

Stanford



Sebastian Fernandez-Pol

Clinical Assistant Professor, Pathology

CLINICAL OFFICE (PRIMARY)

- **Department of Pathology**

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Bio

BIO

Dr. Sebastian Fernandez-Pol is an academic hematopathologist with fellowship training in hematopathology and dermatopathology. He has a particular interest in improving diagnostic accuracy for cutaneous lymphoproliferative disorders. Dr. Fernandez-Pol received his B.A. in chemistry with a concentration in biochemistry from the Washington University in St. Louis in 2003, his MD and PhD from Northwestern University in 2013, and completed his anatomic pathology and clinical pathology residency, hematopathology fellowship, and dermatopathology fellowship at Stanford University in 2019.

CLINICAL FOCUS

- Hematopathology
- Anatomic and Clinical Pathology
- Dermatopathology

ACADEMIC APPOINTMENTS

- Clinical Assistant Professor, Pathology

PROFESSIONAL EDUCATION

- Fellowship: Stanford University Dermatopathology Fellowship (2019) CA
- Board Certification: Dermatopathology, American Board of Pathology (2019)
- Fellowship, Stanford University Hematopathology Fellowship , CA (2018)
- Board Certification: Hematopathology, American Board of Pathology (2018)
- Board Certification: Anatomic and Clinical Pathology, American Board of Pathology (2017)
- Residency: Stanford University Pathology Residency (2017) CA
- Medical Education: Northwestern University Feinberg School of Medicine (2013) IL

Publications

PUBLICATIONS

- **Clinical characteristics, treatment patterns, and outcomes of cytotoxic cutaneous T-cell lymphomas.** *American journal of hematology*
Mou, E., Fernandez-Pol, S., Li, S., Rieger, K. E., Novoa, R., Suarez, C. J., Wieland, R., Weng, W., Kim, Y. H., Khodadoust, M. S.
2024
- **Shared and distinct mechanisms of UBA1 inactivation across different diseases.** *The EMBO journal*
Collins, J. C., Magaziner, S. J., English, M., Hassan, B., Chen, X., Balanda, N., Anderson, M., Lam, A., Fernandez-Pol, S., Kwong, B., Greenberg, P. L., Terrier, B., Likhite, et al
2024
- **The clinical, molecular, and prognostic features of the 2022 WHO and ICC classification systems for myelodysplastic neoplasms.** *Leukemia research*
Khanna, V., Lu, R., Kumar, J., Molina, A., Stehr, H., Spiteri, E., Spinner, M., Silva, O., Fernandez-Pol, S., Tan, B., Greenberg, P. L.
2023; 136: 107433
- **B-lymphoblastic leukemia with transient spontaneous remission in the setting of severe group A streptococcus infection.** *Journal of hematopathology*
Gilbert, A., Tan, J., Nadimpalli, S., Orkusyan, R., Fernandez, Z. I., Oak, J., Fernandez-Pol, S.
2023; 16 (4): 223-226
- **Lupus erythematosus cells in a bone marrow aspirate.** *Journal of hematopathology*
Zhang, J., Tan, B., Fernandez-Pol, S.
2023; 16 (4): 247-248
- **Two cases of mycosis fungoides with large cell transformation with KMT2A rearrangements.** *Journal of hematopathology*
Wadsworth, P. A., Lawrence, L., Suarez, C. J., Saleem, A., Khodadoust, M. S., Kim, Y. H., Rieger, K. E., Fernandez-Pol, S.
2023; 16 (4): 227-234
- **Two cases of mycosis fungoides with large cell transformation with KMT2A rearrangements** *JOURNAL OF HEMATOPATHOLOGY*
Wadsworth, P. A., Lawrence, L., Suarez, C. J., Saleem, A., Khodadoust, M. S., Kim, Y. H., Rieger, K. E., Fernandez-Pol, S.
2023
- **B-lymphoblastic leukemia with transient spontaneous remission in the setting of severe group A streptococcus infection** *JOURNAL OF HEMATOPATHOLOGY*
Gilbert, A., Tan, J., Nadimpalli, S., Orkusyan, R., Fernandez, Z., Oak, J., Fernandez-Pol, S.
2023
- **Shared and Distinct Mechanisms of UBA1 Inactivation Across Different Diseases.** *bioRxiv : the preprint server for biology*
Collins, J. C., Magaziner, S. J., English, M., Hassan, B., Chen, X., Balanda, N., Anderson, M., Lam, A., Fernandez-Pol, S., Kwong, B., Greenberg, P. L., Terrier, B., Likhite, et al
2023
- **Lupus erythematosus cells in a bone marrow aspirate** *JOURNAL OF HEMATOPATHOLOGY*
Zhang, J., Tan, B., Fernandez-Pol, S.
2023
- **Genomic abnormalities involving class I HLA are common in advanced cutaneous T-cell lymphoma**
Kwang, A., Duran, G., Fernandez-Pol, S., Li, S., Najidh, S., Torres, A., Herrera, M., Wang, E., Kurtz, D., Kim, Y. H., Khodadoust, M.
ELSEVIER SCI LTD.2023: S14
- **SATB2 expression in hematolymphoid neoplasms.** *Journal of hematopathology*
Tiu, G. C., Natkunam, Y., Fernandez-Pol, S.
2023; 16 (2): 119-122
- **SATB2 expression in hematolymphoid neoplasms** *JOURNAL OF HEMATOPATHOLOGY*
Tiu, G. C., Natkunam, Y., Fernandez-Pol, S.
2023

