human-Centered Design
  - Complex Immune Dysfunction [AI]
  - Novel applications of ultrasonography
  - Rural Health Disparities
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# ALEKSANDER LENERT

Collaborative research projects:

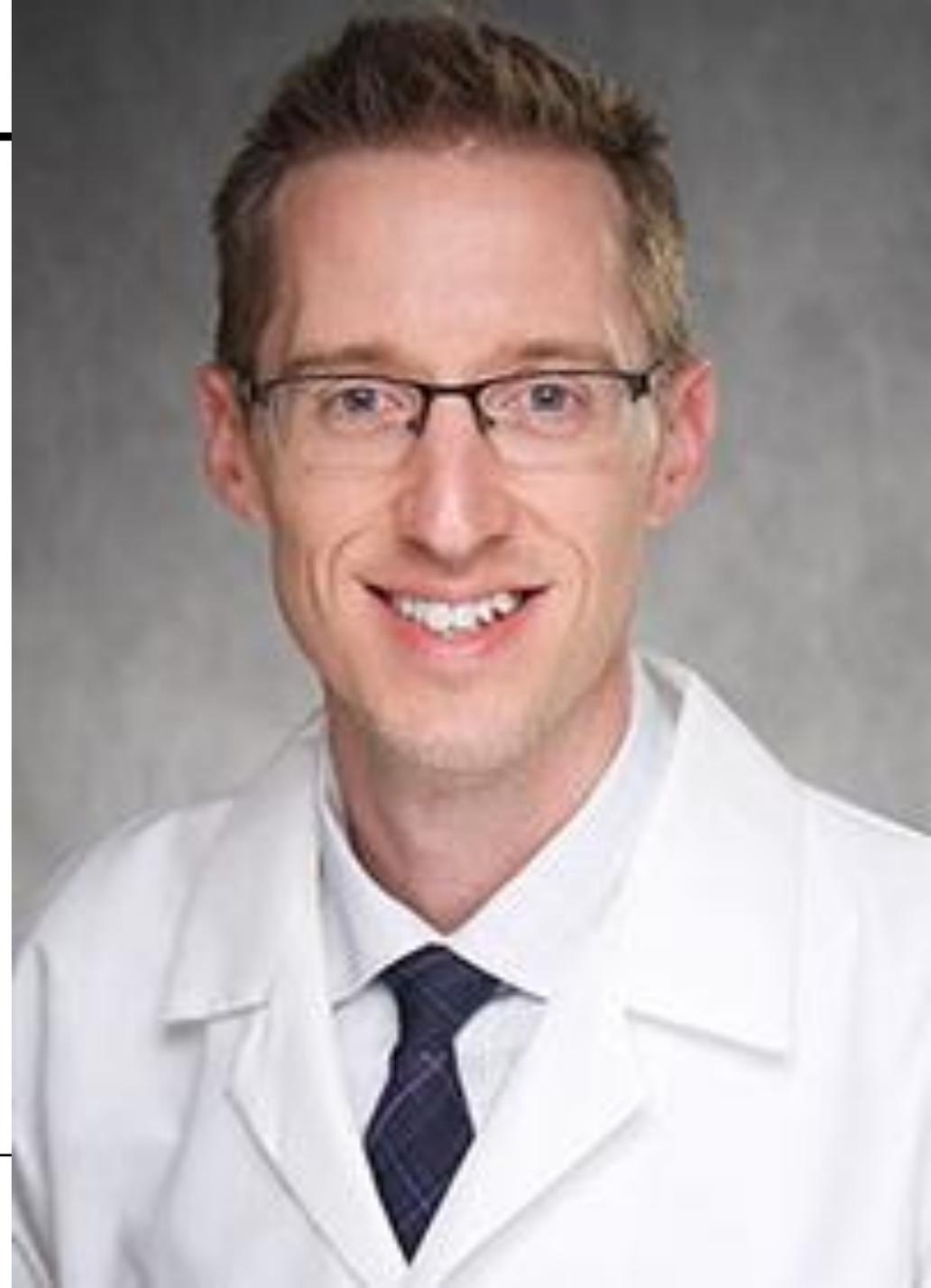
- **Immune-checkpoint inhibitor rheumatic immune-related adverse events** (Jenny Strouse MD)
- **Reproductive health in rheumatic diseases** (Brittany Bettendorf MD / National ReproRheum Lab – Clowse @Duke)
- **Iowa GCA Study** (Lemon Ni MD, Petar Lenert MD PhD, Hanna Zembrzuska MD)
- **Iowa Sjogren's Syndrome clinical research** (Hanna Zembrzuska MD, Samira Malik MD, Scott Lieberman, MD PhD)

Autoinflammatory disease/syndrome cohorts

- Retrospective / EMR based research

**SAPHO/CNO/CRMO research** (The SAPHO-CNO Study)

- Prospective longitudinal observational study (PLOS)
- Primary data collection with consent, study maintenance, multicenter, regulatory



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# SAMIRA MALIK

## **Research Interests- Samira and Hanna**

Initiating the *Adult Sjögren's Registry of Iowa* to support longitudinal data collection and improve understanding of disease progression and outcomes.

