

# James Zimring, MD, PhD

*“Curing certain diseases and mitigating the suffering they cause inspires me to carry out basic and translational research in transfusion medicine and non-malignant hematology.”*



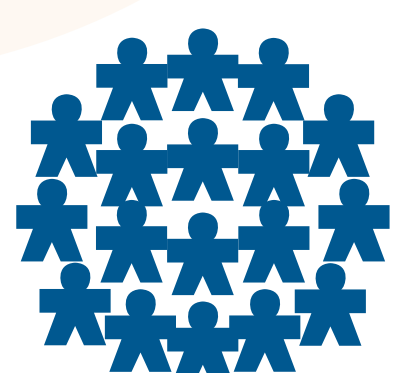
*Director, Transfusion  
Medicine Research*  
Puget Sound Blood Center  
Research Institute

*Full Member*  
Puget Sound Blood Center  
Research Institute

## Immune responses to blood cells

- When a recipient receives a blood transfusion, their immune system can make antibodies against the donor blood. When enough of these antibodies are formed, it can be difficult, and at times impossible, to find compatible blood for a patient. In such cases, the immune response may deprive a patient of otherwise life saving therapy.
- When a pregnant woman makes an immune response to the blood cells of her fetus, fetal death can occur.
- Some patients mount antibody responses against their own blood cells, which can result in sickness and in some cases death.

Dr. Zimring’s research lab studies both the mechanisms by which such immunizations occur and potential therapeutic interventions to either prevent or overcome it.

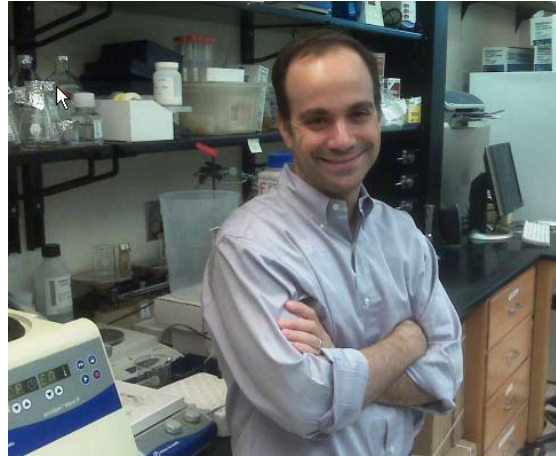


Puget Sound Blood Center  
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# Meet Dr. James Zimring

## PSBC Research Institute

There is a new researcher in town who's determined to discover how to ensure that patients needing frequent blood transfusion are able to receive treatment as often as needed. Puget Sound Blood Center is pleased to announce the appointment of James C. Zimring, MD, PhD, as Director of its Transfusion Research Program. Dr. Zimring is an internationally recognized expert in the biology and immunological response to blood transfusion. We talked with Dr. Zimring to learn more about his work at PSBC, how medical research and law are the same yet different, and what squirrels do during the hot summers in Atlanta.



**Q: Why did you decide to join PSBC's Research Institute?**

**A:** I joined the Blood Center because it has been, and continues to be, a renowned institution with focus and expertise in the collection, distribution and research of blood. My research focuses on the biology of blood transfusion, and therefore, I can think of no better place to continue to advance my research than at PSBC.

**Q: Describe your research and what you hope to accomplish.**

**A:** Most people have heard about ABO blood types and they understand that doctors have to match up those markers. But there have now been in excess of 300 blood markers identified that differ among people. Every time you receive a transfusion, you're exposed to foreign material, and your immune system can sometimes respond against that material. For patients who have disorders that necessitate frequent and chronic transfusions—such as sickle cell disease, numerous kinds of cancer and bone marrow failure syndromes—and for recipients of bone marrow transplants, the immune system can react to so many different things that there is sometimes no longer donor blood that matches their needs closely enough to be safely transfused. They are then deprived of what would otherwise be a lifesaving therapy. I hope to remedy this situation so that all patients can benefit from transfusion, even those with more immunological challenges.

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## PSBC Research Institute

**Q: What excites you about your research?**

**A:** Everything! I seldom leave the lab, but live out adventures of unimaginable wonder at the microscopic and molecular level. We enter the lab each day with the possibility of observing something that no human has ever seen in history. What also excites me about my research is that the practical application of what we study affects the lives of real people. It is wonderful to be involved with increasing human knowledge and using that knowledge to the greatest benefit possible.

**Q: What excites you about other research at PSBC?**

**A:** PSBC has tremendous expertise in coagulation and thrombosis [blood clotting] research, including a highly talented group of world-renowned investigators. It is really an impressive group of scientists and I am thrilled to be joining that environment. Although my focus is on transfusion biology, it is all the biology of blood, and there are numerous and exciting opportunities for collaboration and cross-germination. There are very few places in this country where you have a focused group of talented people talking about topics related to blood transfusion, and I am honored to be joining one of the best.

**Q: Tell us a fun fact about yourself.**

**A:** Some ridiculous research I conducted on Peeps ([peepresearch.org](http://peepresearch.org)) during grad school has been featured in the *Wall Street Journal*, *CNN* and other media. One thing I do take pride in is that a lot of middle school teachers have contacted me and my friend Gary Falcon and have told us how they have used this website in their classes as an example of the scientific method.

**Q: Were there any other career paths you considered?**

**A:** If I had two lives to lead, I'd be an attorney. I would probably have focused on civil liberties law or constitutional law. Both scientific research and the practice of law are adversarial processes in which people debate issues, but they are in other ways opposite, because the law is fundamentally what we decide the law is as a society. In contrast, science is tethered to nature, and scientific laws are somewhat less forgiving. Think gravity: it's the law! No matter how hard you try to contort the natural world to fit your preconceived notions of what you think it ought to be, science will crack you across the face with what it really is.

**Q: Are you happy you came to PSBC? How do you like Seattle?**

**A:** I could not be more thrilled with my decision to come to PSBC. I grew up in Chicago and spent the last quarter century in Atlanta, Georgia. Georgia is a beautiful state and I will miss boiled peanuts and dogwood trees; however, I already love Seattle for many reasons. I expect I'll particularly enjoy the Seattle weather in August, when in Atlanta I would have been watching squirrels burst into flame on the sidewalk. (Okay, that's an exaggeration, but it sure feels hot enough to happen!)



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