- **Clinicopathologic characteristics, genetic features, and treatment options for acute lymphoblastic leukemia with JAK2 rearrangement-A 10-case study and literature review.** *Human pathology*
Zhang, L., Shah, B., Zhang, Y., Tashkandi, H., Xiao, W., Fernandez-Pol, S., Vergara-Lluri, M., Hussaini, M., Song, J., Lancet, J., Moscinski, L., Yun, S., Lu, et al
2023
- **Molecular profiling identifies at least 3 distinct types of post-transplant lymphoproliferative disorder involving CNS.** *Blood advances*
Guney, E., Lucas, C. G., Singh, K., Pekmezci, M., Fernandez-Pol, S., Mirchia, K., Toland, A., Vogel, H., Bannykh, S. I., Schafernak, K. T., Alexandrescu, S., Mobley, B. C., Powell, et al
2023
- **Comparison of two immunohistochemical staining protocols for ALK demonstrates non-inferiority of a 5A4 clone-based protocol versus an ALK01 clone-based protocol for the diagnosis of ALK + anaplastic large cell lymphoma.** *Journal of hematopathology*
Fernandez-Pol, S., Ferreira, C. R., Manohar, V., Sanches, J. A., Lage, L. A., Pereira, J., Zerbini, M. C., Gratzinger, D., Natkunam, Y.
2023; 16 (1): 1-5
- **Isolated Sixth Nerve Palsies in a Child With Familial Hemophagocytic Lymphohistiocytosis Type 2.** *Journal of neuro-ophthalmology : the official journal of the North American Neuro-Ophthalmology Society*
Chiang, H. H., Fernandez-Pol, S., Bae, G. H., Rieger, K. E., Dahmoush, H. M., Beres, S. J.
2023; 43 (1): 137-140
- **TRBC1 enables identification of an otherwise immunophenotypically silent case of angioimmunoblastic T-cell lymphoma.** *Journal of hematopathology*
Zhang, J., Fernandez-Pol, S.
2023; 16 (1): 59-61
- **TRBC1 enables identification of an otherwise immunophenotypically silent case of angioimmunoblastic T-cell lymphoma** *JOURNAL OF HEMATOPATHOLOGY*
Zhang, J., Fernandez-Pol, S.
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- **Comparison of two immunohistochemical staining protocols for ALK demonstrates non-inferiority of a 5A4 clone-based protocol versus an ALK01 clone-based protocol for the diagnosis of ALK plus anaplastic large cell lymphoma** *JOURNAL OF HEMATOPATHOLOGY*
Fernandez-Pol, S., Ferreira, C. R., Manohar, V., Sanches, J., Lage, L. C., Pereira, J., Zerbini, M. N., Gratzinger, D., Natkunam, Y.
2023
- **Clinical Characteristics, Treatment Patterns, and Outcomes of Cytotoxic Cutaneous T-Cell Lymphomas**
Mou, E., Fernandez-Pol, S., Li, S., Kim, Y. H., Khodadoust, M. S.
AMER SOC HEMATOLOGY.2022: 6552-6553
- **Characterization of Clinical, Molecular, and Prognostic Features of the WHO 2022 Classification System for Myelodysplastic Neoplasms (MDS)**
Khanna, V., Lu, R., Kumar, J., Stehr, H., Spinner, M. A., Silva, O., Fernandez-Pol, S., Oak, J. S., Tan, B., Greenberg, P. L.
AMER SOC HEMATOLOGY.2022: 6955-6957
- **Correlation of Mutational Profiles and Cytogenetics with Morphologic Dysplasia in Myelodysplastic Syndromes**
Kumar, J., Khanna, V., Lu, R., Stehr, H., Spinner, M. A., Silva, O., Fernandez-Pol, S., Oak, J. S., Greenberg, P. L., Tan, B.
AMER SOC HEMATOLOGY.2022: 4053-4055
- **Digital Image Analysis and Quantitative Bead Standards in Root Cause Analysis of Immunohistochemical Staining Variability: A Real-world Example.** *Applied immunohistochemistry & molecular morphology : AIMM*
Rojansky, R., Sompuram, S. R., Gomulia, E., Natkunam, Y., Troxell, M. L., Fernandez-Pol, S.
2022
- **Resistance to mogamulizumab is associated with loss of CCR4 in Cutaneous T-cell Lymphoma.** *Blood*
Beygi, S., Duran, G. E., Fernandez-Pol, S., Rook, A. H., Kim, Y. H., Khodadoust, M. S.
2022
- **Identification of "ER Low Positive" Breast Cancers Is Associated with Immunohistochemical Assay Conditions in CAP Proficiency Testing PM2 Survey**
Bean, G., Souers, R., Fernandez-Pol, S., Bellizzi, A.
SPRINGERNATURE.2022: 94-95
- **Identification of "ER Low Positive" Breast Cancers Is Associated with Immunohistochemical Assay Conditions in CAP Proficiency Testing PM2 Survey**
Bean, G., Souers, R., Fernandez-Pol, S., Bellizzi, A.

