Presentation of the Morris F. Collen Award to G. Octo Barnett, MD, by Robert A. Greenes, MD, PhD

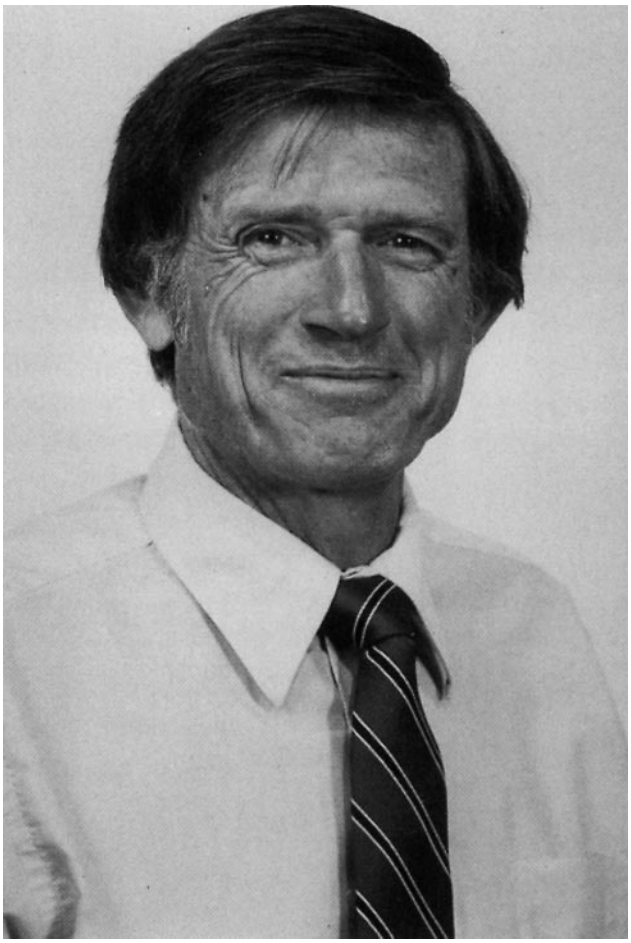
The Morris F. Collen award is reserved as the highest honor our profession can give to an individual who has contributed to it throughout his or her professional life, in multiple ways, which may involve research, teaching, mentorship, leadership, and service to the profession. An awards committee of the American College of Medical Informatics (ACMI) considers nominees for the award, and the selection of the committee is forwarded to the ACMI Executive Committee for approval.

I now have the honor to present this award to an individual whom I have known for 32 years. I had the privilege to meet this person while I was a medical student at Harvard, when he came to the Massachusetts General Hospital (MGH) to run a large hospital information system implementation project called the Hospital Computer Project. It is an honor to present The Morris F. Collen Award to G. Octo Barnett, MD.

Octo was named after his father. The possibly apocryphal story is that his father was the eighth son, born on the eighth day of the eighth month, in 1888.

While anyone who knows him would think Octo is a native of Alabama, he was actually born in Chule Vista, California, and moved to Greenville, Alabama, at age six. Octo found his way a bit closer to the Mason Dixon line when he learned—while sitting in a barber chair—that scholarships to college might be available at Vanderbilt. Octo then progressed north to Boston for medical school at Harvard and residency in medicine, with a specialization in cardiology at Peter Bent Brigham Hospital.

Octo spent his early scientific years at the Brigham pursuing cardiovascular physiology research, where he became involved with information technology. Around that time, across town, an ambitious project at Massachusetts General Hospital (MGH) was being undertaken in conjunction with Bolt Beranek & Newman, Inc. (BBN), supported by the National Institutes of Health. This project was being led by BBN; after some of the early enthusiasm died down, it was clear to the leadership at MGH that this project needed physician direction. Octo was recommended by one of the early site visitors, Homer Warner, who knew of his work with computers at the Brigham, and he was recruited to MGH to run the project. The Laboratory of Computer Science (LCS) was thus born.



The technology of the early Hospital Computer Project is interesting—a PDP1 computer, with one of the first time-sharing systems, at the same time as Project Mac at MIT. User terminals initially were not video display devices but KSR teletypes, outputting on paper.

Octo headed a very dynamic laboratory in those days of the late 1960s, with new projects underway to automate much of the hospital's activities, including ADT, the clinical laboratory, pharmacy, radiology, and other functions. The design and programming of this system represents one of the first comprehensive hospital information systems using modular definition as the specification paradigm.

