

A Legend:

Peter T. Pugliese, M.D

A funny thing happened to Peter Pugliese
on his way to becoming a priest...

by Patti Pugliese Renschler

Were it not for World War II, a USO girl named Joanne, and a cow with mastitis, the face of professional skin care would not exist as it does today.

For 85 years, the life of Peter T. Pugliese, M.D. has been filled with remarkable occurrences and discoveries in a world which has seen more changes in one generation than at any other time in human history. Through it all, his motivating force in this lifetime has been a many-faceted but quite singular pursuit – to alleviate suffering, and help each person to live the longest, fullest life possible.



Photo courtesy of John Secoges

In the 30 plus years since leaving his medical practice, Pugliese has continued to dedicate himself to the wellness of the population.

In 1957, just out of medical school, he purchased a 200 acre farm in the country, and established what came to be known simply as The Big House, a 1795 stone farmhouse where Peter and Joanne Pugliese would spend over six decades of family life. The handsome, young doctor quickly grew a strong medical practice.

By the time Pugliese started getting around the skin care world, he had already doctored a generation of patients at his Bernville Medical Clinic; delivering babies, making house calls, occasionally being paid with a shoo-fly pie or home-made quilt. Ahead of the times, he diagnosed and treated patients silently suffering with the same disorders celebrities now openly discuss; anorexia nervosa, postpartum depression, domestic violence, incest, and addiction.



Dr. Pugliese pioneered the use of pheromones in easing the discomforts of menopause, anxiety, and depression.

Born in Reading, Pa., the young doctor was proven to be a visionary in his views on community health while serving as the staff physician at Berks County Prison. He began, and self-funded, the first successful methadone clinic to treat heroin addiction, for which more than half of those prisoners were serving time in the late 1960s.

The toxic environment of Reading's industrial economy led to the intensive research for Dr. Pugliese's first published article on the lung disorder berylliosis among factory workers. That 1972 article was the beginning of a bibliography of published work which would grow to hundreds of published papers, presentations, and five books, which have been referenced by researchers around the world

By 1978, Pugliese knew he would not be happy practicing medicine burdened under the new banner of "Managed Health Care." Emerging in the U.S. was an intriguing new

practice called "aesthetics," an undefined and disconnected offshoot of cosmetology which allowed beauty school students to provide beautifying skin care treatments without having to learn to cut hair. Dr. Pugliese had already developed an interest in the skin while treating patients with psoriasis, eczema, scleroderma, diabetic ulcers, as well as the common condition of dry, cracked, painful skin of the farmers and laborers who made up his patient population.

By the late 1970s, drawing on his medical experience and observations from the patient exam room, Pugliese framed his second career in pursuit of a goal involving a different kind of exam, the licensing of skin care practitioners in the U.S. His 1990 textbook, "Advanced Professional Skin Care," provided an extensive scientific basis of skin structure and function, directed toward aestheticians.

Hershey Kisses, Cow Teats, and Ladies' Wrinkles

While deep into his practice, Pugliese was fulfilling a teaching fellowship at the nearby Hershey Medical Center in the late 1960s. One day, Pugliese was given a 25-pound block of cocoa butter, a byproduct of Hershey manufacturing, and asked if he could figure out something to do with it. The slippery, shiny fat was reputed in folklore to help stretch marks, but with no real idea of how it worked, or even proof that it did.

At about the same time, one of Pugliese's patients, a dairy farmer, mentioned during his office visit that his cattle were suffering from mastitis. Pugliese remembered the Hershey cocoa butter, and wondered, if the integrity and health of the teat tissue was enhanced with an emollient, like cocoa butter, would it be less likely to split and crack? Would a healthier tissue be more resistant to disease? How do you formulate a product?



Dr. Pugliese was awarded the most distinguished honor by the Society of Cosmetic Chemists for his contributions.



"W" features Dr. Pugliese's hosiery innovation to reduce cellulite and energize the legs.

One question led to another, and planted the seeds in a field of research that would lead to places Pugliese had never imagined. In short, the answer about the cow was yes, better skin meant less vulnerability to infection.