SPRINGERNATURE.2022: 94-95

- **Molecular Characterization of Chronic Lymphocytic Leukemia with Progression to Classic Hodgkin Lymphoma**

Tiu, G., Xu, G., Gratzinger, D., Fernandez-Pol, S.

SPRINGERNATURE.2022: 1029-1030

- **Expression of CD47 Protein in Hematolymphoid Neoplasms: Implications for CD47-Mediated Cancer Immunotherapy**

Zhang, J., Bulterys, P., Fernandez-Pol, S., Younes, S., Zhao, S., Mansoor, A., Natkunam, Y.

SPRINGERNATURE.2022: 1052-1053

- **Molecular Characterization of Chronic Lymphocytic Leukemia with Progression to Classic Hodgkin Lymphoma**

Tiu, G., Xu, G., Gratzinger, D., Fernandez-Pol, S.

SPRINGERNATURE.2022: 1029-1030

- **Expression of CD47 Protein in Hematolymphoid Neoplasms: Implications for CD47-Mediated Cancer Immunotherapy**

Zhang, J., Bulterys, P., Fernandez-Pol, S., Younes, S., Zhao, S., Mansoor, A., Natkunam, Y.

SPRINGERNATURE.2022: 1052-1053

- **Selective Targeting of Immune Modulatory Proteins to Mitigate Fibrosis and Inflammation in Sclerodermatos Graft-Vs-Host Disease**

Cui, L., De Souza, C., Lerbs, T., Poyser, J., Kooshesh, M., Saleem, A., Rieger, K., Brown, B., Kwong, B., Fernandez-Pol, S., Arai, S., Shizuru, J. A., Mueller, et al
AMER SOC HEMATOLOGY.2021

- **Two Cases of Mycosis Fungoidea With PCM1-JAK2 Fusion. *JCO precision oncology***

Fernandez-Pol, S., Neishaboori, N., Chapman, C. M., Khodadoust, M. S., Kim, Y. H., Rieger, K. E., Suarez, C. J.

2021; 5: 646-652

- **Mechanisms of resistance to anti-CCR4 antibody, mogamulizumab, in cutaneous T cell lymphoma**

Beygi, S., Fernandez-Pol, S., Duran, G., Wang, E. B., Kim, Y., Khodadoust, M.

ELSEVIER SCI LTD.2021: S8

- **Angioimmunoblastic T-cell lymphoma diagnosed from pleural fluid by integration of morphologic, immunophenotypic, and molecular findings. *Diagnostic cytopathology***

Tan, B., Martin, B., Fernandez-Pol, S.

2021

- **DLBCL-Morph: Morphological features computed using deep learning for an annotated digital DLBCL image set. *Scientific data***

Vrabac, D., Smit, A., Rojansky, R., Natkunam, Y., Advani, R. H., Ng, A. Y., Fernandez-Pol, S., Rajpurkar, P.

2021; 8 (1): 135

- **Radiation Therapy for Primary Cutaneous Gamma Delta Lymphoma Prior to Stem Cell Transplantation. *Cancer investigation***

Wu, Y. F., Skinner, L., Lewis, J., Khodadoust, M. S., Kim, Y. H., Kwong, B. Y., Weng, W., Hoppe, R. T., Sodji, Q., Hui, C., Kastelowitz, N., Fernandez-Pol, S., Hiniker, et al

2021: 1-11

- **Two Cases of Mycosis Fungoidea With PCM1-JAK2 Fusion *JCO PRECISION ONCOLOGY***

Fernandez-Pol, S., Neishaboori, N., Chapman, C. M., Khodadoust, M. S., Kim, Y. H., Rieger, K. E., Suarez, C. J.

