

**Grant Hieshima, MD: 1942 - 2019:
Pioneer, Mentor, Visionary, Friend**



Grant Hieshima, MD passed away unexpectedly on August 9, 2019, while enjoying one of his life-long passions, deep sea fishing, with his son Michael at his side, at the age of 77.

Grant was born in Southern California in 1942, and attended UCLA as an undergraduate student. He received his medical education from Tulane University Medical School, in New Orleans, where he graduated with honors in 1969. Grant initially wanted to become a general surgeon but subsequently decided to pursue radiology with subspecialty training in neuroradiology and nuclear medicine. He was appointed to a faculty position in 1974 at Harbor-UCLA Medical Center in Torrance, California where he began to develop techniques to manage vascular trauma.

In 1983, John Bentson recruited Grant to UCLA Medical Center to start a new program in neurointerventional radiology (NIR). I was completing my final year of residency in radiology at UCLA, and after spending time training with Grant, I asked to become his first NIR fellow.

In the 1980's, the field of NIR was just beginning, and the early pioneers included: Alex Berenstein at NYU; Chuck Kerber at UCSD; Fernando Vinuela and Alan Fox at Toronto General Hospital; Gerard Debrun at Johns Hopkins and later at the University of Illinois; Fedor Serbinenko at the Burdenko Neurosurgery Institute in Moscow; Victor Shcheglov and

Alexander Zubkov, St. Petersburg, Russia; Pierre Lasjaunias, Hospital Kremlin Bicetre, Paris; Charlie Strother, University of Wisconsin; and Grant Hieshima.

At UCLA we would start at 7:30 am with morning read outs of CT brain scans, spend the afternoon performing diagnostic angiograms, myelograms, air ventriculograms of the brain, lumbar punctures for CSF analysis, and then in the late afternoon would start NIR procedures, usually working until the late evenings. We were often called by surrounding hospital emergency rooms in Southern California to treat life-threatening gunshot and knife wounds to the head and neck with exsanguination, traumatic carotid cavernous sinus fistulas with sudden vision loss, and epistaxis due to head and neck tumor erosion. Grant had earned a reputation for always being accessible for advice and treatment for emergent situations in which conventional surgery had high morbidity. His ability to rationally and quickly devise procedures for treatment earned him the respect of many trauma and neurosurgical physicians.

Grant developed the Hieshima detachable silicone balloon in collaboration with two engineers who became lifelong friends, Bill Dormandy and Julie Bell, from Interventional Therapeutics Corporation (ITC). Grant's balloon was used to treat traumatic carotid cavernous sinus fistulas by floating the balloon from the internal carotid artery across the tear and then detaching the balloon by gentle traction. The balloon would self-seal after being inflated with contrast. For large fistulous compartments, multiple balloons would have to be inserted before the final balloon sealed the torn segment of the artery. The Hieshima balloon was also used to close off traumatic fistulas of the carotid and vertebral arteries, permanent occlusion of larger vessels for giant aneurysms, and eventually to treat both ruptured and unruptured large cerebral aneurysms. In addition, the Hieshima balloon was also used to treat symptomatic vasospasm by gentle inflation across the narrowed carotid, middle cerebral, or basilar artery in order to restore normal luminal diameter and to improve cerebral perfusion.

In 1986, Grant along with Van Halbach and I, were recruited to start the Neuro Interventional Radiology program at UCSF Medical Center, by Alex Margulis, Chair of Radiology; Hans Newton and David Norman in Neuroradiology; and Charles Wilson, Chair of Neurosurgery. Grant continued to innovate and develop not only balloons, but worked with engineers to develop better guidewires, micro-catheters, and other embolic materials (HEMA, NBCA, PVA) to treat a wider variety of head, neck, brain, and spinal cord vascular abnormalities.

As Grant's success with these techniques were presented at major neurosurgical conferences, the referrals for more difficult and complex cerebrovascular cases grew. Dr. Wilson was a tremendous factor in Grant's credibility very early on in developing the NIR specialty. Charlie and Grant had a special bond and mutual respect for each other's innate abilities and compassion for patients. They recognized the benefit of collaboration in deciding which patients would benefit from NIR versus neurosurgical treatment, and supported each other by basing their decisions on the best possible outcome for the patient.

As the procedures evolved from detachable balloons to the Guglielmi detachable coil (GDC) for aneurysm therapy, targeted AVM embolization with liquid tissue adhesives, cure of carotid

cavernous sinus fistulas and dural AVMs/AV fistulas, and balloon angioplasty for vasospasm, the specialty of NIR developed across more academic medical centers throughout the world. Grant was a believer in collaboration across medical specialties, and developed friendships with neurosurgical colleagues including: Nick Hopkins, University of Buffalo Medical Center; Robert Spetzler, Barrow Neurological Institute; Steven Giannotta, USC; Charlie Drake, University Hospital, London, Ontario; Katsuya Goto, Iizuka, Japan; Tomoaki Terada, Wakayama, Japan.

