SUMMARY

The influence riboflavin had on bilirubin response to phototherapy was studied in 24 newborn infants, 12 in the treated group and 12 in the untreated group. Those patients receiving riboflavin showed a 50% greater mean bilirubin decrease during the first 24 hr of phototherapy when compared to patients receiving no riboflavin, but the same quantum of blue light energy.

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11. Parental and private physician consent was obtained to study these patients.
12. This research was supported by a grant from The William K. Warren Medical Research Center, Tulsa, Oklahoma.
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Introduction of Dr. Clement A. Smith for the John Howland Award

(From the American Pediatric Society, April 28, 1976, St. Louis, Missouri)

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Dr. Smith, members of the Smith family, friends of Dr. Smith, and admirers—that must include everyone in this room—

Surely one of the greatest pleasures that can befall a "student" is the opportunity to share with others perceptions of a favorite "teacher" (Fig. 1). This pleasure is mine today, as I attempt to bring you some feeling for Clement Smith and his extraordinary accomplishments.

To many he conveys the wisdom of the lover of nature, and seems more a Vermonter (his adopted land) than the midwesterner he is. Born 74 years ago in Ann Arbor, Michigan, the son of Shirley Smith, Professor of English and later Vice President of the University of Michigan, and Sara Smith, he was the second son in a household of four children. He remained in Ann Arbor for all of his formal education, including a Master's degree in English as well as the M.D. degree. His literary interests are well known to most of you, who recall his distinguished editorship of *Pediatrics* for the 11 years from 1962 to 1973, his book, *Physiology of the Newborn Infant*, recently published in a fourth edition with his former student and coeditor Dr. Nick Nelson, and the series of articles on medical writing in the *American Journal of Diseases of Children*. Perhaps less well known is his familiarity with the poetry

of several centuries, including much of that written by Robert Frost. The friendship with Robert Frost dated from Frost's stay as Poet in Residence in Ann Arbor and subsequently flourished in Cambridge. The friendship or kinship with the great poets of history is fostered by Palgrave's *Golden Treasury*, Dr. Smith's constant companion.

The medical years began in Ann Arbor, where he received his M.D. from the University of Michigan in 1928. His first 2 years as a house officer were in the University Hospital in Ann Arbor, but in 1931 he came to the Children's Hospital, Boston, in the era of Drs. Kenneth Blackfan, James Gamble, and James Wilson. Any of you who have had the privilege of knowing Dr. Smith realize the extent to which the friendships of those years have influenced his subsequent life. One sometimes wonders if the Children's Hospital ever had a Chief Resident other than James Wilson. Dr. Smith returned to Ann Arbor as Instructor in Pediatrics but only briefly, when Harvard again beckoned him to come in the role of Assistant Physician to the Children's Hospital. He was at first in charge of the Tuberculosis Clinic and an Attending Physician, but his eyes roamed across the street on occasion to the Lying-In, where he became particularly fascinated by the problems of young infants. In 1937 Dr. Stewart Clifford invited him to take a more major role

Fig. 1. Dr. Clement A. Smith.

in affairs at the Lying-In and for the next 6 years Dr. Smith was the Assistant Visiting Pediatrician at that institution.

A new chapter began in 1943, when he was appointed Professor and Chairman of the Department of Pediatrics at Wayne University College of Medicine in Detroit and Medical Director of the Children's Hospital of Michigan. The oscillation back and forth to Michigan, however, was not over because within 2 years he had decided to accept a new position in Boston as full time pediatrician at the Boston Lying-In Hospital. Thus began the nearly one-quarter century during which Dr. Smith as much as any one person in this country demonstrated the special needs of small patients, stimulated research into their problems, and surely became one of the founding fathers of the newly emerging specialty later to be labeled neonatology.

But let's turn back to Clement Smith the writer. We have already mentioned *The Physiology of the Newborn Infant*. First published in 1945, this classic text brought to pediatricians an awareness of the remarkable advances in understanding fetal and neonatal physiology, which had been contributed primarily at Cambridge, England, by Barcroft, McCance, and Widdowson, and a little later at Oxford by Geoffrey Dawes. The friendship with Barcroft was that of young physician (Smith) to pioneering scientist (Barcroft). In a now famous letter in March 1946, in which Sir Joseph Barcroft sent "my dear Smith" a photograph of himself, Barcroft wrote, "As regards the photograph, I am proud

to send it to you. Concerning its effect, you remember that the essence of missionary enterprises such as yours is to expel the people one by one—in the case of (my) disciples I think it was 70 of them—from the centre at which they were all over the world. I am sure the effect of the photograph in your Laboratory will be very similar! These photographs are always rather stilted affairs." That Dr. Smith took Barcroft's advice is self-evident. The disciples did indeed come to those laboratories at the Boston Lying-In Hospital, and on the occasion of the 20th anniversary of the publication of "the book" (1965) some 24 former fellows, of the 46 who had been with Dr. Smith, returned to celebrate the occasion. They and subsequent fellows who joined Dr. Smith after 1965 became "neonatologists" around the world.