2021; 5: 646-652

- **A Method for Assessing Performance of Automated Immunohistochemical Staining Platforms Using Digital Image Analysis**

Rojansky, R., Fernandez-Pol, S., Gomulia, E., Natkunam, Y., Troxell, M.

SPRINGERNATURE.2021: 1172-73

- **Pembrolizumab in mycosis fungoidea with PD-L1 structural variants. *Blood advances***

Beygi, S. n., Fernandez-Pol, S. n., Duran, G. n., Wang, E. B., Stehr, H. n., Zehnder, J. L., Ramchurren, N. n., Fling, S. P., Cheever, M. A., Weng, W. K., Kim, Y. H., Khodadoust, M. S.

2021; 5 (3): 771-74

- **GloFlow: Whole Slide Image Stitching from Video Using Optical Flow and Global Image Alignment**

Krishna, V., Joshi, A., Vrabac, D., Bulterys, P., Yang, E., Fernandez-Pol, S., Ng, A. Y., Rajpurkar, P., DeBruijne, M., Cattin, P. C., Cotin, S., Padov, N., Speidel, et al

SPRINGER INTERNATIONAL PUBLISHING AG.2021: 519-528

- **A novel activating JAK1 mutation in chronic eosinophilic leukemia.** *Blood advances*
Shomali, W., Damnernsawad, A., Theparee, T., Sampson, D., Morrow, Q., Yang, F., Fernandez-Pol, S., Press, R. D., Zehnder, J. L., Tyner, J. W., Gotlib, J. R.
2021
- **Epstein-Barr virus-positive lymphoproliferative disorder manifesting as pulmonary disease in a patient with acute myeloid leukemia: a case report.** *Journal of medical case reports*
Dutta, R. n., Miao, S. Y., Phan, P. n., Fernandez-Pol, S. n., Shiraz, P. n., Ho, D. n., Mannis, G. N., Zhang, T. Y.
2021; 15 (1): 170
- **Jun Activation in Dermal Fibroblasts Promotes Fibrosis and Inflammation in Sclerodermatous Graft-vs-host Disease in Mice and Humans**
Mueller, A., Cui, L., Lerbs, T., King, M., Muscat, C., Shibata, T., Lee, J., Brown, R., Fernandez-Pol, S., Arai, S., Shizuru, J., Wernig, G.
SPRINGERNATURE.2020: 13–14
- **Two Cases With Features of Lymphocyte Variant Hypereosinophilic Syndrome With STAT3 SH2 Domain Mutations.** *The American journal of surgical pathology*
Fernandez-Pol, S., Petersen, B., Murphy, J., Oak, J. S., Wang, E. B., Rieger, K. E., Kim, Y. H., Khodadoust, M. S., Suarez, C. J.
2020
- **Cutaneous T-cell lymphomas with pathogenic somatic mutations and absence of detectable clonal T-cell receptor gene rearrangement: two case reports.** *Diagnostic pathology*
Rojansky, R., Fernandez-Pol, S., Wang, E., Rieger, K. E., Novoa, R. A., Zehnder, J. L., Kunder, C. A., Kim, Y. H., Khodadoust, M. S., Brown, R. A.
2020; 15 (1): 122
- **Differentiation syndrome during ivosidenib treatment with immunohistochemistry showing isocitrate dehydrogenase R132H mutation.** *Journal of cutaneous pathology*
Tabata, M. M., Chase, M., Kwong, B. Y., Novoa, R. A., Fernandez-Pol, S.
2020
- **A Case of G6PC3 Congenital Neutropenia, Misdiagnosed As Evans Syndrome**
Camacho, J., Brar, R., Chapman, C., Fernandez-Pol, S., Weinacht, K., Gernez, Y.
SPRINGER/PLENUM PUBLISHERS.2020: S131–S132
- **Cutaneous Pleomorphic Fibromas Arising in Patients with Germline TP53 Mutations.** *Journal of cutaneous pathology*
Cloutier, J. M., Shalin, S. C., Lindberg, M., Gardner, J. M., Fernandez-Pol, S., Zaba, L., Novoa, R., Brown, R. A.
2020
- **Erythema of the skin after breast radiotherapy: It is not always recurrence.** *International wound journal*
Gutkin, P. M., Fernandez-Pol, S. n., Horst, K. C.
2020
- **Reticulohistiocytoma (solitary epithelioid histiocytoma) with mutations in RAF1 and TSC2.** *Journal of cutaneous pathology*
Bahrani, E. n., Fernandez-Pol, S. n., Wang, J. Y., Aasi, S. Z., Brown, R. A., Novoa, R. A.
2020
- **Multiplexed single-cell morphometry for hematopathology diagnostics.** *Nature medicine*
Tsai, A. G., Glass, D. R., Juntilla, M. n., Hartmann, F. J., Oak, J. S., Fernandez-Pol, S. n., Ohgami, R. S., Bendall, S. C.
2020; 26 (3): 408–17
- **A Survey of Somatic Mutations in 41 Genes in a Cohort of T-Cell Lymphomas Identifies Frequent Mutations in Genes Involved in Epigenetic Modification** *APPLIED IMMUNOHISTOCHEMISTRY & MOLECULAR MORPHOLOGY*
Fernandez-Pol, S., Ma, L., Joshi, R. P., Arber, D. A.
2019; 27 (6): 416–22
- **Additional considerations related to the elusive boundaries of EBV-associated T/NK-cell lymphoproliferative disorders.** *Haematologica*
Fernandez-Pol, S., Silva, O., Natkunam, Y.
2019; 104 (3): e125–e126
- **Defining the elusive boundaries of chronic active Epstein-Barr virus infection.** *Haematologica*
Fernandez-Pol, S., Silva, O., Natkunam, Y.
2018; 103 (6): 924–27

