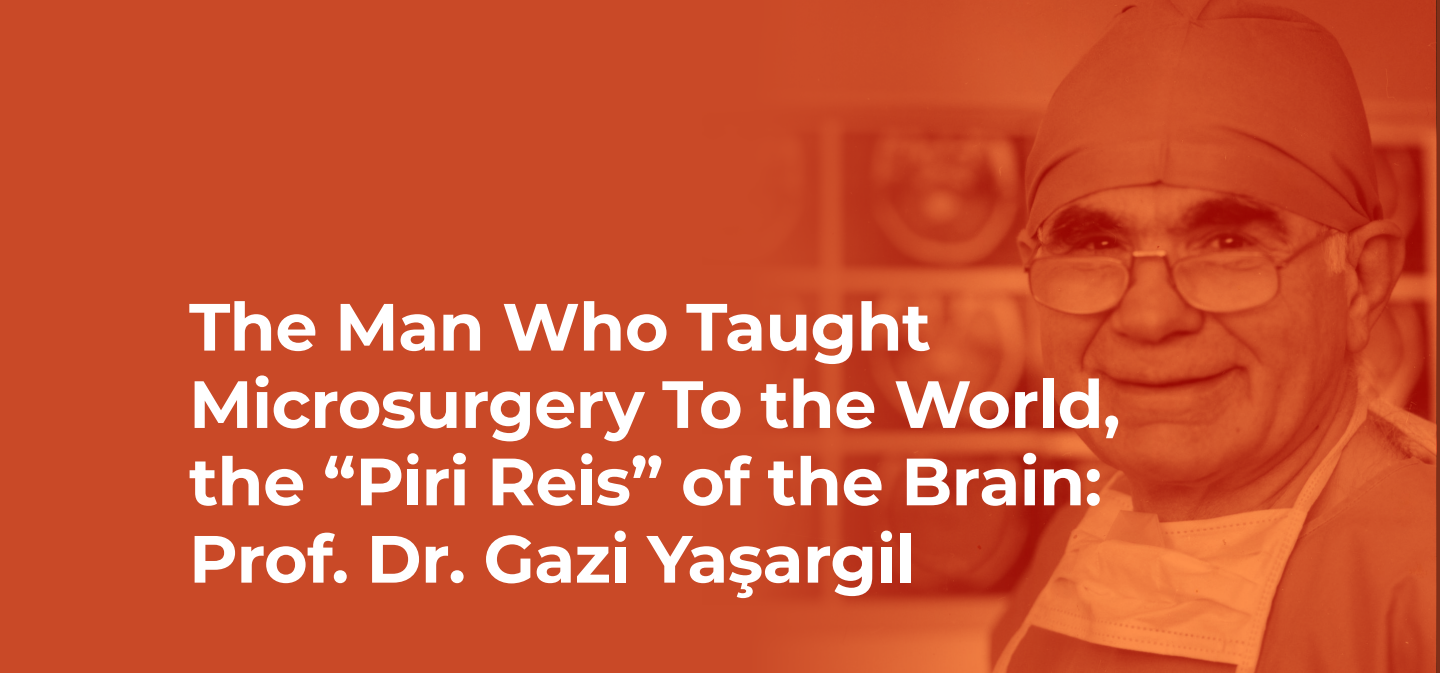

The Man Who Taught Microsurgery To the World, the “Piri Reis” of the Brain: Prof. Dr. Gazi Yaşargil

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Can Yücel (Turkish poet), who was his desk mate in high school, used to refer to Gazi Yaşargil as the “Piri Reis of the Brain,” while Yaşargil himself possessed such scientific humility that he would describe his work as “the janitorial work of the brain.” After receiving the “Surgeon of the Century” award granted by the journal *Neurosurgery*, Gazi Yaşargil began his very first speech with an immediate correction: “I received this award for the second half of the century; for the first half of this century, it was Harvey Cushing.”

Whether we call it scientific humility or an unstoppable meticulousness, Gazi Yaşargil’s true strength lay in the unquenchable intellectual curiosity and passion for research-qualities shared by masters such as Michelangelo and Raphael, who left profound traces on generations that followed them. Indeed, in one interview he says, “Since my childhood, there has been an endless curiosity inside me, and it still continues,” and he adds, “I am still like the six-year-old Gazi.”

An age-old towering figure who continued to read, teach, narrate, and explain without pause even in the final moments of his life, the founder of modern microneurosurgery, Prof. Gazi

Yaşargil, bid farewell to the world on June 10, 2025, fully aware that he was leaving behind a vast ocean. In this article, I will touch-within the limits of these pages-on how that ocean was formed.

