

CURRICULUM VITAE

Max Petersen, PhD

Rhode Island Hospital
Department of Orthopedics
1 Hoppin Street, Coro West 402H
Providence, RI 02903

EDUCATION

2014	BS	University of California, Santa Cruz	Biochemistry and Molecular Biology
2023	PhD	Brown University	Molecular Pharmacology and Physiology

POSTGRADUATE TRAINING

2023-2025	Postdoctoral Fellowship	Brown University	Biology of Aging
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ACADEMIC APPOINTMENTS

2025-present	Assistant Professor of Orthopedics (Research)	Rhode Island Hospital
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HOSPITAL APPOINTMENTS

2025	Research Scientist	Rhode Island Hospital
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PROFESSIONAL APPOINTMENTS

2014-2016	Research Associate	ZoneOne Pharma
2016-2017	Senior Research Associate	Pivot Bio
2023-present	Consultant (proteomics)	XM Therapeutics

PUBLICATIONS LIST

ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. Chorzalska, A., Morgan, J., Ahsan, N., Treaba, D. O., Olszewski, A. J., **Petersen, M.**, Kingston, N., Cheng, Y., Lombardo, K., Schorl, C., Yu, X., Zini, R., Pacilli, A., Tepper, A., Coburn, J., Hryniewicz-Jankowska, A., Zhao, T. C., Oancea, E., Reagan, J. L., Liang, O., Kotula, L., Quesenberry, P. J., Gruppuso, P. A., Manfredini, R., Vannucchi, A. M. & Dubielecka, P. M. Bone marrow-specific loss of ABI1 induces myeloproliferative neoplasm with features resembling human myelofibrosis. *Blood*, 2018. 132(19):2053-2066.
2. Olszewski A. J., Chorzalska A. D., Kim A. S., Quesenberry P. J., Lopresti M. L., Fenton M. A., Reagan J. L., Butera J. N., Sahin I., Hamel C., Robison J., **Petersen M.**, Dubielecka P. M. Clonal haematopoiesis of indeterminate potential among cancer survivors exposed to myelotoxic chemotherapy. *Br J Haematol*. 2019. Epub 2019/03/13. doi: 10.1111/bjh.15861. PMID: 30859554.
3. Bloch, S. E., Clark, R., Gottlieb, S. S., Wood, L. K., Shah, N., Mak, S. M., Lorigan, J. G., Johnson, J., Davis-Richardson, A. G., Williams, L., McKellar, M., Soriano, D., **Petersen, M.**, Horton, A., Smith, O., Wu, L., Tung, E., Broglie, R., Tamsir, A., Temme, K. Biological nitrogen fixation in maize: optimizing

nitrogenase expression in a root-associated diazotroph. *J Exp Bot*, 2020. 71(15):4591-4603.
<https://doi.org/10.1093/jxb/eraa176>

4. Ahsan, N., Rao, R.S.P., Wilson, R., Punyamurtula, U., Salvato, F., **Petersen, M.**, Ahmed, M. K., Abid, M. R., Fornelli, L., Foster, S., Ramratnam, B. Mass spectrometry-based proteomic platforms for better understanding of SARS-CoV-2 induced pathogenesis and potential diagnostic approaches. *Proteomics*, 2021. <https://doi.org/10.1002/pmic.202000279>
5. Olszewski, A., Chorzalska, A., **Petersen, M.**, Ollila, T., Zayac, A., Kurt, H., Treaba, D., Reagan, J., Hsu, A., Egan, P., Butera, J., Niroula, R., Vatkevich, J., Robison, J., Sahin, I., Jacob, A., Mullins, C., Dubielecka, P. Detection of clonotypic DNA in the cerebrospinal fluid as a marker of central nervous system invasion in lymphoma. *Blood Advances*, 2021.
<https://doi.org/10.1182/bloodadvances.2021004512>
6. Treaba, D., Bonal, D., Chorzalska, A., Castillo-Martin, M., Oakes, A., Pardo, M., **Petersen, M.**, Schorl, C., Hopkins, K., Melcher, D., Zhao, T., Liang, O., So, E. Y., Reagan, J., Olszewski, A., Butera, J., Anthony, D., Rintels, P., Quesenberry, P., Dubielecka, P. Transcriptomics of acute myeloid leukemia core bone marrow biopsies reveals distinct therapy response-specific osteo-mesenchymal profiles. *Br J Haematol*. 2022. <https://doi.org/10.1111/bjh.18513>
7. **Petersen, M.**, Chorzalska, A., Pardo, M., Rodriguez, A., Morgan, J., Ahsan, N., Zhao, T., Liang, O., Kotula, L., Bertone, P., Gruppuso, P., Dubielecka, P. M. Proximity proteomics reveals role of Abelson interactor 1 in the regulation of TAK1/RIPK1 signaling. *Molecular Oncology*, 2023.
<https://doi.org/10.1002/1878-0261.13374>
8. **Petersen, M.**, Dubielecka, P. Adaptor protein Abelson interactor 1 in homeostasis and disease. *Cell Communication and Signaling*, 2024. 10.1186/s12964-024-01738-z
9. Broadwin, M., St. Angelo, K., **Petersen, M.**, Teixeira, R., Harris, D., Stone, C., Xu, C., Kanuparth, M., Sellke, F., Morgan, J., Abid, M. R. Lab-grown, 3D Extracellular Matrix Particles Improve Cardiac Function and Morphology in Myocardial Ischemia. *American Journal of Physiology – Heart and Circulatory Physiology*, 2024. <https://doi.org/10.1152/ajpheart.00581.2024>
10. Bonal, D. M., Oakes, A., Chorzalska, A., Pardo, M., **Petersen, M.**, Clarke, M., Lee, S., Olszewski, A., Treaba, D. O., Reagan, J. L., Dooner, M., Morgan, J., Bertone, P., Zhao, T. C., Yang, W., Ventetuolo, C. E., Hobbs, G., Mills, J., Dubielecka, P. M. HiJAKing the Hematopoietic System: A Low Variant Allele Frequency JAK2V617F Clone Drives Myeloproliferative Neoplasm Pathology. *Blood*, 2025.
<https://doi.org/10.1182/blood.2024027125>
11. Leiva O, Soo S, Liu OC, You V, Palmer A, Kahla J, Murtaza Y, Odenike O, Patel AA, DeCara JM, Dubielecka PM, **Petersen M**, Lee MH, How J, Hobbs G. Impact of statin use on cardiovascular and hematologic outcomes among patients with myeloproliferative neoplasms. *Blood Adv*. 2026 Mar 10;10(5):1603-1613. doi: 10.1182/bloodadvances.2025018724. PMID: 41499780; PMCID: PMC12955636.
12. Leiva O, Soo S, Liu OC, You V, Palmer A, Kahla J, Murtaza Y, Odenike O, Patel A, DeCara J, Dubielecka PM, **Petersen M**, Lee MH, How J, Hobbs G. Low serum cholesterol is a biomarker of advanced disease and poor outcomes in myeloproliferative neoplasms. *Blood Adv*. 2026 May 26;10(10):3746-3755. doi: 10.1182/bloodadvances.2025019152. PMID: 41779966; PMCID: PMC13216703.

