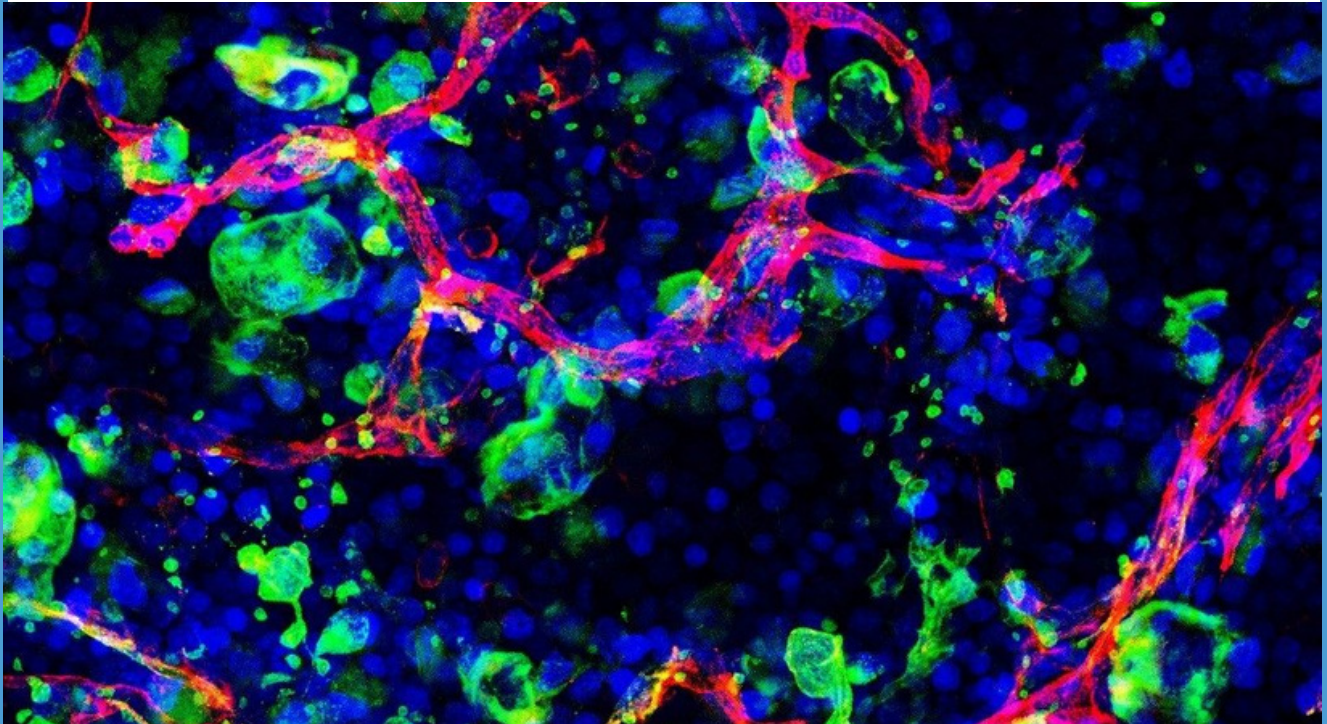


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# BRC Newsletter



## News, Events, and More!

This month's newsletter is a double-feature - both August and September wrap ups!

There's a crispness to the air, the leaves are changing color, and the BRC is gearing up for the holiday season!

Be sure to check out the entire newsletter to see upcoming events, seminars, and conferences.



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SCHOOL OF MEDICINE

Blood Research  
Center

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Issue 5,  
October 2022

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# News - Congrats - Publications



## Matthew Flick, Ph.D. Awarded NIH U01 Grant

Matthew Flick, PhD was recently awarded a NIH U01 grant, which is part of the Pancreatic Ductal Adenocarcinoma (PDAC) Stromal Reprogramming Consortium (PSRC)

[Read more](#)

## Steven Grover, PhD to Give Plenary Presentation at ASH Annual Meeting

An abstract submitted by Steven Grover, PhD on work conducted in the laboratory of Nigel Mackman, PhD was selected for presentation in the plenary scientific session at the 64th American Society of Hematology annual meeting.

[Read more](#)



## BRC Investigators Published

PI in the NIH-funded 'American Trial Using Tranexamic Acid in Thrombocytopenia (A-TREAT) trial, UNC was one of 3 participating clinical centers to enroll patients with platelet transfusion-dependence due to therapy for hematologic malignancies.