Actively involved in ongoing clinical trials focused on Sjögren's syndrome, with an emphasis on emerging therapies and patient-centered outcomes.

## **Clinical Interests**

Developing expertise in *salivary gland ultrasonography* for enhanced diagnostic evaluation and disease monitoring in Sjögren's syndrome in collaboration with Dr. Kumar

Collaborating with Pulmonology in a multidisciplinary *CTD-ILD clinic* to provide comprehensive care for patients with connective tissue disease-associated interstitial lung disease.

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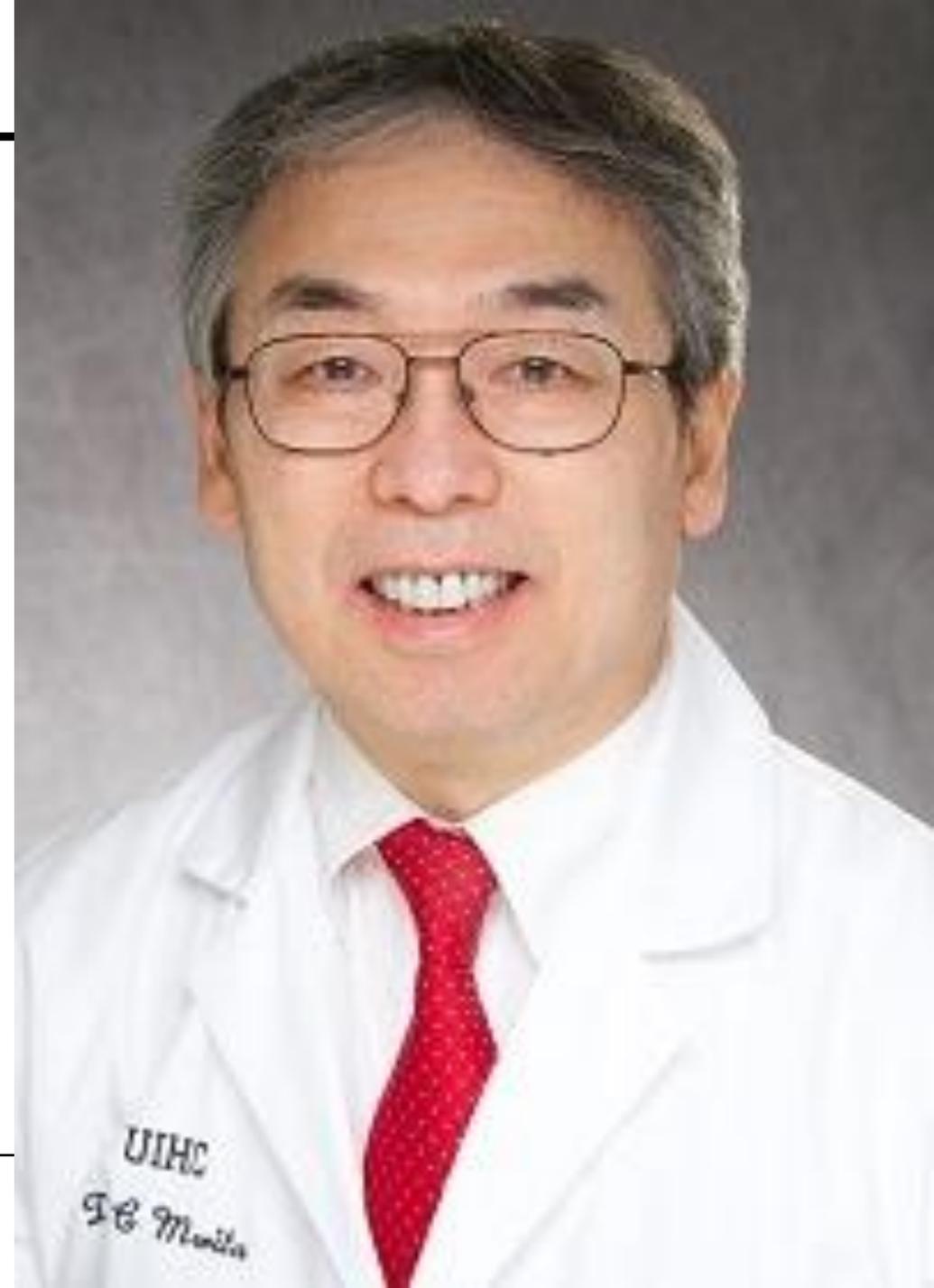
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# CRAIG MORITA

Gamma-Delta T-cells

Bi-Specific Antibodies for Cancer Immunotherapy

Example: Rheumatology Research Foundation Ephraim P. Engelman Award – it's waiting for resubmission