Grant trained more than 100 fellows in diagnostic angiography and NIR procedures. He was a well-respected academician with more than 150 scientific publications and 60 book chapters, and was an invited speaker at more than 400 medical conferences across the world. He directed more than 20 grants and research trials involving new techniques in the management of brain aneurysms, subarachnoid hemorrhage with vasospasm, brain arteriovenous malformations, intra-arterial thrombolysis, and cerebral angioplasty.

Grant retired in 1996 from UCSF, after serving as Chief of the NIR division for 10 years, and was named director of the Neuroscience Institute at St. Joseph's Medical Center in Orange County, California. He also went on to establish the NIR program at Hoag Memorial Hospital along with Drs. Michael Brant Zawadzki and Wally Peck.

In 1997, Grant was honored by the Joint Section of Cerebrovascular Surgery with the Lussenhop Award. In 1999 he received the exclusive Gold Medal from the American Society of Neuroradiology. In 2003, Grant was awarded the Outstanding Alumnus Award by Tulane Medical School. In 2007, Grant was the inaugural recipient of the Society of Neuro Interventional Surgery's Luminary Lecture. In 2008, he was honored by the Los Angeles Biomedical Research Institute at Harbor-UCLA Medical Center for his internationally recognized contribution to the field of medicine.

Grant was a true visionary, pioneer of early interventional neuroradiology procedures and techniques, a compassionate physician to his patients, a patient and learned teacher and mentor to his fellows, residents, and students, and a very kind and generous friend with a gentle spirit and soul.

I along with the many friends, associates, students, residents and fellows that Grant trained and mentored during his career in medicine, will miss him very much.

Grant is survived by his loving wife Donna and his two sons, Glenn and Michael.

Randall T. Higashida, MD
Clinical Professor of Radiology & Biomedical Imaging, Neurological Surgery, Neurology, and Anesthesiology
Chief, Neuro Interventional Radiology
UCSF Medical Center

Tributes from Grant's Associates

“At a time when there were few teachers in INR and we were really flying by the seat of our pants, Grant was an unbelievable resource for me and my patients. After he showed the ITC detachable balloon at ASNR 1980, he came to Madison and taught me how to use this great device in CCFs. I also did my first treatment with Grant's balloon and his proctoring. Just no words to tell how much I learned from him. As others have written, he was also a wonderful, kind and compassionate person. I was very lucky to come under his shadow.” **(Charles Strother, University of Wisconsin)**

“I can't overstate the impact Grant had on my life. I take some comfort that his example continues to guide me on a daily basis, that I can do better because of what he taught me in and out of the angio suite, and that maybe in some small way carrying his lessons forward we can make the world a little better and pay back some of the unpayable debt we owe him.” **(Cameron McDougall, Barrow Neurological Institute/ Johns Hopkins Medical Center)**

“A huge loss to all of us. He was kind, soft-spoken, incredibly gifted and innovative but humble. He is the reason I became a neurointerventionalist and I am forever indebted to him. I am very sad.” **(Jacques Dion, Emory University)**

“A truly good soul who will be missed most deeply by anyone who knew him.” **(Gary Duckwiler, UCLA)**

“Grant was a true giant in our field”. **(John Barr, UT Southwestern)**

“I am very sad to hear that Grant passed away. He was a real pioneer and giant in the field of Neuro INR. He did great contributions in the development of neurointervention in the U.S. as well as in Japan. I miss my teacher, mentor and one of my best friends, Grant Hieshima.” **(Tomoaki Terada, Chair of Neurosurgery, Showa University, Kanagawa, Japan)**

“Grant was truly one of a kind. He was my most influential mentor, beginning when I was just 19. It gives me comfort that he passed away fishing with his son. I look forward to celebrating Grant's life of great consequence and compassion. Our field and our institutions are ennobled by his legacy.” **(Steve Hetts, UCSF)**

“I remember Grant signing his UCSF contract with my pen, the same way I remember the lunar landing: A monumental step in our organization, and my own professional and personal growth. He is part of all of us in INR going forward, thus will never be gone for good.” **(Michael Brant-Zawadzki; Senior Physician Executive, Hoag Hospital)**

“He was a giant in our field, a wonderful man and friend, and a great teacher. I learned so much from him.” **(Bill Dillon, UCSF)**