[Read more](#)

# Events - Seminars - FYIs

## The BRC Turns Three!



We had three days of fun, trivia, prizes, and snacks to celebrate three amazing years of the Blood Research Center!



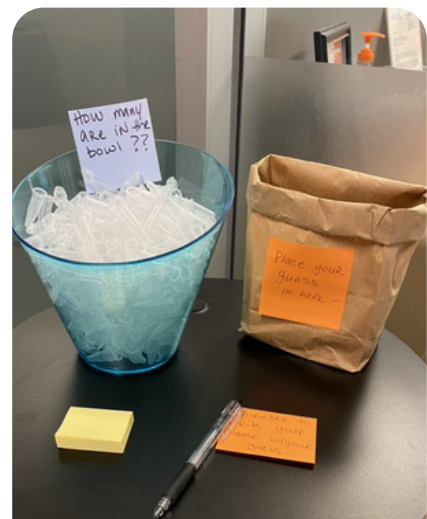
Delicious pizza, candy, and Locopops were flowin'!



Anton stumped (most of) us with his excellent Cipher!



A "Guess Who?" of fun facts was an entertaining way to learn more about the BRC team



The "Guess How Many" game had answers from 100 to 2,000!

# Events - Seminars - FYIs



## The BRC Turns Three!

And of course, a special "congrats!"  
to our prize winners!



<-- Yesha Patel,  
winner of the  
"Guess How  
Many?" and  
Emma Bouck,  
tied winner of  
the "Who Am  
I?" game.

-->  
Nirupama  
Ramadas, tied  
winner of  
"Who Am I?"  
game



Patrick Ellsworth was first to successfully  
decoded the Cipher! Did you?

### Decoded Cipher:

Name the first three coagulation  
factors by their full names to get the  
prize

### Answer:

Factor I - fibrinogen.  
Factor II - prothrombin.  
Factor III - tissue thromboplastin



# Events - Seminars - FYIs

## BRC Seminar Series

Mark your calendar for these upcoming speakers!



