

Stanford



Caroline Berube

Clinical Associate Professor, Medicine - Hematology

CLINICAL OFFICE (PRIMARY)

- **Hematology Clinic**

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Bio

CLINICAL FOCUS

- Hemostasis Thrombosis
- Anticoagulation
- Pregnancy-related hematologic conditions
- Hematology
- Idiopathic thrombocytopenic purpura
- Anemia

ACADEMIC APPOINTMENTS

- Clinical Associate Professor, Medicine - Hematology

ADMINISTRATIVE APPOINTMENTS

- Medical Director, Oral Anticoagulation Clinic, Stanford Hospital and Clinics, (2004- present)

PROFESSIONAL EDUCATION

- Fellowship: McMaster University (1991) Canada
- Fellowship: University of British Columbia (1990) BC Canada
- Residency: Universite Laval (1987) Canada
- Internship: Universite Laval (1984) Canada
- Medical Education: Universite Laval (1983) Canada
- Board Certification: Medical Oncology, Royal College of Physicians and Surgeons of Canada (1990)
- Board Certification: Hematology, Royal College of Physicians and Surgeons (1989)
- Board Certification: Internal Medicine, Royal College of Physicians and Surgeons of Canada (1988)
- Oncology, University of BC, Canada , Medical Oncology (1990)

- Board certification, Hematology , Canadian Hematology Board (1989)
- Fellowship: University of Montreal (1989) Canada
- Hematology, University of Montreal, Canada , Hematology (1989)
- F.R.C.P.(C), Internal Medicine , Canadian Board (1987)
- M.D., Laval University, Canada , Medicine (1984)

Research & Scholarship

CLINICAL TRIALS

- A Dose Escalation Study of Lenalidomide in Relapsed or Refractory B-cell Chronic Lymphocytic Leukemia, Not Recruiting
- A Phase 2 Open-Label Study of the Efficacy and Safety of ABT-199 (GDC-0199) in Chronic Lymphocytic Leukemia (CLL) Subjects With Relapse or Refractory to B-Cell Receptor Signaling Pathway Inhibitor Therapy, Not Recruiting
- A Randomized, Double-Blind, Placebo-Controlled Study of Idelalisib in Combination With Rituximab for Previously Treated Chronic Lymphocytic Leukemia (CLL), Not Recruiting
- A Study of Idelalisib and Rituximab in Elderly Patients With Untreated CLL or SLL, Not Recruiting
- Acalabrutinib, Obinutuzumab and Chlorambucil in Treatment naïve CLL, Not Recruiting
- Acute Venous Thrombosis: Thrombus Removal With Adjunctive Catheter-Directed Thrombolysis, Not Recruiting
- An Extension Study for Subjects Who Are Deriving Benefit With Idelalisib (GS-1101; CAL-101) Following Completion of a Prior Idelalisib Study, Not Recruiting
- Azacitidine and Gemtuzumab Ozogamicin in Treating Older Patients With Previously Untreated Acute Myeloid Leukemia, Not Recruiting
- Combination Chemotherapy With or Without Blinatumomab in Treating Patients With Newly Diagnosed BCR-ABL-Negative B Lineage Acute Lymphoblastic Leukemia, Not Recruiting
- Combination Chemotherapy With or Without Donor Stem Cell Transplant in Treating Patients With Acute Lymphoblastic Leukemia, Not Recruiting
- Compare Bosutinib To Imatinib In Subjects With Newly Diagnosed Chronic Phase Philadelphia Chromosome Positive CML, Not Recruiting
- COntrolled MyeloFibrosis Study With ORal JAK Inhibitor Treatment: The COMFORT-I Trial, Not Recruiting
- Daunorubicin, Cytarabine, and Midostaurin in Treating Patients With Newly Diagnosed Acute Myeloid Leukemia, Not Recruiting
- Dose Escalation Study of CAL-101 in Select Relapsed or Refractory Hematologic Malignancies, Not Recruiting
- Efficacy and Safety of Idelalisib in Combination With Rituximab in Patients With Previously Untreated Chronic Lymphocytic Leukemia With 17p Deletion, Not Recruiting
- Efficacy Study of Oral Sapacitabine to Treat Acute Myeloid Leukemia in Elderly Patients, Not Recruiting
- Extension Study of Idelalisib in Participants With Chronic Lymphocytic Leukemia (CLL) Who Participated in GS-US-312-0116 (NCT01539512), Not Recruiting
- Panobinostat or Placebo With Bortezomib and Dexamethasone in Patients With Relapsed Multiple Myeloma, Not Recruiting
- Phase 2 Midostaurin in Aggressive Systemic Mastocytosis and Mast Cell Leukemia, Not Recruiting
- Rituximab and Bendamustine Hydrochloride, Rituximab and Ibrutinib, or Ibrutinib Alone in Treating Older Patients With Previously Untreated Chronic Lymphocytic Leukemia, Not Recruiting
- S0535, Gemtuzumab and Combination Chemotherapy in Treating Patients With Previously Untreated Acute Promyelocytic Leukemia, Not Recruiting
- S0910 Epratuzumab, Cytarabine, and Clofarabine in Treating Patients With Relapsed or Refractory Acute Lymphoblastic Leukemia, Not Recruiting
- S0919 Idarubicin, Cytarabine, and Pravastatin in Treating Patients With Relapsed Acute Myeloid Leukemia, Not Recruiting
- Safety Study of CAT-8015 Immunooxin in Patients With HCL With Advance Disease, Not Recruiting
- Safety, Efficacy, & Pharmacokinetic Study of Tamibarotene to Treat Patients With Relapsed or Refractory APL, Not Recruiting
- Study Comparing Carfilzomib, Lenalidomide, and Dexamethasone (CRd) vs Lenalidomide and Dexamethasone (Rd) in Subjects With Relapsed Multiple Myeloma, Not Recruiting
- Study of Acalabrutinib (ACP-196) Versus Ibrutinib in Previously Treated Participants With High Risk Chronic Lymphocytic Leukemia (CLL), Not Recruiting
- Study of Lenalidomide to Evaluate Safety and Efficacy in Patients With Relapsed or Refractory Chronic Lymphocytic Leukemia, Not Recruiting

