

# A Passion for Wrestling

Dave Thomas



My passion for EPR began two decades after my passion for wrestling. I was born into a wrestling family. My father Dale and mother Nina were both Assistant Professors of Physical Education at Michigan State University. They met and married in 1948, and my twin brother Ken and I were born in 1949, followed by my brother Steve in 1950. We were instructed in wrestling before walking. In 1952 my father represented USA in the Helsinki Olympic games, and promotional photos were taken of him with his three wrestling babies, still in diapers (see photo 1). He was in graduate school at the time, working on his PhD in physical education, based on muscle mechanics. He placed fifth in Greco Roman wrestling in 1956 in Melbourne, just after he became Professor and wrestling coach at Oregon State University.

My first official wrestling competition was in 1957, when I was 8 years old. That year my father started the nation's first Kid Wrestling program, starting with boys in my Cub Scout den. I was not a gifted athlete, but I took advantage of my early start and competed suc-

cessfully for 20 years. My two brothers (who were gifted athletes, like my father) and I won the Oregon High School state championship several times. Perhaps my most memorable and formative wrestling experience occurred in 1965, when I was a sophomore in High School. Inspired by my father, who had traveled all over the world competing and coaching in international wrestling, I won a state-wide tournament that earned me a place on a Wrestling Cultural Exchange team that visited Sweden, Finland, and Poland, for 6 weeks that summer. It was my first trip out of the country, and the first airplane flight of my life was from Portland over the North pole to Stockholm. What an eye opener for a small-town boy. We stayed in private homes, sampled the food and cultures, learned a little of each language, competed almost every day, and made life-long friends. My later decision to become a scientist was forged in no small part by that experience – I knew I wanted to be in a profession that would connect me to people all over the world.

I enrolled at Stanford, where I won All-American wrestling honors in 1971, the year I graduated from Stanford in Physics. In 1972, just after entering the PhD program in Biophysics at Stanford, I recorded my first EPR spectrum, working with Harden McConnell and Jim Hyde on the first biological saturation transfer EPR experiments. But my graduate training was interrupted when I qualified for the final Olympic Trials, which were held in Minnesota (my future home!) in the summer of 1972. Photo 2 shows me (in my wrestling costume) and my father at that time. He was extremely proud that all three of his boys made it to the finals, although none of us won a spot on the team. My excuse was a good one: the guy who won the trials and went on to the Olympics was Dan Gable, who went on to win the Gold Medal that year and to become the most famous wrestler in US history. I continued to wrestle throughout graduate school, even though McConnell did not approve for fear

I would hurt my brain and no longer understand EPR theory.

Wrestling is not for everyone. It is the most physically demanding sport, requiring strength, flexibility, speed, endurance, weight control, strategy, and pain tolerance, while pitting two combatants directly against each other, with the ultimate goal of control and domination. This can be both physically and mentally punishing. A defeat in wrestling can be profoundly humiliating. Like most wrestlers, I suffered through my share of debilitating injuries (knees, elbows, shoulders, back, fingers). But it is precisely the difficulty of this challenge that makes

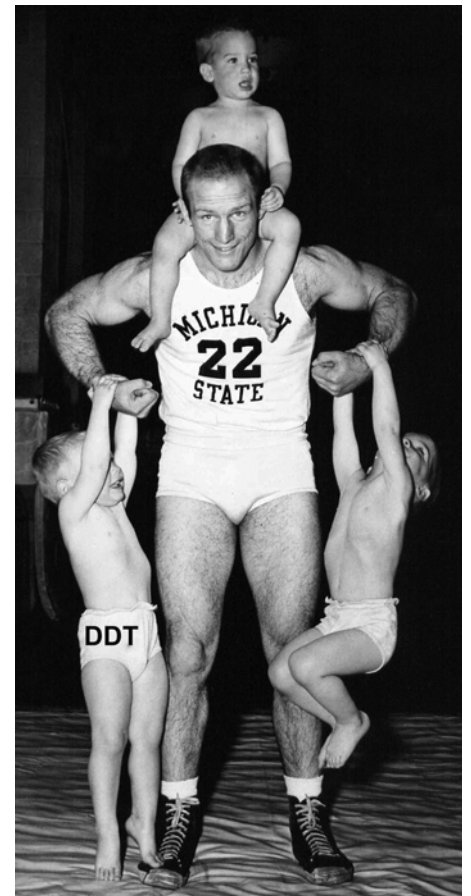
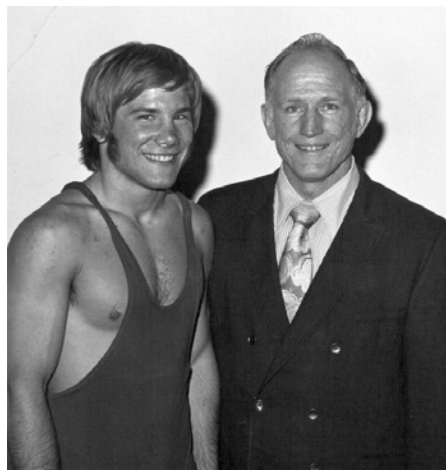


