



JBC Monthly Newsletter

August/September 2024

JBC UPDATES

- The **JBC Synergy Meeting** is returning **in-person** on **September 27th** from **12:30-1:30!** We will be in the **Hale BTM at 60 Fenwood Road in VTC2006b** Our speakers are:
 - **Dr. Yakir Reshef, MD, PhD** “Unbiased case-control analysis of spatially resolved molecular data”
 - **Dr. Susan MacLauchlan, PhD** “Clonal hematopoiesis in cardiovascular disease and autoimmunity”

JBC MEMBER NEWS

- Congratulations to **Dr. Deepak Rao**, who was promoted to Associate Professor of Medicine at Harvard Medical School.
- **Drs. Ellen Gravalles** and **Branch Moody** were elected to the **American Association of Physicians**, an honorary medical society founded in 1885 by the Canadian physician Sir William Osler.
- **Dr. Ellen Gravalles** was awarded the APLAR Master Award 2024 from the Asian Pacific League of Associations for Rheumatology.
- **Dr. Kevin Wei** received his first RO1 grant entitled “A Notch-mediated fibrogenic program drives treatment failure in rheumatoid arthritis”.
- **Dr. Jeffrey Sparks** received an RO1 award from NHLBI entitled “Rheumatoid Arthritis-associated Parenchymal Lung Disease: Clinical and Molecular Phenotypes”.
- **Dr. Jaymin Upadhyay, PhD** (BCH, Anesthesia) and **Dr. Joyce Chang, MD, MSCE** (BCH, Immunology) were awarded an R21 for their project entitled "Biobehavioral Basis and Outcomes of Cognitive Dysfunction in Childhood-Systemic Lupus Erythematosus".
- **Dr. Margaret Chang** received a K supplement grant from the Rheumatology Research Foundation.
- **Maryrose Hahn** received the Rheumatology Research Foundation Student and Resident Research Award.

The JBC Team:

- **Peter Nigrovic, M.D.**
Director (BCH & BWH)
- **Jeffrey Sparks, M.D., M.M.Sc.**
Multi-PI, Associate Director
- **Elizabeth Karlson, M.D., M.S.**
Associate Director

Human Biosamples Core:

- **Jeffrey Sparks, M.D., M.M.Sc.**
Director
- **Lauren Henderson, M.D., M.M.Sc.**
Associate Director BCH
- **Deepak Rao, M.D., Ph.D.**
Associate Director

Cellular Systems Core:

- **Jim Lederer, Ph.D.**
Director
- **Kevin Wei, M.D., Ph.D.**
Associate Director
- **Maria Gutierrez-Arcelus, Ph.D.**
Associate Director