- Study to Determine Efficacy and Safety of Lenalidomide Plus Low-dose Dexamethasone Versus Melphalan, Prednisone, Thalidomide in Patients With Previously Untreated Multiple Myeloma, Not Recruiting
- Study to Investigate Idelalisib in Combination With Chemotherapeutic Agents, Immunomodulatory Agents and Anti-CD20 Monoclonal Antibody (mAb) in Participants With Relapsed or Refractory Indolent B-cell Non-Hodgkin's Lymphoma, Mantle Cell Lymphoma or Chronic Lymphocytic Leukemia, Not Recruiting

Teaching

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Medicine (Masters Program)

Publications

PUBLICATIONS

- **Characteristics associated with diagnostic yield of imaging for deep venous thrombosis and pulmonary embolism in the emergency department, hospital, and office settings: An Optum Clinformatics claims database study (2015-2019).** *Thrombosis research*
Rohatgi, N., Dahlen, A., Berube, C., Weng, Y., Wintermark, M., Ahuja, N.
2023; 224: 4-12
- **Clinical Trial to Evaluate an Atrial Fibrillation Stroke Prevention Shared Decision Making Pathway**
Wang, P. J., Lu, Y., Mahaffey, K. W., Lin, A., Morin, D. P., Sears, S. F., Chung, M. K., Russo, A. M., Lin, B., Piccini, J. P., Hills, M. T., Berube, C., Pundi, et al
LIPPINCOTT WILLIAMS & WILKINS.2022: E582-E583
- **A Randomized Clinical Trial to Evaluate an Atrial Fibrillation Stroke Prevention Shared Decision-Making Pathway.** *Journal of the American Heart Association*
Wang, P. J., Lu, Y., Mahaffey, K. W., Lin, A., Morin, D. P., Sears, S. F., Chung, M. K., Russo, A. M., Lin, B., Piccini, J., Hills, M. T., Berube, C., Pundi, et al
2022: e8009
- **Iron deficiency anemia in pregnancy.** *Current opinion in obstetrics & gynecology*
Igbinsosa, I., Berube, C., Lyell, D. J.
2022; 34 (2): 69-76
- **Hemorrhage risk of direct oral anticoagulants in real-world venous thromboembolism patients.** *Thrombosis research*
Jin, M. C., Sussman, E. S., Feng, A. Y., Han, S. S., Skirboll, S. L., Berube, C., Ratliff, J. K.
2021; 204: 126-133
- **Routine use of gemtuzumab ozogamicin in 7 + 3-based inductions for all 'non-adverse' risk AML.** *Leukemia & lymphoma*
Ladha, A. n., Hui, G. n., Cheung, E. n., Berube, C. n., Coutre, S. E., Gotlib, J. n., Liedtke, M. n., Zhang, T. Y., Muffly, L. n., Mannis, G. N.
2021: 1-6
- **Thrombophilia testing in the inpatient setting: impact of an educational intervention.** *BMC medical informatics and decision making*
Kwang, H. n., Mou, E. n., Richman, I. n., Kumar, A. n., Berube, C. n., Kaimal, R. n., Ahuja, N. n., Harman, S. n., Johnson, T. n., Shah, N. n., Wittles, R. n., Harrington, R. n., Shieh, et al
2019; 19 (1): 167
- **An Electronic Best Practice Alert Based on Choosing Wisely Guidelines Reduces Thrombophilia Testing in the Outpatient Setting.** *Journal of general internal medicine*
Jun, T., Kwang, H., Mou, E., Berube, C., Bentley, J., Shieh, L., Hom, J.
2018
- **Blood and Guts: Diarrhea from Colonic Involvement in Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma.** *Digestive diseases and sciences*
Zikos, T. A., Triadafilopoulos, G., Berube, C., Regalia, K. A.
2018
- **Prochmerin cleavage by factor XIa links coagulation and inflammation** *BLOOD*
Ge, X., Yamaguchi, Y., Zhao, L., Bury, L., Gresele, P., Berube, C., Leung, L. L., Morser, J.
2018; 131 (3): 353-64
- **A phase I, open-label, dose-escalation study of amrubicin in combination with lenalidomide and weekly dexamethasone in previously treated adults with relapsed or refractory multiple myeloma.** *International journal of hematology*

- Dinner, S. n., Dunn, T. J., Price, E. n., Coutr , S. E., Gotlib, J. n., Berube, C. n., Kaufman, G. P., Medeiros, B. C., Liedtke, M. n.
