A Personal Tribute to Frank A. Gotch and Lee W. Henderson, Giants in Dialysis and in Life

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In the course of my career in dialysis, I have had the privilege of meeting some of the real pioneers of the field, such as Pim Kolff and Belding Scribner. I have discussed dialysis evolution with George Schreiner and Jack Maher, and have shared important conversations on peritoneal dialysis with Dimitri Oreopoulos and Karl Nolph. They have all since passed away, but have left an indelible mark in the field of renal replacement therapy and dialysis.

Two individuals in particular had a remarkable impact on my life as an investigator, physician, and human being. They are Frank Gotch and Lee Henderson. There will follow many obituaries about them and many commentaries on their scientific contributions, which completely changed the history of dialysis. I would, however, like to take advantage of the privilege of being the chief editor of this journal by writing a few lines offering a personal perspective on these great men, both of whom we are going to miss incredibly.

I met Lee for the first time as a young and inexperienced investigator when we organized the first congress of the International Society of Hemofiltration (that subsequently became the International Society of Blood Purification) in Cortina in 1982. He was an established and well-reputed leader, while I was making my first steps in research, studying the sieving profile of highly permeable

membranes. My studies led to the conclusion that the sieving properties of a given membrane were dependent on the blood flow rate, wall shear rate, and protein concentration polarization at the blood-membrane interface. Lee spent an entire afternoon with me, analyzing the data and discussing the content of my research with humility and comprehension, treating me as his peer (Fig. 1). We eventually met again in New York where Juan Bosch and I organized the first world congress on continuous arteriovenous hemofiltration. Again, he was kind enough to discuss our latest studies with us, this time on the peritoneal membrane permeability to sodium linked to a possible Donnan effect.

On both occasions, I was struck by his power of intelligence, passion, dedication, and commitment to educate and disseminate knowledge. We met several times during the following years and he always had words of encouragement and motivation for my research. At the end of his official career, we met on a special occasion when the old group of hemofiltration gathered for a celebration in honor of Michael Lysaght (Fig. 2). His great intelligence

Video Journal Club "Cappuccino with Claudio Ronco" is available at <http://www.karger.com/?doi=479549>.

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Fig. 1. Lee Henderson and Sheldon Glabman with Claudio Ronco attending the first world congress on hemofiltration in Coirtina D'Ampezzo, Italy, June 1982.

and charming personality were both endearing and stimulating. He was a person capable of mixing engineering concepts with medical and physiological aspects, and was truly a renaissance man. Lee has remained a role model for my entire life and I cannot thank him enough for his mentorship and the inspiration he offered. I intend to honor his memory by trying to be as good and considerate with my fellows, just as he was with me and many of his academic followers.

Frank Gotch first crossed my path in 1984, just before the publication of the first kinetic urea model and subsequently the mechanistic analysis of the national cooperative dialysis study. We spent an entire day talking about distribution volumes and Kt/V , and we frequently disagreed, given that I supported a multidimensional view of adequacy while he was a strict supporter of urea kinetics. He had complicated black and white slides with graphs and tables, which only Frank could ultimately understand. However, he was so kind as to explain them with simplicity and modesty to a point that everybody could follow the concept and the final results. Frank was speaking the language of mathematics during a time when di-

alysis was not even considered a science. The steps of his career progressed through a series of mathematical models and kinetic intuitions that ultimately led to the modern quantification of dialysis therapy and several useful features of current dialysis machines. He never gave up on a problem – tossing, turning, and manipulating models, he did not rest until at last he had it solved.

He was at an advanced stage of his career when I met him standing in front of a poster he was presenting at the American Society of Nephrology in San Francisco. I asked him why he was still willing to present a poster when he could be a guest plenary speaker. He answered that posters were the best form of communication to determine

Fig. 2. The pioneers of hemofiltration gathered several years later to honor Michael Lysaght. From left: Juan Bosch, Karl Koch, Michael Lysaght, Lee Henderson, Edward Quellhorst, Claudio Ronco, and Konrad Baldamus.

Fig. 3. Honoring the career of Frank Gotch in New York in the year 2004. From Left: Michael Lysaght, Gary Hendelman, Nathan Levin, George Kaysen, Claudio Ronco, Peter Kotanko, Mr. and Mrs. Gotch, Nicholas Hoenich, Martin Kuhlmann, John Sargent, Roger Greenwood, Daniel Schneditz.

(For figures 2 and 3 see next page.)

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Fig. 4. Nathan Levin, Frank Gotch, John Sargent, and Claudio Ronco during the special award ceremony in New York, 2004.

whether the audience, though smaller than in the plenary session, was able to fully understand the message he was trying to express. He was modest, brilliant, and a privileged interlocutor for scientific conversation, although you had to scream a bit because his hearing aid was not always properly working.

I spent a lot of time with him and Nathan Levin when I was working in New York, and each time we were together represented a great opportunity to learn from a genius and a charming man (Fig. 3). Many people will remember him for all his fantastic contributions

to the field of science, but I have the privilege of remembering him as an exceptional mentor and a good friend (Fig. 4).

Here I have offered a brief memory of Lee Henderson and Franck Gotch from somebody who knew them well and was fortunate enough to consider them friends and mentors. Much more dwells in PubMed and in the hearts of the many people who also had the privilege of meeting them in person. Millions of dialysis patients have benefited from the life-saving contributions of these two giants of the field. Thanks Lee. Thanks Frank.