

## CURRICULUM VITAE

**Karen-Sue B. Carlson MD, PhD**

**Associate Professor  
Department of Medicine  
Division of Hematology and Oncology - Medicine  
Section Head and Medical Director of Acute Care Oncology**

**OFFICE ADDRESS:**

Clinical Cancer Center  
9200 W Wisconsin Ave  
Milwaukee, WI 53226

**EDUCATION:**

09/1991 - 05/1995 B.A., Southern Methodist University, Dallas, TX  
06/1996 - 05/2004 M.D., PhD., University of Wisconsin, Madison, WI

**POSTGRADUATE TRAINING AND FELLOWSHIP APPOINTMENTS:**

06/2004 - 06/2006 Postdoctoral Fellow (Medical Research Track), Neurobiology and Genetics, The Rockefeller University, 1230 York Avenue, New York, NY 10065  
07/2006 - 06/2008 Intern and Resident (Medical Research Track), Internal Medicine, Weill Cornell College of Medicine, 1300 York Avenue, New York, NY 10065  
07/2008 - 06/2011 Fellowship (Medical Research Track), Internal Medicine, Hematology and Oncology, Weill Cornell College of Medicine, 1230 York Avenue, New York, NY 10065  
09/2013 - 12/2014 CTSI Methods in Grant Preparation Course College of Wisconsin, Medical College of Wisconsin, Milwaukee, WI  
01/2016 - 04/2016 Responsible Conduct of Research, Modules 1&2, Medical College of Wisconsin, Milwaukee, WI  
07/07/2016 - 07/09/2016 The Genome Access Course, Cold Spring Harbor Laboratories, Cold Spring Harbor, NY  
07/2018 - 05/2019 Kern Kinetic3 Teaching Academy, Medical College of Wisconsin, Milwaukee, WI  
07/06/2019 - 07/11/2019 Applied Bioinformatics Course, Mount Desert Island Biological Laboratories, Bar Harbor, ME

**FACULTY APPOINTMENTS:**

06/2006 - 01/2016 Adjunct Faculty, The Rockefeller University, New York, NY  
07/2011 - 12/2012 Assistant Professor, Medicine, Hematology and Oncology, Weill Cornell Medical Center, New York, NY  
03/01/2013 - 06/30/2020 Assistant Professor, Medicine, Hematology and Oncology, Medical College of Wisconsin, Milwaukee, WI  
03/01/2013 - 12/31/2016 Research Scientist, Versiti Blood Center of Wisconsin, Milwaukee, WI  
01/01/2016 - 06/30/2021 Assistant Investigator, Versiti Blood Research Institute, Milwaukee, WI  
07/01/2020 - Present Associate Professor, Medicine, Hematology and Oncology, Medical College of Wisconsin, Milwaukee, WI  
05/01/2021 - Present Associate Professor (Secondary affiliation), Cell Biology, Neurobiology and Anatomy, Medical College of Wisconsin, Milwaukee, WI  
07/01/2021 - Present Associate Investigator, (Adjunct appointment), Versiti Blood Research Institute, Milwaukee, WI

**EDUCATIONAL ADMINISTRATIVE APPOINTMENTS:**

07/2010 - 09/2010 Chief Fellow, Internal Medicine, Hematology and Oncology, Weill Cornell Medical Center; New York Presbyterian Hospital, New York, NY

06/2020 - 06/2021 Associate Program Director (Research Focus), Medicine, Hematology and Oncology Fellowship Program, Medical College of Wisconsin, Milwaukee, WI  
02/2021 - Present Associate Program Director (Fellowship Focus), Medicine, Residency Program, Medical College of Wisconsin, Milwaukee, WI

**HOSPITAL STAFF PRIVILEGES:**

07/2011 - 12/2012 New York Presbyterian- Weill Cornell, 1230 York Avenue, New York, NY 10065  
03/2013 - Present Froedtert Hospital- Medical College of Wisconsin, 9200 West Wisconsin Avenue, Milwaukee WI, 53226

**SPECIALTY BOARDS AND CERTIFICATION:**

<u>Board Certified</u>	<u>Issue Date</u>	<u>Expiration</u>
Internal Medicine	08/2011	12/2031
Hematology	10/2012	12/2032

<u>Certificates</u>	<u>Issued By</u>	<u>Issue Date</u>	<u>Expiration</u>
CPR	AHA	03/2010	03/2012
ACLS	AHA	03/2010	03/2012

