



## Peter Mazur

March 3, 1928 - December 30, 2015

Dr. Peter Mazur, a pioneer in the study of Cryobiology, died Wednesday, Dec. 30th, 2015 at his home in Oak Ridge, Tennessee.

Dr. Mazur was born in New York City in 1928. He earned his AB Magna Cum Laude from Harvard University in 1949, and from that institution in 1953, he received his Ph. D in biology.

After four year serving with the United States Air Force's Research and Development Command (during which he earned his Captain's bars), Mazur spent two years as a Post-Doctoral Fellow at Princeton University. In 1959 he moved to Oak Ridge, Tennessee to join the staff at Oak Ridge National Labs (ORNL), where he began a long and distinguished career that spanned nearly six decades.

Dr. Mazur was a prolific author and researcher who penned over one hundred and twenty scientific papers, works that helped propel Cryobiology into an honored and highly respected field of research and study.

The foremost among these publications encapsulated a seminal study in which Mazur, along with Cryobiologists Stanley Leibo and David Whittingham, pioneered technologies and procedures that successfully lead to the freezing and thawing of mouse embryos without cell damage. This groundbreaking collaboration, lead by Dr. Mazur, paved a path toward fruitful and practical discoveries, among which were enabling the preservation (in a cost-effective way) of the genetic lines of endangered species and the maintaining of frozen cattle embryos with the potential of boosting the overall supply of food in areas stricken with famine.

Along with providing this watershed event in Cryobiology research – which many contend formed a foundation upon which other such research (the freezing of umbilical cord stem cells) could build – Mazur has illuminated the field with a plethora of other studies. For instance, he worked to genetically modify the mosquito, to hopefully disarm the insect, so that it becomes incapable of carrying the parasite that causes malaria. He also devoted much time and effort in the study of *Drosophila*, as he explored methods of freezing with the goal of maintaining thousands of mutant lines of *Drosophila* for valuable genetic research.

Over his long and brilliant career, Dr. Mazur has received numerous awards and honors:

among them an R and D Award and the Distinguished Service Award. He was also appointed a corporate fellow and chair of the ORNL Corporate Fellows Council and is listed in Who's Who In America and Who's Who In The World. Peter Mazur, as well, earned accolades for his skill as a teacher. In the classroom, on the lecture circuit, or one-on-one with his promising post-docs, Dr. Mazur imparted the fruits of his knowledge and intellect to the biologists of the future.

Peter Mazur is survived by son, Timothy S. Mazur; daughter-in-law Kathy Mazur; step-daughter, Jennifer Dawson; step son-in-law Richard Dawson; grandson and granddaughter Andrew and Lauren Mazur, and step granddaughter and grandsons Sydney, Richard, and Taylor Dawson.

Drusilla S. Mazur, his first wife, died in 1982. His second, Sara Jo Mazur, passed in 2003. We thank you, Dad. Throughout your extraordinary life, you have been leader, mentor, and teacher to all whom you have touched. We are grateful for that and for you.

Our family extends a heartfelt thank you to Laquita Foley, Peter's longtime housekeeper and friend, whose help and love were essential and invaluable.

Memorial service will be Tuesday January 05, 2016 at 1:00 pm at the Chapel on the Hill Church in Oak Ridge Tennessee. Interment will follow the service at Oak Ridge Memorial Park.

# Comments

---



“ Belatedly I would like to share my heartfelt condolences to Dr. Mazur's family. I had the pleasure of knowing Dr. Mazur in my early teens when I was close friends with his son. Dr. Mazur was always very kind to me and even remembered me decades later when I contacted him once. I am saddened to hear of his passing.

**Bob Rodger** - February 20, 2017 at 09:12 AM

---



“ Xiaoxi Wei purchased the Peace, Prayers & Blessings - Blue and White for the family of Peter Mazur.



