



JBC Monthly Newsletter

April 2022

JBC UPDATES

- **The JBC Microgrant Application Cycle** is now open! The application can be found on our [website](#). The deadline is on April 22nd. Please send in your applications early.
- Next **JBC Synergy Meeting** will be on April 29th, 12:30-1:30 p.m. Eastern Time via Zoom.
Talk 1: Morgan Jones (BWH): “How does synovitis contribute to pain and progression of osteoarthritis after knee arthroscopy?”
Talk 2: TBA
- Next **JBC Aims Review Committee meeting** will be Monday April 25 12:00-1:00. Zoom link to follow. If you have aims to discuss, please email peter.nigrovic@childrens.harvard.edu.
- Next **JBC Data Club** meeting will be on April 28th. Please email maria.Gutierrez-Arcelus@childrens.harvard.edu if you want to be added to the JBC Data Club email list, and if you want to present, please provide dates that work for you.

JBC MEMBER NEWS

- **Margaret Chang** (BCH, Nigrovic lab) received a NIAMS Ko8 titled “Development of resident memory T cells in the synovium”
- **Pierre Cunin** (BCH, Nigrovic lab) received a NIAMS Ko1 titled "Trans-megakaryocyte migration as neutrophil amplifier"
- **Jordan Roberts** (BCH) was invited to give an oral presentation at the Childhood Arthritis and Rheumatology Research Alliance annual meeting in May 2022, “Insurance Delays in Initiation of TNF Inhibitors in Children with Juvenile Idiopathic Arthritis: A Single Center Retrospective Review.”
- **Lise Nigrovic** (BCH) was inducted into the American Society for Clinical Investigation (ASCI)
- **Peter Nigrovic** (BCH, BWH) was inducted into the Association of American Physicians (AAP)
- **Maria Taylor** (BCH) from the Henderson Lab is fundraising for Boston Children's Hospital by running on their Miles for Miracles Team in the Boston Marathon. Please see below for her recent photo of her participation in a recent event along with the link to her [fundraising page](#).

The JBC Team:

- Peter Nigrovic, M.D.
Director (BCH & BWH)
- Elizabeth Karlson, M.D.
Co-PI, Associate Director
- Jeffrey Sparks, M.D., M.M.Sc.
Co-PI, 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, MD, PhD
Associate Director

Cellular Systems Core:

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

JBC MEMBER PUBLICATIONS

- Shaw AT, Yan J, Kuhstoss SA, **Charles JF**, **Gravallese EM**. Scand J Rheumatol. Dickkopf-1 directs periosteal bone formation in two murine models of inflammatory arthritis. 2022 Mar 11:1-5. doi: 10.1080/03009742.2022.2040136. Online ahead of print. PMID: 35272576
- González-Sánchez HM, Baek JH, Weinmann-Menke J, Ajay AK, **Charles JF**, Noda M, Franklin RA, Rodríguez-Morales P, Kelley VR. Lab Invest. IL-34 and protein-tyrosine phosphatase receptor type-zeta-dependent mechanisms limit arthritis in mice. 2022 Mar 14. doi: 10.1038/s41374-022-00772-0. Online ahead of print. PMID: 35288653
- Sheftel CM, Sartori LC, **Hunt ER**, Manuel RSJ, Bell AM, Domingues RR, Wake LA, Scharpf BR, Vezina CM, **Charles JF**, Hernandez LL. Physiol Rep. Periparturient treatment with low-dose sertraline accelerates mammary gland involution and has minimal effects on maternal and offspring bone. 2022 Mar;10(5):e15204. doi: 10.14814/phy2.15204. PMID: 35234346 Free PMC article.
- Seyok T, Collins JE, Erikson SJ, **Charles JF**, Earp BE. Hand (N Y). Future Fracture Risk in Upper Extremity Fracture and Non-Fracture Patients. 2022 Feb 26:15589447211049521. doi: 10.1177/15589447211049521. Online ahead of print. PMID: 35220774
- McDermott G, Gill R, Gagne S, Byrne S, Huang W, Cui J, Prisco LC, Zaccardelli A, Martin LW, **Kronzer VL**, Moll M, Cho MH, Shadick N, Dellaripa P, Doyle TJ, **Sparks JA**. Associations of the MUC5B promoter variant with timing of interstitial lung disease and rheumatoid arthritis onset. Rheumatology. 2022 Mar 15:keac152. doi: 10.1093/rheumatology/keac152. Online ahead of print.
- Patel NJ, D'Silva KM, Li MD, **Hsu TY**, DiIorio M, Fu X, Cook C, Prisco LC, Martin LW, Vanni KMM, Zaccardelli A, Zhang Y, Kalpathy-Cramer J, **Sparks JA***, Wallace ZS*. Assessing the severity of COVID-19 lung injury in rheumatic diseases versus the general population using deep learning-derived chest radiograph scores. Arthritis Care Res. 2022 Mar 21. doi: 10.1002/acr.24883. Online ahead of print. ***Co-senior author.**
- Joerns EK, Adams TN, **Sparks JA**, Newton CA, Karp D, Bermas B, Makris UE. Interstitial pneumonia with autoimmune features: What the rheumatologist needs to know. Curr Rheumatol Rep. 2022 (In Press).
- **Sparks JA**, Singh N, Wallace ZS. Effectiveness of COVID-19 vaccination in immune-mediated inflammatory diseases. Lancet Rheumatol. 2022 (In Press).
- Rider LG, Parks CG, Wilkerson J, Schiffenbauer AI, Kwok R, Farhadi PN, Nazir S, Ritter R, Sirotich E, Kennedy K, Larche MJ, Levine M, Sattui SE, Liew JW, Moni TT, Miller AK, Putman M, Hausmann J, Simard J, **Sparks JA**, Miller FW. Associations of baseline factors with self-reported flares following COVID-19 vaccination among adults with rheumatic disease: Results from the COVID-19 Global Rheumatology Alliance Vaccine Survey. Rheumatology. 2022 (In Press).
- Wieske L, van Dam KPJ, Steenhuis M, Stalman EW, Kummer LYL, van Kempen ZLE, Killestein J, Volkers AG, **Tas SW**, Boekel L, Wolbink GJ, van der Kooij 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, Jallah PBP, Brusse E, van Doorn PA, Baars AE, Hijnen DJ, Schreurs CRG, van der Pol WL, Goedee HS, Keijzer S, Keijser JBD, Boogaard A, Cristianawati O, Ten Brinke A, Verstegen NJM, Zwinderman KAH, van Ham SM, Kuijpers TW, Rispens T, Eftimov F; T2B! Immunity against SARS-CoV-2 study group. Humoral responses after second and third SARS-CoV-2 vaccination in patients with immune-mediated inflammatory disorders on immunosuppressants: a cohort study.

Lancet Rheumatol. 2022 Mar 17. doi: 10.1016/S2665-9913(22)00034-0. Epub ahead of print. PMID: 35317410; PMCID: PMC8930018.