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# LEMON NI

New faculty with new opportunities

Iowa GCA Project

Scoping Review on Cognitive Decline in GCA

Vascular Ultrasound

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# GULSEN OZEN

**Research and clinical interest:** Systemic sclerosis and its mimics

**Iowa SSc cohort** of ~ 800 patients with rich longitudinal data from TriNetX

- Outcomes research including survival, healthcare utilizations, tx response, organ manifestations and progression rates

**SSc-cancer intersection-** linking Iowa SSc data to Iowa Cancer Registry with extensive cancer histology, stage, anatomic site and tx data

- Unique opportunity to assess cancer-associated SSc
- Phenotype and outcomes of SSc based on cancer types and its treatment

**Collaborative work:** Data sharing with UPMC scleroderma cohort of ~2000 patients with robust clinical and immunological data (Dr. Robyn Domsic)

- SScENT study- Prospective multi-center SSc environmental interaction study (Iowa is a site). Data is available for Immunology staff and fellows

Future plans: SSc prospective Iowa cohort in progress, VA SSc cohort assessing exposures and SSc susceptibility and expression



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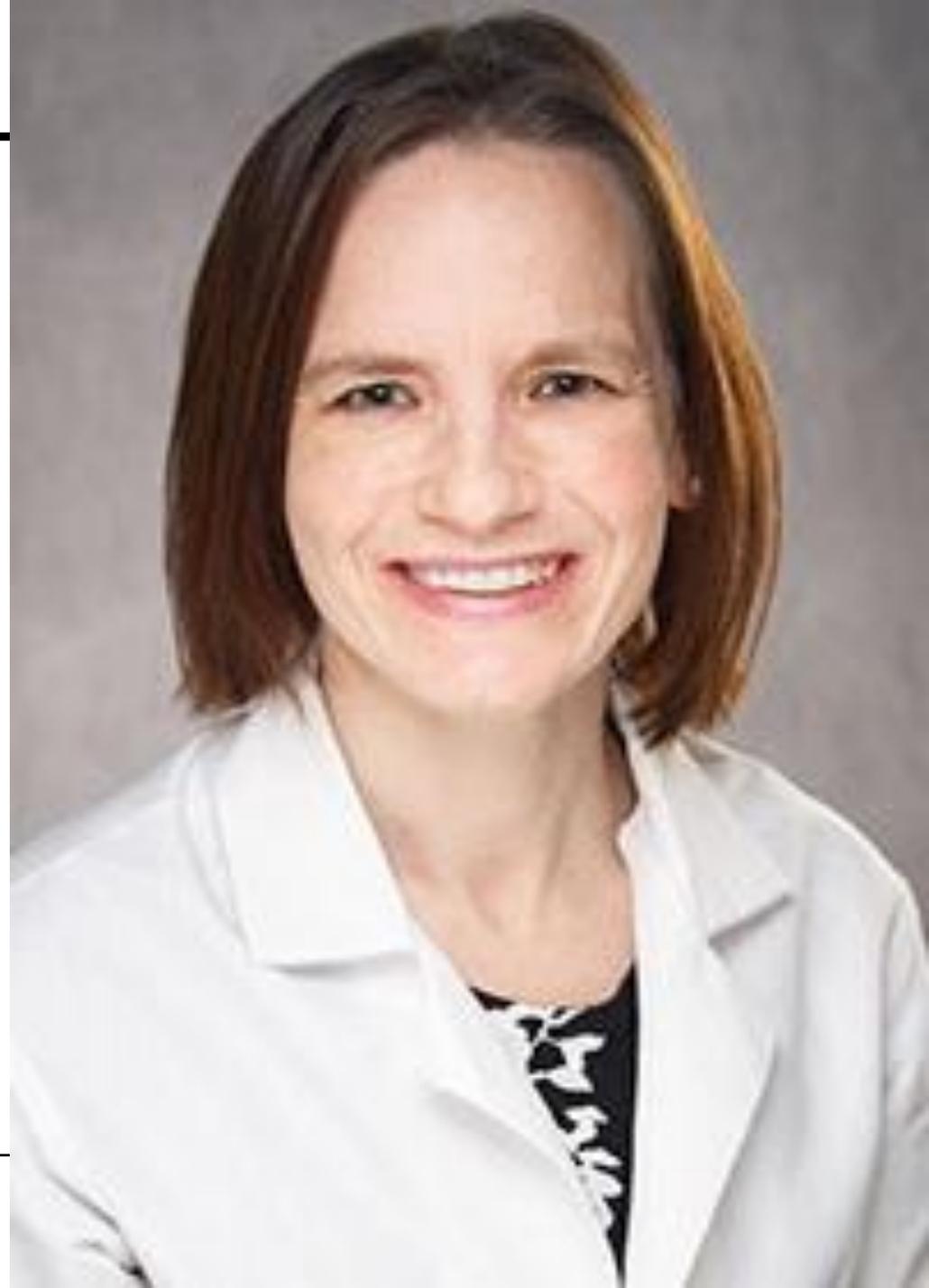
# JENNY STROUSE