<u>Licensure</u>	<u>Number</u>	<u>Issue Date</u>	<u>Expiration</u>
New York License		08/04/2008	03/31/2014
Wisconsin		02/25/2013	10/31/2025

**AWARDS AND HONORS:**

1998 - 2000 Molecular biosciences NIH trainee, University of Wisconsin- Madison  
2001 Student travel award, Internal Workshop on Molecular and Cellular Biology of Plasminogen Activation, Jackson Hole, WY  
07/2005 - 06/2006 F.M. Kirby Postdoctoral Fellowship in Sensory Neuroscience, The Rockefeller University, New York, NY  
2005 Postdoctoral travel award, International Workshop on Molecular and Cellular Biology of Plasminogen Activation; Washington DC  
05/2010 Finalist Fellows Research Award, Weill Cornell Medical College Department of Medicine  
2015 - 2021 'Best Doctors in America' designation  
11/2016 Faculty Development Award, Department of Internal Medicine, Medical College of Wisconsin, Milwaukee, WI  
06/2017 Daniel McCarty Award for Research Excellence, Department of Internal Medicine, Medical College of Wisconsin, Milwaukee, WI  
07/2019 Faculty Development Award, Department of Internal Medicine, Medical College of Wisconsin, Milwaukee, WI  
10/28/2019 - Present Top Patient Experience Award, FY19, Medical College of Wisconsin and the Froedtert Hospital, Milwaukee, WI  
2021 - 2022 Exceptional Women in Medicine, Castle and Connolly

**MEMBERSHIPS IN HONORARY AND PROFESSIONAL SOCIETIES:**

2010 - Present American Society of Hematology  
2011 - 2018 American Society of Biochemistry and Molecular Biology  
2014 - 2020 American Society of Matrix Biology  
2016 - 2020 International Society of Experimental Hematology  
2020 - Present American Society of Biochemistry and Molecular Biology  
2021 - Present Alliance for Academic Internal Medicine

**EDITORSHIPS/EDITORIAL BOARDS/JOURNAL REVIEWS:**

Journal Review

06/2017 Hematology (ad hoc)  
09/2018 Journal of General Internal Medicine (ad hoc)  
05/2019 International Journal of Stem Cell Research and Therapy (ad hoc)  
12/2019 Journal of Thrombosis and Hemostasis (ad hoc)  
06/2020 PloS one (ad hoc)  
06/2020 - Present Translational Oncology, International Advisory and Reviewer Board

**LOCAL/REGIONAL APPOINTED LEADERSHIP AND COMMITTEE POSITIONS:**

01/2014 - Present Member, Cancer Center Seed Grant Review Committee, Medical College of Wisconsin  
2015 - 2018 Ad hoc reviewer, CTSI pilot awards, Medical College of Wisconsin  
2022 Ad hoc reviewer, Medical Student MSSRP Posters, Medical College of Wisconsin

**NATIONAL ELECTED/APPOINTED LEADERSHIP AND COMMITTEE POSITIONS:**

08/2017 - Present Member, National Marrow Donor Program Institutional Review Board, National Marrow Donor Program  
05/2018 - 05/2021 Reviewer, Leukemia Research Foundation  
09/2022 Reviewer, Myeloproliferative Neoplasm Foundation (Thrive) grants

**RESEARCH GRANTS/AWARDS/CONTRACTS/PROJECTS:**

**Active**

**Peer Review**

Title: RAS Pathway Activation Without Acquisition of RAS Mutations as a Drug Resistance Mechanism in Acute Myeloid Leukemia  
Source: CTSI/NIH  
Role & Effort: Principal Investigator (shared with Dr. Nan Zhu)  
PI: Carlson, Karen  
Dates: 06/01/2023 - 05/31/2024  
Direct Funds: \$40,000

**Non-Peer Review**

Title: Leukemia Research  
Source: Paulette Kroll Leukemia Research Fund, MCW Philanthropy  
Role & Effort: Principal Investigator  
PI: Carlson, Karen  
Dates: 06/13/2019 - Present  
Direct Funds: \$4,885

Title: Stem Cell Research  
Source: Emory T Clark Foundation, MCW Philanthropy  
Role & Effort: Principal Investigator  
PI: Carlson, Karen  
Dates: 03/01/2022 - Present  
Direct Funds: \$30,000