### OCTOBER 2022

Date: **10/21/2022**

Speaker: **Jon Schoenecker, MD**

Institution: **Vanderbilt University Medical Center**

Host: **Matthew Flick, PhD**

Location: **MEJ 3116**

### NOVEMBER 2022

Date: **11/04/2022**

Speaker: **Saghi Ghaffari, MD**

Institution: **Icahn School of Medicine at Mount Sinai**

Host: **Jane Little, MD**

Location: **MEJ 3116**

Date: **11/18/2022**

Speaker: **Chris Dockendorff, PhD**

Institution: **Function Therapeutics**

Host: **Erica Sparkenbaugh, PhD**

Location: **MEJ 3116**

### DECEMBER 2022

Date: **12/02/2022**

Speaker: **Lucy Kornblith, MD**

Institution: **University of California San Francisco**

Host: **Wolfgang Bergmeier, PhD**

Location: **Virtual**

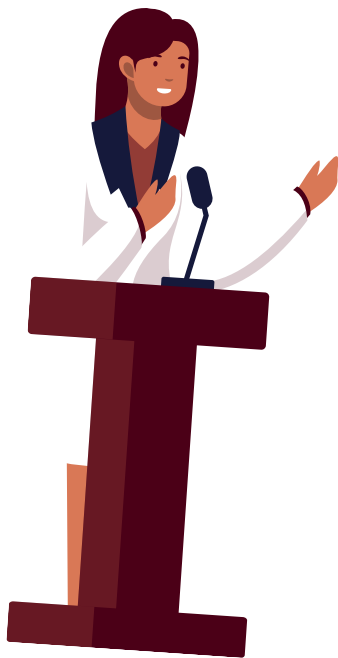
Date: **12/16/2022**

Speaker: **David Rees, MD**

Institution: **King's College London**

Host: **Nigel Key, MD**

Location: **Virtual**



# Events - Seminars - FYIs

## Party Time, Excellent!

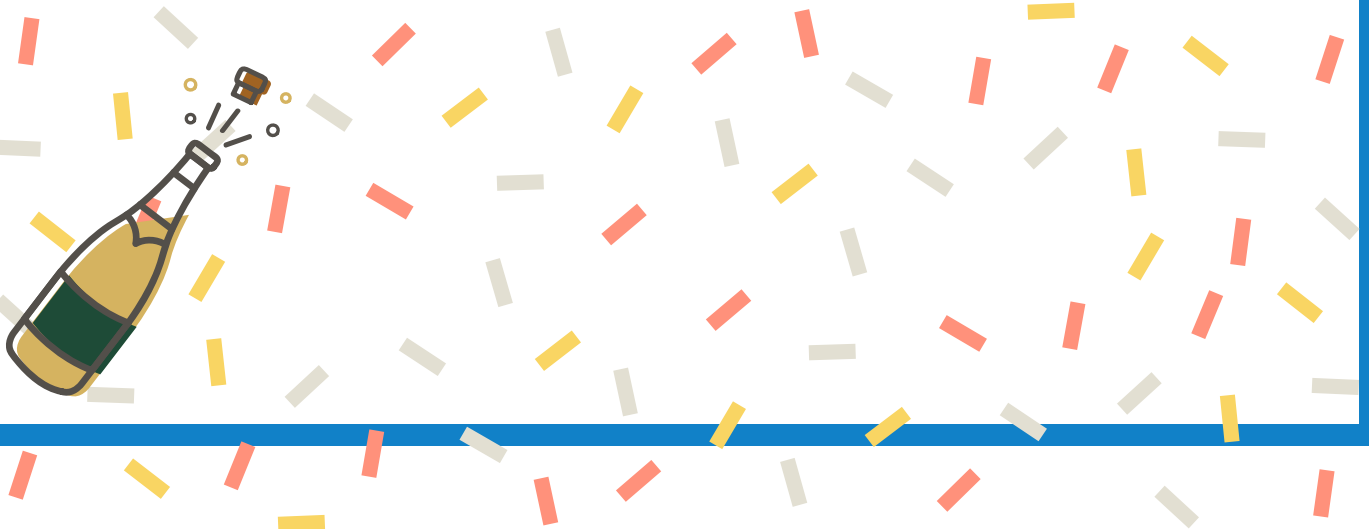
The ASH Conference is fast approaching which means so is the UNC reception!

### Annual UNC Reception at ASH

Saturday, December 10, 2022  
7:30-9:30pm

Beer, wine, and hors d'oeuvre will be provided!

Hampton Inn & Suites New Orleans -  
Convention Center  
1201 Convention Center Blvd ,  
New Orleans, LA  
Room: Fulton



# New Faculty Spotlight

## Karin Leiderman, Ph.D.

The Blood Research Center is growing! In this section, we will highlight some of our newest faculty members. Help us in welcoming them to the BRC!

### Tell us about your background and current area of research.

I just started my position at UNC this fall, which is split between the Department of Mathematics in the College of Arts and Sciences, and the Computational Medicine Program within the School of Medicine. It is the perfect fit for me, since I am a mathematician by training, with a BS, MS, and PhD in Mathematics, but a mathematical biologist at heart. The distinction is that I use mathematical and computational techniques applied specifically to biological systems. I especially love mathematical modeling, where the biological systems are realized through mathematical constructs, and where my creativity, biological interest, and mathematical insight meet. My research is focused on mathematical modeling of the clotting system to study the influence of biochemical and biophysical mechanisms on coagulation, clot formation, and bleeding. This includes an integration of mathematical and experimental approaches together with statistical analyses and inference, with the goal of elucidating mechanisms that underly complex biological phenomena.



Recently, I've been focused on understanding phenotypic variability of bleeding tendencies in hemophilia. For example, one question we've been working to address with mathematical modeling is: in cases of hemophilia A with severe FVIII deficiency but mild bleeding, what is compensating for the deficient clotting protein? After running hundreds of thousands of simulations with our model, we identified that low-normal plasma levels of FV and high-normal plasma levels of prothrombin enhanced thrombin generation in hemophilia A; and our model predictions were validated in functional assays. Further probing with the model led to the hypothesis of a specific biochemical mechanism underlying the thrombin enhancement. This hypothesis is currently being tested experimentally by Dr. Monroe, right here in the BRC. We're now beginning to use our model in a similar manner, but related to FXI deficiency, with Dr. Wolberg. We also develop spatial-temporal models study more biophysical aspects of clotting, such as flow rates, injury and vessel geometries, vascular bed protein distributions, and transmural pressures.