His Life and Some Anecdotes

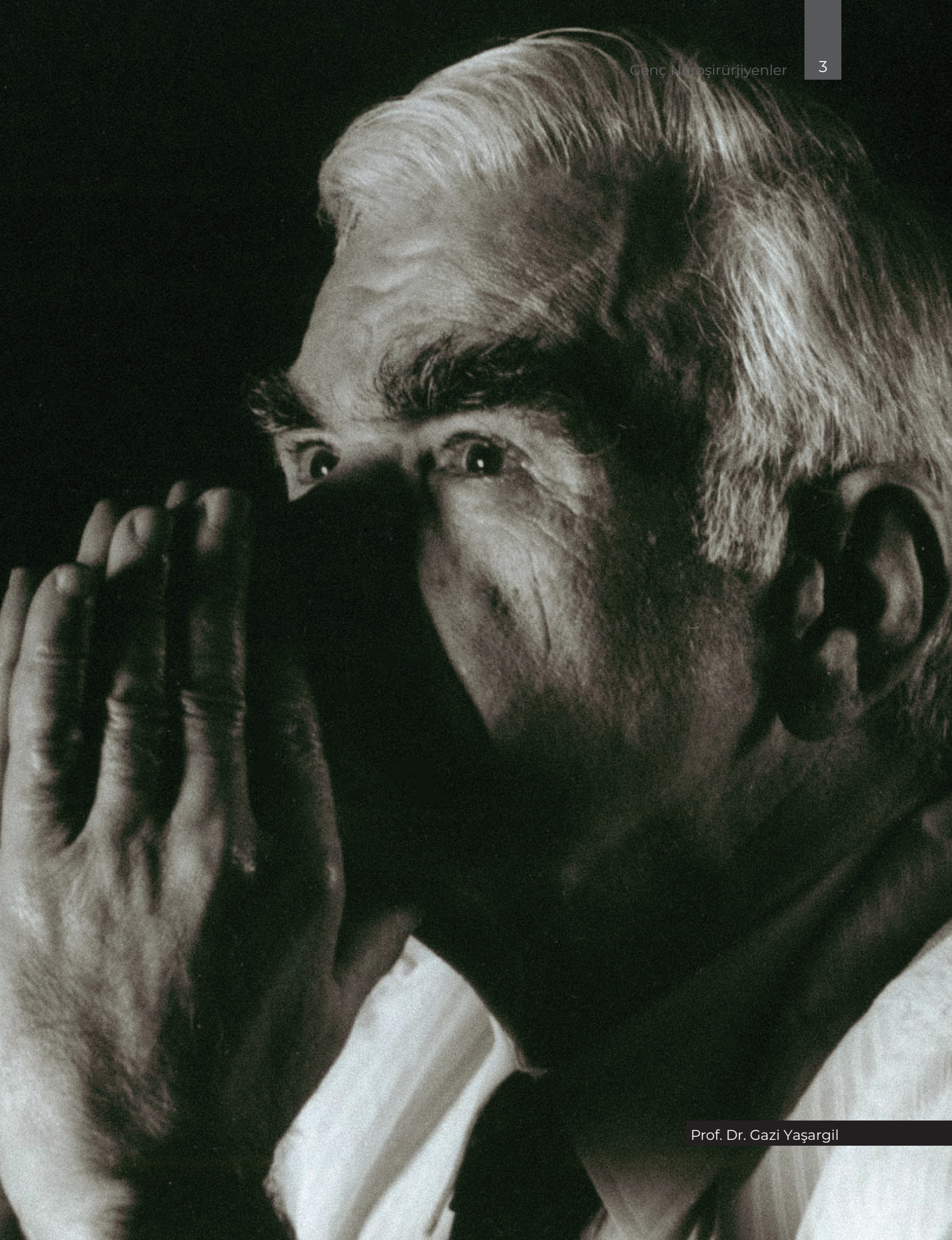
Gazi Yaşargil was born on July 6, 1925, in the Lice district of Diyarbakır, where his father served as a district governor. In a statement about his family, he included the following: “When we were children, there was a picture hanging in our home showing Louis Pasteur discovering the rabies vaccine. My father would create curiosity and want us to investigate, and he wanted us to be like that as well. He wished that we would be like Pasteur, like Edison; that we would be discoverers. At that time, he wrote articles for *Ulus* newspaper. He would talk about philosophy with his friend Prof. Dr. Şükrü Yusuf Sarıbaş, and they would often mention Plato.” In the years to come, Prof. Yusuf Sarıbaş would become an important role model in shaping Gazi’s life. His mother, Mrs. Sahavet, was the only daughter of a wealthy family; his father, Mr. Asım, was an intellectual bureaucrat who constantly read and researched. He stated that his mother had wanted to study medicine, but could not because women were not allowed to study medicine until 1921. The love of reading instilled by the father had already shaped the future of the entire family; moreover, Gazi’s curiosity for reading had begun even before he started school. He personally participated in tree grafting work carried out in the garden, examined what lay beneath every stone, and, as a curious child who investigated where every fruit came from and how it formed, he had already become an intellectual awareness.

All the children of the Yaşargil family-who had six children-except for the sibling who lost his life to typhoid in childhood, were educated in Ankara, the capital of the Republic of Türkiye. Gazi graduated from the Classical Latin department of Atatürk High School (Atatürk High School is a well-established educational institution in Türkiye that has educated many bureaucrats, leading figures in the business, and artists. It continues to provide education as an high school) in 1943. In choosing Classical Latin, he was influenced by his beloved teacher’s saying: “If you want to study abroad, you must choose the Latin class.” Without hesitation, he and three friends transferred to the Latin class. Later, these three friends would cut back on their meal money, work additional jobs (Gazi, still a high-school student, stated that together with his friend Can, he first shelved books in the library under Ankara Stadium, and then worked at the Soil Products Office), and save money to go abroad. One of those three friends was none other than Can Yücel himself, who would become the “Piri Reis” of words through his poems.

