



# JBC Monthly Newsletter

March 2020

## JBC Updates

- The JBC is now in **year 4**, with the underlying P30 AR070253 award ending 7/31/21. NIAMS has indicated that they intend to accept new P30 applications this October, and we are planning to re-apply. In this context, please send us any suggestions you have for ways we could improve JBC services or otherwise make an optimally compelling proposal ([JBC@bwh.harvard.edu](mailto:JBC@bwh.harvard.edu)). Similarly, please cite the JBC where you can, in your papers, talks, and other venues, to give us the best shot at being able to continue providing services to researchers in rheumatology.
- New service – Dr. Miriam Shelef (Wisconsin) has suggested that we use part of the JBC Newsletter to post open positions. We have begun such a section at the end of this newsletter. Please send any announcements (brief please – 1-2 lines of text, plus contact information) to [JBC@bwh.harvard.edu](mailto:JBC@bwh.harvard.edu).
- **Next JBC Synergy Meeting** will be on March 20<sup>th</sup>, 12:30-1:30 p.m. (Hale VTC 02006B (60 Fenwood Rd) 2<sup>nd</sup> Floor).
 

Talk 1: Seoyoung Kim, MD, Sc.D “Overview of Program in Rheumatologic, Immunologic, and Musculoskeletal pharmacoEpidemiology (PRIME)”.

Talk 2: Jeffrey N. Katz, MD, MSc “Clinical research on osteoarthritis, meniscal tear and structural progression”.
- **Next Aims Review Committee Meeting** will be held on April 2<sup>nd</sup>.
- We are delighted to announce the **9 JBC Microgrant awardees** for the February 2020 cycle:
  - Melissa Bedard, Ph.D., BWH (Moody lab), Transcriptomic analysis of M1 and M2 macrophages treated with an Mtb-derived lysosomotropic drug
  - Jia Chen, Ph.D., BWH (Gravallese lab), Interrogating cellular heterogeneity and the role of innate immune sensor AIM2 in bone formation using single-cell approaches

### The JBC Team:

Peter Nigrovic, M.D.  
Director (BWH & BCH)

### Human Biosamples Core:

- Elizabeth Karlson, M.D.  
Director
- Jeffrey Sparks, M.D., M.M.Sc.  
Associate Director BWH
- Lauren Henderson, M.D., M.M.Sc.  
Associate Director BCH

### Cellular Systems Core:

- Jim Lederer, Ph.D.  
Director
- Peter Nigrovic, M.D.  
Associate Director
- Kevin Wei, M.D., Ph.D.  
Associate Director

- Emma Haley, BWH (Ermann lab), RNA-seq analysis of immune cells from mouse strains with differential susceptibility to IL-23 minicircle induced arthritis
- Zhengping Huang, MD, BWH (Nigrovic lab), The mechanism of enhanced monocyte development in systemic JIA
- Sara Moore, University of Toledo (Ferreira lab) Characterization of properdin, a positive regulator of the alternative pathway of complement, in synovial fluid and serum from patients with rheumatoid arthritis
- Alisa Mueller, MD, Ph.D., BWH (Brenner lab), Identification of a Wnt Transcriptional Signature in Synovial Fibroblasts
- Felix Radtke, BWH (Nigrovic lab), Defining the surfaceome of murine neutrophils by CITE-seq
- Sara Suliman, Ph.D., MPH, BWH (Moody lab), Pilot study to identify peripheral blood myeloid clusters using CITE-seq
- Vanessa Wacleche, Ph.D., BWH (Rao lab), Discovering the Transcriptional Regulators of Tph Cells in the Context of SLE

## JBC Member News

### AWARDS AND GRANTS

**Dr. Pui Lee** has been awarded a 2020 ASCI Young Physician-Scientist Award, to be presented at the American Society for Clinical Investigation meeting in Chicago this April (nominator: **Peter Nigrovic**).

**Dr. Roxane Darbousset** (Nigrovic lab) has been accepted into the mentoring program of the Scleroderma Foundation and has been invited to present at the Foundation's Early Career Investigator Workshop in Seattle this July.

**Felix Radtke** (Nigrovic lab) has been awarded a Boehringer Ingelheim Fonds MD Fellowship.

### PUBLICATIONS

Kronzer VL, Wang L, Liu H, Davis JM III, **Sparks JA**, Crowson CS. Investigating the impact of disease and health record duration on the eMERGE algorithm for rheumatoid arthritis. *J Am Med Inform Assoc.* 2020 (In Press).

**Prisco LC\***, **Martin LW\***, **Sparks JA**. Inhalants other than personal cigarette smoking and risk for developing rheumatoid arthritis. *Curr Opin Rheumatol.* 2020 (In Press). \*Contributed equally.

Chu SH, **Cui J**, **Sparks JA**, **Lu B**, **Tedeschi SK**, Speyer CB, Moss L, Feser ML, Kelmenson LB, Mewshaw EA, Edison JD, Deane KD, Clish C, Lasky-Su J, **Karlson EW**, **Costenbader KH**. Circulating plasma metabolites and risk of rheumatoid arthritis in the Nurses' Health Study. *Rheumatology.* 2020 (In Press).

**Henderson LA**, **Hoyt KJ**, **Lee PY**, **Rao DA**, **Jonsson AH**, **Nguyen JP**, Rutherford K, Case S, **Chang MH**, **Cohen EM**, **Dedeoglu F**, Fuhlbrigge RC, **Halyabar O**, **Hazen MM**, Janssen E, **Kim S**, Lo J, Lo MS, Meidan E, **Son MBF**, **Sundel RP**, Stoll ML, **Nusbaum C**, **Lederer JA**, Chatila TA, **Nigrovic PA**. Th17 reprogramming of T cells in systemic juvenile idiopathic arthritis. *JCI Insight* 2020 [in press].

**Lee PY, Huang Z, Hershfield MS, Nigrovic PA.** Analysis of peripheral blood ADA1 and ADA2 levels in children and adults. *Ann Rheum Dis* 2020 Feb 13 [ePub]

Caetano-Lopes J, Henke K, Urso K, **Duryea J, Charles JF**, Warman ML, **Harris MP.** Unique and non-redundant function of csf1r paralogues in regulation and evolution of post-embryonic development of the zebrafish. *Development*. 2020 Jan 22;147(2). pii: dev181834. doi: 10.1242/dev.181834. PMID: 31932352

Origin and Differentiation of Osteoclasts, Sanjay A and **Charles JF** *Encyclopedia of Bone Biology*, Section Editor Dr. Yousef Abu Amer, Edited by Dr. Mone Zaidi, Elsevier 2019.

Basic Aspects of Osteoclast Function [chapter]. In: *Osteoporosis: Pathophysiology and Clinical Management*, 3rd edition. Alesi N, **Charles JF**, Nakamura MC New York, NY: Springer Science + Business Media, 2020

### **OPEN POSITIONS (NEW FEATURE!)**

The **Nigrovic lab** (Brigham and Women's Hospital) has postdoctoral positions open in the areas of neutrophil and megakaryocyte biology.

The **Shelef lab** (University of Wisconsin - Madison) has postdoctoral positions open in the areas of autoantibodies (multi-disease), rheumatoid arthritis, synovial fibroblasts, and citrullination. Inquiries should be directed to [mshelef@medicine.wisc.edu](mailto:mshelef@medicine.wisc.edu)

The **Department of Medicine at the University of Wisconsin School of Medicine and Public Health** invites applications/nominations for the position of Head of the Division of Rheumatology to lead and expand its research, educational and clinical activities. More information may be found at <https://jobs.hr.wisc.edu/en-us/job/504592/division-head-of-rheumatology>