

**2009 Association of American Physicians George M. Kober Medal
Introduction of François M. Abboud**

Michael J. Welsh

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AAP Kober Medal

President Kieff, President-Elect Collins, members, and guests of the Association, I am honored to present to you Dr. François M. Abboud, the recipient of the 2009 Kober Medal of the Association of American Physicians (Figure 1). This is the Association's highest award, given to individuals who have made transformational contributions to American medicine. Frank Abboud of Iowa Frank Abboud is so intertwined with Iowa, that in American academic medicine, when one thinks of Iowa, one thinks of Frank Abboud, and vice versa. What is it about this place that many consider, if at all, only when shuttling at 32,000 feet between the paragons of academia on our coasts? It is quite fitting that this Iowan receives the Kober Medal in this particular year, 2009. For it is this year that Barack Obama became President after the people of Iowa launched him on his amazing journey. President Obama said that only in America was his life story possible. The same is true for Frank Abboud. He has told his grandchildren (Figure 2), "There is no place on earth that would have extended the arms of opportunity to embrace your grandparents as fully, as fairly, and as freely as we have been." That opportunity for fair treatment is true of this country, and it is true of Iowa. Witness, for example, the [...]

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Frank Abboud and serendipity

So what is Frank's story? How did he come to settle in the rolling hills of Iowa? It is a story of serendipity. But it is more than that. It is a story of the best of America

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Figure 1
Dr. François M. Abboud, 2009 Kober medalist.

and the best of American academic medicine — opening our arms to welcome the best and brightest from around the world and provide them with the opportunity to develop their talent and live their dreams, and in so doing to renew the vitality of this country.

Frank was born in Cairo on January 5, 1931. Figure 3 shows him in a rather angelic state and considerably less animated than usual. His mother, Asma, ran St. Theresa's School for Girls. His

father, Mitry, taught English and worked as a senior manager in the phone company (Figure 4). As a boy, Frank enjoyed accompanying his father to the phone company, where he loved to sit at the switchboard, plug in the wires, and pull the levers. Apparently, even at that young age, he was developing his skill at "pulling the levers."

Frank received his baccalaureate from the Christian Brother's School and then his M.D. from Cairo University (Figure 5). He had intended to pursue further training in London. But a chance encounter with an American Fulbright Scholar, Agnese Dunne, who was teaching in Cairo, changed those plans. She was from Milwaukee, and she decided that it was Milwaukee, and not London, where Frank should train. So she took it upon herself to apply to Milwaukee County Hospital for him. When an acceptance letter arrived, Frank struggled with the decision, but ultimately decided to cast his lot with the new world. He was dating a beautiful young woman, and given the uncertainty of when or if he would return, he asked Doris's father for her hand (Figure 6); they married in the Greek Catholic Church in Cairo, and they set sail for America, all within three months of receiving the letter from Milwaukee. On June 30, 1955, he and Doris set foot on American soil for the first time at the Milwaukee train station.



Figure 2
Four of Frank and Doris Abboud's grandchildren, Michelle, Vivian, Elyse, and Haley.



Figure 3
François M. Abboud, First Communion, May 26, 1938.

The large railroad station clock read 11:00 p.m., and Frank had to report for duty at 8:00 a.m. the next morning. This was cutting it close. And that relationship with time, or actually his disregard for time, has been a recurring theme throughout his career. He is always late for the next meeting because he devotes as much time as needed to the person he's with. He lives in the present and says deadlines are meant to be extended.



Figure 4
Asma and Mitry Abboud, Frank Abboud's parents.



Figure 5
Frank Abboud as a medical student at Cairo University.

During an internship rotation in Pathology, the head of medicine asked him about a blood slide. Frank nailed it as *Plasmodium falciparum*. Of course, as has been true so often in his career, Frank had a card up his sleeve. That card was his training in Cairo, where he became quite familiar with malaria. The professor was impressed with Frank and decided that Frank would do his residency in Internal Medicine rather than in Frank's intended Pediatrics (Figure 7). During residency



Figure 6
Doris and Frank Abboud on their wedding day.