When he completed high school, he was deemed worthy of an award for outstanding achievement by the Minister of National Education at the time, Hasan Ali Yücel, in his office in Ankara. Among the other names who received this honor-granted to only four individuals nationwide-were Süleyman Demirel and Erdal İnönü.

Despite the ongoing World War II, Gazi was determined to study medicine in Vienna. When he said he would travel to Vienna by train, his father would respond, “Have you not read the newspapers? They keep blowing up trains,” but he could not remain indifferent to his son’s wish; he found a plane to Germany and arranged a seat for him. His mother, on the other hand, gave Gazi, cookies she had baked, with her own hands; ashamed of his everyday clothing and hesitant to eat in the hotel dining room, Gazi would make his mother’s cookies his dinner. In 1944, when Gazi began medical school at Friedrich Schiller University (Jena, Germany), starting this education would not be easy; many more obstacles would appear. He would first be told that he needed three years of Latin education, and then that he had to provide hospital service for six months. Fortunately, the university would abandon the requirement for Latin education, and Gazi would begin working with hospital service. This story would extend from cleaning corridors to working as an orderly. However, Gazi, who performed every task in the best possible way, would attract attention with his diligence, begin to work directly alongside the chief surgeon, and after three months would be able to start his medical studies.

War conditions did not allow him to continue there, and after two semesters he moved to



Prof. Dr. Gazi Yaşargil

Switzerland. Yet this transition would not be easy either; with 150 Turkish students, they would wait for one month in a military barracks 50 km from the Swiss border. In April 1945, Gazi finally arrived in Basel. His Swiss adventure continued, and in 1950 he met Josef Klingler-crossing yet another threshold that enabled him to learn the magnificent internal structure of thebrain-and, in his own words, he would take a stroll through the corridors of the brain, with its rooms, halls, and the stairways connecting them. Throughout his medical education, he continued to improve himself by attending different surgical and intellectual schools during every semester break. During this period, he would attend philosophy courses at the university and continue listening to views on the theory of evolution. In one of these semester breaks, he would learn respect for tissue and the value of millimetric calculations under Prof. W. Bandi, who came from the school of Prof. Theodor Kocher.

After completing medical school at the University of Basel, he began neurosurgical residency training in January 1953 at the University of Zurich Neurosurgery Clinic with Prof. Dr. Hugo Krayenbühl, Prof. Dr. George Weber, and Prof. Dr. Emil Zander. When Prof. Krayenbühl recognized Gazi’s ability, he encouraged him by saying, “We need to do angiography to better understand brain vessels. Can you do it?”-thus opening a brand-new page in neurosurgery that would begin with Gazi Yaşargil; Yaşargil would subsequently write two books on cranial angiography.

Gazi Yaşargil received the title of associate professor in 1960, professor in 1965, and ordinarius professor in 1973. He served as chief of the department in the same clinic until 1993.

In 1957, he introduced stereotactic surgery to the department and performed the operations of more than 800 patients using stereotactic surgery techniques. In 1965, in the treatment of Parkinson’s disease and other movement disorders, following collaboration with his brother Mr. Günay and his mentor Prof. Oscar Wyss, he initiated the use of electrodes and enabled its spread worldwide.

MICRONEUROSURGERY SYMPOSIUM
CINCINNATI, 1975

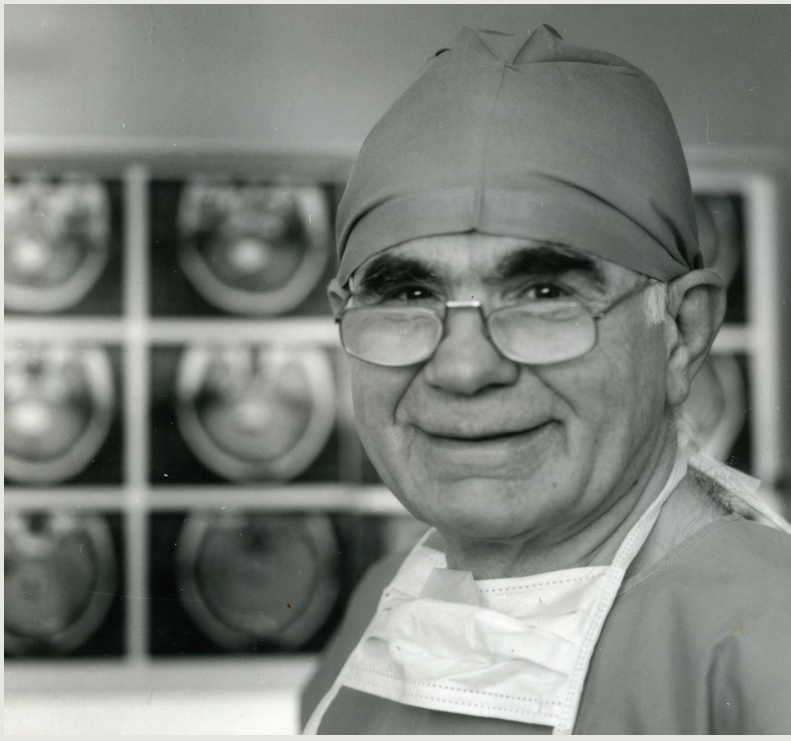
He would then be sent to Prof. Donaghy at Vermont Medical Center (Burlington, United States) to refine his microsurgical skills, and after working for about 14 months in 1965–66, he would say the following about Donaghy:

"I was welcomed by Dr. Donaghy. His sincere dedication to his mission impressed me greatly, and he offered me a scholarship from the Hartford Foundation ($2000 for one year). I am deeply grateful to Dr. Donaghy for teaching me the fundamental techniques of the operating microscope, microsurgical instruments, and experimental studies in microdissection and microvascular work. For me, this was the beginning of reconstructive experiments on brain arteries in the laboratory and the birth of microneurosurgery."

Prof. Donaghy would recognize his student Yaşargil's inexhaustible drive to produce and his talent; he would work with his student like a team, and this story would be crowned by the first successful STA–MCA bypass performed in a human (Yaşargil: October 30, 1967, Zurich; Donaghy: October 31, 1967, Burlington). It can be said that the development of microsurgical techniques and their integration into neurosurgery were born in this laboratory; indeed, the first symposium in microsurgery was organized by this duo in 1966 (Mount Sinai Hospital, New York). Microsurgery entered history as a major revolution not only in neurosurgery but in medicine as a whole.

While in Donaghy's laboratory, Yaşargil discovered the Malis bipolar and integrated it into microsurgery; later he would say, "Without the Malis bipolar, there would be no microneurosurgery." Malis, an old friend, expressed the same words for Yaşargil. Those who knew them closely stated that Malis and Yaşargil were completely opposite characters, and that even their use of the microscope during surgery represented two entirely different extremes; yet Malis and Yaşargil always spoke of each other with words of admiration.

By revealing the phylogenetic and ontogenetic organization of the central nervous system and the cranial-spinal cisterns, he defined transcisternal approaches and demonstrated through thousands of surgeries that pure lesionectomy



is possible. He presented the results of thousands of his patients in his 4-volume, 6-book set *Microneurosurgery (Thieme 1984–1996)*. During the same period, when temporal lobectomy was performed in epilepsy surgery, it was again Gazi Yaşargil who emphasized that the pathology was in the hippocampus and introduced hippocampectomy operations into the literature.

All surgeries performed by Gazi Yaşargil, who worked actively at Zurich University Hospital between 1966 and 1992, were observed by research fellows from all over the world; in addition, he gave many courses on microsurgical techniques.

After treating thousands of patients in Zurich, serving as chief of clinic, and training thousands of research fellows, Prof. Gazi Yaşargil moved to Arkansas in 1994 upon the invitation of Prof. Al-Mefty and continued his work there until 2013 (University of Arkansas, Little Rock, USA). There, he enabled the establishment of a microneurosurgery center and the organization of microsurgery courses for young neurosurgeons. During this period, Gazi Yaşargil lectured at more than 100 centers across five continents.

With the establishment of Yeditepe University Neurosurgery Clinic on August 26, 2005, Prof. Gazi Yaşargil began working there part-time and frequently visited the clinic until 2013, continuing to operate with Prof. Türe and evaluate patients in the outpatient clinic. Exactly during this period, the prototype microscope designed in Zurich together with engineers-intended to be a surgeon's hand, arm, and eye-was brought to Department of Neurosurgery, Yeditepe University School of Medicine, İstanbul, Türkiye. The Yaşargil microscope continues to be actively used by Prof. Türe in the operating room.

He delivered countless lectures and authored countless articles and books, and he gave numerous interviews. Many chairs conferred honorary doctorates upon him, and his achievements were crowned with countless awards. There have been many organizations arranged in his name and dedicated in his honor.

Gazi Yaşargil's wife, Dianne Yaşargil, was the head nurse of the neurosurgical operating room in Zurich. In a video prepared for the AANS, Gazi Yaşargil refers to his wife Dianne saying, "Her knowledge is above mine. Over time, she has become fully involved in this journey. She has completely devoted herself to this art. Two volumes of the 'Microneurosurgery' book are actually her work, but she does not want it to be mentioned with her name." Dianne Yaşargil was not only Prof. Gazi's supporter, but also his teammate. We know that they designed many microsurgical instruments together; that she developed a method to solve the problem of fogging in the surgeon's eyepiece of the Yaşargil microscope; and that, to improve surgical comfort, Dianne Yaşargil designed the operating table. In another statement, Gazi Yaşargil revealed his gratitude toward his wife: "Among the things I say 'thank goodness' for, at the top is marrying my wife. I met her by a great coincidence; I did not create microsurgery, but *WE* created it together with my wife. For every operation, I would act according to the system my wife prepared. The surgical preparation system is entirely different; it is like preparing an orchestra. I would be afraid something would happen in surgeries; I would feel tense, excited, angry; I complained to my wife many times-she never made a sound. This is very important."