**Xiaoxi Wei** - January 09, 2016 at 08:18 PM

---



“ It is a deep sorrow in my heart. As a young cryobiology researcher, I met Dr. Mazur in Cryo 2013. He is a greatly achieved individual in the field, but still extremely supportive to the young researchers. He inspired me to pursue my career goal. He became one of my key scientific advisors of my start-up company X-Therma. He has been greatly supportive of our project since 2015.

I would like to share a precious photo of my memory of Dr. Mazur. It was taken at the banquet event of Cryo 2013. It was such a memorable moment for me to stand near Dr. Mazur and Dr. Leibo. They left us, though their pioneering spirit and foundational contributions to the field will be forever with us.

Sincerely,

Xiaoxi Wei, Ph.D.  
Founder & CEO of X-Therma Inc.



**Xiaoxi Wei** - January 09, 2016 at 06:42 PM

---



## “ IN MEMORY OF A CRYOBIOLOGIST OF INTERNATIONAL REKNOWN

It was with considerable sadness that the Society for Low Temperature Biology learned of the recent death of Peter Mazur, at his home in Tennessee, on the 30th December 2015. Our sympathies are with his family.

Peter may rightly be viewed as one of the pillars of modern cryobiology, for his work is unavoidable when new entrants to the discipline begin to understand the scientific problems to be solved before living cells can be recovered from the frozen state. His early work in the field helped explain the fundamental relationships between cooling rate and ice formation that must be understood for successful cryopreservation, and his name will be forever linked to the '2 factor' hypothesis that encapsulates the results of these studies.

Standing out from the extensive portfolio of work that Peter produced is his contribution to the successful cryopreservation of mammalian embryos, beginning in the early 1970's, that is central to cryopreservation in clinical, conservation and basic research. His collaboration in this area with other major figures in cryobiology, including David Whittingham and Stanley Leibo, is notable and his extensive list of publications show his willingness to contribute, internationally, with other research groups. At meetings Peter was always a delegate whose contribution would draw a large audience and his perceptive questioning often added to the value of the work presented by others.

The impact of his work, and the inspiration to be drawn from his focus and energy, will be a lasting testament to the life and work of Peter Mazur

## IN MEMORY OF A CRYOBIOLOGIST OF INTERNATIONAL REKNOWN

### Obituary for Peter Mazur (1928-2015)

It was with considerable sadness that the Society for Low Temperature Biology learned of the recent death of Peter Mazur, at his home in Tennessee, on the 30th December 2015. Our sympathies are with his family.

Peter may rightly be viewed as one of the pillars of modern cryobiology, for his work is unavoidable when new entrants to the discipline begin to understand the scientific problems to be solved before living cells can be recovered from the frozen state. His early work in the field helped explain the fundamental relationships between cooling rate and ice formation that must be understood for successful cryopreservation, and his name will be forever linked to the '2 factor' hypothesis that encapsulates the results of these studies.

Standing out from the extensive portfolio of work that Peter produced is his contribution to the successful cryopreservation of mammalian embryos, beginning in the early 1970's, that is central to cryopreservation in clinical, conservation and basic research. His collaboration in this area with other major figures in cryobiology, including David Whittingham and Stanley Leibo, is notable and his extensive list of publications show his willingness to contribute, internationally, with other research groups. At meetings Peter was always a delegate whose contribution would draw a large audience and his perceptive questioning often added to the value of the work presented by others.

The impact of his work, and the inspiration to be drawn from his focus and energy,

will be a lasting testament to the life and work of Peter Mazur

Brian Grout, Chairman  
On behalf of the Society for Low Temperature Biology  
7 January 2016

**Bart Panis** - January 09, 2016 at 03:44 AM

---



“ I am saddened to hear of Dr. Mazur's passing, I knew him when I was a graduate student at the Oak Ridge Graduate School of Biomedical Sciences and later in the Rotary Club of Oak Ridge. He would ask questions of speakers that were important clarifications that needed to be addressed and he didn't mind putting them on the spot. His recent questioning of a speaker regarding the possibility of reservoirs of polio virus being an impediment to the eradication of polio was met with disapproval from the speaker, but it was an important question to ask, even if it was uncomfortable to address the possibility that polio might not be able to be eradicated. His was a formidable intellect and his passing is a great loss to our community and to the scientific community. My thoughts and prayers are with you in this difficult time.