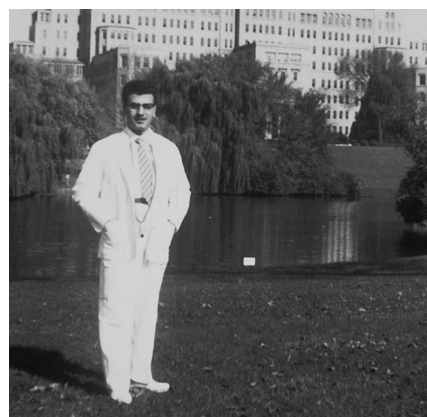


Figure 7
Frank Abboud as a resident at Milwaukee County Hospital.

Frank became attracted to academic medicine as he watched his professors both care for patients and try to understand the bases of their disease. As a resident he published papers in pathology and infectious disease, but finally settled on cardiology and began his clinical fellowship. To pursue research, he interviewed with André Cournand in New York, but then, in an elevator at the American Heart Association meeting, Frank had a chance meeting with Jack Eckstein (Figure 8), a vascular physiologist and the first true physician-scientist at the University of Iowa. These two men — one from Cairo and the other from a town of fewer than 1,000 people in rural Iowa — clicked. After that meeting, Frank elected to move to Iowa and work with Jack on vascular physiology. Doris and he loaded all their



Figure 8
Dr. Jack Eckstein in the laboratory at the University of Iowa.

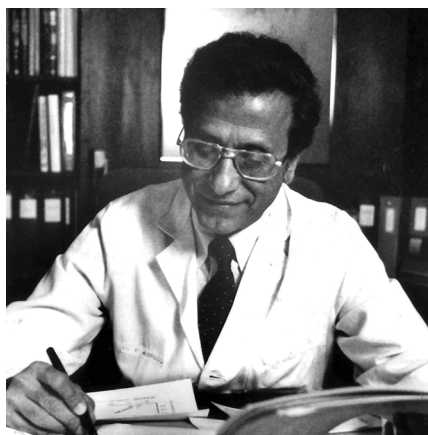


Figure 9
Frank Abboud: the “serendipity factor” for many.

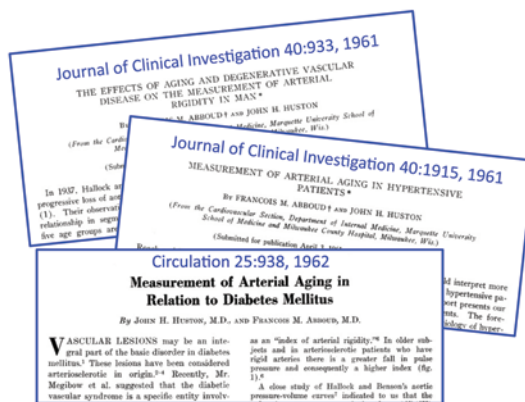


Figure 10
Three early major articles by Frank Abboud.

belongings and their first three of what would be four children into their station wagon and drove to Iowa City.

What is the moral of this story of serendipity that took Frank in so many unanticipated directions? In each case “serendipity” was not something random in the road. Instead, it was people who recognized Frank’s special talent and leadership. I think Frank came to appreciate that, and with time, he became the “serendipity factor” (Figure 9), providing what we might call “serendipity,” or perhaps more accurately “opportunities,” for generations, not just at Iowa, but beyond.

Frank Abboud’s leadership in academic medicine at Iowa

In a few cases, one can point to a single individual who transforms medicine and science at an institution. Several Kober medal recipients have done that. Two examples are Holly Smith at UCSF and Donald Seldin at UTSW. At Iowa, that person was Frank Abboud.

While a fellow in Milwaukee, Frank became interested in vascular distensibility, and he was never one to do things half way. So, when he set out to measure vascular compliance with age, he did not settle for an N of 6 or 7. Instead, he studied 100 normal humans, 100 patients with hypertension, and 100 patients with diabetes mellitus. He sent the paper to *Circulation*. The exceeding length of that paper was balanced only by the brevity of the rejection letter – one paragraph.

When he moved to Iowa, Frank showed the paper to Jack Eckstein. Eckstein, a man of few words, began to show Frank how to

write a scientific paper, tempering – but not eliminating – Frank’s tendency toward lengthy discourse. Frank submitted the portion on normal subjects to the *JCI*, and they loved it (1). He then submitted the paper on hypertensives, and the *JCI* took it too (2). And finally, he sent the study on diabetics to *Circulation* (3), and they accepted it without revision. This may be a world record on responding to a categorical rejection – three major manuscripts (Figure 10). Thus began a meteoric research career, and themes in Frank’s career to which I will return: persistence, the importance of the mentor, and the importance of working together.

