



## Marie Hollenhorst, MD, PhD

- Clinical Instructor, Pathology
- Clinical Instructor, Medicine - Hematology

### CLINICAL OFFICES

- **Hematology**

269 Campus Dr Rm 1155

CCSR Bldg MC 5156

Stanford, CA 94305

**Tel** (650) 726-1484      **Fax** (650) 724-5203

### Bio

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#### BIO

Dr. Hollenhorst is a physician and scientist with expertise in non-malignant hematology, transfusion medicine, and chemical biology. Dr. Hollenhorst values the one-on-one relationships that she forms with her patients, and strives to deliver the highest quality of care for individuals with blood diseases. Her experience caring for patients drives her to ask scientific questions in the laboratory, where she aims to bring a chemical approach to the study of non-malignant blood disease.

Dr. Hollenhorst pursued combined MD and PhD training at Harvard University, where she received a PhD in Chemical Biology under the mentorship of Professor Christopher T Walsh. She subsequently completed a residency in Internal Medicine at Brigham and Women's Hospital, a fellowship in Transfusion Medicine at Harvard Medical School, and a fellowship in Hematology at Stanford.

Dr. Hollenhorst has a particular interest in the biology of platelets, which are cellular fragments that help the blood to maintain a healthy balance between excessive bleeding and excessive clotting. Working in the laboratory of Professor Carolyn Bertozzi of Stanford Chemistry, Dr. Hollenhorst is studying sugar-containing molecules that are found within platelets and are important in controlling their function and lifespan.

Dr. Hollenhorst's research is supported by a Stanford Chemistry, Engineering & Medicine for Human Health Physician-Scientist Fellowship, a National Institutes of Health Individual Postdoctoral Fellowship, and a National Blood Foundation Early-Career Scientific Research Grant.

#### CLINICAL FOCUS

- Non-malignant hematology
- Transfusion medicine
- Hemostasis and thrombosis
- Sickle Cell Disease
- Hematology

## ACADEMIC APPOINTMENTS

- Clinical Instructor, Pathology
- Clinical Instructor, Medicine - Hematology
- Member, Maternal & Child Health Research Institute (MCHRI)

## HONORS AND AWARDS

- Ruth L. Kirschstein National Research Service Award Individual Postdoctoral Fellowship (F32), National Institutes of Health, National Heart Lung Blood Institute (2019-2022)
- Early-Career Scientific Research Grant, National Blood Foundation (2019-2021)
- Physician-Scientist Research Fellowship, Stanford ChEM-H (2017-2020)
- Certificate of Distinction in Teaching (Course: Chemistry 27, Organic Chemistry of Life), Harvard University (2010)
- Award for Exemplary Leadership in Coordinating the MD/PhD-LHB Grand Rounds, Harvard-MIT MD/PhD Program (2010)
- Fox Award for the Most Outstanding Undergraduate in the Department of Biological Sciences, Stanford University (2005)

## PROFESSIONAL EDUCATION

- Board Certification: Hematology, American Board of Internal Medicine
- Board Certification, American Board of Internal Medicine , Hematology (2019)
- Board Certification: Blood Banking/Transfusion Medicine, American Board of Pathology (2017)
- Board Certification: Internal Medicine, American Board of Internal Medicine (2016)
- Hematology Fellowship, Stanford (2019)
- Transfusion Medicine Fellowship, Harvard Medical School (2017)
- Internal Medicine Residency, Brigham and Women's Hospital (2016)
- MD, Harvard Medical School (Harvard-MIT Health Sciences and Technology) (2013)
- PhD, Harvard University , Chemical Biology (2011)

## Teaching

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### GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Hematology (Fellowship Program)
- Transfusion Medicine (Fellowship Program)

## Publications

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### PUBLICATIONS

- **Bridging the Divide: Student Grand Rounds at the Interface of Basic Science and Clinical Medicine.** *Academic medicine : journal of the Association of American Medical Colleges*  
Hollenhorst, M. A., Braun, D. A., Burtner, C. R., Cajigas, I., Cunningham-Bussel, A. C., Eser, P. O., Nabel, C. S., Tsai, F. D., Weeks, L. D., Michel, T., Yialamas, M. A.  
2019
- **Markers of autoimmunity in immune thrombocytopenia: prevalence and prognostic significance.** *Blood advances*  
Hollenhorst, M. A., Al-Samkari, H., Kuter, D. J.  
2019; 3 (22): 3515–21
- **Clinical decision support and improved blood use in patient blood management.** *Hematology. American Society of Hematology. Education Program*  
Goodnough, L. T., Hollenhorst, M. A.  
2019; 2019 (1): 577–82

- **Thrombosis, Hypercoagulable States, and Anticoagulants** *PRIMARY CARE*  
Hollenhorst, M. A., Battinelli, E. M.  
2016; 43 (4): 619-+
- **A Head-to-Head Comparison of Eneamide and Epoxyamide Inhibitors of Glucosamine-6-Phosphate Synthase from the Dapdiamide Biosynthetic Pathway** *BIOCHEMISTRY*  
Hollenhorst, M. A., Ntai, I., Badet, B., Kelleher, N. L., Walsh, C. T.  
2011; 50 (19): 3859-61
- **The Nonribosomal Peptide Synthetase Enzyme DdaD Tethers N-beta-Fumaramoyl-L-2,3-diaminopropionate for Fe(II)/alpha-Ketoglutarate-Dependent Epoxidation by DdaC during Dapdiamide Antibiotic Biosynthesis (vol 132, pg 15773, 2010)** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Hollenhorst, M. A., Bumpus, S. B., Matthews, M. L., Bollinger, J., Kelleher, N. L., Walsh, C. T.  
2011; 133 (5): 1609
- **The ATP-Dependent Amide Ligases DdaG and DdaF Assemble the Fumaramoyl-Dipeptide Scaffold of the Dapdiamide Antibiotics** *BIOCHEMISTRY*  
Hollenhorst, M. A., Clardy, J., Walsh, C. T.  
2009; 48 (43): 10467-72
- **Localized expression of an anti-TNF single-chain antibody prevents development of collagen-induced arthritis** *GENE THERAPY*  
Smith, R., Turner, I. H., Hollenhorst, M., Lin, C., Levicnik, A. U., Fathman, C. G., Nolan, G. P.  
2003; 10 (15): 1248-1257
- **GRAIL: An E3 ubiquitin ligase that inhibits cytokine gene transcription is expressed in anergic CD4(+) T cells** *IMMUNITY*  
Anandasabapathy, N., Ford, G. S., Bloom, D., Holness, C., Paragas, V., Seroogy, C., Skrenta, H., Hollenhorst, M., Fathman, C. G., Soares, L.  
2003; 18 (4): 535-547