Around that time, Octo made the key decision to encourage dissemination of MUMPS by providing a no-cost license to DEC to reimplement and market the language. Other companies also followed suit, including Meditech, Intersystems, IDX, and since then, of course, many others. Now known as M, MUMPS continues to be the most widely used programming language in medical applications.

Back row, left to right: Robert, Andrew, John; front row: Octo and Sarah.

As Harvard Community Health Plant (HCHP) was being formed, the LCS took on the development of a computer-stored ambulatory record. This first system led to the development and national dissemination of COSTAR—a comprehensive and widely used automated ambulatory medical record system.

Other work on medical student education and case-based learning formed the basis for development of a large library of medical education programs (primarily computer-based patient simulations) which are marketed nationally by Williams & Wilkins medical publishers.

The LCS continues to make important contributions under Octo's vision and leadership, including the diagnostic expert system DXplain. and the national dissemination of this system on personal computers and via the Internet.

At the present time the LCS provides clinical information support to MGH and has active research programs in the application of computer technology to computer-based medical record systems, physician workstations, clinical problem solving, expert systems in medical diagnosis, knowledge management, medical education, and clinical research.

Octo's lab has a remarkable history as a crossroads for a large number of the people who work in this field, including:

- Robert A. Greenes, MD, PhD, Professor of Radiology, Brigham Women's Hospital. Director of the Decision Systems Group, BWH. Coordinator of Harvard–MIT–NEMC NLM Training Program
- Edward H. Shortliffe, MD, PhD, Associate Dean for Information Resources & Technology, Stanford Medical School
- Jerome H. Grossman, MD, former President and CEO of New England Medical Center
- Anthony Gorry, PhD, Vice-President for Information Technology, Director of the Center for Technology in Teaching and Learning, Professor of Computer Science at Rice University
- Richard B. Friedman, MD Professor Medicine, Director of Medical Informatics, U. Wisconsin Medical School, former Director, Lister Hill Center
- Donald Studney, MD, Associate Professor of Medicine, Director Division of Internal Medicine, Vancouver General Hospital, U. British Columbia (Director, Multiple Sclerosis Central Data Base Activity using derivative of COSTAR)

A number of other people have worked with Octo in various capacities, among them:

- Neil Pappalardo, Chairman of Board Directors, CEO, Meditech

- Paul Egerman, Senior VicePresident, IDX
- Michael Somad, MD, Medical Director, Henry Ford Health System, Dearborn MI
- Peter Katona, PhD, Whitaker Foundation
- Bart Harmon, MD, MPH, Chief of Medical Informatics, Walter Reed Medical Center
- Jim Cimino, MD, Associate Professor of Med and MI, CPMC; Director, CPMC MI training program
- Henry Lowe, MD, Assistant Professor Medicine, Acting Co-Director, Section of Medical Informatics, University of Pittsburgh

Octo and his wife, Sarah, have three sons: John, now married and living on Long Island; Andrew, married and living in Melbourne, Australia; and Robert, living in Falls Church, Virginia. Octo is now the proud grandfather of Elizabeth, daughter of John and Sheila, and now one and one-half years old.

Octo has done much in the way of organizational service—as a member of the Board of Directors of SCAMC, of AMIA, and of ACMI, and as past president of ACMI.