- **A Survey of Somatic Mutations in 41 Genes in a Cohort of T-Cell Lymphomas Identifies Frequent Mutations in Genes Involved in Epigenetic Modification.** *Applied immunohistochemistry & molecular morphology : AIMM*
Fernandez-Pol, S., Ma, L., Joshi, R. P., Arber, D. A.
2018
- **Scedosporium apiospermum infection of the urinary system with a review of treatment options and cases in the literature** *TRANSPLANT INFECTIOUS DISEASE*
Benamu, E., Yu, A., Xie, L., Fernandez-Pol, S., Liu, A. Y., Ho, D. Y.
2018; 20 (1)
- **Immunohistochemistry for PAX7 is a useful confirmatory marker for Ewing sarcoma in decalcified bone marrow core biopsy specimens.** *Virchows Archiv : an international journal of pathology*
Fernandez-Pol, S. n., van de Rijn, M. n., Natkunam, Y. n., Charville, G. W.
2018
- **Primary cutaneous anaplastic large cell lymphoma.** *Journal of cutaneous pathology*
Brown, R. A., Fernandez-Pol, S., Kim, J.
2017; 44 (6): 570-577
- **Immunohistochemistry for p53 is a useful tool to identify cases of acute myeloid leukemia with myelodysplasia-related changes that are TP53 mutated, have complex karyotype, and have poor prognosis.** *Modern pathology*
Fernandez-Pol, S., Ma, L., Ohgami, R. S., Arber, D. A.
2017; 30 (3): 382-392
- **Immunohistochemistry reveals an increased proportion of MYC-positive cells in subcutaneous panniculitis-like T-cell lymphoma compared with lupus panniculitis.** *Journal of cutaneous pathology*
Fernandez-Pol, S. n., De Stefano, D. n., Kim, J. n.
2017; 44 (11): 925–30
- **Two cases of histiocytic sarcoma with BCL2 translocations and occult or subsequent follicular lymphoma.** *Human pathology*
Fernandez-Pol, S., Bangs, C. D., Cherry, A., Arber, D. A., Gratzinger, D.
2016; 55: 39-43
- **Significance of myelodysplastic syndrome-associated somatic variants in the evaluation of patients with pancytopenia and idiopathic cytopenias of undetermined significance.** *Modern pathology*
Fernandez-Pol, S., Ma, L., Ohgami, R. S., Arber, D. A.
2016; 29 (9): 996-1003
- **Colonic plasmacytomas: a rare complication of plasma cell leukemia.** *Endoscopy*
Hang, C. T., Perumpail, R. B., Huang, R. J., Fernandez-Pol, S., Fernandez-Becker, N. Q.
2015; 47: E77-8
- **High-throughput Sequencing of Subcutaneous Panniculitis-like T-Cell Lymphoma Reveals Candidate Pathogenic Mutations.** *Applied immunohistochemistry & molecular morphology : AIMM*
Fernandez-Pol, S. n., Costa, H. A., Steiner, D. F., Ma, L. n., Merker, J. D., Kim, Y. H., Arber, D. A., Kim, J. n.
; 27 (10): 740–48