

A Tribute to Maria Delivoria-Papadopoulos and William (“Bill”) Meadow

Mark Hudak MD

DR. MARIA DELIVORIA-PAPADOPOULOS (thanks to Ted Rosencrantz, Marilyn Escobedo, and David Burchfield for their help)

“Mark Hudak presents tributes to two neonatologists who helped define and establish the field”

Dr. Maria Delivoria-Papadopoulos passed on September 11 after an 89-year extraordinary life. She was born in Greece and, as a young girl entering adolescence, served in the French underground effort during World War II. She obtained her medical degree in 1957 from the National and Kapodistrian University of Athens, Greece. She trained with Paul Swyer and Henry Levison in Toronto, where she developed her passion for newborn medicine. She was among the first clinicians to use positive pressure ventilation with success in infants with hyaline membrane disease and achieve their intact survival. In an interview with ABC News, she recounted “running up ten stories” at a Toronto hospital on January 9, 1963, to use a ventilator to help a premature baby who was struggling to breathe. “For the first time in this world, a premature baby (who could not breathe on its own) survived.” In her first series of 20 infants with severe respiratory failure ($\text{PaO}_2 < 40$ mm Hg and $\text{PaCO}_2 > 80$ mm Hg on 100% oxygen) treated with positive pressure ventilation, 7 of her infants survived intact. She presented this early work at the 1963 meeting of the Society of Pediatric Research (Delivoria-Papadopoulos, M., Swyer, P. R.: An Experimental Study of the Possibility of Reversing the Biochemical Changes of Terminal Hyaline Membrane Disease by Assisted Ventilation) and published these results in the October 1964 issue of Archives of Diseases of Children (Delivoria-Papadopoulos M, Swyer PR. Assisted ventilation in terminal hyaline membrane disease. PMID 14223550).

“Dr. Delivoria is remembered by her friends and colleagues for her warmth, her humility, her industry, her scientific curiosity, her clinical acumen, her love of babies and families, and for her generous mentorship.”



This photo shows (left to right) the Toronto team of Henry Levison MD, head nurse Lynn Schoemaker, Paul Swyer MD, and Maria Delivoria-Papadopoulos MD.

Dr. Delivoria-Papadopoulos continued her education at the University of Pennsylvania in Pediatrics and Physiology, where she received a post-doctorate degree in physiology and spent the next 29 years as a faculty member. She has contributed immensely in many diverse areas. Initially, she worked with Thomas Schaffer on lung mechanics and acid-base balance in ventilated lambs. She studied the effect of age and 2-3 DPG levels on red blood cell storage and functions related to oxygen delivery. She became engaged in studying the outcomes and brain function of infants born to mothers addicted to opioids. When I was a fellow, I recall being impressed with her versatility as an early pioneer with Britton Chance at the University of Pennsylvania in using magnetic resonance spectroscopy to correlate changes in brain metabolites and regional blood flow with neurological outcomes.

Dr. Delivoria is remembered by her friends and colleagues for her warmth, her humility, her industry, her scientific curiosity, her clinical acumen, her love of babies and families, and for her generous mentorship. She has worked with many, many clinician-scientists over the years, including (and apologies if I have neglected to put you on this list!) Endla Anday, Vinod Bhutani, Frank W. Bowen, William Fox, Karen Fritz, Jan Goplerud, Dave Hoffman, Lois Johnson, Fola Kehinde, J. Kubin, Peter Marro, Jane McGowan, Om Prakash Mishra, Frank Oski, George Peckham, Roy Schneiderman, Alan Spitzer, Gary Stahl, Barbara Stonestreet, and Ted Rosencrantz.

Throughout her distinguished career, she held numerous faculty and hospital appointments in the Philadelphia area. She was an author on about 1,000 publications over her 60-year career. She received too-numerous-to-count professional awards. In 1997 she became only the fifth woman to be honored with the AAP Virginia Apgar Award. The two pictures below show Dr. Delivoria-Papadopoulos at the presentation of her Apgar Award (picture courtesy of Dr. Marilyn Escobedo) and the 2007 Neo Conference receiving a Legends of Neonatology Award (with Dr. Millie Stahlman (l) and Mary Ellen Avery (r) – themselves recipients of the 1987 and 1991 Apgar Awards! – picture courtesy of Dr. David Burchfield).



pleasure of consulting with him about a particularly vexing ethical dilemma a few years ago. Although we had not met in person, he was very generous with his time and advice. By the end of our call, he had made me feel that we had been colleagues forever (and we found common ground as alumni of Amherst College).

Thanks to John Lantos and Michael Schreiber for their recollections in this article.

From:

<https://www.uchicagomedicine.org/forefront/news/william-meadow-obituary>

William L. Meadow, MD, Ph.D., a leading authority on the care of infants born prematurely or with significant health concerns, died at the age of 70 on Saturday, September 14, after battling leukemia for four years. He retired from clinical work but remained an active member of the section of neonatology.

Meadow, working with close colleagues in clinical medical ethics, Mark Siegler, MD, and John Lantos, MD — who is now at Children's Mercy Hospital in Kansas City, Missouri — was a pioneer in the development of neonatal bioethics, the complex set of medical and personal calculations that guide decision making for parents, physicians and nurses who care for infants born too soon or with significant congenital problems or infections.