**Prior**

**Peer Review**

Title: Laminin Expression is Necessary for Endothelial Function and Hematopoiesis  
Source: CTSC (NIH)  
Role & Effort: Principal Investigator

PI: Carlson, Karen  
 Dates: 07/01/2011 - 05/31/2013  
 Direct Funds: \$90,000 (total for two years)

Title: Bone Marrow Failure in Mice Deficient for the Extracellular Matrix Component, Laminin-gamma1 (1K08HL127187)

Source: NIH  
 Role & Effort: Principal Investigator  
 PI: Carlson, Karen  
 Dates: 04/01/2015 - 03/31/2020  
 Direct Funds: \$719,054 (Total for five years)

Title: Acute Myelogenous Leukemia Interface with Hematopoietic Niche

Source: MCW Cancer Center  
 Role & Effort: Principal Investigator  
 PI: Carlson, Karen  
 Dates: 12/01/2017 - 11/30/2018  
 Direct Funds: \$50,000 (Total for one year)

Title: MDS/AML in Myeloma

Source: MCW Cancer Center  
 Role & Effort: Co-Primary Investigator  
 PI: Rao, Sridhar  
 Dates: 03/01/2021 - 11/30/2022  
 Direct Funds: \$75,000 (Shared with Dr. Sridhar Rao (co-PI); Team Science Award, Project 4; total for two years)

**Non-Peer Review**

Title: Aplastic Anemia and the Bone Marrow Hematopoietic Niche

Source: Froedtert Hospital Foundation; Aplastic Anemia Cancer Research Fund

Role & Effort: Principal Investigator  
 PI: Carlson, Karen  
 Dates: 10/01/2015 - 09/30/2016  
 Direct Funds: \$30,000 (Total for one year)

Title: SEATTLEGEN-SGN123-001-AML

Source: Seattle Genetics  
 Role & Effort: Institutional Principal Investigator  
 Dates: 02/01/2018  
 Direct Funds: \$0 (Trial closed prior to patient enrollment)

**INVITED LECTURES/WORKSHOPS/PRESENTATIONS:**

**National**

Carlson, K., K08 Presentation, ASH Junior Researcher Symposium, Orlando, FL, 12/04/2015  
 Carlson, K., Hematopoietic Niche in Leukemia, 6th Annual Houston Methodist Cancer Symposium, Houston, TX, 10/17/2018  
 Carlson, K., Hematopoiesis, of all the Nerve!, University of Virginia Department of Biochemistry invited lecture (Virtual), 11/04/2021  
 Carlson, K., Clinical Implications for "A STAT5B-CD9 axis determines self-renewal in hematopoietic and leukemic stem cells, ASH Journal Club, Moderator, 08/02/2022

Carlson, K., What is it like to participate in a clinical trial?, Know AML Network (virtual), 11/21/2022  
Carlson, K., Chronic Leukemia Q&A, Leukemia Research Foundation, Moderator, 02/05/2023  
Carlson, K., Chronic Leukemia Q&A, Leukemia Research Foundation, Moderator, 03/05/2023

### **Regional**

Carlson, K., Leukemia Highlights, LLS 6th Annual ASH Review Program, New York, NY, 02/2012  
Carlson, K., Chronic Lymphocytic Leukemia, Leukemia Survivorship Conference, LLS, Oshkosh, WI, 02/21/2015  
Carlson, K., Treating Acute Myelogenous Leukemia in 2019, Wisconsin Association of Blood Banks (WABB) Annual Meeting, Pewaukee, WI, 09/12/2019  
Carlson K., Hematopoiesis, of all the Nerve!, Appetite for Research, Versiti-wide broadcast, 05/12/2020  
Carlson, K., Appetite for Research: Hematopoiesis, of all the Nerve!, Versiti-wide broadcast, 05/12/2020