Some of you may have seen the movie *Field of Dreams*, in which Shoeless Joe Jackson comes back to play ball in Iowa. In it, Kevin Costner builds a baseball field in a cornfield after he hears, “If you build it, they will come” (Figure 11). That is what Frank did – he built it in Iowa, and they came. Before he was 40, he became Director of the Cardiovascular Division (Figure 12). Shortly thereafter, he founded the Iowa Cardiovascular Research Center and initiated a visionary shift in research. Rather than an individual approach, he encouraged groups of experts from multiple disciplines to work together on state-of-the-art research projects. Today, we might call this “team science.” But Frank went further, insisting on individual research excellence and independence. He promoted the concept of “independence with interaction.” In the early days, the Center was called the “MASH unit” (Figure 13) for all the papers authored by Allyn Mark, Frank Abboud, Phil Schmid, and Don Heistad. Under his leadership,

the Center quickly emerged as one of world’s leading cardiovascular research and training centers. From 1976 to 2002, 26 years, Frank chaired the Department of Medicine. During that time, he developed an outstanding department. Frank recruited and retained his faculty by making the University of Iowa a special place for physician-scientists, just as in *Field of Dreams* when Shoeless Joe Jackson asks, “Is this heaven?” and Kevin Costner



Figure 11
Baseball field in Dyersville, Iowa, the setting for *Field of Dreams*. Image reproduced with permission from the Dyersville Chamber of Commerce.



Figure 12
The University of Iowa Cardiovascular Division in 1971. Frank Abboud is in the front row, fourth from left.

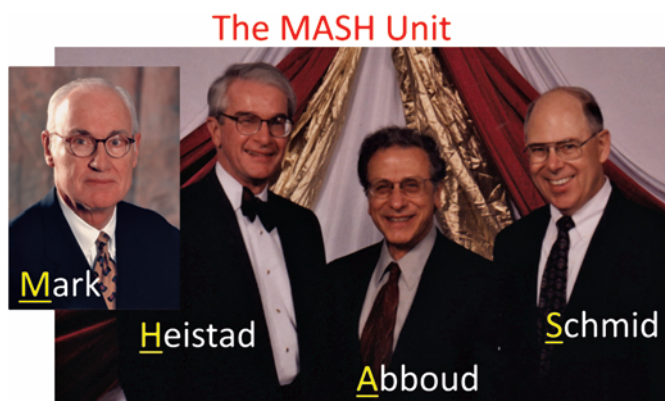


Figure 13
The “MASH Unit”.

answers, “It’s Iowa.” For that line, they could have replaced Kevin Costner with Frank Abboud.

The people of Iowa tend to be prudent, but they will gamble. Frank was

a gambler — a gambler on young people he brought to Iowa. I give you an example of my own. When I went to talk with him before joining the faculty, we spoke about my research. He asked

me to return the next day with a list of what I would need to begin. When I returned, a refrigerator was at the top of the list. Frank said, “You won’t need to buy that, we have plenty.” He picked up the phone, talked briefly, but found that none were available. So he moved to the second item, a strip chart recorder. Again, he picked up the phone, but again struck out. So he turned to me and said, “Buy whatever you need, don’t be extravagant, and write a grant.” That was it. He was gambling.

Perhaps it was the open spaces of Iowa (Figure 14) that encouraged Frank to dream expansively. For example, in its early years, his NIH Program Project Grant (PPG) did not have only 3 or 4 projects, or even 5 or 6. Indeed, it would have up to 20–25 projects. Why do the enormous work that number required? Frank used it to encourage interdisciplinary research and to bring together a wide and diverse group of investigators. Those projects helped many young faculty, including me, to get a start. And since I was working on Cl⁻ secretion in airway epithelia, I have always assumed that Frank had an expansive interpretation of the vascular system as anything that involved a tube. That PPG forced everyone to sit together, to talk, to argue, and to realize opportunities. The preparations for site visits joined us in a common goal, smashed artificial walls, and taught us all to aim high. Frank had a card up his sleeve with that PPG.

