



JBC Monthly Newsletter

June 2024

JBC UPDATES

- Please join us for the **JBC Synergy Meeting** this month on June 28th 12:30-1:30 Eastern on Zoom with speakers:
 - **Dr. Ahmed Elzoghby** (BWH)
“Covalently Circularized Nanodiscs: A Promising Approach for Targeted Remodeling of Synovial Fibroblast”
 - **Dr. Javier Martin** (Spanish National Research Council)
“Genomics of Systemic Sclerosis: functional and clinical implications”

JBC MEMBER NEWS

- Congratulations to **Dr. Kathyne Marks, Dr. Kevin Wei, and Dr. Deepak Rao** who were selected as a winning team for their proposal “Organoid Modeling of Rheumatoid Arthritis Joints” in the [Complement AIRE competition](#) which seeks to promote research strategies that offer alternatives to animal models.
- Congratulations to our Year 8 Cycle 2 Microgrant Recipients:
 - Michael Paley (**Washington University in St. Louis**)
 - Alexandra Geanacopoulos (**Lise Nigrovic lab/BCH**)
 - Alexandra Pommier (**Henderson Lab/BCH**)
 - David Hoytema (**Peter Nigrovic Lab/BCH**)
 - Gregory McDermott (**Sparks Lab/BWH**)
 - Megan Hanlon (**Gravallese Lab/BCH**)
 - Michael Del Mundo (**Peter Nigrovic Lab/BCH**)
 - Michelle Morency (**Peter Nigrovic Lab/BCH**)
 - Qian Chen (**Chatila Lab/BCH**)

JBC MEMBER PUBLICATIONS

- **Robinette, M. L.**, Weeks, L. D., Kramer, R. J., Agrawal, M., Gibson, C. J., Yu, Z., Sekar, A., Mehta, A., Niroula, A., Brown, J. T., McDermott, G. C., Reshef, E. R., Lu, J. E., Liou, V. D., Chiou, C. A., Natarajan,

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

P., Freitag, S. K., **Rao, D. A.**, & Ebert, B. L. Association of Somatic TET2 Mutations With Giant Cell Arteritis. *Arthritis Rheumatol.* 2024;76(3):438-443. <https://doi.org/10.1002/art.42738>