ABSTRACTS

1. DT Tran, **MJ Petersen**, CO Noble, ME Hayes, P Working, FC Szoka, Ferrozine-Based Iron Quantification of Iron Overloaded Mice: a Simple, Robust Method for the Assessment of Iron Chelation Therapies, *Blood*, Volume 126, Issue 23, 2015, Page 2054, ISSN 0006-4971, <https://doi.org/10.1182/blood.V126.23.2054.2054>.
2. M Hayes, D Tran, **M Petersen**, C Noble, Z Dai, P Working, FC Szoka. Liposome encapsulated deferoxamine (LDFO) has a high molar efficiency in removing iron in an iron-overloaded mouse model. *American Journal of Hematology* 92 (8), 2017, E359-E359.
3. AJ Olszewski, A Chorzalska, H Kurt, TA Ollila, DO Treaba, A Hsu, A Zayac, JL Reagan, I Sahin, W Rafelson, PC Egan, J Robison, J Vatkevich, CD Mullins, **M Petersen**, PM Dubielecka; Abstract PO-27: Clonotypic cell-free DNA (cfDNA) in the cerebrospinal fluid (CSF) of patients with aggressive lymphomas. *Blood Cancer Discov* 1 November 2020; 1 (3_Supplement): PO-27. <https://doi.org/10.1158/2643-3249.LYMPHOMA20-PO-27>
4. B Sadler, AD Chorzalska, DM Bonal, G Haller, A Oakes, **M Petersen**, Y Liu, A Olszewski, JL Reagan, PC Egan, R Niroula, DO Treaba, G Hobbs, ST Oh, J Di Paola, JE Baxter, PM Dubielecka; Whole Genome Sequencing Identifies a Recurrent Mutation in Complement Factor I (*CFI*) in Primary Myelofibrosis (PMF). *Blood* 2021; 138 (Supplement 1): 1472. doi: <https://doi.org/10.1182/blood-2021-154281>
5. **M Petersen**, N Ahsan, A Chorzalska, P Dubielecka, P Gruppuso, J Morgan, M Pardo, 3114 – Proximity dependent labeling describes role of Abelson interactor 1 in centrosome biology, *Experimental Hematology*, Volume 100, Supplement, 2021, Page S97, ISSN 0301-472X, <https://doi.org/10.1016/j.exphem.2021.12.331>.
6. **M Petersen**, AD Chorzalska, A Rodriguez, DM Bonal, PM Dubielecka; Proximity Proteomics Identifies Network of Lipid Metabolism Regulators in JAK2 V617F Interactome. *Blood* 2022; 140 (Supplement 1): 2988–2989. doi: <https://doi.org/10.1182/blood-2022-170368>
7. **M Petersen**, AD Chorzalska, A Rodriguez, DM Bonal, PM Dubielecka; Proximity Proteomics Identifies Network of Lipid Metabolism Regulators in JAK2 V617F Interactome. *Molecular Biology of the Cell* 2023; 34(2): 1129.
8. **M Petersen**, K Washington, AD Chorzalska, PM Dubielecka; Proximity Proteomics Identifies a Role of MAP2K4 (MKK4) in JAK2 V617F Signaling. *Blood* 2024; 144 (Supplement 1): 2721. doi: <https://doi.org/10.1182/blood-2024-212028>
9. O Leiva, S Soo, O Liu, V You, A Palmer, J Kahla, Y Murtaza, O Odenike, A Patel, J DeCara, M Lee, C How, **M Petersen**, P Dubielecka, G Hobbs; Decreased serum total cholesterol is associated with worse outcomes among patients with myeloproliferative neoplasms. *Blood* 2025; 146 (Supplement 1): 2020. doi: <https://doi.org/10.1182/blood-2025-2020>
10. **M Petersen**, A Chorzalska, J Reagan, N Ahsan, J He, M Clarke, O Oyelola, S Donnelly, R Niroula, T Ollila, O Leiva, G Hobbs, P Dubielecka, Peripheral blood plasma proteomics reveals dysregulated cholesterol transport and complement pathways in myeloproliferative neoplasms, *Blood*, Volume 146, Supplement 1, 2025, Page 3245, ISSN 0006-4971, <https://doi.org/10.1182/blood-2025-3245>.