Frank Abboud’s contributions to science

In his book *The Hotel New Hampshire*, John Irving’s character, Iowa Bob, says that the secret of life is: “You have to get obsessed,



Figure 14
Hayfield, by Marcia Wegman. Image reproduced with permission from the artist.



Figure 15
In *The Hotel New Hampshire*, Iowa Bob says, “You have to get obsessed, and stay obsessed.” Photo is of “Iowa Frank” in the research laboratory.

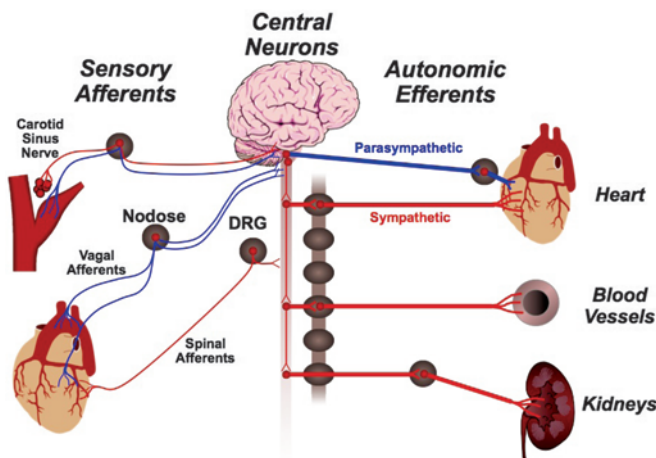


Figure 16
Neurocontrol of the circulation.

and stay obsessed.” Irving, who spent time in Iowa City at the University of Iowa Writer’s Workshop, could have written that for “Iowa Frank” (Figure 15). Frank has been obsessed by research, and his work has shaped thinking about autonomic control of the circulation for the last 40 years.

Figure 16, which I pilfered from Frank’s collection, shows some of the elements controlling the circulation. Frank discovered many of the sensory inputs that converge on central neurons. For example, he identified the heart as a sensory organ when he demonstrated that vagal afferents from left ventricular mechanoreceptors inhibit sympathetic nerve activity and cause exertional syncope in aortic stenosis and bradycardia and hypotension in inferoposterior myocardial infarction. He showed that excessive

sympathetic nerve activity with aging is caused by rapid functional adaptation of baroreflex neurons, paving the way for pharmacologic intervention. He demonstrated powerful surges of sympathetic nerve activity during sleep apnea, defining a significant risk in patients vulnerable to sudden death. He discovered the role of acid-sensing ion channels in regulating chemoreceptors and the role of heightened chemoreceptor sensitivity in the pathogenesis of sympathetic overactivity in spontaneous hypertension.

I would emphasize two points about his research. First, his ability to deal with complexity allowed him to consider how all the inputs converge and how the various elements interact to regulate the heart and vessels – what we might now call systems biology. Second, over the

years his research became increasingly more fundamental as he employed cellular and molecular biology to understand integrative physiology and pathophysiology. And he has done this without abandoning his roots in the study of human beings (Figure 17).

For his research, Frank has received many awards; I list a few in Table 1.

Frank Abboud’s national leadership

Others outside Iowa also recognized Frank’s leadership abilities. Table 2 shows a very few of his many leadership positions. These include his presidency of the AAP.

Frank Abboud as an inspiring mentor

Frank Abboud also has an impressive record of mentoring several generations of students, residents, fellows, faculty, and future leaders (Figure 18). He has several characteristics that have made him an outstanding mentor.

First, he leads by example. When I was a resident, Frank encouraged me toward academic medicine. But he never presented it in that way, saying “Why don’t you go do research?” Instead, he let it arise naturally from something I knew and understood, patients. At morning report, Frank asked me why my 20-year-old patient with diabetic ketoacidosis was hyperventilating. After a brief discussion, he asked me to find out and come back to tell my colleagues. Once again he had a card up his sleeve; he gave me a reference on my way out of Report – a book on which he was editor. But, the important



Figure 17
Frank Abboud with one of his patients.

