



JBC Monthly Newsletter

April 2023

JBC UPDATES

- Welcome back **Anupama Singh!** Anu was a star JBC Coordinator in the past and has returned to help out until a permanent Coordinator is identified.
- The **JBC Microgrant Application Cycle** is now open! The application can be found on our [website](#). The deadline is **5pm April 20th**. Please send in your applications early.
- The next **JBC Synergy Meeting** is scheduled for Friday April 28, 12:30-1:30, Zoom, with speakers:
 - Hae Lin Jang, PhD (BWH) "Engineering dynamic living bone at the cellular level"
 - Pierre Cunin, PhD (BCH) "Imaging cells in live mice with the BCH intravital two-photon microscopy facility"

JBC MEMBER NEWS

- Congratulations to **Dr. Margaret Chang** (BCH) on her promotion to Assistant Professor of Pediatrics at Harvard Medical School.
- Congratulations to **Dr. Pierre Cunin** (BCH) on his promotion to Assistant Professor of Pediatrics at Harvard Medical School.
- **Dr. Jeffrey Sparks** (BWH) received an R01 from NIH/NIAMS: "Immunologic and Clinical Sequelae after COVID-19 in Patients with Systemic Autoimmune Rheumatic Diseases".
- Congratulations to **Dr. Ke Yuan** (BCH) on being selected to receive the **ATS Assembly on Pulmonary Circulation Early Career Research Achievement Award 2023**.

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 BWH
- 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, PhD
Associate Director

- Congratulations to **Dr. Roxane Darbousset** (BCH)
 - She received the Scleroderma Foundation's **Mark Flapan Award**, a 3-year grant (titled "Platelets as driver of NET formation in systemic sclerosis") awarded to the applicant that received the second highest score
 - She gave two talks
 - at **Megakaryocyte and Platelet Joint Lab Meeting in January (online)**, titled "Platelets and neutrophils: tangled-up in systemic sclerosis"
 - at the **ANRF Research Scholar Symposium** in March in Boston, titled "Platelets and neutrophils crosstalk in systemic sclerosis"
 - She presented a poster titled "GPVI-activated platelets drive the neutrophil profibrotic function in systemic sclerosis" at the **Gordon Research Conference on Platelets and Megakaryocytes** in March in Italy.
- **Dr. Sander W. Tas** received a large research grant (**425kE**) titled "Profiling of autoreactive B lineage cells in idiopathic inflammatory myopathies: functional characterisation and targeting of JAK/STAT signaling as novel treatment strategy" from the **Dutch Arthritis Foundation**.

JBC MEMBER PUBLICATIONS

- Kronzer VL, Hayashi K, Yoshida K, McDermott GC, Davis JM III, Huang W, Dellaripa PF, Cui J, Feathers V, Gill RR, Hatabu H, Nishino M, Blaustein R, Crowson CS, Robinson WH, Sokolove J, Liao KP, Weinblatt ME, Shadick NA, Doyle TJ+, **Sparks JA+**. Autoantibodies against citrullinated and native proteins and prediction of rheumatoid arthritis-associated interstitial lung disease: A nested case-control study. *Lancet Rheumatol.* 2023;5(2):e77-87. (+co-senior author)
- Qian G, Wang X, Patel NJ, Kawano Y, Fu X, Cook CE, Vanni KMM, Kowalski EN, Banasiak EP, Bade K, Srivatsan S, Williams Z, Todd DJ, Weinblatt ME, Wallace ZS+, **Sparks JA+**. Outcomes with and without outpatient SARS-CoV-2 treatment for patients with COVID-19 and systemic autoimmune rheumatic diseases: A retrospective cohort study. *Lancet Rheumatol.* 2023;5(3):e139-50. (+co-senior author)
- Whelan MG, Santacroce L, Masto L, Qian G, Kowalski E, Vanni K, Weinblatt ME, **Sparks JA**, Tedeschi SK. Predictors of low spike antibody response in persons with systemic rheumatic disease after an initial course of COVID-19 vaccination. *Clin Rheumatol.* 2023 Jan 19;1-6. doi: 10.1007/s10067-023-06512-z. Online ahead of print.
- Lee H, **Sparks JA**, Lee SB, Yoshida K, Desai RJ, Landon JE, Kim SC. Validation of serostatus of rheumatoid arthritis using ICD-10 codes in administrative claims data. *Pharmacoepidemiol Drug Saf.* 2023 Feb 2. doi: 10.1002/pds.5597. Online ahead of print.
- McCarter KR, Wolfgang T, Arabelovic S, Wang X, Yoshida K, Banasiak EP, Qian G, Kowalski EN, Vanni KMM, LeBoeuf NR, Buchbinder EI, Gedmintas L, MacFarlane LA, Rao DA, Shadick NA, Gravallese EM, **Sparks JA**. Mortality and immune-related adverse events after immune checkpoint inhibitor initiation for cancer among patients with pre-existing rheumatoid arthritis: A retrospective, comparative, cohort study. *Lancet Rheumatol.* 2023 (In Press).

