

FACULTY Q&A

SHARING PERSONAL & PROFESSIONAL PATHS

Q&A with Dr. Gary Cohen, Professor, Department of Microbiology

WHILE THE Penn Dental Medicine community may know the School's faculty by the courses they teach or the research they conduct, this Q&A faculty spotlight aims to get a bit more personal glimpse of them as individuals.

This issue, we talked with one of Penn Dental Medicine's highly respected basic scientists — Dr. Gary Cohen, Professor, Department of Microbiology. Dr. Cohen has been part of the School's faculty since 1967, when he joined the Department as Assistant Professor, advancing to Associate Professor in 1973, and to full Professor in 1980. From 1985 through 2013, he also served in the leadership role of Chairman of the Department of Microbiology.

What have you found most rewarding about being a member of the Penn faculty?

One of the most rewarding parts of being in the Penn community is the wealth of openness and collaboration — the sandbox concept so to speak where expertise and techniques are freely shared. An atmosphere of “play nice” pervades Penn's professional schools, both within the schools and among them. I have found many great colleagues, collaborators, and cherished friends here. I would credit Penn's dynamic and open intellectual atmosphere with encouraging my growth and success as an investigator. I believe the bargain struck with Penn is that they provide the opportunity, and if I do well, then we do well together.

The other great reward of my work here has been establishing a truly wonderful symbiotic scientific collaboration with Dr. Roselyn J. Eisenberg, of Penn's Vet School. We created a unique, combined laboratory that allowed

for a free flow of ideas, and built a working relationship based on the conviction that we were smarter as scientists working together than alone. As a team, we trained multiple PhDs and numerous postdocs and learned enormously from each of them. Our lab is extremely fortunate to have had an extraordinary number of talented and creative people grace our doorstep.



What do you view as your greatest professional accomplishment?

Starting to see the light! Our overriding question has been: How does the Herpes simplex virus get into a human cell to initiate infection? Four herpes proteins manipulate the cell's membrane to meld with the virus membrane, allowing the insertion of the viral DNA into the host — the first step in infection with this multitasking virus. We asked what do the four proteins look like? What do they do? And how do they do it? We solved the three-dimensional structure of the key proteins, determined their function, and now have established a framework for the field as to how the proteins interact to cause membrane fusion. We have arrived at a place I never thought I would be — where we can now press the issue regarding the actual fusion process utilized by the virus.

What drew your interest to your particular field and what do you enjoy most about it?

I was drawn to microbiology and the study of infectious disease by a charismatic postdoctoral mentor, the book *Rats, Lice and History* by Hans Zinsser, absolute chance, and an understanding and encouraging wife. What I enjoy most about it is the freedom of thought; the association with smart, smart people; tackling challenging questions; and solving problems.

What advice from a mentor have you carried with you in your career?

Find out how good you are! Keep exploring.

Schools/degrees?

Brooklyn College (BS in Biology), which gave an ignorant “street kid” a start; the University of Vermont (PhD in Microbiology), which gave a guy with an interest in science a start; and Penn (Postdoctoral Fellow in Virology), which gave me a home to hone and develop my talents.

If you could have dinner with anyone, who would it be? And why?

A trio of three people — Lew Pizer (scientist), Isa Barnett (artist), and Joyce Carol Oates (author). Since two of the three diners are dead, this meeting would have to take place elsewhere, (although Oates might conjure up the other two); we would converse on how ideas are generated and why and how science intersects with the visual and written arts. Chasselas, please!

Hobbies?

Gardening, reading, and talking science.

Favorite vacation destination?

Switzerland — as a wise person said “when the cheese starts tasting good, it's time to revisit Heidi-land.”

Best book you've read recently?

Carthage by Joyce Carol Oates. ■