### **Local**

Carlson, K., New Tools, New Challenges: Treating Adult Acute Lymphocytic Leukemia (ALL) in 2015, 4th Annual Controversies in Hematologic Malignancies Symposium, Milwaukee, WI, 03/07/2015  
Carlson, K., The Extracellular Matrix is an Active Contributor to Hematopoiesis, 2nd Annual Department of Medicine Research Retreat, Milwaukee, WI, 03/18/2016  
Carlson, K., Molecular Diagnostics in Myeloid Malignancies, 6th Annual Controversies in Hematologic Malignancies Symposium, Milwaukee, WI, 03/04/2017  
Carlson, K., What Works for Women at Work (panelist), Council for Women's Advocacy Noon Series, Milwaukee, WI, 03/06/2018  
Carlson, K., Wiger, K., Perspective taking in Oncology Education, Kern Kinetic3 Teaching Academy Graduation, Milwaukee, WI, 06/05/2019  
Carlson, K., Mentorship in the Diversity for Summer Health Related Research Program (DSHREP), Mentor Appreciation Luncheon, Milwaukee, WI, 07/29/2019  
Carlson, K., Research at the Versiti Blood Research Institute, VBRI Legacy Society Breakfast, WI, 05/20/2021  
Carlson, K., How to Write a Great Letter of Recommendation, Grand Rounds, Department of Neurology, Medical College of Wisconsin, Milwaukee, WI, 10/15/2021  
Carlson, K., Neural Regulation of Hematopoiesis, VBRIF meeting, Milwaukee WI, 01/28/2022

## **PEER REVIEWED WORKSHOPS/PRESENTATIONS:**

### **International**

Basu S<sup>¶</sup>, Hernandez I, Zogg M, Weiler H, Carlson KS, Kermani P., Extracellular Matrix Homeostasis Can Regulate Steady-State Hematopoiesis., 11th International Workshop on the Molecular Aspects of Myeloid Stem Cell Development and Leukemia (Oral Presentation), Cincinnati, OH, 05/2016  
Barker-Carlson K, Olowe O, Lawrence D, Schwartz B., Characterization of the Interactions Between Tissue-Type Plasminogen Activator and Neuroserpin, Meeting of the International Society for Thrombosis and Hemostasis. (Poster), Paris, France, 06/2021  
Barker-Carlson K, Lawrence D, Schwartz K, Schwartz B., pH as a modulator of t-PA-neuroserpin interactions., EMBO Conference-- Extracellular Proteases and Their Inhibitors in Development Plasticity and Pathology of the Nervous System. (Oral Presentation), Ascona, Switzerland, 03/2023

### **National**

Barker-Carlson K, Lawrence D, Schwartz B., Two-Chain and Single-Chain Tissue-Type Plasminogen Activator Deacylate Neuroserpin Acyl-enzyme Complexes at Different Rates., VIIIth International Workshop on Molecular and Cellular Biology of Plasminogen Activation (Oral Presentation), Moran, Wyoming, 09/2001  
Barker-Carlson K, Strickland S., The Extracellular Matrix (ECM) is Critical for the Function of the Peripheral Nervous System., Adelson Program for Neural Regeneration and Rehabilitation (Oral Presentation), Las Vegas, NV, 12/2005  
Kermani P, Ramnarain A, Catena R, Chen ZL, Hempstead B, Strickland S, Carlson K., Laminin Expression is Necessary for Maintenance of the Vascular Hematopoietic Niche., ASH (Oral presentation), San Diego CA, 12/2011

## **COMMITTEE SERVICE:**

### **Medical College of Wisconsin**

- 05/2013 - 06/2014 Member, 4NT internal medicine house staff education committee, Hematology and Oncology, Internal Medicine, Medical College of Wisconsin
- 07/01/2017 - Present Member, Internal Medicine Residency Program Evaluation Committee, Hematology and Oncology, Internal Medicine, Medical College of Wisconsin
- 06/2020 - 06/2021 Member, Hematology and Oncology Fellowship Clinical Competency Committee, Hematology and Oncology, Internal Medicine, Medical College of Wisconsin
- 06/2020 - 06/2021 Member, Hematology and Oncology Fellowship Program Evaluation Committee, Hematology and Oncology, Internal Medicine, Medical College of Wisconsin
- 02/2021 - Present Member, Internal Medicine Residency Clinical Competency Committee, Internal Medicine, Medical College of Wisconsin
- 05/2021 - 12/2021 Member, MSTP-Director Search Committee, Medical College of Wisconsin
- 08/2021 - 12/2021 Member, Workgroup for physician-scientist residency recruitment and faculty retention, Medical College of Wisconsin
- 06/2022 - Present Chair, Faculty Advisory, faculty mentorship committee for Dr. Sabari Radhakrishnan, Medical College of Wisconsin
- 08/2022 - Present Member, Faculty Council, Department of Medicine at the College-wide Faculty Council, Hematology and Oncology, Medicine, Medical College of Wisconsin
- 09/2022 - Present Member, Faculty Advisory, faculty mentorship committee for Dr. Lyndsey Runaas, Hematology and Oncology, Medicine, Medical College of Wisconsin