- Wei J, Zhang W, Doherty M, Wallace ZS, **Sparks JA**, Lu N, Li X, Zeng Z, Lei G, Zhang Y. Comparative effectiveness of BNT162b2 and ChAdOx1 nCoV-19 vaccines against COVID-19. *BMC Med.* 2023;21(1):78.
- Jiang X, **Sparks JA**, Wallace ZS, Deng X, Li H, Lu N, Xie D, Wang Y, Zeng C, Lei G, Wei J, Zhang Y. Risk of COVID-19 among unvaccinated and vaccinated patients with systematic lupus erythematosus: A general population study. *RMD Open.* 2023;9(1):e002839.
- Bass AR, Wahab NA, Reid P, **Sparks JA**, Calabrese C, Jannat-Khah D, Ghosh N, Rajesh D, Aude N, Gedmintas L, MacFarlane L, Arabelovic S, Falohun A, Mushtak K, Al Haj F, Diab A, Shah AA, Bingham CO III, Chan KK, Cappelli LC. Comparative safety and effectiveness of TNF inhibitors, IL6 inhibitors and methotrexate for the treatment of immune checkpoint inhibitor-associated arthritis. *Ann Rheum Dis.* 2023 (In Press).
- Zaccardelli A, Wallace ZS, **Sparks JA**. Acute and postacute COVID-19 outcomes for patients with rheumatoid arthritis: Lessons learned and emerging directions 3 years into the pandemic. *Curr Opin Rheumatol.* 2023 Feb 8. doi: 10.1097/BOR.oooooooooooo000930. Online ahead of print.
- Volkmann ER, **Sparks JA**, Hoffman-Vold AM, Doyle TJ, Emery P, Dieudé P. Preclinical or subclinical rheumatoid arthritis-related interstitial lung disease: Misleading terms with potentially deleterious consequences. *Lancet Rheumatol.* 2023 (In Press).
- Talarico R, Ramirez GA, Barreira SC, Cardamone C, Triggiani P, Aguilera S, Andersen J, Avcin T, Benistan K, Bertsias G, Bortoluzzi A, Bouillot C, Bulina I, Burmester GR, Callens S, Carreira PE, Cervera R, Cutolo M, Damian L, Della-Torre E, Faria R, Fonseca JE, Galetti I, Hachulla E, Iaccarino L, Jacobsen S, Khmelinskii N, Limper M, Marinello D, Meyer A, Moroncini G, Nagy G, Olesinska M, Pamfil C, Pileckyte M, Pistello M, Rednic S, Richez C, Romão VC, Schneider M, Sciascia S, Scirè CA, Simonini G, Smith V, Sulli A, Tani C, **Tas SW**, Tincani A, Vonk MC, Tektonidou M, Mosca M. ERN ReCONNECT points to consider for treating patients living with autoimmune rheumatic diseases with antiviral therapies and anti-SARS-CoV-2 antibody products. *Clin Exp Rheumatol.* 2023 Mar 14. doi: 10.55563/clinexprheumatol/jpargp. Online ahead of print. PMID: 36916322
- Mol S, Taanman-Kueter EWM, van der Steen BA, Groot Kormelink T, van de Sande MGH, **Tas SW**, Wauben MHM, de Jong EC. Hyaluronic Acid in Synovial Fluid Prevents Neutrophil Activation in Spondyloarthritis. *Int J Mol Sci.* 2023 Feb 4;24(4):3066. doi: 10.3390/ijms24043066. PMID: 36834478 Free PMC article.
- Gosselt HR, van Lint JA, Kosse LJ, Spuls PI, Vonkeman HE, **Tas SW**, Hoentjen F, Nurmohamed MT, van den Bemt BJF, van Doorn MBA, Jessurun NT. Sex differences in adverse drug reactions from Adalimumab and etanercept in patients with inflammatory rheumatic diseases. *Expert Opin Drug Saf.* 2023 Mar 1:1-7. doi: 10.1080/14740338.2023.2181340. Online ahead of print. PMID: 36794307
- Wieske L, Stalman EW, van Dam PJK, Kummer LY, Steenhuis M, van Kempen ZLE, Killestein J, Volkers AG, **Tas SW**, Boekel L, Wolbink G, Van der Kooi A, Raaphorst J, Löwenberg M, Takkenberg B, D'Haens GRAM, Spuls PI, Bekkenk MW, Musters AH, Post NF, Bosma AL, Hilhorst ML, Vegting Y, Bemelman FJ, Voskuyl A, Broens B, Parra Sanchez A, van Els CACM, Wit J, Rutgers A, de Leeuw K, Horváth B, Verschuren JJGM, Ruiter AM, van Ouwerkerk L, van der Woude D, Allaart CF, Teng YKO, van Paassen P, Busch MH, Jallah PBP, Brusse E, van Doorn PA, Baars AE, Hijnen D, Schreurs CRG, Van der Pol WL, Goedee HS, Keijzer S, Keijser J, Cristianawati O, Ten Brinke A, Versteegen NJM, Zwinderman KAH, van Ham SM, Kuijpers TW, Rispens T, Eftimov F; T2B! immunity against SARS-CoV-2 study group. Persistence of seroconversion at 6 months following primary immunisation in