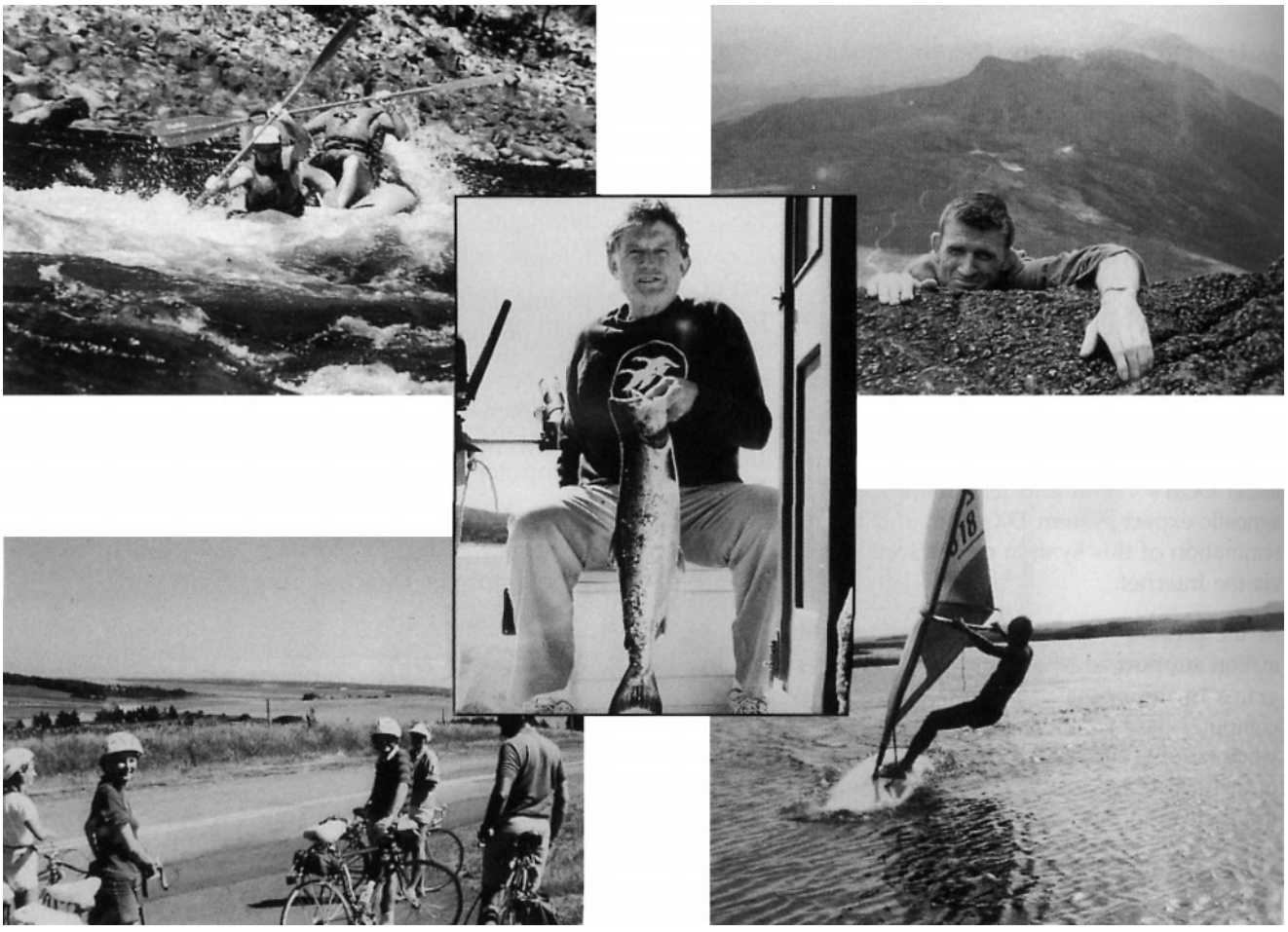
Octo's aphorisms are well-known:

"Use the proper tense in describing your accomplishments."

"There's no such thing as 'FREE text.'"

And. . . "I'm just a country doctor."

If there is anyone who truly embodies the "work hard, play hard" ethic, it is Octo. He has had a prodigious output in papers, talks, projects, grant re-



quests, etc. When he is not doing this, he is white-water canoeing, sail fishing, cross-country skiing, hiking, mountain biking, playing tennis, or playing volleyball.

I can think of no one who more richly deserves the recognition and affection of his colleagues than does Octo. I present to you my valued friend, the 3rd honoree of the Morris F. Collen award, Guy Octo Barnett.

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Recollections of Morris F. Collen, MD, Namesake of the Award, and First Recipient, From a Video Segment

I first met Octo in the mid-60's when I visited him at MGH to see what he was doing in computer applications to medicine. A few years later I again visited Octo with the Health Technology Study section that got him the grant to pursue his MUMPS software for the hospital computer system that he was developing.

I remember his hospital administrator telling us whether Octo got his grant or not, Mass General was taking over the laboratory reporting system that Octo already had operational since the new lab system had already cut by 15% the number of tests physicians ordered since they no longer had to repeat tests when the computers so promptly reported the test results. This led to Octo's characteristic response whenever he was asked who evaluated his project. Octo would say that if others would steal or copy it then he knew it was good.