- Wieske L, Kummer LYL, van Dam KPJ, Stalman EW, van der Kooi AJ, Raaphorst J, Löwenberg M, Takkenberg RB, Volkers AG, D'Haens GRAM, **Tas SW**, Spuls PI, Bekkenk MW, Musters AH, Post NF, Bosma AL, Hilhorst ML, Vegting Y, Bemelman FJ, Killestein J, van Kempen ZLE, Voskuyl AE, Broens B, Sanchez AP, Wolbink G, Boekel L, Rutgers A, de Leeuw K, Horváth B, Verschuuren JJGM, Ruiters AM, van Ouwkerk L, van der Woude D, Allaart CF, Teng YKO, van Paassen P, Busch MH, Jallah BP, Brusse E, van Doorn PA, Baars AE, Hijnen D, Schreurs CRG, van der Pol WL, Goedee HS, Steenhuis M, Rispiens T, Ten Brinke A, Verstegen NJM, Zwinderman KAH, van Ham SM, Kuijpers TW, Eftimov F; T2B! immunity against SARS-CoV-2 study group. Risk factors associated with short-term adverse events after SARS-CoV-2 vaccination in patients with immune-mediated inflammatory diseases. *BMC Med.* 2022 Mar 2;20(1):100. doi: 10.1186/s12916-022-02310-7. PMID: 35236350; PMCID: PMC8889379.
- Jeucken KCM, Kaaij MH, Rip J, van Rooijen CCN, Kan YY, Corneth OBJ, van Hamburg JP, **Tas SW**. Splenic Architecture and Function Requires Tight Control of Transmembrane TNF Expression. *Int J Mol Sci.* 2022 Feb 17;23(4):2229. doi: 10.3390/ijms23042229. PMID: 35216345; PMCID: PMC8876982.
- Boekel L, ..., **Tas SW**, ... et al. SARS-CoV-2 delta breakthrough infections in vaccinated patients with immune-mediated inflammatory diseases using immunosuppressants – data from two controlled prospective cohort studies. *Lancet Rheumatol.* in press.
- Van Kempen Z, ..., **Tas SW**, ... et al. Longitudinal T-cell responses after a third SARS-CoV-2 vaccination in MS patients on ocrelizumab or fingolimod. *Neurology: Neuroimmunology & Neuroinflammation* in press.
- **Anang, D.C.**; Ramwadhoebe, T.H.; Hähnlein, J.S.; van Kuijk, B.; Smits, N.; van Lienden, K.P.; Maas, M.; Gerlag, D.M.; Tak, P.P.; de Vries, N.; van Baarsen, L.G.M. Increased Frequency of CD4+ Follicular Helper T and CD8+ Follicular T Cells in Human Lymph Node Biopsies during the Earliest Stages of Rheumatoid Arthritis. *Cells* 2022, 11, 1104. <https://doi.org/10.3390/cells11071104>
- **Roberts JE**, Fan M, Son MB. Insurance Delays in Initiation of Tumor Necrosis Factor Inhibitors in Children with Juvenile Idiopathic Arthritis. *JAMA Network Open.* 2022 Apr 21. [In press].
- **Griehaber-Bouyer R**, Exner T, Hackert NS, **Radtke FA**, Jelinsky SA, **Halyabar O**, **Wactor A**, Karimizadeh E, Brennan J, Schettini J, **Jonsson AH**, **Rao DA**, **Henderson LA**, Müller-Tidow C, Lorenz, H-M, Wabnitz G, **Lederer JA**, Hadjipanayis A, **Nigrovic PA**. Aging and interferon gamma response drive the phenotype of neutrophils in the inflamed joint. *Ann Rheum Dis* 2022 Feb 15. Online ahead of print. PMID: 35168946
- **Taylor M**, **Hoyt KJ**, Han J, Benson L, Case S, Chandler M, **Chang MH**, Platt C, Cohen EM, Day-Lewis M, Dedeoglu F, Gorman M, Hausmann J, Janssen E, **Lee PY**, Lo J, Priebe G, Lo MS, Meidan E, **Nigrovic PA**, **Roberts J**, **Son MBF**, Sundel RP, Alfieri M, Chan Yeun J, Shobei M, Degar B, Chang JC, **Halyabar O**, Hazen MM, **Henderson LA**. An Evidence-Based Guideline Improves Outcomes for Patients with Hemophagocytic Lymphohistiocytosis and Macrophage Activation Syndrome. *J Rheumatol* 2022 in press.
- Binstadt BA, **Nigrovic PA**. The Conundrum of Lung Disease and Drug Hypersensitivity-like Reactions in Systemic Juvenile Idiopathic Arthritis. *Arthritis Rheumatol* 2022 in press.

OPEN POSITIONS

- The Grieshaber-Bouyer Lab (Heidelberg) is looking for a postdoctoral scientist in the field of Systems Immunology]
- The Nigrovic lab is looking for two research technicians.



<http://fundraise.childrenshospital.org/goto/rollickingria->