"Bill was a teacher in everything that he did," Lantos said. "He was absolutely committed to students and education, as well as to his patients. He was the only doctor I have ever met who made rounds on each of his patients twice a day, then came back in the evening to make rounds again."



“Bill would also, once a year, spend a full day as a nurse, with appropriate guidance,” Lantos said. He insisted this was the only way a doctor can know how challenging nursing can be. The NICU nurses “teased him, and questioned his efficiency,” Lantos said, “but they admired and appreciated the effort.”

DR. WILLIAM (“BILL”) MEADOW

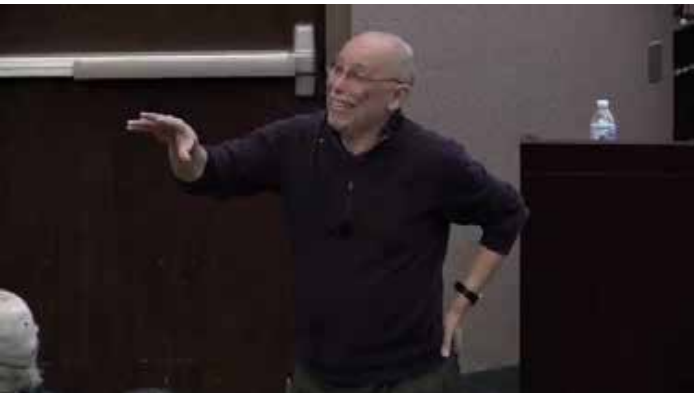
The neonatology community lost another luminary almost one year ago when Dr. William (“Bill”) Meadow passed after a long battle with cancer.

I will let the obituary posted by the University of Chicago give you a flavor for who Bill was and what he meant. But I can add that Bill was engaging, often iconoclastic, but always thought-provoking and with a heart worn on his sleeve. I never missed a talk that Bill gave at any meeting I attended. I did have the privilege and the

In their book, [*Neonatal Bioethics: The Moral Challenges of Medical Innovation*](#) (2006), Meadow and Lantos also helped change the way neonatologists weighed the decision to withdraw life support. Before their work, most neonatal authorities tended to focus on what Lantos called the “moment of highest uncertainty.” Meadow gradually convinced neonatologists to be more patient to wait an extra day or two. “This led to much more accurate prognostication,” Lantos explained. “People caught on.”

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Meadow had an outstanding career. He graduated *Magna Cum Laude* from Amherst College in 1969, earned his MD in 1974 and his Ph.D. in 1976 from the University of Pennsylvania. He began his pediatrics residency at the Children's Hospital of Pennsylvania



nia, followed by a year at the University of Chicago Hospitals in 1975 and a year at Children's Memorial, also in Chicago. After completing his residency in pediatrics, he began working as an attending neonatologist and completed fellowships in infectious disease and medical ethics at the University of Chicago Hospitals.

He joined the faculty as an assistant professor in 1981, was promoted to associate professor in 1987, and then full professor of pediatrics in 2001. He took over the neonatology fellowship program in 2003 and was co-director of neonatology from 2005 to 2014.

Meadow lectured extensively throughout North America and Europe on medical and neonatal ethics. He published more than 90 academic papers and 48 book chapters on neonatology and medical ethics, as well as more than 200 scholarly abstracts.

"Bill Meadow impacted more people's lives than anyone I've ever met," said his colleague, UChicago neonatologist Michael Schreiber, MD. One of his strengths was "to show us how to develop a work-life balance. He had a difficult job, but he somehow found the time to make it home for dinner with the family and coach his kids. He inspired us to do the same."

Meadow's standard greeting for faculty, staff, and patient families was "Welcome to the NICU. You're going to love it here." It was merely an icebreaker, but how Meadow introduced the neonatal intensive care unit to new faculty, residents, and medical students, as well as the parents of patients in need.

Many new residents were not prepared for his unique approach to the NICU. Intensive care units "can be grumpy places," Lantos explained, "but Bill found ways to lighten the mood, like singing on rounds. He made people, especially parents, feel a little more comfortable."

"Everybody thinks of the NICU as a vast majority of severely premature babies," Lantos said. These often very tiny babies "may be premature," he continued, but "the vast majority of these children go home and do fine."

"He was also a huge family man," said his wife Susan Goldin-Meadow, a professor in the department of psychology at the University of Chicago. "That was really important to him. He made time despite a doctor's schedule. He was extraordinarily generous with his family, and his colleagues really enjoyed working with him."

"But he was also a dedicated physician. He never complained. When the urgent calls came, when his leadership was necessary for the care for a sick child, he got up and went in. He just did it. He enjoyed doing that. He somehow relished odd schedules."

He was a "wonderful, charming man and a surrogate father to much of Hyde Park and the University community," she added. "He could be gruff when needed, but he was loved. He was a great husband."

Four years ago, the University of Chicago held a Festschrift in Bill's honor. You can view this in 3 parts on youtube.com: With best wishes

Part 1 <https://www.youtube.com/watch?v=SwCvt01YAr4>

Part 2 <https://www.youtube.com/watch?v=k5S2JOkQ2Bg>

Part 3 <https://www.youtube.com/watch?v=xdX4noV8qvE>

With best wishes.

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