### **Hospital**

- 03/2015 - 10/2015 Physician Sponsor, Malignant Hematology Pod in Day Hospital Committee, Hematology and Oncology, Internal Medicine, Medical College of Wisconsin and Froedtert
- 08/2017 - 01/2018 Chair and member, Oncology/ICU collaborative care working group, Hematology and Oncology, Internal Medicine, Medical College of Wisconsin and Froedtert
- 10/2017 - 12/2018 Member, Stem Cell Faculty recruitment search committee, Blood Research Institute, Versiti and Medical College of Wisconsin
- 12/2018 - 06/30/2021 Member, Precision Medicine Assay Evaluation Committee, Medical College of Wisconsin, Internal Medicine, Medical College of Wisconsin and Froedtert
- 05/2020 - 06/2021 Chair and Member, VBRI Return to Work Committee, Versiti Blood Research Institute (VBRI)
- 05/2020 - 01/2021 Member, Versiti Laboratory Return to Work Sub-Group, Versiti
- 05/2020 - 05/2021 Member, Versiti Return to Work Task Force, Versiti
- 09/2020 - 09/2022 Member, BRI Graduate Student and Post Doctoral Fellow seminar series review committee, Versiti Blood Research Institute
- 12/2020 - 06/2021 Clinical Chair, Transplant and Oncology Portfolio Management Team, Transplant and oncology clinical arenas, Versiti
- 04/2022 - Present Member, Stem Cell Faculty Search Committee, Blood Research Institute, Versiti and Medical College of Wisconsin
- 05/2022 - Present Faculty Champion, Versiti BRI bone marrow biobank (satellite bank of MCW), Versiti

## **MCW TEACHING ACTIVITIES:**

### **Medical Student Education**

- 2013 - Present Clinical Instruction: Bedside teaching as the inpatient attending on the Hematologic Malignancies (now Leukemia) inpatient service at Froedtert Hospital. On average, there is one 3rd or 4th year medical student participating in this rotation each month. I am the inpatient attending an average of 9 weeks per year.
- 05/2015 - 11/2015 Clinical Instruction: Bedside teaching during a longitudinal outpatient experience. Dr. Erin Kropp (MSTP student) during her final year of graduate work to assist with transition to 3rd year of medical school (one half-day per month)
- 2015 Didactic Instruction: Clinical small group leader for M1 Molecules to Cells. Fall 2015-- Sickle cell, Chemotherapy and Salicylate poisoning sections. Fall 2018--Chemotherapy session.
- 06/2016 - 2021 Didactic Instruction: Leukemia-focused didactic sessions. Medical students participating in the hematologic malignancy inpatient rotation participate in the leukemia-focused didactic sessions

- that I present each month to the inpatient team. This is the same lecture series that is referenced under resident & fellow education (2-4 lectures per month, every month)
- 07/01/2018 - 06/30/2019 Robert D. and Patricia E. Kern Institute For The Transformation of Medical Education And National Transformation Network Activities: Participant in KINETIC3 Teaching Academy. I was selected through a competitive application process to participate in the 2018-2019 Kern KINETIC3 Teaching Academy at The Medical College of Wisconsin. As part of this program, I developed and administered a perspective taking/cognitive empathy workshop for the inpatient oncology clinical rotation in collaboration with Dr. Krista Wiger, MD. This workshop was one of three projects selected from the inaugural class for oral presentation at the Kern KINETIC3 graduation ceremony (noted in local presentations).
- 2018 Didactic Instruction: Clinical small group leader for M1 Molecules to Cells. Fall 2015-- Sick cell, Chemotherapy and Salicylate poisoning sections. Fall 2018--Chemotherapy session.
- 02/21/2019 Didactic Instruction: Small group leader for Clinician Educator pathway session on 'Breaking Bad News'
- 01/23/2020 Didactic Instruction: Faculty discussant for Clinician Educator pathway session on academic medicine careers (Physician-Scientist)
- 05/2020 Didactic Instruction: Faculty discussant for M3 Internal Medicine rotation, Evidence Based Medicine curriculum (supplanted clinical rotation during Covid-19 pandemic). This included three two-hour Webex sessions.
- 08/2020 - 08/2023 Lecture, M2-FFP course. Introduction to Neoplasia. Preparation of lecture, self-assessment and exam questions related to basic biology of neoplasia. One hour yearly lecture
- 2020 - 2022 Didactic Instruction: Clinical small group leader for M1 Molecules to Cells. Fall 2015-- Sick cell, Chemotherapy and Salicylate poisoning sections. Fall 2018--Chemotherapy session.
- 07/2021 - 06/2022 Robert D. and Patricia E. Kern Institute For The Transformation of Medical Education And National Transformation Network Activities: Education mentor for participant in KINETIC3 teaching academy (Excellence in Teaching Track). I was the mentor for Dr. Leonardo Fernandez, PhD. In this capacity I met with Dr. Fernandez to discuss his teaching goals, viewed three mock-teaching sessions and provided focused feedback on his performance.
- 06/2022 Didactic Instruction: Introduction lectures for DSHREP. Getting settled in your new lab and a physician-scientist's career pathway. Preparation of lecture and dialogue related to these two subjects. Two 30-minute sessions.