# New Faculty Spotlight

## Karin Leiderman, Ph.D.

### What interested you in becoming a member of the BRC

The Blood Research Center was one of the reasons I wanted to come to UNC – to be immersed in an environment with experimental and clinical researchers at the forefront of the blood clotting field is a research dream come true for this mathematical biologist! There are so many opportunities to learn cutting-edge clotting science and identify important questions in the field. I plan to both continue and strengthen my collaborations with Drs. Monroe and Wolberg and I hope to find new collaborators in the BRC interested to see how mathematical or computational approaches can complement their own.

### Besides your area of research, do you have any hobbies or hidden talents?

When I'm not working, I enjoy yoga, reading, listening to records, playing board games with my family, cooking and baking with my kids, bar trivia, charcuterie, and wine. 😊



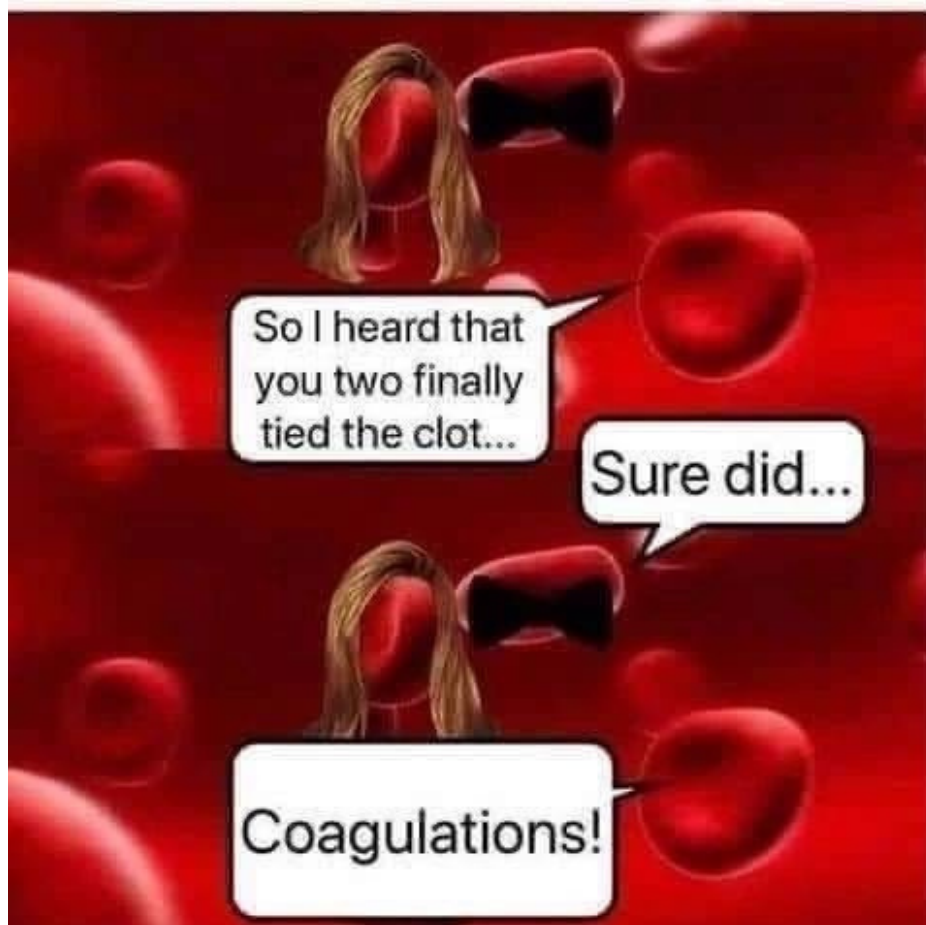
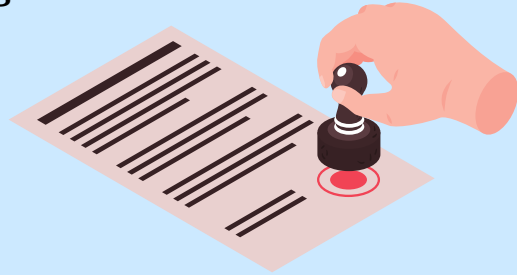


# Odds & Ends

## FYI's and Extra Bits

### Need something notarized?

I can help with that!  
Send an email to:  
[amy\\_spence@med.unc.edu](mailto:amy_spence@med.unc.edu)  
and we can get you sorted and stamped



Thanks for the laugh, Dr. Moll!