The dairy industry went wild for his product. In 1970, he opened his first business, Milmark Research, named for his parents, Mildred and Mark Pugliese. Within two years, Pugliese's formula, a germicide containing cocoa butter called TD-34 (teat dip, 34 trials before getting it right) became the best selling dairy hygiene product in North America.

His first successful formulation, even if it was for cows, proved that skin was living and could be influenced topically. It was the beginning of a new passion, cosmetic chemistry. Pugliese gathered some commonly used cosmetic raw materials, set up a lab with some simple mixing equipment, and started learning all he could about what goes into a formulation, and how to make it work. He joined the CTFA, Cosmetics Toiletries and Fragrance Association, and found their ingredient compilation book to be a valuable resource, which helped him select from a myriad of emollients, emulsifiers, surfactants, preservatives, and fragrances. As his name began to appear in the trade literature, he was introduced to the company where he would make his first significant mark on the cosmetics industry. His study of topical vitamin E, for Hoffman-LaRoche, showed that an active ingredient could be traced to 20 cell layers. This resulted in the first claim made in print that continued use of a product containing vitamin E could help prevent skin cancer.

As Pugliese tried to learn more, he found there was precious little new or accurate information about the structure and function of the skin. How to look inside and see what was going on? Can we influence it? Can we prove it? Then what do we do with it?



Dr. Pugliese between autographs, famously drawing out a new idea. Many aestheticians have taken pieces of these plastic tablecloths as souvenirs!

"Dr. Peter Pugliese pioneered real skin care science for the aesthetics community. He has a true passion for understanding the skin, and graciously shares his knowledge with the skin care world in his many articles, classes, and books. He has worked hard for many years to instill better scientific education for aestheticians.

Dr. Pugliese was one of the very first physicians to understand and embrace the aesthetics profession, before there was money to be made in cosmetic medicine.

Dr. Pugliese is a wealth of information and I feel very privileged to have been able to take many classes from him. He has always come to the rescue for aestheticians, helping with numerous educational and legislative projects. Congratulations, Dr. Pugliese. Thank you for your friendship, not only for me, but for the entire aesthetics profession."

*~ Mark Lees, Ph.D.
CIDESCO Diplomat*

Academy of Legends member since 1990



Michael and Patti Pugliese congratulate collaborator Dr. Zoe Draelos on the release of the third in the series of *Physiology of the Skin*.

“My appreciation for Dr. Pugliese began in 1986 when I read an editorial he wrote on Sodium Laurel Sulfate and its effect on skin aging. I was hooked on this brilliant man who had a gift to take complicated ingredient science and make sense where I could wrap my aesthetician brain around! Since then I not only embraced a great appreciation for Dr. Pugliese as a professional and my mentor but equally important I came to know the man.

Dr. Pugliese stands as the premier example for what is important for professional skin care. He is the gentle giant not only in stature but in aesthetic education. I am so proud to be a friend and colleague of Dr. Peter Pugliese. He has been a terrific mentor and wonderful friend to me personally and to the aesthetic profession.

Congratulations Dr. Pugliese on your Academy of Legends induction. I can think of no one who deserves this recognition more.”

~ Christine Heathman

Academy of Legends member since 2008

“No, he’s not a dermatologist”

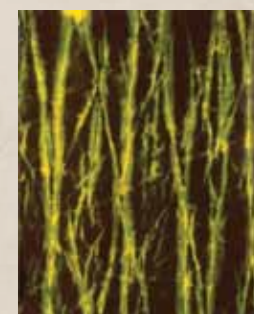
Though often wrongly introduced on the speaking circuit as a dermatologist, Pugliese was a family doctor in a close community; he saw everything imaginable (and some things unimaginable). Throughout his years of study, Pugliese had the additional benefit of observing a generation of families growing older. Using his patient population as early subjects, with his knowledge of their histories, and his continuing discoveries of skin, he was able to correlate certain lifestyles with the way his patients aged, particularly the skin, including the role genetics played. The recurring “four horsemen” of visible signs of aging seemed to be consistent every time there was damage: Sun exposure, smoking, alcohol, and diet. It was an awesome starting database, one he augmented by photographing their skin.