INVITED PRESENTATIONS

1. JCB–JEM Symposium: Tackling Cancer Plasticity and Heterogeneity. Rockefeller University, New York City, NY. October 9, 2018 (**poster presentation**)
2. Molecular Biology of Aging annual retreat. Brown University, Providence, RI. October 20, 2018 (**poster presentation**)
3. New York Stem Cell Foundation (NYSCF) Conference. Rockefeller University, New York City, NY. October 23-24, 2018 (**poster presentation**)
4. Rhode Island NIH IDeA Symposium. Warren Alpert Medical School of Brown University, Providence, RI. June 7, 2019 (**poster presentation**)
5. 21st Annual John Goldman Conference on Chronic Myeloid Leukemia: Biology and Therapy. Bordeaux, France. September 12-15, 2019 (**oral presentation**)

6. Gordon Research Seminar on Biology of Aging. Newry, ME. July 12-13, 2019 (**poster presentation**)
7. Blood Disorders: Models, Mechanisms and Therapies. Harvard Medical School, Boston, MA. September 29-October 1, 2019 (**poster presentation and flash talk**)
8. COBRE Center for Stem Cells and Aging Program scientific meeting guest speaker. Rhode Island Hospital, Providence, RI. January 20, 2020 (**oral presentation**)
9. Molecular Pharmacology and Physiology (MPP) third year talk. Providence, RI. January 31, 2020 (**oral presentation**)
10. Providence Area Aging Research Forum (PAARF). September 8, 2020 (**virtual presentation**)
11. American Society of Cell Biology (ASCB) Cell Bio Virtual 2020. December 15, 2020 (**virtual presentation**)
12. Cardiovascular Research Center (CVRC) data club guest speaker. January 27, 2021 (**virtual presentation**)
13. COBRE Center for Stem Cells and Aging Program scientific meeting guest speaker. February 8, 2021 (**virtual presentation**)
14. Experimental Biology 2021. April 27-30, 2021 (**virtual presentation**)
15. Cardiovascular Research Center (CVRC) data club guest speaker. February 23, 2022 (**virtual presentation**)
16. Providence Area Aging Research Forum (PAARF). Providence, RI. November 15, 2022 (**oral presentation**)
17. ASCB 2022. Washington, D.C. December 2-6, 2022 (**poster presentation**)
18. Heme Malignancies TRDG meeting. December 7, 2022 (**oral presentation**)
19. American Society of Hematology (ASH) 2022. December 10-12, 2022 (**poster presentation**)
20. Cardiovascular Research Center (CVRC) data club guest speaker. February 2, 2023 (**virtual presentation**)
21. Legorreta Cancer Center Cancer Biology Program Retreat. February 23, 2023 (**poster presentation**)
22. Therapeutic Sciences Graduate Program PhD Defense. April 21, 2023 (**oral presentation**)
23. Therapeutic Sciences Graduate Program Retreat. May 5, 2023 (**poster presentation**)
24. RI IDeA Symposium. June 1, 2023 (**poster presentation**)
25. Innovation@Brown Showcase. October 5, 2023 (**poster presentation**)
26. CDL Toronto Advanced Therapies Session. October 17, 2023 (**oral presentation**)
27. Brown University Bioweb Flash Talk. October 30, 2023 (**oral presentation**)
28. Brown University LCC TRDG annual retreat. May 24, 2024 (**oral presentation**).
29. Providence Area Aging Research Forum (PAARF). September 10, 2024 (**oral presentation**)
30. Matrix Biology Europe (MBE) 2024. September 24-27, 2024 (**poster presentation**)
31. American Society of Hematology (ASH) 2024. December 7-10, 2024 (**poster presentation**)
32. Brown University Postdoctoral Research Symposium. March 27, 2025 (**poster presentation**)
33. Brown University Department of Medicine Annual Research Forum. June 5, 2025 (**two poster presentations**)
34. ECM Pharmacology Congress. June 16, 2026 (**oral presentation**)