patients with immune-mediated inflammatory diseases. Ann Rheum Dis. 2023 Jan 31:ard-2022-223464. doi: 10.1136/ard-2022-223464. Online ahead of print.
PMID: 36720583 No abstract available.

- Kaaij MH, van Hamburg JP, van Rooijen CCN, Grüneboom A, Kan YY, Pots D, Schett G, van Ruijven LJ, van Duivenvoorde LM, Huitema LFA, Baeten DLP, **Tas SW**. Increased Type H Blood Vessels Precedes Pathological Osteogenesis And Inflammation In Experimental Spondyloarthritis. Arthritis Rheumatol. 2023 Jan 19. doi: 10.1002/art.42449. Online ahead of print.
PMID: 36657110
- van Dam KPJ, Wieske L, Stalman EW, Kummer LYL, Roosen J, van Kempen ZLE, Killestein J, Volkers AG, 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, Verschueren JJGM, Ruiter AM, van Ouwerkerk 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, Steenhuis M, Keijzer S, Keijser JBD, Cristianawati O, Rispens T, Brinke AT, Verstegen NJM, Marieke van Ham S, **Tas SW**, Kuijpers TW, Eftimov F; T2B! Immunity against SARS-CoV-2 study group. Disease activity in patients with immune-mediated inflammatory diseases after SARS-CoV-2 vaccinations. J Autoimmun. 2023 Feb;135:102984. doi: 10.1016/j.jaut.2022.102984. Epub 2023 Jan 2. PMID: 36621174 Free PMC article.
- van der Weele L, Niessink T, Maas M, Don Griot P, Janssen M, Otto C, Jansen TL, **Tas SW**, de Vries N. Clinical image: synovitis of the metacarpophalangeal joints. Ann Rheum Dis. 2022 Nov 14:ard-2022-223290. doi: 10.1136/ard-2022-223290. Online ahead of print.
PMID: 36376027 No abstract available.
- Stalman EW, Wieske L, van Dam KPJ, Kummer LY, 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, Parra Sanchez A, van Els CACM, Wit J, Rutgers A, de Leeuw K, Horváth B, Verschueren JJGM, Ruiter AM, van Ouwerkerk L, van der Woude D, Allaart CF, Teng OYK, van Paassen P, Busch MH, Jallah PBP, Brusse E, van Doorn PA, Baars AE, Hijnen DJ, Schreurs CRG, Van der Pol WL, Goedee HS, Steenhuis M, Keijzer S, Keijser JBD, Boogaard A, Cristianawati O, Ten Brinke A, Verstegen NJM, Zwinderman KAH, Rispens T, van Ham SM, Kuijpers TW, Eftimov F; T2B! immunity against SARS-CoV-2 study group. Breakthrough infections with the SARS-CoV-2 omicron (B.1.529) variant in patients with immune-mediated inflammatory diseases. Ann Rheum Dis. 2022 Dec;81(12):1757-1766. doi: 10.1136/ard-2022-222904. Epub 2022 Sep 5.
PMID: 36357161
- Merino-Vico A, Frazzei G, van Hamburg JP, **Tas SW**. Targeting B cells and plasma cells in autoimmune diseases: From established treatments to novel therapeutic approaches. Eur J Immunol. 2023 Jan;53(1):e2149675. doi: 10.1002/eji.202149675. Epub 2022 Nov 16.
PMID: 36314264 Review.
- Frazzei G, Musters A, de Vries N, **Tas SW**, van Vollenhoven RF. Prevention of rheumatoid arthritis: A systematic literature review of preventive strategies in at-risk individuals. Autoimmun Rev. 2023 Jan;22(1):103217. doi: 10.1016/j.autrev.2022.103217. Epub 2022 Oct 22.
PMID: 36280095 Free article. Review.
- Roest LH, Kosse LJ, van Lint JA, Gosselt HR, Scholl JHG, van Puijenbroek E, Vonkeman HE, **Tas SW**, Nurmohamed MT, van den Bemt BJF, Jessurun NT. Disease-specific ADRs of TNF- α inhibitors as reported by patients with inflammatory rheumatic diseases: a registry-based prospective multicenter

