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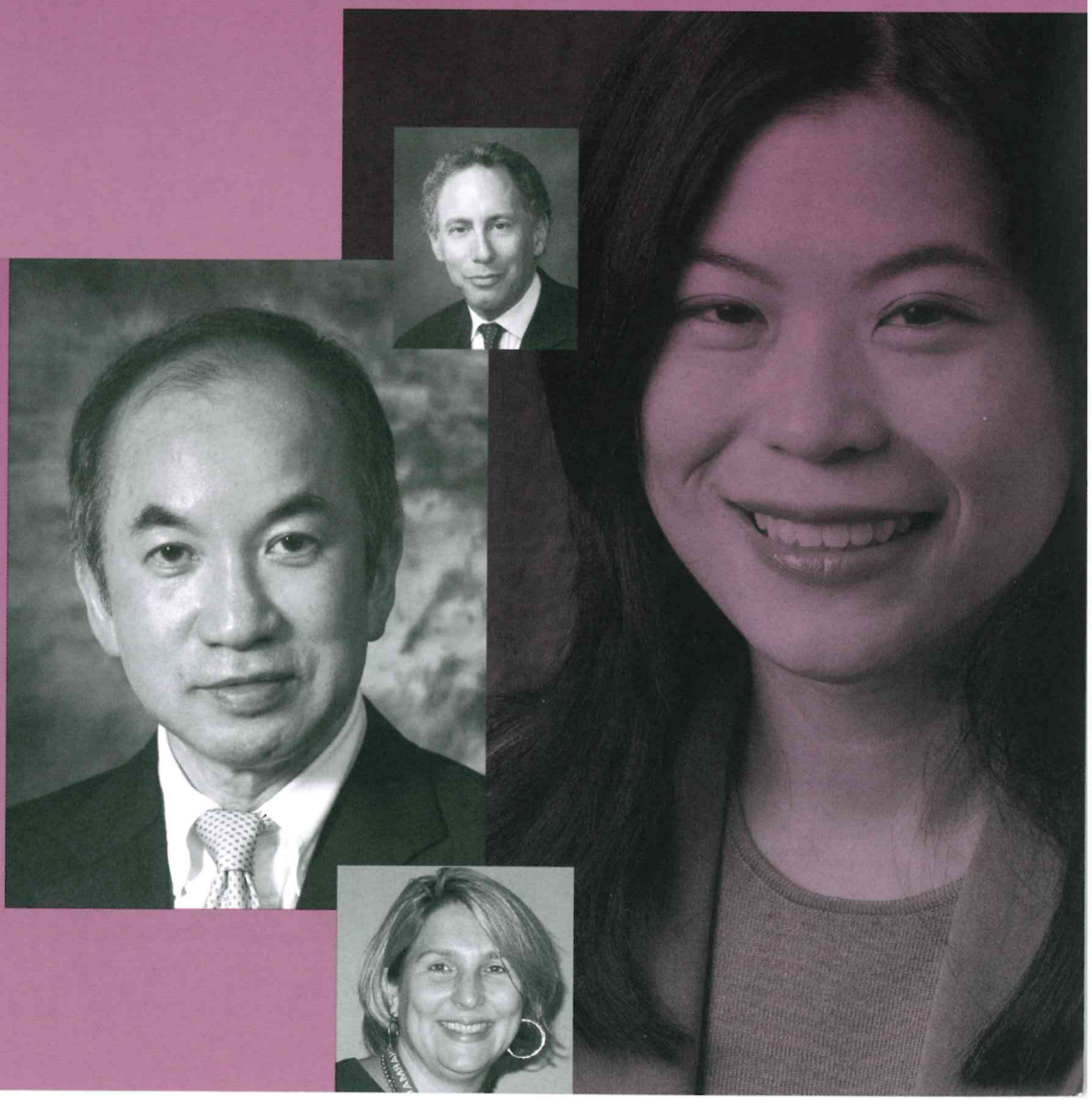

INTERVIEW WITH
Professor Vincent Lee

School of Pharmacy, Chinese University of Hong Kong
Former Editor-in-Chief of Advanced Drug Delivery Reviews (2001-2011)

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What have been the major accomplishments in the field of drug delivery in your view?

There are many. To me, the game-changing achievement is exponential rise in the quality of drug delivery research. This is the consequence of a paradigm shift in favor of multidisciplinary science -- the cornerstone of disruptive innovations necessary for managing the molecular complexity of such diseases as cancer, diabetes, and neurodegeneration. A number of recent ADDR issues have done an excellent job in illuminating the synergy that we can count on by engaging chemical engineers, pharmaceutical scientists, molecular biologists, mathematicians, and clinicians in seeking innovative solutions for solving drug delivery challenges of the 21st century.

What should future scientists look towards? What is around the curve, so to speak?

This is a very exciting time in the history of drug delivery research. We now have access to a repertoire of tools and an array of concepts that never existed before. These advances theoretically should enable the creation of drug delivery systems for tackling unmet medical needs. For example, we now have tools based on nano- and digital technology to learn, in real time, where and how quickly a drug delivery system is accumulating in the body. If we may collect that information from every user worldwide and if we may share that clinical information within that community, wouldn't we be in a better position to refine the prototype drug delivery platform and tailor it for a particular patient with a unique genetic, life style, and disease profile?

What is it in your area of research that over the years has really excited you?

It is to learn firsthand how the courage and tenacity of my research team has led to creative solutions for managing the complexity of age-related eye diseases and for improving the safety of existing eye medications. I found it exhilarating to let the momentum of research lead me to areas that I never set out to investigate. I am particularly proud of our contributions in advancing our understanding of the ion transport and fluid transport properties of the conjunctiva; its active transport capacity with respect to peptides, proteins, and nanoparticles; the molecular underpinning of alveolar epithelia in drug absorption; and the value of computational chemistry to map the molecular configuration of the active site of the peptide transporter PepT1. These exciting moments aside, we always remind ourselves not to lose sight of our social responsibility of translating our research into life-saving medicine together with relevant advances made by other laboratories.

What role has the journal ADDR played in the past 2-3 decades, since its inception?

ADDR was founded 25 years ago by three highly accomplished visionary scientists with complementary expertise – George Poste, Rudy Juliano, and Eric Tomlinson. This landmark scientific union has defined the central mission of ADDR as an influential multidisciplinary, global forum for teams of experts to showcase the latest advances in drug delivery and to spark debates and arouse interest in continuing the marathon of advanced drug delivery research. I believe ADDR has been very effective in providing such a platform.

But we are living in a world of unprecedented change. I am confident that the editorial leadership team and its community of passionate contributors of ADDR will sustain its excellence by keeping pace with the avalanche of knowledge generated every minute and with the alarming rate of proliferation in social media that scientists of this generation are accustomed to in their daily interactions with other scientists in real time whom they may not have met.