To Pugliese’s infinite delight, the skin was alive with action, complex structures, and a fascinating communication system throughout the body. Over 20 new protocols and instruments were developed over the next decade to quantify moisturization, smoothness, cell turnover, oxidative stress, and free radical formation. A full history unto itself, Pugliese’s research and development is a fascinating labyrinth of discoveries. The intention then was to non-invasively test the efficacy of products applied to the skin and quantify results. To this day, among the accomplishments of which he is most proud, is that he made the first quantitative assessment of cosmetic efficacy in the industry.

Propelled by new views and truths, his experiments led to finding that the skin could be studied using fluorescent dyes to identify specific types of proteins within the stratum corneum. He worked to isolate and identify cellular structures through the use of staining techniques on biopsy sections. A drop of Crazy



Dr. Pugliese is presented the first honorary Ph.D. in Skin Physiology from the University of Professional Sciences in Richmond, Virginia by owner Laura Todd. Speaking at the ceremony were former Legend recipients Rebecca James, Christine Heathman, and Dr. Mark Lees, and aestheticians Susan Bertolette and Colleen Cunningham. Also pictured: Grandson, Michael Q. Pugliese and daughter, Patti Pugliese Rentschler.



Glue on a slide pressed against a woman’s cheek and peeled off, captured one perfect cell layer. The stained slides would reveal either a healthy crisscross or a ravaged, disorganized pattern. His work with the stain acridine orange became an industry standard for determining smoothness. The pioneering work in “skin renewal,” the marketing buzzword of the 80s, came from Pugliese’s use of soluble dansyl chloride to track penetration of a topical agent and measure the rate of epidermal cell turnover.

The Doctor in the Lab

The New York Chapter of the Society of Cosmetic Chemists, the SCC, met Pugliese through Lester Conrad, a pioneer in cosmetic raw materials. Pugliese began giving talks at SCC meetings, one introduction led to another, and each new person led him to another business meeting, and visits to his lab by business owners and other scientists who were always fascinated with what they saw and heard. As a scientist, his reputation was above reproach. As a storyteller, he is irresistible. Openly sharing his discoveries catapulted his reputation in the corporate scientific community, and in 1996 earned him the Maison de Navarre Medal, bestowed for excellence by the Society of Cosmetic Chemists.

Through his ever-expanding, intersecting network, Pugliese was asked to speak to a group of skin care specialists calling themselves “aestheticians.” At this event he met Christine Valmy, Mary Neil Zatarain, Erica Miller, and Bonnie Day.

However, it was at an aesthetic event, many years into his work that Pugliese reconnected with his former medical school professor, Dr. Albert M. Kligman. Early on, when asked about an instrument developed by Pugliese, Kligman responded by booming “The ellipsometer was developed by a deranged scientist!” When asked to respond to how he felt about his professor’s comment, Pugliese replied with a smile, “I was honored that he referred to me as a scientist.”

The two men ultimately collaborated on several projects, notably the groundbreaking work in the structure of cellulite, and forged a friendship of mutual respect. In 2005, Kligman, nearly 90, read the massive text of the reference book Pugliese was writing, and graciously composed the foreword. Sadly, our beloved Dr. Kligman died in 2010 at the age of 93.

Aesthetics

“The first thing that strikes you when you meet Dr. Pugliese is the sense of caring he exudes,” says his daughter Susan. “I saw it with his patients as a child, and now at aesthetic events. When speaking to him you are surrounded by a warm feeling of comfort and hope, and the feeling that yes, no matter how much you’ve damaged your skin during your misspent youth, he can help you.”



Dr. Pugliese celebrates his 84th birthday with his beloved wife Joanne, age 80, in January 2010.

Dr. P, as he affectionately became known, and Stan Allured were personal friends, which is how it came to pass that Pugliese contributed articles beginning in the premier issue of *SKIN, INC.* and in most subsequent issues for the next 15 years. This valuable body of work was written to further the scientific education of skin care practitioners in skin structure and function and were eventually compiled and published as "*Physiology of the Skin*" by Allured Publishing, and became the number one reference book for aestheticians. As his work grew, Pugliese updated the articles, added new ones, and "*Physiology of the Skin 2*" was published. In 2010, the franchise continued, with Pugliese "passing the torch" to respected researcher and dermatologist, Dr. Zoe Draelos, who updated his original chapters and added her own work, to create "*Physiology of the Skin 3*."