Typical of Octo's leadership style he published in 1970 what he called his Ten Commandments for the Successful Building of a Hospital Information System. When I saw site, only two of the ten. One that is often quoted, "Be optimistic of the future but do not confuse the future tense with the present tense." Another that I took rather personally was, "Thou shalt construct modular systems. . . ."

Well, for the past thirty years, I have enjoyed discussing with Octo, some of the differences in our approaches in medical information systems. I now readily admit history has shown that Octo's approaches have generally won out. Thus, with respect and admiration, for my good old friend Octo Barnett, I salute him for his many great contributions to medical informatics.

Recollections of Robert A. Greenes, MD, PhD, From a Video Segment

I began working with Octo Barnett while a medical student in 1964, soon after he came to MGH to run the Hospital Computer Project. I recall how advanced it felt to work on one of the first time-sharing systems, a PDP-1 computer, and even to be able to work at home, using an acoustic coupler modem and a teletype terminal running at 10 cps.

At the beginning of the Hospital Computer Project, progress was painfully slow. All programming was done via subcontract to a firm in Cambridge, Bolt, Beranek & Newman, Inc. (BBN). Even the simplest formatting change in a report was done in assembly language and took as much as a week to accomplish.

As kind of a sideline, BBN put up on their time sharing system a Basic-like interpreter with string processing functions, called StringComp. At Octo's lab, we were intrigued with this and with some related developments. We began building our own version of StringComp on a PDP-7 computer in the lab, and added tree-like data structuring capabilities for both local and "global data" stored on disk.

This was the origin of the MUMPS system. It worked well in some early pilot projects in the lab. So, in a grant renewal request for the Hospital Computer Project in 1967, Octo took the bold step of proposing that his lab do all future development work internally, using this new language and system. I recall the grant review site visit team, which included Don Lindberg, Homer Warner, Morris Collen, and Carlos Vallbona. Octo's persuasiveness won the day, and the project was approved for funding. As they say, the rest is history.

I have very fond memories of those exciting early days in Octo's lab, and working with him—as my mentor, colleague, and friend.

Recollections of Homer R. Warner, MD, PhD, Second Morris F. Collen Award Recipient, From a Video Segment

Octo Barnett is one of those people who you never forget once you encounter them. I remember the first encounter we had was at the Massachusetts General Hospital on a site visit. The MGH had applied to NIH for a grant working through Bolt, Buranik and Newman, as the principal investigators. They hoped to develop some innovative applications in computers.

At the end of the site visit, the site visit team made a recommendation to the CEO of MGH that they really ought to look for some leader from within their institution to lead this effort in computers and medicine. And a few days later I got a call from the CEO and he asked me if I had any recommendations for the person. And I recommended Octo Barnett.

Octo took that job and he's still in it. He's done a tremendous job. He set up that laboratory of computer science. He trained a lot of fine people who are now leaders in the field. He's contributed as much as anyone I can think of to the research in medical informatics. . . .

Now Octo isn't all work; he loves to compete. Every time I go to a meeting he brings his tennis racquet. If he can get anyone to play, he'll do it, and during meeting hours, I mean, he gets up early in the morning and plays late at night to get a game in, and he puts all his effort into that just like he does at work. . . .

I'm very pleased that Octo is getting this award. I think he's a tremendous leader and an inspiration to a lot of people in the field. Congratulations, Octo.

Recollections of G. Anthony Gorry, PhD, From a Video Segment

Octo continues to this day after 20 some odd years of an association with me to, I think, with some degree of satisfaction, claim me as his first graduate student. So I take that as a high testimony to my track record in the sense that had I not done reasonably well, Octo would've disowned me many years ago. I'm still pleased to count him as one of my early advisors at MIT. Although he was at Harvard, we were close together and worked closely on a number of projects. He gave me lots of good encouragement and lots of good ideas.

I continue to be impressed, and, in fact, amazed at the number of trainees who come from Octo's lab and the influence they've had on informatics generally around the country. I'm also continually amazed that Octo can persist in the act of the country doctor after all these years. It's a remarkable skill that he has to pretend that basically he knows next to nothing but somehow always come up with good ideas and good suggestions.

So, I would prefer of course to be there and say all these things to him personally, and I'm sorry that I'm restricted to video, but nonetheless, I want to make certain that he understands how grateful I am for all that he's done for me and I wish him every success in the future.