

LEADING

CSLA



CSLA Dean Kevin Belfield with equipment used to evaluate the photostability of fluorescent probes formulated at NJIT as part of the effort to develop new, minimally invasive diagnostic technology.

PHOTO: BRITTANI BRUNDAGE

Q & A WITH Dean Kevin Belfield

Kevin Belfield was appointed dean of the NJIT College of Science and Liberal Arts and professor of chemistry and environmental science in November 2014. He received a B.S. degree in chemistry from Rochester Institute of Technology in 1982 and, after spending one year at Bristol-Myers Pharmaceutical Co. in Syracuse (1982-83), completed a Ph.D. degree in chemistry from Syracuse University in 1988 (under the mentorship of John E. Baldwin). He then worked as a senior chemist at Ciba-Geigy Corp. before performing postdoctoral research at SUNY College of Environmental and Forestry (with Israel Cabasso) and at Harvard University (with William von E. Doering). Subsequently, Dr. Belfield was a member of the faculty at the University of Detroit Mercy and graduate coordinator. While at the University of Detroit Mercy, he was an AFOSR Summer Faculty Fellow in 1997 and 1998. Prior to joining NJIT, he served as Pegasus professor and chair of the Department of Chemistry at the University of Central Florida (1998-2014).

In 2010, Dr. Belfield was inducted into the National Commission of Cooperative Education (NCCE) Co-op Hall of Fame. In 2013, he was elected a Fellow of the American Association for the Advancement of Science (AAAS) and awarded a Chang Jiang Chaired Professorship by the Chinese Ministry of Education at Shaanxi Normal University in Xi'an, China.

Dr. Belfield has served as PI or co-PI on over 45 grants from federal, foundation and corporate agencies. He has over 250 publications, holds over a dozen U.S. patents, and serves on several editorial advisory boards of scientific journals. Dr. Belfield is a pioneer in two-photon photochemistry and organic photonic materials. His research interests range from developing contrast agents for early cancer detection and new paradigms for photodynamic cancer therapy to ultrafast photophysics and 3D high-density optical data storage.

Dr. Belfield recently shared his thoughts about CSLA and the school's strategic plan with Christina Crovetto, editor of *NJIT Magazine*.

Q. In your role as CSLA Dean, what are your immediate priorities?

A. To continually create an environment to cultivate and promote the highest levels of faculty and student success. This includes: increasing the local, regional, national and international visibility of our students and their accomplishments, our programs, our faculty and research through multiple avenues. This includes the Internet, social media and developing brochures and other materials for direct mailing; raising funds for student scholarships and providing support for students to attend and present research at professional conferences. For example, we renewed our support from ExxonMobil Corporation for the Women in Chemistry program, received generous support from college alumni for an endowed scholarship fund, are working with other potential donors to secure additional scholarship funds and support CSLA students to attend national and international conferences. We're improving our infrastructure for instruction, instructional support and research, such as construction of state-of-the-art math,

science and writing student support services to be located in the Central King Building and which should be ready for spring 2017. A first-year chemistry teaching laboratory is currently being renovated to provide state-of-the-art instruction in chemistry in Tiernan Hall. Other research laboratories are being renovated in Tiernan Hall and Colton Hall to provide the facilities for students to gain valuable hands-on research experience in the chemical sciences and physics; developing a comprehensive experiential learning and employment mentoring and placement process for all CSLA students with strong collaboration among the CSLA Board of Visitors, alumni and Career Development Services. Another goal is helping to increase diversity among our student and faculty populations—we are doing this through recruiting and our new hires; and we're strengthening alumni engagement.

Q. What (or who) inspires you as a leader?

A. That is a rather complex question as there have been and continue to be many people who influence and inspire me.



CSLA faculty and students are at the forefront of national research activities that include solar-terrestrial physics, mathematical modeling, advanced materials, neurobiology and the history of medicine and technology.

I've been extremely fortunate to have received outstanding mentoring from a wide range of people beginning with my parents—neither of whom hold a college degree—a mother who pushed me to set and achieve goals at the highest level, a father who, despite not graduating from high school or have much reading ability, had an uncanny ability to build or repair anything mechanical, electrical, plumbing or construction-related; a remarkably talented high school chemistry and physics teacher; a high school track and cross-country coach who brought the best out of people; two outstanding chemistry professors as an undergraduate; and my Ph.D. adviser who to this day remains one of the most impressive people in every aspect that I've had the privilege of knowing. Between

graduate school and now, I've also benefited immensely from colleagues who quite unselfishly have given help, advice and friendship.