Table 1

Selected research awards and honors received by Frank Abboud

Gold Heart Award, American Heart Association
ASPET Award for Experimental Therapeutics
Carl Wiggers Award, American Physiological Society
Carl Ludwig Distinguished Lecturer, American Physiological Society
American College of Physicians Award for Outstanding Work in Science as Related to Medicine
Dickinson W. Richards Memorial Award
Research Achievement Award, American Heart Association
CIBA Award for Hypertension Research
George E. Brown Memorial Award, Council on Circulation
Merck Sharp & Dohme International Award for Research in Hypertension
Walter B. Cannon Award, American Physiological Society
Robert H. Williams, MD, Distinguished Chair of Medicine, Association of Professors of Medicine
Institute of Medicine of the National Academies
American Academy of Arts and Sciences



Table 2

Selected leadership positions of Frank Abboud

President	Central Society for Clinical Research
President	American Federation for Clinical Research
President	American Clinical and Climatological Association
President	American Heart Association
President	Association of American Physicians
Chair	NHLBI Project Research Review Committee
Member	NHLBI Advisory Council
Editor	<i>Circulation Research</i>



Figure 19
Frank Abboud with Doris and his children, Mary, Nancy, Susie, and Tony.



Figure 21
Frank with his grandson Henry.

point is that the way he asked and subtly encouraged led me to the library, to more questions, to additional discussions, and then to human experiments. He did not direct me to do research. Rather, he helped me realize there was a question about which I cared, and he showed me how to answer it.

Second, Frank is an eternal optimist. He has the ability to make people believe that “anything is possible.” That optimism rubs off on those he mentors, enhancing their sense of what they are able to achieve.

Third, Frank is an exceptional advocate. He has persistently championed his faculty, house staff, trainees, and students. He is not one to tell a recipient of his advocacy or what he has done for them. Only sometimes does one find out later from another source.

Fourth, Frank takes a personal interest

in his trainees and their families. That personal bond and friendship persist. This quality comes from deep inside with his genuine interest in others.

The Abboud top ten

Most of you know of David Letterman’s “Top Ten” on the *Late Show*. I would like to end with the Abboud Top Ten:

10. *He has a PPG.* The Integrative Neurobiology of Cardiovascular Regulation. His is the longest-running PPG at the NHLBI with the same principal investigator. It is now in its 36th year and has been renewed for 5 more years. Frank’s PPG has had a lasting impact on the culture of inquiry at Iowa.

9. *He is persistent.* When Frank sees a worthy goal, he is unrelenting in its pursuit. Bob Lefkowitz tells the story of how Frank tried to recruit him to head a division at

Iowa. When Bob declined, Frank tried to recruit him to lead two other divisions of medicine.

8. *He is a schmoozer.* Frank can talk with and entertain anyone, a fact that made him an outstanding recruiter. That quality comes from his own personal warmth and his genuine interest in others.

7. *He is a Hawkeye.* He is an ambassador for Iowa with unbounded enthusiasm.

6. *He is short.* But that short physical height belies an enormous heart and generosity of spirit.

5. *He has only one speed.* That speed is top speed.

4. *He has no sense of time.* When you go into a meeting with Frank, you never know when you will come out. He is oblivious to time as he devotes all his energy to the person he is with.

3. *He is not done yet.* He continues to lead locally and nationally.

2. *He is a mentor.* Frank’s principles and ideals are now multiplied in the many people he has touched, many in this room. And his mentees pass that enthusiasm for science, for people, for medicine, and indeed, for life, on to those whom they mentor.

1. *He had the good sense to marry Doris.* Together they have created a wonderful family. Figure 19 shows a photograph of Frank with Doris and their children, Mary, Nancy, Susie, and Tony. Figure 20 shows Frank and Doris with three of their grandchildren, Landon, Alexandria, and Hunter. Figure 21 shows Frank with his grandson Henry. Finally, Figure 22 shows Doris with four of their granddaughters, Haley, Elyse, Michelle, and Vivian.



Figure 18
Frank Abboud the mentor.



Figure 20
Frank and Doris with three of their grandchildren, Landon, Alexandria, and Hunter.



Figure 22
Doris and four granddaughters, Haley, Elyse, Michelle, and Vivian.

Conclusion

Frank, we thank you for your leadership, your inspiration, and your friendship. And today, we celebrate with you your receipt of the Kober Medal.

Acknowledgments

I thank Drs. Allyn Mark and Donald Heistad for helpful comments and discussions.

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