2018
- **Magnitude of Potentially Inappropriate Thrombophilia Testing in the Inpatient Hospital Setting.** *Journal of hospital medicine*
Mou, E. n., Kwang, H. n., Hom, J. n., Shieh, L. n., Kumar, A. n., Richman, I. n., Berube, C. n.
2017; 12 (9): 735–38
 - **Efficacy and safety of midostaurin in patients with advanced systemic mastocytosis: 10-year median follow-up of a phase II trial.** *Leukemia*
DeAngelo, D. J., George, T. I., Linder, A. n., Langford, C. n., Perkins, C. n., Ma, J. n., Westervelt, P. n., Merker, J. D., Berube, C. n., Coutre, S. n., Liedtke, M. n., Medeiros, B. n., Sternberg, et al
2017
 - **A phase 1, open-label, dose-escalation study of pralatrexate in combination with bortezomib in patients with relapsed/refractory multiple myeloma.** *British journal of haematology*
Dunn, T. J., Dinner, S., Price, E., Coutr , S. E., Gotlib, J., Hao, Y., Berube, C., Medeiros, B. C., Liedtke, M.
2016; 173 (2): 253-259
 - **Sequential azacitidine plus lenalidomide in previously treated elderly patients with acute myeloid leukemia and higher risk myelodysplastic syndrome** *LEUKEMIA & LYMPHOMA*
Narayan, R., Garcia, J. S., Percival, M. M., Berube, C., Coutre, S., Gotlib, J., Greenberg, P., Liedtke, M., Hewitt, R., Regan, K., Williamson, C., Doykan, C., Cardone, et al
2016; 57 (3): 609-615
 - **Sequential azacitidine plus lenalidomide in previously treated elderly patients with acute myeloid leukemia and higher risk myelodysplastic syndrome.** *Leukemia & lymphoma*
Narayan, R., Garcia, J. S., Percival, M. M., Berube, C., Coutre, S., Gotlib, J., Greenberg, P., Liedtke, M., Hewitt, R., Regan, K., Williamson, C., Doykan, C., Cardone, et al
2016; 57 (3): 609-615
 - **Eculizumab Induces Sustained Remission in a Patient With Refractory Primary Catastrophic Antiphospholipid Syndrome** *JCR-JOURNAL OF CLINICAL RHEUMATOLOGY*
Zikos, T. A., Sokolove, J., Ahuja, N., Berube, C.
2015; 21 (6): 311-313
 - **Salvage therapy with mitoxantrone, etoposide and cytarabine in relapsed or refractory acute lymphoblastic leukemia.** *Leukemia research*
Liedtke, M., Dunn, T., Dinner, S., Coutr , S. E., Berube, C., Gotlib, J., Patel, S., Medeiros, B.
2014; 38 (12): 1441-1445
 - **Salvage therapy with mitoxantrone, etoposide and cytarabine in relapsed or refractory acute lymphoblastic leukemia** *LEUKEMIA RESEARCH*
Liedtke, M., Dunn, T., Dinner, S., Coutre, S. E., Berube, C., Gotlib, J., Patel, S., Medeiros, B.
2014; 38 (12): 1441-1445
 - **Sequential azacitidine plus lenalidomide combination for elderly patients with untreated acute myeloid leukemia.** *Haematologica*
Pollyea, D. A., Zehnder, J., Coutre, S., Gotlib, J. R., Gallegos, L., Abdel-Wahab, O., Greenberg, P., Zhang, B., Liedtke, M., Berube, C., Levine, R., Mitchell, B. S., Medeiros, et al
2013; 98 (4): 591-596
 - **Accessory splenules in autoimmune hemolytic anemia.** *American journal of hematology*
Logan, A., Berube, C., Gotlib, J.
2013; 88 (2): 156-?
 - **Amrubicin, a Novel Investigational Anthracycline, in Combination with Lenalidomide and Dexamethasone in Patients with Relapsed/Refractory Multiple Myeloma: Results of a Phase 1 Dose-Escalation Study**
Dinner, S. N., Dunn, T. J., Medeiros, B. C., Coutre, S. E., Berube, C., Gotlib, J., Liedtke, M.
AMER SOC HEMATOLOGY.2012
 - **Safety, efficacy and biological predictors of response to sequential azacitidine and lenalidomide for elderly patients with acute myeloid leukemia** *LEUKEMIA*
Pollyea, D. A., Kohrt, H. E., Gallegos, L., Figueroa, M. E., Abdel-Wahab, O., Zhang, B., Bhattacharya, S., Zehnder, J., Liedtke, M., Gotlib, J. R., Coutre, S., Berube, C., Melnick, et al
2012; 26 (5): 893-901