## **Medical education**

- Multiple projects with rheumatologists from different institutions
- Anki deck for rheumatology
- Gamification
- Changes to our rheumatology rotation

## **Inflammatory arthritis from checkpoint inhibitors/Cancer and rheumatologic disease**

- Case reports, reviews, survey projects, imaging subcommittee, opportunities as they arise
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# HANNA ZEMBRZUSKA

## **Research Interests-**

Iowa Sjogren's Syndrome clinical research (Hanna Zembrzuska MD, Samira Malik MD, Scott Lieberman, MD PhD)

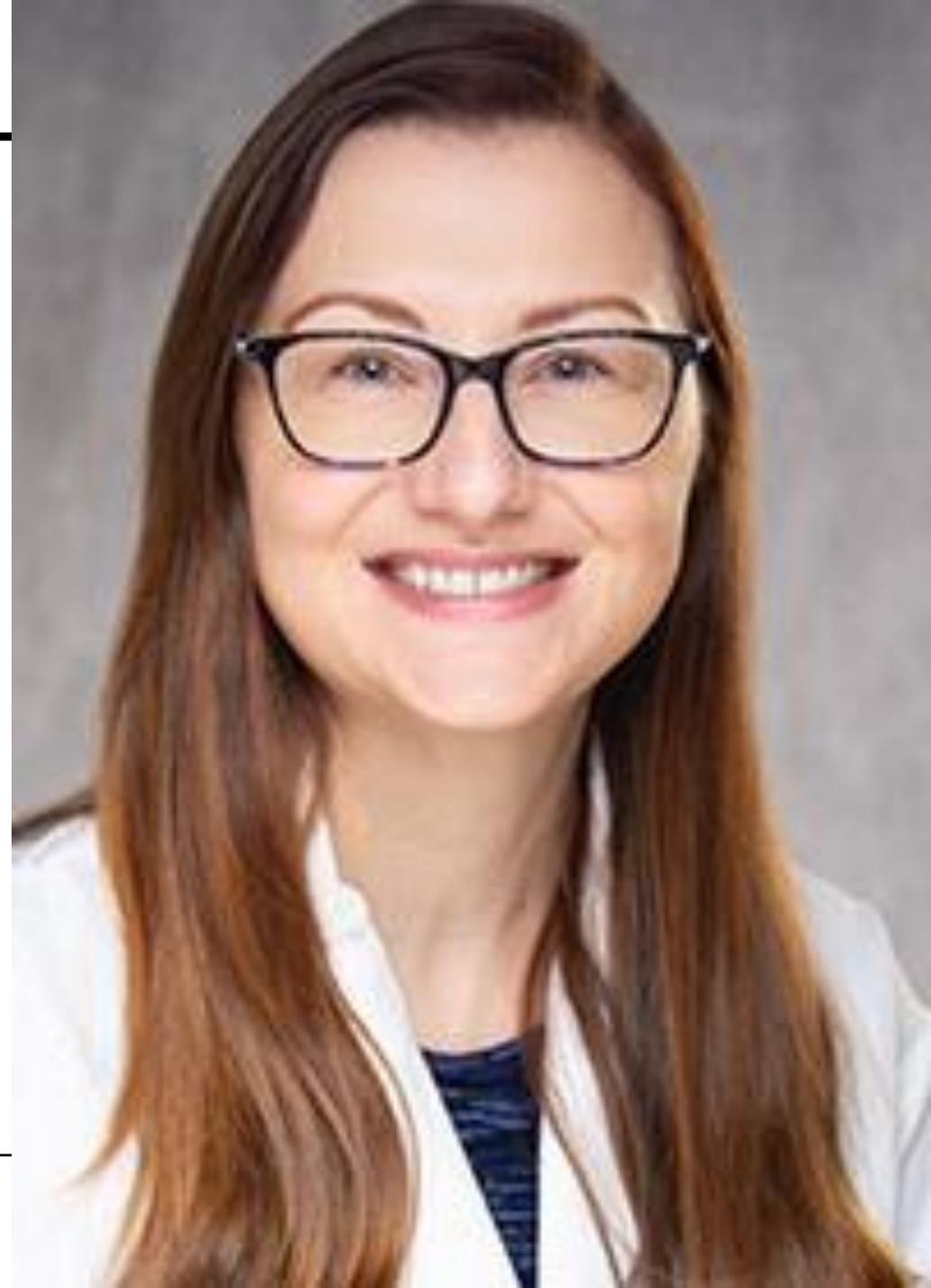
Actively involved in ongoing clinical trials focused on SS, SLE +/-LN, SSc, IIM, and RA

Erosive Hand OA – verifying ICD codes

ADHD and hypermobility

Low-dose Radiation Therapy (LDRT) in Managing Osteoarthritis

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# AMIR ABIDOV

New faculty with new opportunities for research

Medical Education

Complex Immune Dysfunction

Quality Improvement and Systems Redesign

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# AYESHA IFTEKHAR

New faculty with new opportunities for research



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# REBECCA TUETKEN

## Case Reports

Examples: Clinical and laboratory features of patients with focal lymphocytic sialadenitis on minor salivary gland biopsy for sicca symptoms: A single-center experience (Ruth Fernandez-Ruiz)



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# PETAR LENERT

Retiring but ...