Grand National Assembly of Türkiye (TBMM) National Sovereignty and Honor Award; His Speech There

Prof. Gazi Yaşargil's return to Türkiye after many years was crowned by TBMM's first National Sovereignty and Honor Award being presented to him, and after the award ceremony on July 13, 2005, he uttered unforgettable words. These words summarize both his deep love for his homeland and his life ambitions, as well as his expectations from us, the younger generation: "This very meaningful 'honor award' is also an award presented to the countless martyrs, veterans, women and men, the first generations of the Republic-who made major contributions to the secular Republic of Türkiye revolution created by the Great Leader Atatürk and his brave comrades, and by our steadfast people with unique wisdom, will, and determination. This revolution, exemplary for civilization, rests on solid foundations."

From his interviews, we know that Mr. Kaya Turgut sent him newspapers every month and that throughout his time abroad, he closely followed developments in Türkiye and neighboring countries. With a part of his mind always on his homeland, when Gazi Yaşargil returned to Türkiye at the age of 63, he would tour Ankara, now greatly grown and changed, for about three hours by car, and then go to visit his old friend Can Yücel. Their conversations there would remain in memory for years: While Yaşargil told Can, "If I could write a poem like yours, I would want nothing else," Can Yücel replied, "If I could perform an operation like you, I would want nothing else from life."

Why Neurosurgery?

Gazi stated that he decided to become a neurosurgeon when, at the age of 16, he read an article by Bier, who developed lumbar anesthesia in 1895. The person who translated this article was their next-door neighbor, Prof. Dr. Şükrü Yusuf Sarıbaş, one of the respected Turkish physicians who first served as chief clinician at Numune Hospital and later was elected professor of the Neurology Chair at Ankara University Faculty of Medicine. Prof. Sarıbaş profoundly shaped Gazi Yaşargil's life, both through his role in opening the door to neurosurgery and through his wis-

dom in fields such as history, biology, and philosophy. Years later, Yaşargil would state that the richness of the environment in which he grew up in Ankara might have been the reason he wanted to study abroad.

What Did Yaşargil Actually Do?

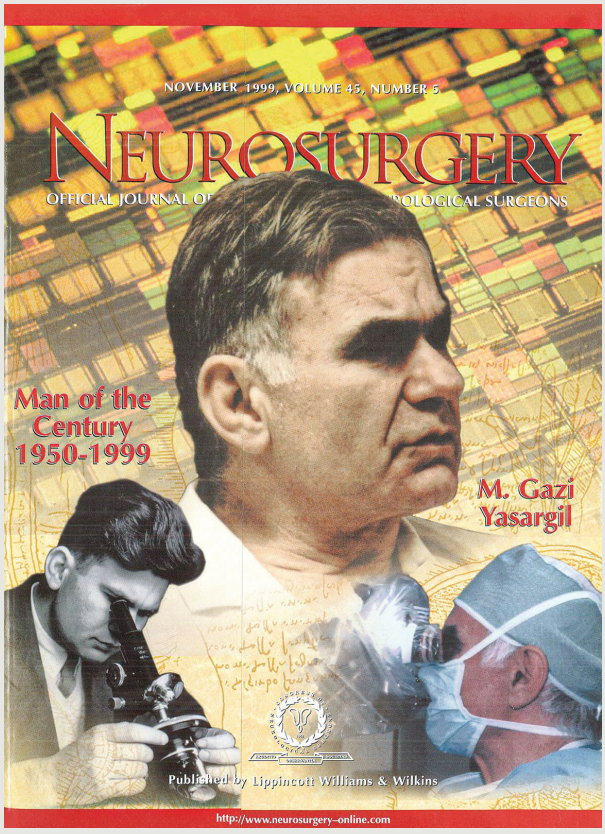
To honor Yaşargil's universal value, his impact on the lives of many people across five continents, and the legacy he left to the world, the Yaşargil 100th Anniversary Symposium washeld in Zurich last July with a high level of participation by distinguished neurosurgeons from around the world. This organization once again revealed the gratitude and respect felt for Yaşargil and his contributions to the heritage of humanity.

Although answering this question is not easy; Prof. Dr. Gazi Yaşargil first experienced what Microsurgery, then microneurosurgery, means, and then taught it to the entire world, touching countless lives. By integrating advances in neuroanatomy, neurophysiology, neuropathology, and neuroradiology, he enabled the formation of a new neurosurgical concept and era; he showed that surgery could be performed while preserving every non-pathological structure, and he contributed to the emergence of the concept of pure lesionectomy.

The counterbalanced operating microscope, hydraulic arm support and surgeon's chair, many microsurgical instruments, vascular clips, micro-suture needles, and the self-retaining retractor system were introduced into microneurosurgical practice by Gazi Yaşargil. He planned the microscope design and the operating room layout entirely from scratch.

He pioneered microsurgical approaches and techniques for the treatment of occluded brain vessels (extra-intracranial bypass, intracranial reconstruction of arteries and veins), brain aneurysms, arteriovenous malformations, cavernomas, extrinsic and intrinsic tumors of the brain and spinal cord, selective amygdalo-hippocampectomy for medically refractory temporal seizures, and micro-techniques for spinal disc surgery.