- Elahee M, **Mueller AA**, Wang R, **Marks KE**, Sasaki T, Cao Y, Fava A, **Dellaripa PF**, Boin F, **Rao DA**. A PD-1^{high}CD4⁺ T Cell Population With a Cytotoxic Phenotype is Associated With Interstitial Lung Disease in Systemic Sclerosis. *ACR Open Rheumatol.* 2024 May 3. doi: 10.1002/acr2.11671. Epub ahead of print. PMID: 38698736.
- **Jain A**, Hakim S, Woolf CJ. Immune drivers of physiological and pathological pain. *J Exp Med.* 2024;221(5):e20221687. doi:10.1084/jem.20221687
- **Merkt W**, Lorenz HM, Schmitt M. CAR T-Cell Therapy in Autoimmune Disease. *N Engl J Med.* 2024;390(17):1628-1629. doi:10.1056/NEJMc2403705
- Röhrich, M., Rosales, J. J., Hoppner, J., Kvacskay, P., Blank, N., Loi, L., Paech, D., Schreckenberger, M., Giesel, F., Kauczor, H. U., Lorenz, H. M., Haberkorn, U., & **Merkt, W**. Fibroblast Activation Protein Inhibitor-Positron Emission Tomography in Aortitis: Fibroblast pathology in active inflammation and remission. *Rheumatology (Oxford)*. Published online April 22, 2024. doi:10.1093/rheumatology/keae225
- Stalman EW, Wieske L, Keijser JBD, van Dam KPJ, Kummer LYL, Wilbrink MF, van Kempen ZLE, Killestein J, Volkers AG, **Tas SW**, Boekel L, Wolbink GJ, van der Kooi AJ, Raaphorst J, Löwenberg M, Takkenberg RB, D'Haens GRAM, Spuls PI, Bekkenk MW, Musters AH, Post NF, Bosma AL, Hilhorst ML, Vegting Y, Bemelman FJ, Voskuyl AE, Broens B, Sanchez AP, van Els CACM, de Wit J, Rutgers A, de Leeuw K, Horváth B, Verschuuren JJGM, Ruiters AM, van Ouwkerk L, van der Woude D, Allaart RCF, Teng YKO, van Paassen P, Busch MH, Brusse E, van Doorn PA, Baars AE, Hijnen D, Schreurs CRG, van der Pol WL, Goedee HS, Steenhuis M, Keijzer S, Cristianawati O, Brinke AT, Verstegen NJM, Zwinderman KAH, van Ham SM, Rispens T, Welkers MR, Jonges M, Eftimov F, Kuijpers TW; T2B! immunity against SARS-CoV-2 study group. Clinical and humoral responses after SARS-CoV-2 breakthrough infections in patients with immunosuppressants. *J Allergy Clin Immunol.* 2024 May 17:S0091-6749(24)00503-7. doi: 10.1016/j.jaci.2024.04.031. Epub ahead of print. PMID: 38763170.
- Curtis JR, Wollenhaupt J, **Tas SW**, Chatzidionysiou K, Wang L, Roberts K, Tsekouras V. Determinants of tofacitinib discontinuation in adult patients with rheumatoid arthritis during long-term extension studies up to 9.5 years. *Rheumatol Adv Pract.* in press.
- **Sparks JA**, Dieudé P, Hoffmann-Vold AM, Burmester GR, Walsh SLF, Kreuter M, Stock C, Sambevski S, Alves M, Emery P. Design of ANCHOR RA: A multi-national cross-sectional study on screening for interstitial lung disease in patients with rheumatoid arthritis: ANCHOR-RA. *BMC Rheumatol.* 2024 May 21;8(1):19.
- **Joerns EK**, Karp D, **Sparks JA**, Adams TN, Makris UE, Newton CA. High interleukin-13 level is associated with disease stability in interstitial lung disease. *Heliyon.* 2024 (In Press).
- CAR T-cell therapy in rheumatology-What we know so far? Hagen M, Wirsching A, Bohr D, Taubmann J, Müller F, Mackensen A, **Griehaber-Bouyer R***, Schett G* *Z Rheumatol.* 2024 May 23. doi: 10.1007/s00393-024-01514-x
- Selective CAR-T cell mediated B cell depletion suppresses interferon signature in SLE. Wilhelm A, Chambers D, Müller F, Bozec A, **Griehaber-Bouyer R**, Winkler T, Mougiakakos D, Mackensen A, Schett G, Krönke G *JCI Insight.* 2024 May 9:e179433. doi: 10.1172/jci.insight.179433
- Dunlap, G., Wagner, A., Meednu, N., Zhang, F., Jonsson, A. H., **Wei, K.**, Sakaue, S., Nathan, A., Accelerating Medicines Partnership Program: Rheumatoid Arthritis and Systemic Lupus Erythematosus (AMP RA/SLE) Network, Bykerk, V. P., Donlin, L. T., Goodman, S. M., Firestein, G. S., Boyle, D. L., Holers, V. M., Moreland, L. W., Tabechian, D., Pitzalis, C., Filer, A., **Raychaudhuri, S.**, **Brenner, M.**, McDavid, A., **Rao, D.**, Anolik, J. H. (2023). Clonal associations between lymphocyte subsets and functional states in rheumatoid arthritis synovium. *Nat Commun* 15, 4991 (2024). <https://doi.org/10.1038/s41467-024-49186-0>

- Kratchmarov R, Djeddi S, Dunlap G, He W, Jia X, Burk CM, Ryan T, McGill A, Allegretti JR, Kataru RP, Mehrara BJ, Taylor EM, Agarwal S, Bhattacharyya N, Bergmark RW, Maxfield AZ, Lee S, Roditi R, Dwyer DF, Boyce JA, Buchheit KM, Laidlaw TM, Shreffler WG, **Rao DA, Gutierrez-Arcelus M, Brennan PJ**. TCF1-LEF1 co-expression identifies a multipotent progenitor cell (TH2-MPP) across human allergic diseases. *Nat Immunol*. 2024 May;25(5):902-915. doi: 10.1038/s41590-024-01803-2. Epub 2024 Apr 8.
- **Wang Q*, Kim T*, Martínez-Bonet M, Sim S, Aguiar V, Cui J, Sparks JA**, Chen X, Todd M, Wauford B, Marion MC, Langefeld CD, Weirauch MT, **Gutierrez-Arcelus M, Nigrovic PA**. High-throughput identification of functional regulatory SNPs in systemic lupus erythematosus. *Nature Comm* 2024 in press
- Hayward K, Grom A, Muscal E, **Nigrovic PA**, Rouster-Stevens KA, Ardalan K, Hiraki L, Moorthy LN. Longitudinal program evaluation of an inter-institutional mentorship network for pediatric rheumatology using a quality improvement framework. *Pediatric Rheum* 2024 in press.

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.

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