- **Phase I trial of a novel human monoclonal antibody mAb216 in patients with relapsed or refractory B-cell acute lymphoblastic leukemia** *HAEMATOLOGICA-THE HEMATOLOGY JOURNAL*
Liedtke, M., Twist, C. J., Medeiros, B. C., Gotlib, J. R., Berube, C., Bieber, M. M., Bhat, N. M., Teng, N. N., Coutre, S. E.
2012; 97 (1): 30-37
- **Moxifloxacin-acetaminophen-warfarin interaction during bacille Calmette-Guerin treatment for bladder cancer** *AMERICAN JOURNAL OF HEALTH-SYSTEM PHARMACY*
Lee, R., Wen, A., Berube, C.
2011; 68 (9): 814-817
- **Second-line mitoxantrone, etoposide, and cytarabine for acute myeloid leukemia: A single-center experience** *AMERICAN JOURNAL OF HEMATOLOGY*
Kohrt, H. E., Patel, S., Ho, M., Owen, T., Pollyea, D. A., Majeti, R., Gotlib, J., Coutre, S., Liedtke, M., Berube, C., Alizadeh, A. A., Medeiros, B. C.
2010; 85 (11): 877-881
- **Extending and evaluating a warfarin dosing algorithm that includes CYP4F2 and pooled rare variants of CYP2C9** *PHARMACOGENETICS AND GENOMICS*
Sagrieya, H., Berube, C., Wen, A., Ramakrishnan, R., Mir, A., Hamilton, A., Altman, R. B.
2010; 20 (7): 407-413
- **Activity of the tyrosine kinase inhibitor PKC412 in a patient with mast cell leukemia with the D816V KIT mutation** *BLOOD*
Gotlib, J., Berube, C., Gowney, J. D., Chen, C. C., George, T. I., Williams, C., Kajiguchi, T., Ruan, J., Lilleberg, S. L., Durocher, J. A., Lichy, J. H., Wang, Y. F., Cohen, et al
2005; 106 (8): 2865-2870