Moreover, while doing all of this, he enabled many surgeons from five continents to learn



these techniques directly from his own cases, courses, and lectures. He left behind a six-volume work that would become a cornerstone in microneurosurgery education and emphasized the importance of integrating all neuroscience disciplines to unravel the mystery of the brain. He paved the way for understanding this magnificent organ, leaving young neuroscientists a legacy full of questions to be answered, and opening the path for new perspectives and research.

The Leyla Retractor and the Yaşargil Microscope

The Leyla retractor is a staple of operating rooms: a self-retaining retractor developed by Prof. Yaşargil, bearing his daughter's name, designed to gently and evenly retract the brain and to provide the surgeon with flexibility and ease during use. This system consists of a fixation base, a flexible arm, and moldable strip retractors of various widths and lengths. It is attached directly over the sterile drapes via the fixation base and allows comfortable adjustment of the flexible arm throughout surgery.

When Yaşargil first encountered surgical microscopes in Vermont, he realized that there was a need for a microscope that would allow exploration from different angles in a field like neurosurgery, which requires maximum attention. In prolonged collaboration with engineers in Zurich, he produced the prototype Yaşargil counterbalanced microscope in 1972-one that could be moved using a mouthpiece without the surgeon removing his hands from the operative field, and that provided flexibility to view the operative field from every angle, almost as if floating in the air-and he used it in daily surgical practice. Although the same success could not be achieved in mass production, efforts continue for this microscope to be incorporated into neurosurgical practice worldwide by Prof. Türe.

Yaşargil's Firsts

- He taught microsurgery to the world.
- He founded microneurosurgery.
- He enabled the use of the Malis bipolar in neurosurgical operations.
- He revealed the cisternal anatomy of the brain and defined transcisternal approaches.
- In the 1970s, he defined the pterional (frontotemporosphenoidal) approach.
- He performed the first orbital venography.
- He demonstrated the first superior sagittal sinus thrombosis.
- He published the first three-dimensional anatomical photograph in 1954 which describes the blood supply of the olivary nucleus.
- He demonstrated variations of the vertebral artery.
- By working with Josef Klingler, he enabled the importance of white matter dissection to be understood and incorporated into neurosurgical practice.
- Prof. Dr. Gazi Yaşargil received the first Golden Honor Award presented by the World Academy of Neurosurgery.
- He received the first National Sovereignty Honor Award and said at the ceremony: "By giving this award to a neurosurgeon, you have emphasized the importance of the human brain in the history of civilization," and he dedicated this award to the first brave children of the Republic of Türkiye.

Unknown Aspects of Him

He has a book titled "The Duty of the West," which he wrote in German in 1960. This book was received with interest by official authorities in Western European states, and it is stated that it served as a key to opening doors for Turkish workers in the West.

Although Prof. Yaşargil is known primarily for cranial surgery, he also worked on spinal surgery. Even in this short period, he developed a tubular system and introduced it to spine surgery in 1962.

He examined the relationship between music and medicine and even published an article on this topic titled "Music in the East and the West" (*Schweizer Archiv für Neurologie, Neurochirurgie und Psychiatrie*, 1962). In that article, he stated that music therapy could be seen as an auxiliary psychotherapeutic method with the potential for new development, and he described-across human history from the Asklepion to Pythagoras, from Evliya Çelebi to Theodor Billroth-the harmony between music and life.

Although in some circles he was referred to as a communist because of his longstanding friendship with Can Yücel, he defined himself as a humanist; he stated the necessity of granting every person an equal right to life; that food, drink, clothing, and healthcare are essential for every individual; and that he wanted equal rights.

Interests

"Just as we can stand on our feet to walk, we must know history well in order to stand in the world of culture. My advice to young people is: continuously go to museums."

Yaşargil would begin his lectures with the Phoenician princess, continue with the Lydian girl Arachne and with Zeus and Athena from Greek mythology, and he would give lectures arguing that Eastern culture passed to the West via Crete and that the source of Western culture is the East. We see that this view is a strong claim supported by researchers today. He stated that

he was deeply influenced by the books of the archaeology professor Prof. Ekrem Akurgal and recommended them to young people.

He examined the more than four hundred colored miniature paintings made in the 15th century by the great physician and surgeon Şerafettin Sabuncuoğlu and explained them in his writing. He also gave conferences on the contributions of Turkish and other Islamic sages to global civilization.

In an article describing Yaşargil's days in Arkansas, Prof. Al-Mefty explained under the title "Professor Grandpa" that Yaşargil gifted the *Epic of Gilgamesh* to his daughter, told many Turkish folktales to the children, and that the most valuable times he spent with him were philosophical, historical, and artistic conversations held in short intervals.

When we look at the book *Microneurosurgery*, Yaşargil's interest in mythology, world history, philosophy, and modern art is evident. In his speeches, he included quotations from Muazzez İlmiye Çığ (Muazzez İlmiye Çığ was a pioneering Turkish scholar who studied and explained the civilizations of the Middle East, with a particular emphasis on the Sumerians.) regarding the similarity between Sumerian and Turkish.

While *Microneurosurgery* Volume 4A begins with a depiction from 1618 of the first brain surgeon Hephaestus and the story of Hephaestus, Volume 4B continues with the narrative of the Arachne legend. We know from those who visited his home in Zurich that he displayed a modern artwork in every corner.