Q. What distinguishes CSLA from other science and liberal arts schools?

A. CSLA is quite unique among colleges of arts and sciences across the country in that it is an integral part of a largely STEM, largely engineering university. At many universities, the college of arts and sciences is the largest college within the university, while at NJIT Newark College of Engineering is the largest college. At NJIT, CSLA maintains the traditional role in providing the majority of the general undergraduate requirement courses for our students while

offering high-quality degree programs. We also have a very broad-based, diverse Department of Humanities that at many universities would be represented through numerous departments. The level of scholarship and engagement of students in senior seminars, projects and research is impressive as is the research conducted by our students and faculty. When we look at metrics of publications and external research funding per capita, CSLA students and faculty are extraordinarily productive.

Q. What trends are most significant in science and liberal arts education today?

A. An emphasis on interdisciplinary education and research and on the development of effective

communication skills is among the most pervasive trends in science and liberal arts education today. Our humanities and history GUR program provides a progressive emphasis on developing and refining communication skills and critical thinking from the first year through the final year, and most research conducted in the college spans a number of disciplinary boundaries.

Q. How is CSLA partnering with business and industry to the benefit of students?

A. We are working closely with members of the business and industrial community in developing a comprehensive experiential learning and employment mentoring and placement program. This involves professionals from a number of companies including TD Bank, Genzyme, Novartis, Bristol-Myers Squibb, JP Morgan Chase, Purdue Pharma, GE Capital, PSE&G, Broadridge Financial, Actavis, TIAA and a number of small startup companies and consulting firms. Members are already meeting with student groups for mentoring and providing insight into professional opportunities. We are in the process of developing these efforts into a mentoring program for our students by major.

Q. What are your thoughts about strengthening relationships with alumni?

A. This is an important priority as alumni are not only our products—in a sense they represent an investment. Alumni are also our best ambassadors. We are dedicated to seeing our alumni succeed and sharing their insights, advice and efforts with our students, faculty and programs to help us continually improve. Through our many efforts, we aim to increase the value of an NJIT degree. Our alumni have a vested interest to see this happen and are eager to help. I work closely with our alumni association and alumni members of CSLA's Board of Visitors to develop opportunities for continued alumni engagement and see these efforts only strengthening.

Q. What do you hope to achieve in five years?

A. In five years, I'd like to see: an environment, supported by facilities and resources, that allows us to continue to provide a state-of-the-art, high-quality educational experience for all of our students; substantially more scholarship funds to support CSLA students; a level of national and international

visibility of our students, programs and faculty so that we no longer need to explain what and where NJIT is; every student who wants an internship or other form of experiential learning to practically be guaranteed of having it; an increase in scholarship and research across all departments; a more diverse student and faculty population and an increase in student enrollment in all of our programs, particularly in our liberal arts programs. There is little argument that graduates in the STEM fields will play a critical role in developing the technological workforce needed to help ensure continued economic success and well-being in the U.S. However, a fact often overlooked is not only the role of liberal arts graduates in technology companies—just look at history major and Facebook founder Mark Zuckerberg or the influence a course in calligraphy had on Apple founder Steve Jobs. But also consider the role of liberal arts majors in local, state and national governments and leadership. Barely a scientist or engineer can be found among the elected officials of local, state or national governments, though few would argue the influence our elected officials have on nearly every aspect of our society. We have a real opportunity at NJIT to increase

the number of our liberal arts graduates, most of whom have a solid foundation in and understanding of the STEM disciplines. Thus, I'd personally like to see an increase in our liberal arts majors and have these students, many of whom have gone on to very successful careers, help to shape our society. ■

THERE IS LITTLE ARGUMENT THAT GRADUATES IN THE STEM FIELDS WILL PLAY A CRITICAL ROLE IN DEVELOPING THE TECHNOLOGICAL WORKFORCE NEEDED TO HELP ENSURE CONTINUED ECONOMIC SUCCESS AND WELL-BEING IN THE U.S.