

A **MATRIX** Minute with Jim A. Turpin



About Jim

Jim A. Turpin, Ph.D., has worked in the prevention arena for nearly 30 years, 18 of these in the Division of AIDS at the [National Institute of Allergy and Infectious Diseases](#) (NIAID) of the [U.S. National Institutes of Health](#), where he was a Program Officer and later Chief of the Preclinical Microbicides and Prevention Research Branch as well as the Deputy Director of the Prevention Sciences Branch his last 2 years. After his retirement from NIAID in 2021, Jim started his own consulting firm, TurHow Consulting Group. His scientific expertise includes immunology, inflammation, HIV virology and drug discovery. For the last 20 years he has specialized in HIV prevention and drug development with a recent focus on development of long-acting HIV antivirals and Multipurpose Prevention Technologies (MPT). In MATRIX, Jim works alongside Ariane Van Der Straten to oversee Domain 2 of the [Technology Accelerator](#), which guides the development process of products in the MATRIX portfolio. Key to this process is the input provided by an independent [Scientific Advisory Group](#) (SAG), which Jim co-chairs with Ariane.

What initially interested you in the field of HIV prevention?

My interest in HIV began in the 1980s when I was working at MD Anderson Cancer Hospital in Houston, Texas, when the first reports of gay men having Kaposi's sarcoma, a type of cancer that didn't typically affect young men, began to generate concern. In the 80's I witnessed the HIV/AIDS pandemic grow and began looking for ways to make an impact against the epidemic. In 1988, I began working in the laboratory of Dr. Monte Meltzer at Walter Reed National Military Medical Center, one of the first people to show that human monocytes (a type of white blood cell) are infected by HIV. This sparked my interest in HIV virology, vaccines and ultimately drug discovery. Around the mid-1990s, I joined Southern Research Institute (Frederick, MD), as the head of their HIV drug development program and led a NIH/NIAID HIV topical microbicide testing contract. Working on this contract gave me hope that prevention could be the way to go to reduce the number of HIV infections per day (at that time >7000) in the world.

What is your favorite part about working with MATRIX?

One thing I like is the fact that we're doing something that nobody else in the prevention field is doing right now, which is looking across products, from on-demand, mid-duration (30-90 days) to ultra-long (over six months) and we're trying to get users perspectives to create products that meet users' needs. I also like the depth and breadth of the products we're working on, and the fact we are working to create HIV prevention product choices for women.

What do you think it would take to end the HIV epidemic?

I don't think we'll actually end the epidemic, due to health disparities between and within the Global North and Global South. To end HIV altogether would require full effort and collaboration between all of our prevention and treatment strategies for everyone around the world. I believe our best goal is control. We're in a situation where our goal is to reduce the number of infections as much as we can, and work to keep the people who become infected healthy. While I don't think we'll reach the end of HIV per se, I do believe we will reach a place where it is no longer considered as an epidemic.

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What advice would you give to someone considering this line of work?

I would say never get discouraged. Even from our most abject failures in terms of pre-clinical and clinical studies, there's always something to learn -- and as we learn, we take each of those failures and build until we reach the point where we reach success. When you are in this line of work and people look at you and say, 'you're wasting your time', ignore them.

What is a memory that stands out from your time working with MATRIX?

One memory that stands out is Sharon Hillier at the very first SAG meeting talking about "building the plane as we're flying it." I thought that was one of the best analogies I've ever heard about what we were trying to do, because we were trying to bring together a big group of diverse individuals to take part in something that was unique in the field -- moving multiple products from pre-clinical research to clinical testing in humans.

Do you have any heroes?

I feel that the answer to this depends on the phase of life you are in. For me, when my work was focused on monocytes and macrophages, cells that are central to a healthy immune system, my hero was Éli Metchnikoff. He was the person who first identified macrophages, and he was treated as a pariah for his theories, but he persevered. Later after attending the University of Evansville, my hero was my biology professor, Dr. Karen Ott, who basically taught me that there's fun in science. This was important for me as I was initially only attending school because my parents wanted me to go to college, and taking her classes led to me pursuing a career in science. Later in life, I set up a small scholarship in her name. I think most people miss the subtlety that heroes are contextual. To say you've always only had one hero is not being honest with yourself. As you go through life you change, and as you change you pick up different heroes because there are different people you admire for what they're doing and how they impact you approach to life.

What is a surprising fact about you?

I've had quite a checkered past. I grew up in a very rough neighborhood, and my original goal was to become a pro football player. Failing that, I've tried to become a jack of all trades, who makes the best of any success or failure while maintaining a healthy level of positive pessimism about life.

What do you like to do in your free time?

I usually spend my free time reading science fiction, a genre I love, and taking care of the animals on my wife's small hobby farm. We have ducks, geese, chickens, donkeys, goats and great pyrenes dogs, along with barn and inside feline friends.

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MATRIX

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