Yaşargil, who performed every task with excellence, compiled a piece for a geography assignment in high school about how England established dominance over the world, and received praise from his teacher: "Teach me a lesson on this subject."Regarding Turkish carpets, he stated that these carpets, which speak without language, are "the greatest contribution of the Turks to the world heritage," and that carpet patterns are works that convey Turkish culture to the world, encompassing art, history, and philosophy.

His Endless Respect for Women

Yaşargil came from a large family with six children. He spoke of the women in his family by saying, "They were much smarter than us," in comparison with the men of the house. Most of all, he stated that he was impressed by the intelligence of his mother, who had wanted to study medicine in that era but could not because circumstances did not allow it.

Gazi and Dianne Yaşargil were always shoulder to shoulder while creating modern microneurosurgery and opening a new window in neurosurgery. In every speech, he expressed his gratitude to her. Having three children, Gazi Yaşargil preferred to name the retractor he designed after his daughter: "Leyla." In his interviews, he emphasized that the number of women surgeons should increase, that women should come forward in every area of life, and he underlined the importance of women's rights not only in Türkiye but throughout the world.

Having been honored by many chairs with honorary doctorates, Gazi Yaşargil wore one of these gowns in 2014 at Ege University, İzmir, Türkiye. After the gown was presented by the rector at the time, Cansever Yılmaz, he said: "Up to this time, various gowns have been placed on me-this is my 15th professorship and doctorate. What excites me is that for the first time a female professor has put this gown on me. You are very energetic; how beautifully you have created a vibrant university in a short time. We have been receiving mitochondria from women for three billion years. The ladies-our mothers-give us our energy. (...) Women are not equal everywhere in the world; the world is only now waking up. I am happy to see this energy here."

Some Myths

Can Yücel and Gazi Yaşargil were very close friends in high school, and as young people among the first generation of the Republic of Türkiye, they wanted to go abroad to learn more and discover the unknown. However, Hasan Ali Yücel did not approve Can Yücel's education abroad, stating that it would not be appropriate because he was the Minister of National Education and it involved his own son, whereas he allowed Gazi Yaşargil to go abroad.

However, no state scholarship was provided. This story, in fact, stems from a mythologized misconception.

During his journey to Vienna in the Second World War, Gazi Yaşargil would say, "I am going to receive the Nobel Prize, and one day I will." Although this idealistic young man made major contributions to the heritage of humanity, he did not receive the Nobel Prize, particularly because Nobel Prizes are awarded in certain fields; instead, he received many other awards. Years later, Gazi Yaşargil was seated in the front rows during Aziz Sancar's Nobel Prize speech. In his speech, Sancar sincerely referred to Prof. Gazi and said, "But the one who received the prize was me..." and added that the reason Yaşargil could not receive the Nobel Prize was entirely related to Nobel criteria and focus. Amid the laughter of Prof. Yaşargil and all participants, this speech took its place in memory.

"The more you know, the more you see. The more you see, the more you know." Although it has been associated worldwide with Yaşargil, in fact this saying comes from Aldous Huxley's philosophy. Although Huxley did not use this expression verbatim, he formed similar sentences, and over time this saying has been attributed to Huxley. In some books, it is stated sensationally that this saying is actually even older. Although this quote has been attributed to Yaşargil, especially within the neurosurgical community, the owner of the saying is not him.

Although many publications describe Yaşargil as "raised by Turkish medicine," as explained in the introduction of this text, Yaşargil left Türkiye after high school and received his medical education in Germany. Yaşargil, who emphasized his love of homeland at every opportunity, stated that he cared about young people studying abroad, broadening their horizons, and representing Türkiye. Therefore, when referring to Gazi Yaşargil, it is much more accurate to use the expression "a scientist raised by the Republic of Türkiye".

After Yaşargil

İstanbul Yaşargil Microneurosurgery Courses

The İstanbul Yaşargil Microneurosurgery Courses have been held within Yeditepe University since 2010, mostly every year in June. This two-part course offers: in the first part, Dr. Frick teaches microanastomosis; in the second part, participants have the opportunity for hands-on practice on white matter anatomy of the brain under the supervision of competent faculty members from many regions of the world. In addition, live surgery is demonstrated, and in this aspect, it preserves its unique distinction in the world. Gazi Yaşargil served as the course director and took a primary role in all courses, performed live surgery, and thus offered participants a once-in-a-lifetime opportunity.

Yaşargil Microneurosurgery Academy

The Yaşargil Microneurosurgery Academy was founded in 2024 under the presidency of Prof. Al-Mefty. Its first meeting was held in İstanbul by Prof. Türe, and its second meeting was held in 2025 in Boston under Prof. Al-Mefty's presidency. The academy particularly aims for young neurosurgeons to closely follow the latest developments in microneurosurgery and learn the subtleties of microsurgery; it aims to promote understanding of the importance and effectiveness of microsurgery, thereby increasing the benefit provided to patients.

Professor M. Gazi Yaşargil Young Neurosurgeon Award

This award has been given since 2022 to encourage and reward young neurosurgeons' work on microneurosurgical anatomy. The requirements include having published as first author in an SCI-indexed journal within the previous year and being under 40 years of age. The jury consists of an international jury, and authors who have taken part in any of the applicant articles are not accepted as jury members.