Retrospective Studies

Vasculitis

Hypermobility

Example: Eosinophilic granulomatosis with polyangiitis  
and its association with montelukast: a case-based review  
(with Dr. Grace Alexander)

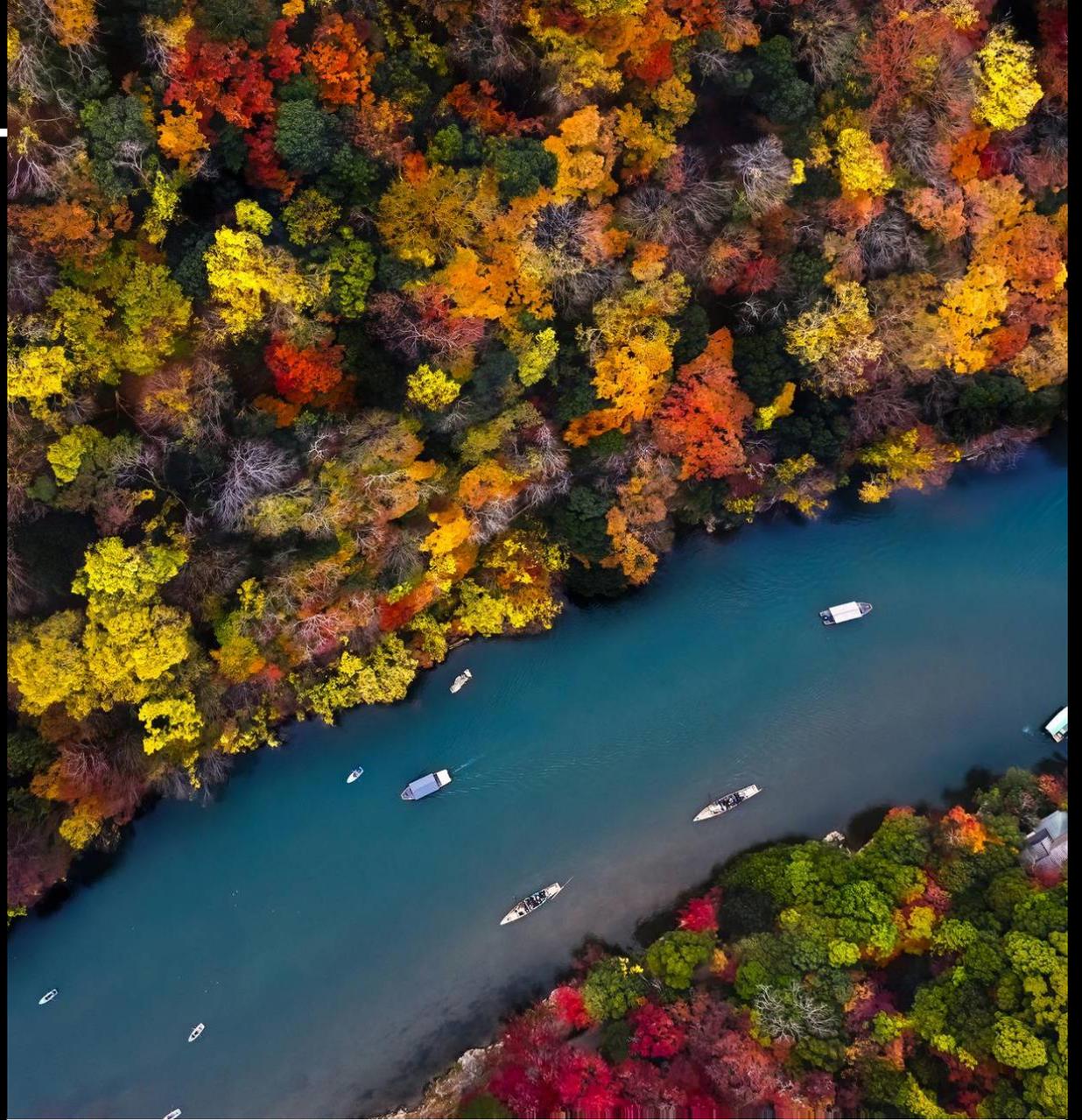
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# ALLERGY/IMMUNOLOGY

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# JEFF ZAVALA

Case Reports



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# AMY DOWDEN

Drug Allergy

Medical Education

Case Reports

Examples: Intraoperative anaphylaxis to bacitracin  
during scleral buckle surgery (Juline Caraballo)



