George Stephanopoulos 70th Birthday & Retirement June 1, 2017 MIT Wong Auditorium

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I am Jarvis Cheung. I was one of George's first group of students at MIT. It is my honor to speak in front of such a distinguished group of individuals. George was so kind to ask me to make a few short comments in 2 to 3 minutes. But I hope I can ask for more. Honestly, I don't remember there was a time when George could limit himself to speak for less than 5 minutes on any subject.

George loves history. So, let me start with some personal history first. That was 33 years ago in the Fall of 1984. I was doing my last semester in chemical engineering and mathematics at the University of Wisconsin – Madison. I had been waiting anxiously to take the senior process control course by Manfred Morari. But Professor Morari had just left Wisconsin for Caltech. Professor Harmon Ray took over the course where George's seminal textbook "Chemical Process Control," was just published and used at Wisconsin. The book was so well-written and the concepts were so well explained that I swear that was perhaps the only chemical engineering textbook that I truly enjoyed reading, besides of course BSL. That was the first time I heard of this famous professor called George.

I was admitted to Caltech and MIT for graduate school. During the campus visits, I learnt that George was actually the thesis advisor of Manfred. My naïve thinking was given two masters in the same field, it would probably make all the scientific sense to choose the grandmaster over the master. So, I chose MIT. I enrolled in MIT in the Fall of 1985, a semester after George moved back from Greece to MIT.

After the doctoral qualifying exam, I was fortunate to get accepted by George into his research group. That would become one of the best things happened to me in my life.

It was a very exciting time – George was pioneering the new areas of AI in process systems engineering. LISPE was formed with support by almost all the major companies in the process industries. That was an unbelievable feat. I was with Shell for 12 years and I never saw anything like that happened in our industry. George was so adept at playing the dual role of a "CEO" and a professor. We the graduate students got the benefit to interact with industry early on and used the latest hardware and software. In fact, as Kevin Joback mentioned earlier in his talk, the computers we were using were all Symbolics LISP machines, each costed tens of

thousands of dollars. My fellow graduate students in Computer Science were just shocked, because very few research groups in MIT's Computer Science at that time could afford that.

The rest would be history. With all the famous professors and researchers here, I would be the least qualified to say anything further on this subject. However, as one of his first group of graduate students at MIT and a very troublesome one, I think I am qualified to say a few words on why George will forever be one of the most respected individuals in my life.

First and foremost, George is a very father like figure to his students. He is a great teacher and mentor. He genuinely wanted us to excel and succeed. He set an awfully high standard for himself and his students. And yet, he was always patient to let us struggle our ways through with 100% support and guidance. I would never have appreciated that until I had my own boys. Now I know how difficult it was to run a big family with a bunch of rebellious and independent kids, while having so much responsibility on his shoulder. George just did that. I think his mentorship is a big reason why most of us, his students, ultimately achieved successes in many different areas.

Second, George's brilliance directly affected us and was contagious. Even though no one said it directly, we were proud to be George's students. He had a big name at MIT. He was tackling some of the broadest and newest problems in research. He had lots of research money. Many students competed to work for him. It was so contagious that we all thought we were somehow already brilliant who could only do brilliant work. I remember I was considering doing the ChemE Practice School master degree and got a scholarship for that. But after a brief conversation with some of my colleagues, I quickly dropped the idea because a master degree would add nothing to a brilliant research career. Of course, my path did not end up in research. But the brilliant mindset, the out of the box thinking, the high standard of excellence and how it can positively affect others around you stick with me forever.

Lastly, George is a very kind and relationship person. He of course is also a very tough guy. He would question and debate everything. But on a personal level, he is always the kindest gentleman I know. In my final few years of my Ph.D., I ventured into a direction that George really did not like. It was very frustrating to him, and myself. But I am grateful that George still allowed me the freedom to pursue what I insisted on. And many years later, when I suddenly dropped by his office with my boys, he did not say anything. He just received us with wideopen arms and talked to our kids so kindly just like a grandpa talking to his grand kids.

George, thanks for everything! On this special occasion of your 70th birthday and retirement, I am so honored that I am one of your students. I want to wish you great health, great travels, great fun, and lots of grand kids to spoil in the future!