### **Resident and Fellow Education**

- 2013 - 06/2021 Clinical Instruction: Bedside teaching as the inpatient attending on the Hematologic Malignancies (now Leukemia) inpatient service at Froedtert Hospital. On average, there are two residents participating in this rotation each month. I am the inpatient attending an average of 9 weeks per year.
- 2013 - 2014 Didactic Instruction: Core faculty lecturer for 4NT resident curriculum series. I presented monthly lectures about the management of neutropenic fevers and peripheral blood smear interpretation to the medical students and house-staff participating in the inpatient oncology services. (2 hours per month)
- 2013 - 2015 Didactic Instruction: Fellowship core lectures on myelodysplastic syndrome, acute myelogenous leukemia and basic research
- 2013 - 2016 Clinical Instruction: Outpatient clinic instruction for hematology and oncology fellows. Between 2013-2016, I had on average one half-day per month in which a fellow worked with me in clinic to learn about the outpatient management of patients with myelodysplastic syndromes and acute leukemia.
- 2014 - 2015 Didactic Instruction: Internal medicine residency core lecture on myelodysplastic syndrome
- 06/2016 Leukemia-focused didactic sessions: Residents and interns participating in the hematologic malignancy inpatient rotation participate in the leukemia-focused didactic sessions that I present each month. This is the same lecture series that medical students on the rotation also attend (see medical student didactic instruction point 3-- 2 lectures per month)
- 06/2018 - 06/2021 Didactic Instruction: Orientation to leukemia inpatient service, 1 session per month.
- 06/2018 Didactic Instruction: Panel discussant for neurology resident half-day discussion of 'The Last Visit'. 1 session.
- 2018 Didactic Instruction: Fellowship core lectures on myelodysplastic syndrome, acute myelogenous leukemia and basic research

06/12/2019 Didactic Instruction: Faculty discussant, Journal Club, Department of Internal Medicine Residency. 1 session.

05/2020 - 06/2020 Didactic Instruction: Faculty discussant, Evidence Based Medicine curriculum for M3 Internal Medicine Residency. I participated in virtual 3-hour sessions three out of every 4 Friday afternoon to discuss Covid-19 related articles with medical students scheduled for their internal medicine rotation during the pandemic. This curriculum was led by Dr. Pat Foy.

07/24/2020 Didactic Instruction: Faculty discussant for SPARCC Palliative Care Practicum. This is an undergraduate focused program led by Dr. Wendy Peltier. The topic of the virtual round table discussion was 'The Last Visit'.

2020 - 2021 Didactic Instruction: Fellowship core lectures on myelodysplastic syndrome, acute myelogenous leukemia and basic research

### **Postdoctoral Fellow Education**

10/17/2018 Responsible Conduct of Research Course, Collaborative Research lecture, Blood Research Institute of the Blood Center of Wisconsin. 1 session.