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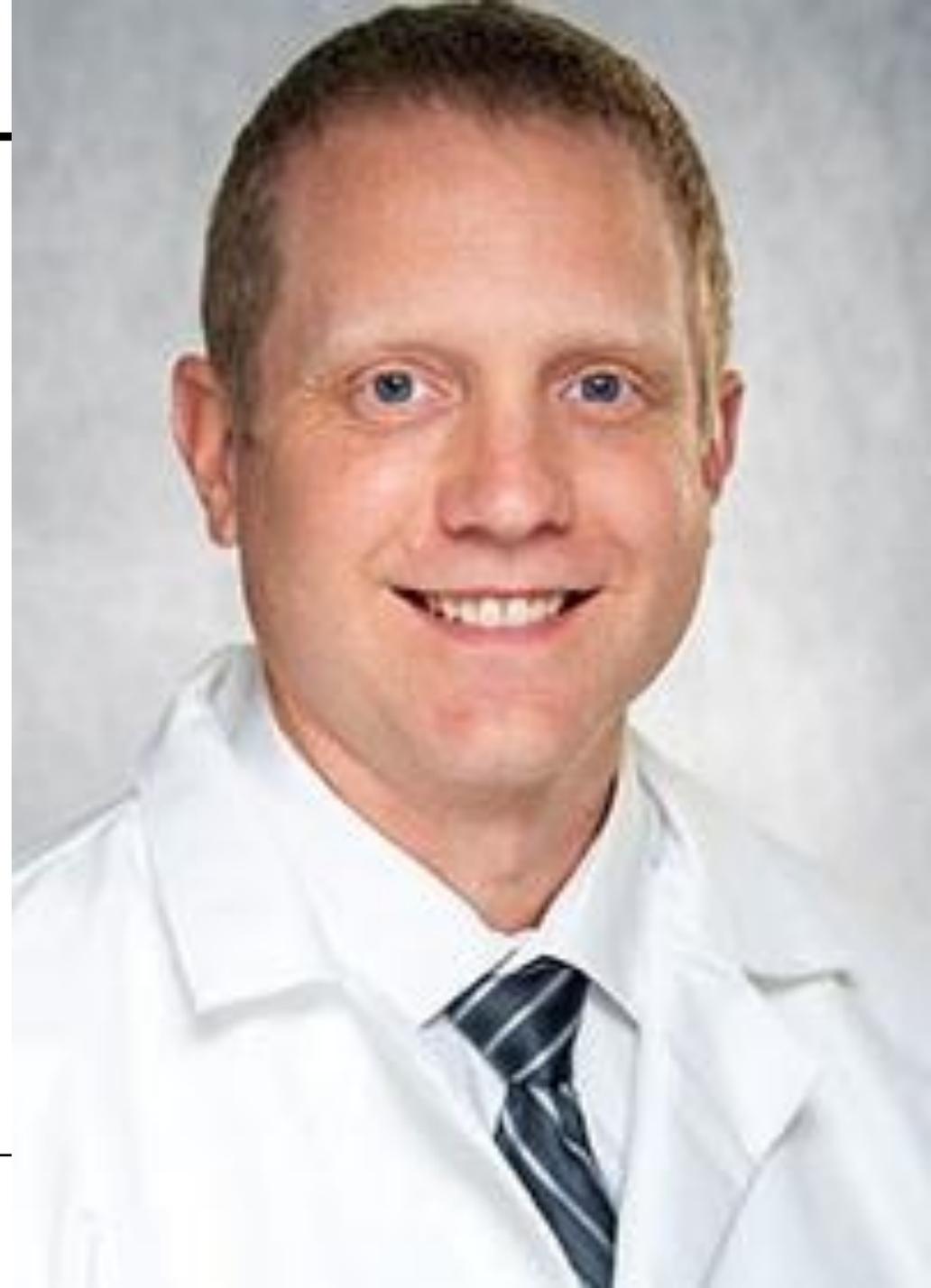
# BEN DAVIS

## Current

- Eosinophilia associated with vedolizumab use for IBD
  - Karl McNamara, Peds Resident
- CSU and IBS/SIBO association
  - Katrina Dolavosky, IM resident
- EoE Rural vs Urban prevalence
  - Amir Abidov, Bharat Kumar