Photo 1. Dave Thomas (left) and his father and two wrestling brothers.

success in wrestling so exquisite, and makes wrestlers so passionate about their sport. One of my most profound successes in wrestling was born of defeat. In 1971, in my senior year at Stanford, I was wrestling in the Pac 8 tournament. It was necessary to place in the top 3 to qualify for the national (NCAA) tournament. I received an unlucky draw. In the quarterfinals, I wrestled Larry Owings, a wrestler from the University of Washington who was famous for being the only wrestler to ever defeat Dan Gable (see above!), which he had done in the NCAA finals the year before, earning him the Outstanding Wrestler trophy. Owings was a monster, and he nearly turned me inside out. I survived the match, but I had nothing left after this physically and emotionally exhausting experience. 30 minutes later, I had to start a grueling series of consolation matches. Somehow, I found the strength to win each one of those four matches by 1 point, qualifying me for the NCAA tournament two weeks later. At that tournament, I received another unlucky draw. Again in the quarterfinals I met the national champion, Darrell Keller, who went on to defeat Owings (see above!) in the finals and earn the Outstanding Wrestler trophy. Once again, I was completely exhausted, and once again I had to compete with no rest in



**Photo 2. Dave Thomas (left) and Dale Thomas (right).**

the consolation bracket. But I had faced this kind of challenge before, and my effort was rewarded with All American honors. The lessons I learned that year about dedication and perseverance have been among the most important of my life.

For me, there was even more passion about wrestling that was derived from my professional environment. Wrestling is a superb combination of applied physics and physiology, and I believe that it led me naturally

to research on muscle biophysics. Wrestling provided essential inspiration for me to apply EPR to understand the molecular mechanics of muscle, which has been a consistent theme in my research ever since my early work with Hyde and McConnell. In addition to the scientific benefits of this synergy, it has helped me start many conversations over the years with my wrestling friends. "What do you do?" they ask. "I do research on muscle contraction," I answer, and everybody is on the same page. In fact, one of the most satisfying experiences of my professional career was when I was invited by my father's department (Physical Education and Human Performance) to present a lecture on muscle biophysics. I showed those faculty and students of Physical Education and wrestling how EPR has played a major role in explaining the molecular basis of their craft.

I'm too old to wrestle competitively now – it's not a young man's sport – but when I attend wrestling matches, I recall vividly the thrill of competition and the unique satisfaction that comes from complete physical and mental exertion. Now I tell my wrestling stories to my EPR students, and I hope it helps them see the rewards of personal dedication and sacrifice. But that's another passion.



Are you interested to become a member of the International EPR (ESR) Society? Please find the registration/information form for new/continuing members of the IES and non-credit-card payment instructions for individual members on this Web site: [www.epr-newsletter.ethz.ch/contact.html](http://www.epr-newsletter.ethz.ch/contact.html)

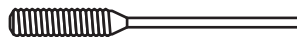
## Molecular Specialties, Inc.

**Your Source for Loop Gap Resonator  
EPR Probes and TPX Capillaries**

**Address:** 10437 Innovation Drive, Suite 301,  
Milwaukee, WI 53226  
**Phone:** 414-258-6724  
**Fax:** 414-727-9578  
**Contact:** Richard J. Stevens  
**E-mail:** rich.stevens@molspec.com  
**Web:** www.molspec.com

Contributor to the International EPR Society

## TPX Capillary



(Catalog No. TPX-2)

- **Compatible with most resonators**
- **Accepts liquid and solid samples**
- **Ideal for oxygen-control studies**
- **Easily cleaned**

**Address:** 10437 Innovation Drive, Suite 301,  
Milwaukee, WI 53226  
**Phone:** 414-258-6724  
**Contact:** Richard J. Stevens  
**Molecular Specialties, Inc.**  
**Web:** www.molspec.com

Contributor to the International EPR Society