### **Continuing Medical Education**

07/2014 Myelodysplastic syndrome lecture for MCW Cancer Center nurses

01/2015 Acute promyelocytic leukemia and Acute lymphoblastic leukemia lecture for MCW Cancer Center nurses (presented twice)

02/2019 Acute myelogenous leukemia lecture for MCW Cancer Center Clinical Research Coordinators (presented three times)

## **EXTRAMURAL TEACHING:**

### **Medical Student Education**

07/2011 - 12/2012 Weill Cornell College of Medicine, Medical student teaching on inpatient leukemia service. Lecture during leukemia section of Basis of Disease Course. Weill Cornell College of Medicine.

### **Resident and Fellow Education**

07/2010 - 12/2012 Weill Cornell College of Medicine, Member, Fellowship Steering Committee

07/2012 - 12/2012 Weill Cornell College of Medicine, Hematology and Oncology fellow teaching attending. Fellowship lectures on acute myeloid leukemia, and preceptor for fellow's hematology clinic.

## **MCW STUDENTS, FACULTY, RESIDENTS AND CLINICAL/RESEARCH FELLOWS MENTORED:**

### **Medical Students**

12/2014 - 06/2016 Matthew Crabtree, Faculty mentor for participant in MCW Scholarly Pathways program, Medical College of Wisconsin, Research presented at MCW-research symposium. Matriculated to pathology residency at Harbor-UCLA.

04/2019 - Present Kyle Murray, Faculty mentor for MCW 3-4th year medical student, Medical College of Wisconsin, Provide advice re: 4th year rotation selection and residency application process. Matriculated to Anesthesia residency at MCW.

05/2021 - 05/2022 Bradley Uyemura, Faculty mentor for MCW 3-4th year medical student., Medical College of Wisconsin, Provide advice re: 4th year rotation selection and residency application process. Matriculated to IM residency at University of Madison-Wisconsin.

03/2023 - Present Paysar Topchyan, Faculty advisor for MCW 3-4th year medical student (MSTP), Medical College of Wisconsin, Provide advice re: 4th year rotation selection and residency application process.

### **Faculty**

07/2014 - 06/2015 Jasleen Randawa, Medical College of Wisconsin

11/2016 - 01/2018 Arun Singavi and Ariel Kleman, Medical College of Wisconsin

02/2018 - 2019 Joy Tang, Medical College of Wisconsin, In 2018, Dr. Tang received an American Society of Hematology Honors award for this project. She was also first author on a review article pertaining to

- stem cell injury from chemotherapy. Tang J¶, Zhu N, Rao S, Carlson K. Stem Cell Damage During Chemotherapy—Can we do better?. *Best Practices & Research Clinical Haematology*. 2019 Mar;32(1):31-39. PMID: 30927973 (¶Internal Medicine resident)
- 06/2019 - Present Nicole Held, Faculty mentor for Internal Medicine resident quality improvement project., Medical College of Wisconsin, Dr. Held submitted her work to the American Society of Hematology Special Symposium on Quality. We continue to work together on a Quality Improvement project to optimize the inpatient-to-outpatient handoff process for the leukemia clinical team.
- 07/2020 Joshua Morris, Medical College of Wisconsin, Carlson K.S.B., Morris J. ¶, Cross L.P. \*, Rao S. (2021) Stem Cell Biology in Bone Marrow Transplantation. In: Chandy M., Radhakrishnan V.S., Sukumaran R. (eds) *Contemporary Bone Marrow Transplantation. Organ and Tissue Transplantation*. Springer, Cham. [https://doi.org/10.1007/978-3-319-64938-2\\_31-1](https://doi.org/10.1007/978-3-319-64938-2_31-1) (¶Internal Medicine resident; \*DSHREP student)
- 05/2022 - Present Jordan Hanrahan, Faculty mentor for Internal Medicine resident clinical research project., Medical College of Wisconsin, Dr. Hanrahan prepared the IRB and coordinated the data review for a clinical project related to hematopoietic outcome from  $\gamma$ 3-agonist therapy in the 'real world'. The results from this are being prepared for publication in Summer 2023.
- Robert Schneidewind, Medical College of Wisconsin, Dr. Schneidewind was a runner up for his poster presentation on this project at the MCW Research Days, 2015. Schneidewind R¶, Hosking P, Brazauskas R, Peterson J, Beaudin C, Michaelis L, Atallah E, Hari P, Carlson K. Early fluorescence in situ hybridization assessment during acute myeloid leukemia induction chemotherapy. *Acta Haematologica*. 2018 Mar;139(3):171-175. PMID: 29597188. (¶Clinical hematology fellow)