“Dr. Grant Hieshima’s wisdom and teachings live on in the faculty and staff at UCSF and among neurointerventionalists around the world. During my time at UCSF, rarely a day went by without some reference to his thoughts and perspective. He was devoted to his patients and colleagues, and they were devoted to him. A leader in this field, he made an enduring impression on all of us.” **(Phil Meyers, Columbia University, New York Presbyterian)**

“We have lost a true giant in the field and one of the nicest gentlemen around. He is one of the reasons that I became a neurointerventionalist.”
(Richard Klucznik, Houston Methodist, President, SNIS)

“Grant’s soft-spoken, thoughtful demeanor, reasoned compassion, and innovation have cast a long shadow. Although times, techniques, and tools have changed, events such as this remind us to continue in the wake of Grant’s best traditions by widening that long shadow over each and every contact in our daily practice ... patient, associate, trainee, physician..., in his honor.”
(Tom Tomsick, University of Cincinnati)

“I was saddened to hear about Grant's passing--what a lovely, thoughtful and kind gentleman, so very giving of himself, his knowledge and his many talents. Grant "sealed the deal" for me in pursuing INR. I was a resident at MCV when Harry Young, then chair of the Dept of Neurosurgery, asked Grant to come to Richmond to treat a basilar tip aneurysm with his "new-fangled" balloon. People were crowded around the room and in the control area watching Grant's every move as he floated the balloon into the aneurysm. I was lucky enough to have a (almost) front row seat, and distinctly remember thinking it was the coolest thing I had ever seen, and that was what I was going to do. Grant's clear delight in the performance of the procedure was only usurped by his joy in passing his knowledge on to all present. I'm sure there are hundreds of other neuro interventionalists that had the same thrill of just watching Grant work. Happy are those who got to be in his presence every day. I am just grateful to have known him personally, and to have learned from him through his incredible presentations and literature. He will be sorely missed.” **(Lee Jensen, University of Virginia)**

“While I did not know Grant Hieshima well, he trained two of my mentors, Cameron McDougall and George Teitelbaum, and for that I will always be indebted to him. I remember the stories they told of his creativity and technical acumen but mostly I remember their fond recollections of his personal kindness. I know I speak for the many neurointerventionalists who may not have trained with him but have benefitted tremendously from the generosity of his spirit and the breadth of his imagination.” **(Felipe Albuquerque, Barrow Neurological Institute)**

“I remember being a bit star-struck when I was introduced to him. He was so down-to-earth and encouraging. So often our heroes are best worshipped from afar because up close, they reveal their feet of clay. Grant was perhaps the biggest exception to that rule.” **(Joan Wojak, Lafayette, Louisiana)**

“A gentle man and a gentleman. When I was a novice, he took time and interest in all I had to say. I suspect all who came to know him were treated similarly. We shared tales

of fishing and the sea. Rather poetic is how I think of his site of passing. Happy to have been graced with his humble presence.” **(Bob Dawson, Marrero, Louisiana)**

“Grant demonstrated courage and patience in an evolving field, becoming a guide and mentor to so many in the process. As a physician and professional, he was incomparable. As a dear friend, there were none better. All of us were so fortunate to have been the recipients of his keen intellect and compassionate dedication.” **(Julie & Bill Dormandy, ITC)**

“Grant had a profound influence on me, personally, as well as everyone he came in contact with. The world is a better place due to his many professional and personal contributions.” **(Jeff Gold, Cordis Neurovascular)**

"Always humble, ever so smart, and with a heart of gold, Grant was the consummate physician and mentor. Born in a Japanese internment camp during World War II in Riverside California, he never allowed obstacles to stand in his way. From this modest beginning, he made his way to UCLA and to Tulane, and from there to become one of the fathers of American Interventional Neuroradiology. His greatest accomplishments lie not in the devices and techniques he devised, nor in the manuscripts he wrote, nor among the many patients he helped, nor in the many good people he trained. These are compelling enough, but Grant’s essence was his humanity. There are countless stories of his quiet generosity with patients and colleagues, and these are far too numerous to recount here. I feel so blessed to have been Grant's fellow, even though I am not worthy to carry his suitcase. To this day, I hear his soft-spoken voice suggesting what I should do during cases, as if he were at my side. We will never see anyone like him again.” **(Chris Dowd, UCSF)**



Grant Hieshima at the UCSF Alumni Reunion during the July 2018 SNIS Annual Meeting in San Francisco



Grant Hieshima at Charlie Wilson's Reunion, July 2011



Grant Hieshima at the SNIS 7th Annual Meeting in 2010 in Carlsbad, California



Grant Hieshima at the SNIS 4th Annual Meeting in Dana Point, California, where he was honored as the Inaugural Luminary Lecturer