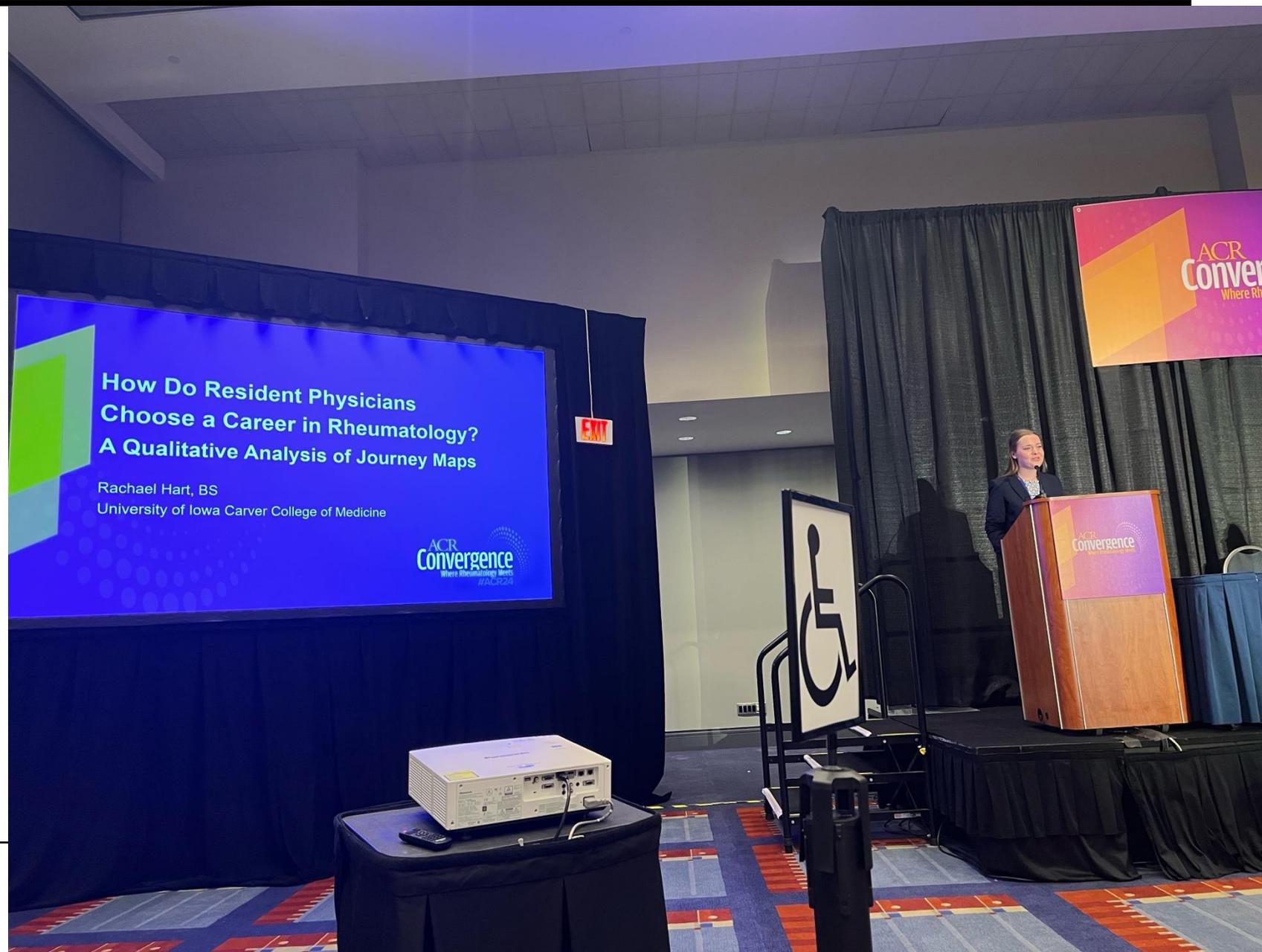
## New ideas

- GLP1 agonist and hives
  - Mulberry anaphylaxis
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# THANK YOU!

- Bharat Kumar
- [Bharat-Kumar@UIowa.edu](mailto:Bharat-Kumar@UIowa.edu)



**VA**U.S. Department of Veterans Affairs  
Veterans Health Administration  
Health Services Research & Development Service**THINK HEALTHCARE  
NEEDS TO BE BETTER?****BE PART OF THE SOLUTION!****EXPLORE A CAREER IN HEALTH SYSTEMS RESEARCH,  
IMPLEMENTATION SCIENCE, OR HEALTHCARE QUALITY IMPROVEMENT**

The Advanced Fellowship in Health Systems Research at Iowa City VA will allow you to build on your current skills and launch you on a successful research career.

**WHO IS ELIGIBLE TO APPLY?**

- PhD or equivalent-trained individuals in fields relevant to healthcare (e.g., economics, statistics, epidemiology, public health, health policy, psychology, anthropology, sociology, communications, and other fields)
- Physicians and dentists who have completed residency training
- Nurses, pharmacists, and clinical psychologists with doctoral training (e.g., PhD in nursing or DNP, PharmD, PhD in clinical psychology)

**APPLICATIONS**

- MD Candidates: We are accepting applications at any time
- All other Candidates: We are accepting applications through January 15th each year. Thereafter, applicants will be considered on a case-by-case basis provided there are openings
- Include a CV, two letters of recommendation, and a personal statement of 600 words or less

**BENEFITS OF BEING A FELLOW:**

- Two-year, post-doctoral research fellowship with interdisciplinary training in advanced methods in health services research, implementation and system science, and healthcare informatics
- Mentored research experience in the national VA healthcare system
- Optional, specialized pathway in Rural Healthcare Policy and Delivery Systems
- Networking and collaboration in the national VA Health Systems Research (HSR) and academic health services research communities

