

# Molecular Medicine

An Interview with Betty Diamond, M.D.,  
Director, Institute of Molecular Medicine, Feinstein Institutes for Medical Research

**EDITORS' NOTE** Dr. Betty Diamond, currently the Director of the Institute of Molecular Medicine at Feinstein Institutes and Director of the Ph.D. and M.D./Ph.D. programs of the Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, has headed the rheumatology divisions at Albert Einstein School of Medicine and at Columbia University Medical Center. She also directed the Medical Scientist Training Program at Albert Einstein School of Medicine.



Betty Diamond

A former president of the American Association of Immunology, Dr. Diamond has served on the Board of Directors of the American College of Rheumatology and the Scientific Council of the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS). She is a fellow of the American Association for the Advancement of Science (AAAS) and a member of the National Academy of Medicine. Dr. Diamond graduated with a B.A. from Harvard University and an M.D. from Harvard Medical School. She performed a residency in internal medicine at Columbia Presbyterian Medical Center and received postdoctoral training in immunology at the Albert Einstein College of Medicine.

## Will you discuss your role at Northwell Health and your main areas of focus?

I was most recently head of the Center for Autoimmune Musculoskeletal and Hematopoietic Diseases. My priority was building a very strong, basic, translational and clinical research program. We did mechanistic studies in laboratory models and with human cells and we did clinical trials studying patients. This was primarily relating to autoimmune disease, especially lupus, hematopoiesis and in spinal cord injury and inflammation.

I am now director of the Institute of Molecular Medicine which has an expanded research portfolio. This is a larger administrative role with more oversight of allocating resources and building infrastructure. The primary focus is always the excellence of the research and making sure that we meet a very high standard of scientific productivity and integrity and that we think about the application of our studies to human disease so that ultimately we transform clinical practice.

## How critical is it to have the support and commitment for research work from the senior leadership of Northwell Health?

I think it's critically important in many ways, especially for moral. We all work better when we know that our efforts are appreciated and honored. It's also important because discretionary funding allows all of us to be nimble in pursuing new opportunities when they come along. Normally, external grant support takes at least a year which doesn't fall under the term "nimble."

The ability to start working on a project before getting external funding is tremendously useful. First of all, it increases the chances that you'll be successful with obtaining external funding. It also means that you get to engage and initiate something when your enthusiasm is great. That's wonderful and very important to me personally as well as to all of the researchers here.

## You have a strong commitment to advancing opportunities for women in science and medicine and initiated the Advancing Women in Science and Medicine (AWSM) at the Feinstein Institutes. Will you highlight this initiative?

This really came from an appreciation of the fact that for many decades now, the graduates of Ph.D. programs in biologic sciences have been 50 percent women, but women's ascent up the academic ladder hasn't kept pace with those numbers. There continues to be a funneling out of women.

There is the endless documentation of what women are paid versus men and how long it takes women to be promoted versus men. This is, quite frankly, frustrating and demoralizing.

The idea with AWSM was to get a group of women scientists together to help each other and advocate for each other. One of the problems women have is advocating for themselves. One of the things women are very good at is advocating for others. By making us all responsible for each other, we speak to our strengths. I went with this idea to Kevin Tracey (president and CEO of the Feinstein Institutes), who immediately espoused it. We started holding some meetings and the energy that this elicited in people was palpable. The goal is to empower women and make women appreciate their own competence and impact.

It was amazing how this was just transformative in that way for women immediately. Then Robin Ross, from our development office, learned of this effort and she took it to heart and got a number of the women involved to fundraise for women scientists. This continues to be an amazing organization here that has really changed the way the women feel about themselves and think about themselves.

It has created a community of women who are committed to the careers of the young women we mentor and to make sure that they expect only the best for themselves. There have now been so many studies that show that when people expect great things from you, you deliver more than when people expect very little of you. This has really changed what people deliver.

## You also commit your time to teaching at Hofstra/Northwell Medical School and to working with the next generation of industry leaders. Will you discuss this passion and the strength of the Medical School?

I am passionate about this. I have been involved in M.D.-Ph.D. programs and Ph.D. programs at every institution I've been at. When Northwell and Hofstra decided together to establish a new school of medicine, I was immediately excited by the possibility of starting an M.D.-Ph.D. and Ph.D. program and lobbied very hard for it. I think it's been a tremendous success.

The trouble with M.D.-Ph.D. programs and Ph.D. programs is they take so long that oftentimes people leave with less enthusiasm for the ecologic niche they were planning to inhabit than when they came in. That's a terrible indictment of any educational program – that people like that area less when they leave than when they come.

Our goal was to speed up the process and to eliminate all of the kinds of work activities that decrease one's enthusiasm for discovery science. I think we've been very successful. Our Ph.D. students are generally getting out in four years instead of five to six years. Our M.D.-Ph.D. students are getting out in seven years instead of eight to nine years.

I think they graduate with a tremendous enthusiasm for staying in research. There's nothing more exciting than training the next generation of professionals in a discipline that you enjoy and think is tremendously important. Training people to transform medical practice, to think of how to apply biologic insights to human disease and how to understand human disease, is tremendously exciting. ●