## **EXTRAMURAL STUDENTS, FACULTY, RESIDENTS, AND CLINICAL/RESEARCH FELLOWS MENTORED:**

### **High School Students**

- 09/2004 - 05/2006 Alexandra Rosenberg, Advisor- Natural History Museum Student Research Program, and Advisor for Hunter College High School Externship, Hunter College High School
- 06/2012 - 09/2012 Casey Sands, Advisor- Summer Research Opportunity, The Rockefeller University, New York, NY
- 06/2015 - 07/2015 Alexander Lundberg, Faculty mentor for summer research project to examine vascular changes in adult laminin-deficient animals using confocal microscopy., Versiti Blood Research Institute, This work is included in a manuscript published in *Scientific Reports*.
- 2016 - 2017 Versiti Blood Research Institute, Faculty mentor for summer high school student., Blood Research Institute, Project is to quantify vascular niche changes in radiation-induced bone marrow failure, and effect of activated protein C on its recovery.

### **Medical Students**

- 06/2017 - 08/2017 Jordyn Plieseis, Faculty mentor for summer research student, Medical College of Wisconsin DSHREP program, Research project presented at the end of program research symposiums.
- 06/2017 - 08/2017 Martha Lezama-Ruiz, Faculty mentor for summer research student, Medical College of Wisconsin DSHREP program, Research project presented at the end of program research symposium.
- 06/2018 - 08/2018 Jordyn Plieseis, Faculty mentor for summer research student, Medical College of Wisconsin DSHREP program, Research project presented at the end of program research symposiums.
- 06/2019 - 12/2019 Lauryn Cross, Faculty mentor for summer research student, Medical College of Wisconsin DSHREP and PURE programs, Research project presented at the end of program research symposiums.
- 06/2021 - 08/2021 Joseph Raasch, Faculty mentor for summer research student, Medical College of Wisconsin DSHREP and PURE programs, Research project presented at the end of program research symposiums.

### **Postdoctoral Researchers**

- 2014 - 2015 Sreemanti Basu, Co-mentor with Dr. Hartmut Weiler, Dr. Basu was awarded an Abstract Achievement award for her 2015 poster presentation to the American Society for Hematology National Meeting in Orlando, FL. Kristin Komnick, Jennifer May, Pouneh Kermani, Sreemanti Basu, Irene Hernandez\*, Mark Zogg, British L Fields, Joshua Morris, Hartmut Weiler, and Karen-Sue Carlson. Dependence on Schwann Cell-Derived Laminin- $\gamma$ 1 Differentiates Early Lymphoid and Myeloid

Development. American Society of Hematology National meeting, December 2020 (Virtual).

## **PROGRAMMATIC DEVELOPMENTS:**

### **Educational Programs**

#### **Student**

- 08/2019 - Present Member, Department of Medicine Intern Selection Committee
- 08/2019 - Present Member, Medical College of Wisconsin, Diversity Summer Health Research Education Program (DSHREP) steering committee.
- 02/2021 - Present Longitudinal Fellowship Preparation
- 08/2022 - Present LOCUS
- 01/2023 - Present Intern and resident Academic Half Day education curriculum.

#### **Fellow**

- 2013 - Present Hematology and Oncology fellowship interviews
- 07/2016 - 06/2021 Co-director Division of Hematology and Oncology Morbidity and Mortality series

## **COMMUNITY SERVICE ACTIVITIES:**

- 01/2015 - 07/2015 Member, Elm Grove Junior Guild
- 01/2019 - 04/2019 Volunteer, Humane Animal Welfare Society, Waukesha County

## **BIBLIOGRAPHY**

### **Refereed Journal Publications/Original Papers**

1. Barker-**Carlson K**, Lawrence DA, Schwartz BS. Acyl-enzyme complexes between tissue-type plasminogen activator and neuroserpin are short-lived in vitro. *J Biol Chem*. 2002 Dec 06;277(49):46852-7.
2. **Carlson KB**, Singh P, Feaster MM, Ramnarain A, Pavlides C, Chen ZL, Yu WM, Feltri ML, Strickland S. Mesenchymal stem cells facilitate axon sorting, myelination, and functional recovery in paralyzed mice deficient in Schwann cell-derived laminin. *Glia*. 2011 Feb;59(2):267-77. PMID: PMC3118468
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