**Direct questions or applications to:**→ [iowahrsfellowship@va.gov](mailto:iowahrsfellowship@va.gov)**cadre**


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# VA Office of Academic Affiliations (OAA) Advanced Fellowship in Health Systems Research

**Co-Directors:****Michelle Mengeling, PhD****Bharat Kumar, MD****Project Coordinator: Jessie Trepanier**


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# **Fellowship Details**

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## **Structure:**

- 2-year postdoctoral fellowship
- 80% research / 20% clinical care or health care system improvement for non-clinicians
- Support from a primary mentor, career guidance committee, co-directors
- Individual Development Plan & Career Development
- AcademyHealth serves as the VA HSR&D Advanced Fellowship Program Coordinating Center

## **Eligibility:**

- Physicians
- Associated health or nursing professionals
- Those with a PhD or equivalent in health services research, public health, the social sciences, statistics, anthropology, or related fields
- Must be a U.S. Citizen

## **Application and Information:**

- Ongoing recruitment
  - Typical start date(s) are between July 1 and October 1
  - Website: [https://www.cadre.research.va.gov/VA\\_Advanced\\_Fellowship.asp](https://www.cadre.research.va.gov/VA_Advanced_Fellowship.asp)
  - Fellowship Contact: [iowahsrfellowship@va.gov](mailto:iowahsrfellowship@va.gov)
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# VA OAA HSR FELLOWSHIP

Department of Veterans Affairs Office of Academic Affiliations Health Systems Research Fellowship

## YEAR IN REVIEW

June 2024



**MATT SMITH**  
2022-2024

### RESEARCH INTERESTS

- Infectious Diseases
- Epidemiology
- Healthcare Sustainability

#### JAMA Commentary Published:

**Smith M**, Singh H, Sherman JD. Infection prevention, planetary health, and single-use plastics. *JAMA*. 2023 Oct 2.



**LEXI PRATT**  
2022-2025

### RESEARCH INTERESTS

- Toxic Exposures
- Women's Health
- Industrial Hygiene

#### Toxic Exposures Publication:

Weaver, F. M., Cao, L., Stroupe, K. T., **Pratt, A.**, Tanner, C. M., & Goldman, S. M. (2024). Disability Claims for Female Veterans Exposed to Contaminated Water at Marine Base Camp Lejeune. *Military Medicine*, usae237.



**AM RACILA**  
2023-2025

### RESEARCH INTERESTS

- Infectious Disease
- LGBTQ Healthcare Delivery

Dr. Racila recently completed a NIH T32 fellowship in Nephrology, during which he collaborated on implementation science research in nephrology, urology, and oncology.

#### National Conference Presentation:

His abstract on the methodological considerations of assessing sexual and gender minorities in health surveys was selected for a podium presentation at AcademyHealth's 2024 Annual meeting.

### SELECTED PUBLICATIONS

**Smith, Matthew**, et al. "Research agenda for transmission prevention within the Veterans Health Administration, 2024–2028." *Infection Control & Hospital Epidemiology* (2024): 1-10.

**Smith, Matthew W.**, et al. "Spatiotemporal distribution of community-acquired phenotypic extended-spectrum beta-lactamase *Escherichia coli* in United States counties, 2010–2019." *Infection Control & Hospital Epidemiology* 45.4 (2024): 540-542.

**Smith, Matthew W.**, et al. "Single-Use vs Reusable Duodenoscopes: How Infection Knowledge Gaps Are Driving Environmental Harm and What Can Be Done." *Gastroenterology* (2024).

**Pratt, Alessandra A.**, et al. "Comparison of virus aerosol concentrations across a face shield worn on a healthcare personnel during a simulated patient cough." *Infection Control & Hospital Epidemiology* 45.2 (2023): 221-226.

**Pratt, Alessandra A.**, et al. "Incidence and risk factors for postpartum mood and anxiety disorders among women veterans." *General hospital psychiatry* 84 (2023): 112-124.

**Pratt, Alessandra A.**, et al. "The Impact of Comorbid Chronic Pain on Pharmacotherapy for Veterans with Post-Traumatic Stress Disorder." *Journal of clinical medicine* 12.14 (2023): 4763.

Dukes KC, Sherlock SH, **Racila AM**, Herwaldt LA, Jacob J, Vijayan A, Kellogg J, Pegues D, Tolomeo PC, Cobb J, Fraer M. Implementing nasal povidone-iodine decolonization to reduce infections in hemodialysis units: a qualitative assessment. *Infection Control & Hospital Epidemiology*. 2024 May 23:1-6.

# 13+ Publications

# 7+ CADRE Mentors

# 5+ Presentations

This OAA HSR fellowship is located at the Iowa City VA Health Care System as part of the Center for Access & Delivery Research and Evaluation (CADRE)

<https://www.cadre.research.va.gov/>

**cadre**