JBC MEMBER PUBLICATIONS

- Law C, Wacleche VS, Cao Y, Pillai A, Sowerby J, Hancock B, Horisberger A, Bracero S, Skidanova V, Li Z, Adejorin I, Dillon E, Benque IJ, Nunez DP, Simmons DP, Keegan J, Chen L, Baker T, Brohawn PZ, Al-Mossawi H, Hao LY, Jones B, Rao N, Qu Y, Alves SE; Accelerating Medicines Partnership: RA/SLE Network; Jonsson AH, Shaw KS, Vleugels RA, **Massarotti E, Costenbader KH, Brenner MB, Lederer JA**, Hultquist JF, Choi J, **Rao DA**. Interferon subverts an AHR-JUN axis to promote CXCL13+ T cells in lupus. *Nature*. 2024 Jul;631(8022):857-866. doi: 10.1038/s41586-024-07627-2. Epub 2024 Jul 10. Erratum in: *Nature*. 2024 Jul 26. doi: 10.1038/s41586-024-07845-8. PMID: 38987586.
- de Wit M, Aouad K, Elhai M, Benavent D, Bertheussen H, Blackburn S, Böhm P, Duarte C, Falahee M, Karlfeldt S, Kiltz U, Mateus EF, Richards DP, Rodríguez-Carrío J, Sagen J, Shumnalieva R, Stones SR, **Tas SW**, Tillett W, Vieira A, Wilhelmer TC, Zabalán C, Primdahl J, Studenic P, Gossec L. EULAR recommendations for the involvement of patient research partners in rheumatology research: 2023 update. *Ann Rheum Dis*. 2024 Jun 14;ard-2024-225566. doi: 10.1136/ard-2024-225566. Epub ahead of print. PMID: 38876509.
- **Correia Marques M**, Rubin D, Shuldiner EG, Datta M, Schmitz E, Gutierrez Cruz G, Patt A, Bennett E, Grom A, Foell D, Gattorno M, Bohnsack J, Yeung RSM, Prahald S, Mellins E, Anton J, Len CA, Oliveira S, Woo P, Ozen S; INCHARGE Consortium; Deng Z, Ombrello MJ. Enrichment of Rare Variants of Hemophagocytic Lymphohistiocytosis Genes in Systemic Juvenile Idiopathic Arthritis. *Arthritis Rheumatol*. 2024 Jun 27. doi: 10.1002/art.42938. Epub ahead of print. PMID: 38937141.
- **McDermott G**, Hayashi K, **Juge PA**, Gill R, Byrne S, Gagne S, Wang X, Paudel ML, Moll M, Cho MH, Vanni K, Kowalski E, Qian G, Bade K, Saavedra A, Kawano Y, DiIorio M, Wolfgang T, **Kim E, Dellaripa PF, Weinblatt ME, Shadick NA, Doyle TJ, Sparks JA**. Impact of sex, serostatus, and smoking on risk for rheumatoid arthritis-associated interstitial lung disease subtypes. *Arthritis Care Res*. 2024 (In Press).
- Bade KJ, Mueller KT, **Sparks JA**. Air pollution and rheumatoid arthritis risk and progression: Implications for the mucosal origins hypothesis and climate change for RA pathogenesis. *Curr Rheumatol Rep*. 2024;26(10):343-53.
- **Wang Q, Kim T, Martínez-Bonet M, Sim S, Aguiar V, Cui J, Sparks JA**, Chen X, Todd M, Wauford B, Weirauch MT, **Gutierrez-Arcelus M, Nigrovic PA**. High-throughput identification of functional regulatory SNPs in systemic lupus erythematosus. *Nat Commun*. 2024 Aug 9;15(1):6804.
- Tamura TJ, Choudhary MC, Deo R, Yousuf F, Gomez AN, Edelstein GE, Boucau J, Glover OT, Barry M, Gilbert RF, Reynolds Z, Li Y, Tien D, Vyas TD, Passell E, Su K, Drapkin S, Kawano Y, **Sparks JA, Wallace ZS**, Shafer RW, Siedner MJ, Barczak AK, Lemieux JE, Li JZ. Emerging SARS-CoV-2 resistance after antiviral treatment. *JAMA Netw Open*. 2024 (In Press).
- Johnson SR, Bernstein EJ, Bolster MB, Chung JH, Danoff SK, George MD, Khanna D, Guyatt G, Mirza RD, Aggarwal R, Allen A Jr, Assassi S, Buckley L, Chami HA, Corwin DS, **Dellaripa PF, Domsic RT, Doyle TJ**, Falardeau CM, Frech TM, Gibbons FK, Hinchcliff M, Johnson C, Kanne JP, Kim JS, Lim SY, Matson S, McMahan ZH, Merck SJ, Nesbitt K, Scholand MB, Shapiro L, Sharkey CD, Summer R, Varga J, Warriar A, Agarwal SK, Antin-Ozerkis D, Bemiss B, Chowdhary V, Dematte D'Amico JE, Hallowell R, Hinze AM, Injean PA, Jiwrajka N, **Joerns EK**, Lee JS, Makol A, **McDermott GC**, Natalini JG, Oldham JM, Saygin D, Lakin KS, Singh N, Solomon JJ, **Sparks JA**, Turgunbaev M, Vaseer S, Turner A, Uhl S, Ivlev I. 2023 American College of Rheumatology (ACR)/American College of Chest Physicians (CHEST) guideline for the screening and monitoring of interstitial lung disease in people with systemic autoimmune rheumatic diseases. *Arthritis Rheumatol*. 2024;76(8):1201-13; and *Arthritis Care Res*. 2024;76(8):1070-82.