But let's reflect on the work. The contributions to our understanding of newborn infants include a pioneering concern for perinatology—sufficient to take him to Holland in 1944–45 to examine the effects of maternal undernutrition upon the newborn infant—and interest in infant nutrition recognized by his receipt of the Borden Award of the American Academy of Pediatrics in 1962; concern for the environment of the infant in examining the effects of humidity on water balance; and perhaps most importantly, classic studies on normal and abnormal respiration in association with Karlberg, Cook, Sutherland, Nelson, and many others. They brought the discipline of the laboratory to the bedside for the benefit of infants everywhere.

These achievements have been recognized by the University of Groningen and Colby College, which have given him honorary degrees, and his colleagues in neonatology who chose him to receive the first Virginia Apgar Award this past October.

The findings sometimes came from careful measurement—to quote one of his favorite lines, “The fact is the sweetest dream that labor knows”—sometimes from a thoughtful overview of the endeavor, such as his famous Rachford Lectures “The Valley of the Shadow of Birth.” It is not so much a single discovery that highlights Dr. Smith’s professional career, although many were made in his laboratories, but rather a sensitivity to the needs of the newborn infant, and their mothers, and an appreciation of the opportunity for understanding that could be given to those who took the time to think and to care.

And now the present. It is our good fortune that Dr. Smith attends regularly the Perinatal Rounds at the Boston Hospital for Women as well as Grand Rounds at the Children’s Hospital. He is currently the historian of the Children’s Hospital, Boston, and also editorial advisor to the Physician-in-Chief. In fact this talk is one of the few he has not had a chance to edit!

A word about his environment. Mornings he can be found in his “greenhouse” where his need to nurture meets continual fulfillment. Summers he may be in Vermont, and winters too, or in Hanover. In the words of Robert Frost, “He couldn’t keep away from doing something.” We know he can’t keep from doing something, and pediatricians around the world are grateful that such is the case.

It is a special pleasure that he will bring us a message today.

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Acceptance of the Howland Award

(From the American Pediatric Society, April 28, 1976, St. Louis, Missouri)

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This is one of those rare times when, as Wordsworth wrote, “we feel that we are greater than we know.” It is also a time for looking back over all the events and, especially, all the people, whose influence shared in bringing about this astonishing state of affairs. To name any of those people would cause the unforgivable omission of many others. But I must mention my family, of two generations in the past and another two in the present, numerous teachers (including some very special ones), and even more friends than the many dear ones I see here. I wish I knew how to respond in proportion to how much I owe them.

Anyone in my position is old enough to recall what many others have said about it. Very few have attempted prophecy. Not many have felt still sufficiently *au courant* to explain—or even to discuss—the immediate state of their particular art. And though I can still recognize the modern neonate or perinate in my years of retirement I wouldn’t even try to introduce them to you in the presence of some in this company.

So I join the majority who have found it safer to speak of the past, and especially those who speak of its people. The People were far more important than the Pediatrics of 50 years ago, which has only an antiquarian interest, if that, for us. But the minds and hands that made such good use of simpler tools then would use ours that much better today. Things may change. People haven’t changed at all. So Edwards A. Park (1), first recipient, wisely spoke about a person—naturally John Howland, the young Dr. Park’s colleague of 35 years before. Dr. Gamble (2), 2 years later, briefly revisited in *his* acceptance what he called “that lush meadow of opportunity,” Howland’s laboratory. As time brought us a second generation of recipients, the original greatness continued its influence. So, in 1971, Helen Taussig (3), a spiritual grand-daughter of Dr. Howland, described her inheritance—and ours—from Dr. Park. And lately, Lou Diamond, my own spiritual brother, recalled the quiet and powerful influence

on our generation of Kenneth Blackfan (4), 9 years Howland’s Chief Resident. Therefore, I grasp the opportunity to attempt an account of my debt (and that of so many others) to Howland’s other first generation settler in Boston, James Gamble. Admittedly, he figured as a previous Award recipient (2), but though Allan Butler described him handsomely in 1955, two celebrations of Dr. Gamble in 21 years are none too many.

Moreover, I have a particular reason. The room I’m happy still to occupy at the Children’s is entered by a door between two portraits some of you will remember from the old Laboratory Study. So, as I go and come, I overhear occasional strangers pausing on their way to important business with Mary Ellen Avery or Judah Folkman, to read the names under the pictures. (That anyone should *need* to do so always seems to me slightly surprising.) Before one portrait I have heard sometimes a note of pleased recognition: “Blackfan! *He’s* the one they named the street after.” (So, indeed, they did—if that were all.) Too often before the other, I hear only: “Gamble? I wonder who he was.” So I want to tell you a little about that, not just because he was important to me but in the hope of giving younger people a flash of recognition, while delighting those who knew Dr. Gamble, with that warm inner stirring that comes from recalling a rare soul.

Just for the record, James Lawder (his mother’s name) Gamble was born in Millersburg, Kentucky, not far south of Cincinnati, in 1883. He went from primary education at the Millersburg Female College (of all things!) to secondary education at the Millersburg Military Institute (of all places for him!). Still, then he passed entrance examinations for Harvard, though Massachusetts looked too cold to be healthy to his parents, who sent him instead to California. There, he graduated from Stanford in 1906, braved the rigors of Boston, and received his Harvard M.D. in 1910.

There followed internship at the Massachusetts General, and 6 months more of it (with Bronson Crothers) at the Children’s