Laboratories and chairs bearing his name have been established in different parts of the world. Microneurosurgery laboratories bearing Prof. Yaşargil's name were established in Oxford (UK), Little Rock (USA), and Beijing (China); in addition to the establishment of the Yaşargil Chair at the University of Arkansas, the Gazi and Diane Yaşargil Conference was initiated annually; and at the University of Zurich, Yaşargil conferences have been organized annually since 2014.

Yaşargil Sulcus

One of the most beautiful gifts a student can give to a mentor is probably to immortalize them, introducing their name into the literature, Prof. Uğur Türe, introduced at conferences as one of Gazi Yaşargil's most faithful and most competent students, and spoken of with admiration by Yaşargil himself, gave this gift to his teacher as he approached the age of 100.

This sulcus, located medial to the temporal horn of the lateral ventricle and separating the retrohippocampal formation from the collateral eminence, had been referred to years ago by Yaşargil as an "unnamed sulcus"; however, in 2025 it was introduced into the literature by Prof. Türe as the Yaşargil Sulcus. The use of this nomenclature by young neurosurgeons and neuroanatomists will ensure the immortalization of Prof. Yaşargil's legacy (*Goga, C., Serra, C.,*

Unforgettable Quotes from Prof. Yaşargil

"We must help the patient."

"Learn and relearn neuroanatomy."

"Since my childhood, there has been an endless curiosity inside me."

"I am still like a six-year-old; I still carry the same curiosity."

"Working only during the daytime is not enough for neurosurgery."

"Do not fill your brain with junk food. Do not fill your brain by keeping unnecessary information in your mind."

"The necessary power exists in our brain."

"The more you know, the more you see." *see the 'myths' section*

"If you are determined and honest, doors will open everywhere."

For the neurons and neuroglial cells in the brain, he used the phrase "the cells in the brain parliament."

"Your brain is precious, use it."

"Recognize excellence in others, as well as in yourself."

"Words are pearls to be chosen wisely-they are reflections of you and who you are."

"Progress is never like slowly climbing an uphill road; it happens through winding paths."

"I learn by working with my hands."

"When I want something, I work hard for it."

"I am still an absolute beginner."

"The brain gives the command, the hand carries out the command. The heart also consents to what is done. I attach great importance to the harmony of these three organs. While doing something, our hand must always be at the level of the heart. The voice of conscience must be listened to."

"We have more than 20 eyes."

"MY HEART AND SOUL ARE TÜRKİYE."

& Türe, U. (2024). Microsurgical anatomy and the inner architecture of the retrocommissural portion of the hippocampal formation demonstrated through fiber microdissection. Journal of neurosurgery, 142(4), 1085–1098. https://doi.org/10.3171/2024.6.JNS232987).

Author’s Note

About a year ago, after meeting Prof. Dr. Abuzer Güngör and with the support of my seniors and peers, when I stepped into the Yeditepe University Microneurosurgery Laboratory, which was founded on May 30, 2008 by Prof. Türe, I did not realize that I was not going only to a laboratory, but to a school-indeed, even a school of philosophy.

When we informed on February 8, 2024 that Prof. Yaşargil would visit the laboratory, we did not know that this would be the professor’s last laboratory visit, nor could we see that we were witnessing this historic moment. During this visit, as Uğur Türe spoke to Prof. Yaşargil about us and said, “They are very hardworking; they are here every day of the week,” Prof. Yaşargil only nodded his head. Only after Uğur Türe added, “They also work at night, Prof!” could we receive a “good job”...

As time passes, I realize that in fact, at the Yaşargil school we were learning not only how to become a good neurosurgeon, but also how to be one of the brave children of the Republic, the meaning of hard work, how to have a stance, that we must not compromise on honesty, and how to be part of a culture. In this school, not only neurosurgery or microneurosurgical anatomy were discussed, but also neuroscience, world history, philosophy, and art. Moreover, I realized that these schools existed not only in Türkiye, but also in many different places of the world where Prof. Yaşargil had lived and passed through. As time goes by, I understand that the Yaşargil century is only just beginning.

Final Words

When we look at Gazi Yaşargil’s life, his countless works, his interviews, and the vast ocean he created behind him, we understand that living is a concept consisting of many different components, and that underneath it lies the humanism and deep curiosity that nourished this concept. This concept is not only neurosurgery, not only microneurosurgery, not only angiography or the hours spent in the laboratory; it is also a concept that embraces life as a whole. It consists of many components-from philosophy, neuroscience, archaeology, modern art, carpet motifs, opera and ballet, to the Sumerians and the deepest layers of mythology. With the discipline he developed in neurosurgery worldwide, Prof. Yaşargil enabled thousands of patients to improve their quality of life and hold on to life. With the effort and hope, as young neurosurgeons, to make this ocean even more wavelike...

This text was written using information obtained from the speeches, writings, and interviews of Prof. Gazi Yaşargil and Prof. Türe; from stories I heard from my valuable mentors; and from foreign sources I read, especially from Switzerland.

I thank Ali Adıgüzel, who worked closely with Prof. Yaşargil for years, for his contributions in selecting the photographs.

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