- Johnson SR, Bernstein EJ, **Bolster MB**, Chung JH, Danoff SK, George MD, Khanna D, Guyatt G, Mirza RD, Aggarwal R, Allen A Jr, Assassi S, Buckley L, Chami HA, Corwin DS, **Dellaripa PF**, Domsic RT, **Doyle TJ**, Falardeau CM, Frech TM, Gibbons FK, Hinchcliff M, Johnson C, Kanne JP, Kim JS, Lim SY, Matson S, McMahan ZH, Merck SJ, Nesbitt K, Scholand MB, Shapiro L, Sharkey CD, Summer R, Varga J, Warriar A, Agarwal SK, Antin-Ozerkis D, Bemiss B, Chowdhary V, Dematte D'Amico JE, Hollowell R, Hinze AM, Injean PA, Jiwrarka N, **Joerns EK**, Lee JS, Makol A, **McDermott GC**, Natalini JG, Oldham JM, Saygin D, Lakin KS, Singh N, Solomon JJ, **Sparks JA**, Turgunbaev M, Vaseer S, Turner A, Uhl S, Ivlev I. 2023 American College of Rheumatology (ACR)/American College of Chest Physicians (CHEST) guideline for the treatment of interstitial lung disease in people with systemic autoimmune rheumatic diseases. *Arthritis Rheumatol.* 2024;76(8):1182-1200; and *Arthritis Care Res.* 2024;76(8):1051-69.
- Oakes E, Ellrodt J, Alexander RV, Conklin J, Kammesheidt A, Choi M, Guan H, **Tedeschi S**, **Sparks JA**, Case S, **Hsu T**, **Solomon DH**, **Jonsson AH**, **Costenbader KH**. Earlier vs. later time period of COVID-19 infection and emergent autoimmune signs, symptoms, and serologies. *J Autoimmun.* 2024 (In Press).
- Kim JS, Flack KF, Malik V, Manichaikul A, Sakaue S, Luo Y, Anderson MR, Hoffman EA, Podolanczuk AJ, Yun J, **McDermott G**, **Sparks JA**, Moll M, Rich S, Rotter J, Noth I, Raghu G, Giles J, Winchester R, **Raychaudhuri S**, Hunninghake GM, Cho MH, Garcia CK, Barr RG, Bernstein EJ. Genomic and serological rheumatoid arthritis biomarkers, MUC5B promoter variant, and interstitial lung abnormalities. *Ann Am Thorac Soc.* 2024 (In Press).
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- Bergkamp SC, Bergkamp ND, Wahadat MJ, Gruppen MP, Nassar-Sheikh Rashid A, **Tas SW**, Smit MJ, Versnel MA, van den Berg JM, Kamphuis S, Schonenberg-Meinema D. Learning from serum markers reflecting endothelial activation: longitudinal data in childhood-onset systemic lupus erythematosus. *Lupus Sci Med.* 2024 Sep 5;11(2):e001190. doi: 10.1136/lupus-2024-001190. PMID: 39242108; PMCID: PMC11381702.
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- Lee EJ, **Charles JF**, Sinha I, Nepl RL. Loss of HNRNPU in Skeletal Muscle Increases Intramuscular Infiltration of Ly6C Positive Cells, leading to Muscle Atrophy through Activation of NF-kappaB Signaling. *Adv Biol (Weinh)*. 2024 Jul;8(7):e2400152.
- **Chang Margaret H**, Barbar-Smiley F, Akoghlanian S, Drew J, Angeles-Han ST, Quinlan-Waters M, Bohnsack JF, Cooper AM, Edelheit B, Twachtman-Bassett J, Lerman MA, Nanda K, Rabinovich CE, **Mindy S Lo**. Implementation Study of the CARRA Uveitis Consensus Treatment Plans: Feasibility for Clinical Practice and Applicability for Research” *Pediatric Rheumatology* (In Press).
- **Hoytema Van Konijnenburg DP**, **Nigrovic PA**, **Zanoni I**. Regional specialization within the mammalian respiratory immune system (Featured review). *Trends in Immunology* (in press).
- Fautrel B, Mitrovic S, De Matteis A, Bindoli S, Antón J, Belot A, Bracaglia C, Constantin T, Dagna L, Di Bartolo A, Feist E, Foell D, Gattorno M, Georgin-Lavialle S, Giacomelli R, Grom AA, Jamilloux Y, Laskari K, Lazar C, Minoia F, **Nigrovic PA**, Oliveira Ramos F, Ozen S, Quartier P, Ruscitti P, Sag E, Savic S, Truchetet ME, Vastert SJ, Wilhelmer TC, Wouters C, Carmona L, De Benedetti F. EULAR/PreS recommendations for the diagnosis and management of Still's disease, comprising systemic juvenile idiopathic arthritis and adult-onset Still's disease. *Ann Rheum Dis*. 2024 Sep 24:ard-2024-225851.

OPEN POSITIONS

The Nigrovic lab (BCH) is seeking new postdoctoral fellows in the fields of (1) non-coding genetic variants in human autoimmunity and (2) megakaryocyte-neutrophil emperipolesis using 2-photon microscopy and other methods. Please direct inquiries to peter.nigrovic@childrens.harvard.edu.

The Chang Lab is hiring for a postdoctoral position in the areas of T cell biology and human and animal models of arthritis. Please direct inquiries to margaret.chang@childrens.harvard.edu.

The Kohlgruber Lab is hiring for a postdoctoral position in the areas of T cell antigen discovery and biology in rheumatoid arthritis. Please direct inquiries to ayano.kohlgruber@childrens.harvard.edu.

Please let us know if you would like your open positions posted here!