**Scott Jamison** - January 07, 2016 at 08:51 AM

---



“ I was saddened to learn of Peter's passing. Although my acquaintance with him was casual and infrequent, I was very much aware of his pioneering work in cryobiology, initially through Stanley Leibo, whose admiration of his mentor knew no bounds. The Leibos were friends and neighbors many years ago when they and we lived in the same building in the Garden Apartments. Later, after Peter and Sara Jo were married, I would see them at concerts and other such events. Even though he was recognized throughout the scientific world, he remained a man of humility and kindness. I extend my sympathy to all his family, particularly the Dawsons. Peter was one of those rare people who made a positive mark on our world.

**Connie Adams** - January 05, 2016 at 04:44 PM

---



“ Jennifer and Richard: My condolences to you and the entire Mazur family for your loss. I too apologize for not being able to attend the service for Peter. As you know, Peter was a great friend of the family and my parents enjoyed his company as well as that of Sara Jo's. His obituary was rather impressive and I knew from conversations with my parents that he had done some unique research and authored numerous papers/articles. I will always remember his graciousness that he exhibited when we visited and he was always interested in what others were doing in their lives from an educational and employment perspective. He definitely could be a great mentor to many. He should be proud of his accomplishments and it was an honor to know him. May God Bless all of you!!!

## Steve & Marianne Johnson

Steve Johnson - January 05, 2016 at 01:17 PM

---



“ I extend my deepest sympathy and prayers to Dr. Mazur's family. Peter was instrumental in providing sage advice, support and encouragement to my research team. Although we only knew him for a short time, we are so grateful for his invaluable impact on our research. He will be missed, but he leaves a lasting legacy for many.



Mary Zelinski - January 04, 2016 at 04:49 PM

---



“ In my position as Professor of Medicine at the University of Tennessee Graduate School of Medicine, Consultant to ORNL's Biology Division, and a former New Yorker, I had several opportunities to meet and talk with Peter. He certainly was a highly respected scientist who made pioneering contributions to the field of cryobiology. my condolences to the Mazur family.

Alan Solomon, MD

Alan Solomon - January 04, 2016 at 03:05 PM

---



“ I had the privilege to do research with Peter during the years 1982-84 and 1986-87. At that time a lot of changes happened at the biology division. We had to move the lab two times to a different floor or building. Nevertheless we got our projects done. Peter was not only an excellent scientist and teacher but also a fatherly friend to all the scientists who worked in his lab. Peter and his longtime research associate Stanley Leibo influenced the cryobiology of mammalian oocytes and embryos. Their research and refinement of understanding the principles of cryopreservation led to protocols that are now broadly applied in the medical field worldwide. There are lots of memorable moments with Peter while we met in Oak Ridge or later on at scientific meetings around the world. Part of my career was highly influenced by Peter Mazur. Thanks Peter!

Dr. Uli Schneider, Hannover, Germany



“ I worked with Dr. Mazur for several years as his secretary at the ORNL Biology Division. He was very patient with me as I learned to read his HAND WRITING. He will be missed in the scientific world. But I must share one little funny: Mazur & I both were smokers and when the memo came out that we could no longer smoke in our offices, Mazur stepped in mine and said "Shirley don't worry, you can smoke in my office. Not long after that, we were both standing outside shivering and smoking in the cold. He was one of a kind.

Shirley Sands

shirley sands - January 01, 2016 at 05:29 PM

---



“ Judy lit a candle in memory of Peter Mazur



Judy - January 01, 2016 at 04:15 PM



“ Rest in peace, dear Peter.

Judy - January 01, 2016 at 04:16 PM