cohort study. Expert Opin Drug Saf. 2022 Aug 28:1-9. doi: 10.1080/14740338.2022.2115479. Online ahead of print.
PMID: 36036179

- Mangini M, D'Angelo R, Vinciguerra C, Payré C, Lambeau G, Balestrieri B, **Charles JF**, Mariggò S. Multimodal regulation of the osteoclastogenesis process by secreted group IIA phospholipase A2. Front Cell Dev Biol. 2022;10:966950. doi: 10.3389/fcell.2022.966950. eCollection 2022. PMC9467450.
- Zhang C, Vedadghavami A, He T, **Charles JF** and Bajpayee AG. Cationic Carrier Mediated Delivery of Anionic Contrast Agents in Low Doses Enable Enhanced Computed Tomography Imaging of Cartilage for Early Osteoarthritis Diagnosis. ACS Nano 2023. March 29. doi: 10.1021/acsnano.2c12376. Epub ahead of print.
- 2023 ORS Oral Abstract: Leite CBG, Tavares LP, Mekhail J, Merkely G, Whalen J, **Charles JF**, **Lattermann C**. Transection of the anterior cruciate ligament leads to a physiological production of specialized pro-resolving mediators that does not prevent posttraumatic osteoarthritis.
- **Wobma H**, Arvila S R, **Taylor ML**, Lam K, Ohashi M, Gebhart C, Powers H, Case S M, Chandler M, **Chang MH**, Cohen E M, Day-Lewis M, Fishman M P, Halyabar O, Hausmann J S, Hazen M M, **Lee PY**, Lo M, Meidan E, Roberts J E, **Son MB**, Sundel RP, Dedeoglu F, **Nigrovic PA**, Casey A, **Chang JC**, **Henderson LA**. Incidence and risk factors for eosinophilia and lung disease in biologic-exposed children with systemic juvenile idiopathic arthritis. Arth Care Res 2023 (in press)
- Du Y, Liu M, **Nigrovic PA**, Dedeoglu F, **Lee PY**. Biologics and JAK inhibitors for the treatment of monogenic systemic autoinflammatory diseases in children. J All Clin Immunol 2023;151:607-618. PMID: 36707349.
- Belizaire, R., Wong, W.J., **Robinette, M.L.** et al. Clonal haematopoiesis and dysregulation of the immune system. *Nat Rev Immunol* (2023). <https://doi.org/10.1038/s41577-023-00843-3>

OPEN POSITIONS

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