From the very beginning, Pugliese brought his best, "I was always interested in raising the level of professionalism in skin care to the point that aestheticians could truly be a professional society with a national organization and a professional journal." He envisioned degrees of standardized training, up to and including a Ph.D. In 2006, he was awarded the first honorary Ph.D. in Skin Physiology from the University of Professional Sciences in Richmond, Virginia; the only school in the U.S. to achieve accreditation toward a degree in skin science.

A Labor of Love

Around his 75th birthday, his businesses all handed off, Pugliese found his greatest joy was being home with his wife, Joanne, enjoying his woodworking hobby and some quiet time after years of travel, patients, and business. Surrounded by his books, his best girl, and access to the Internet, he settled into the project that would define his career. He began the consuming work on his opus, with a mission of writing a book with every bit of current science about skin that he knew. It was to be lasting – a living, ongoing reference the practitioner could use for decades to come.

It was a massive undertaking, over 300 pages, and although industry publishers offered proposals to buy it, his daughter Patti knew that this book, "*Advanced Professional Skin Care, Medical Edition*," would be the true legacy of her father, and chose to keep the rights to the book in the family. A late-coming chapter on molecular biology, was written as the original manuscript was nearly ready to go to print. When his whining publisher questioned the need for such complex science in this book, Pugliese leaned back from his computer, and explained, "They're going to need to know this..." then, smiling wistfully at his daughter, "and I'm not going to write another one of these." The science is challenging, but his message is simple: You have the power in your hands to change a person's life. You need to know what you are doing.

Traveling and lecturing at every aesthetic event, he was encouraged more and more by aestheticians in his classes to develop his own product line. He resisted for many years, wanting to be solely a scientist, not a marketer. But after years of supplying a great many people in the industry with novel ideas, he knew there was one great concept no one had picked up on yet, and that was utilizing topicals that worked in tandem with the body's natural rhythms. Relevant to the skin, the body had its own resources of defending in the daytime against biological and environmental insult, and repairing the damage during sleep. In Latin, Pugliese's second language, the word for this is *circa-dia*, which means "around the day." The skin care line, *Circadia* by Dr. Pugliese, based on the circadian rhythms of the body, and with a clean new look, was born in 2002.

In 2007, grandson Michael Q. Pugliese, BS, LE, became CEO and has brought *Circadia* to international recognition. Having literally learned at the foot of the master, his grandfather, Michael travels the globe providing education, qualifying distributors, and directing all new product development and marketing.

85 and Beyond: What's Next?

At 85, Pugliese is facing the most challenging time of his life. With a lifetime of accomplishments and honors, blessings, and joy in his family life, the close of 2010 brought the unspeakable. Just three days after Christmas, he suffered the loss of his dear wife, Joanne. He is deeply touched and grateful for the thousands of messages of love and support he has received from around the world, from aestheticians, colleagues, and friends.

He is again active in his lab, where his interests remain focused on attenu-



Dr. Pugliese and grandson, Michael Q. Pugliese, CEO of *Circadia*, teaching a class on pigmentation disorders.

"Peter did indeed influence my career during the last 10 years. He was someone I could take my ideas and formulas to and get real and practical feedback. We spun off each other like soul mates; we could not even have dinner at a hotel or restaurant without the table being littered with napkins covered with notes, ideas, and schematics! Peter Pugliese is the quintessential 'answer man' and he has never let me down!"

*~ Dannié Montague-King
Academy of Legends member since 2010*

ating the ravages of aging and the suffering it causes. From time to time, lucky attendees at aesthetic events will see him in the audience at Michael's lectures, or at the *Circadia* booth. He will take the podium, share a comment, autograph books, or whip out his trademark felt tip pen to draw a molecular structure on the plastic tablecloth.

With all that is past, and all that is ahead, it is quite likely that the next major advancement in aging research to better the lives of this generation and the next, will come from the same mind and heart which has already enhanced the lives of so many for so long.

As aestheticians, it is our challenge to take all Dr. Pugliese has taught, and to use our own minds, hands, and hearts with confidence in our profession and give our very best to every life we touch. 🍷