

A Tribute to Hugh D. Riordan, M.D., 1932 – 2005

by Abram Hoffer, M.D., Ph.D., F.R.C.P.(C)

The world lost one of its greatest visionaries and humanitarians when Hugh D. Riordan, M.D., passed away suddenly and unexpectedly on Friday, January 7th, 2005. His death has left his patients, his family, the orthomolecular medical community, and countless friends and colleagues of his from around the world in shock.

One of the original founding fathers of the field of orthomolecular medicine, and one of the medical mavericks featured in Dr. Hugh Riordan's latest book, "[Medical Mavericks, Volume 3](#)", Dr. Abram Hoffer offers the following "Tribute" to his long time friend and colleague, Dr. Hugh D. Riordan.

Orthomolecular psychiatry and medicine emphasize the vast importance of nutrition and of reinforcing the diet with nutrients which are needed in large doses. For many patients, the usual amounts of nutrients that are present in the best of diets are not sufficient to achieve and maintain good health. The term "orthomolecular" was created by two-time Nobel Prize winner, Dr. Linus Pauling, whose contribution to what we know about the biochemistry of the body became the basis for much of modern medicine. But because he emphasized the use of doses of vitamins that are much larger than those recommended by our "recommended daily allowances" (RDA), his view became very unpopular, and the word "orthomolecular" achieved fame as an irritant for the medical and other healing professions. Dr. Pauling's conclusions were derived from the studies of a number of pioneering physicians who found that certain vitamins in large doses had therapeutic properties that had been previously unrecognized.

Many years were required before the medical profession recognized that vitamins had any value at all. At first, the usefulness of such vitamins was restricted exclusively to preventing classical deficiency diseases, such as scurvy, pellagra, and rickets. This is the old "vitamins-as-prevention" paradigm. This is what we all grew up with. This meant that vitamins were needed only in very small doses and only for the classical diseases. It also

meant that they were not to be used for other conditions and never in large doses.

The early orthomolecular pioneers – or, in Dr. Riordan’s terms, “Medical Mavericks” – persisted in demonstrating that vitamins are more versatile. Gradually, this led to the establishment of the “vitamins-as-treatment” paradigm, in which vitamins were recognized as having value for conditions not considered “deficiency” diseases, and in much larger doses. The best example is vitamin B3, the niacin form, which in doses of 3 grams daily (which is 150 times the amount needed to prevent pellagra) lowers total cholesterol, elevates HDL (the beneficial type of lipoprotein) and generally normalizes blood lipid levels. This modern paradigm is slowly growing – in spite of the opposition from governments, from the standard medical professions and from their journals. Instead, this new paradigm is being supported by a small group of “Medical Mavericks”. And of these, Dr. Hugh Riordan was one of the most knowledgeable, both as a Maverick par excellence and as an historian of Medical Mavericks.

We need these “Mavericks” desperately. Indeed, we have needed them for at least the past three hundred years. If these great physicians and powerful fighters for the Truth had not existed in the past, we would still be treating people who suffer from smallpox by increasing their fevers. One of the early Mavericks on this subject was Sir Thomas Sydenham. About three hundred years ago, Lieutenant Sydenham, who had served in Oliver Cromwell’s army in England, was demobilized when Cromwell won the war. Lieutenant Sydenham then decided to become a doctor. There were no medical schools. The apprenticeship method was used. He walked behind a doctor for two years, wrote his exams and was awarded his degree. I think there is a lot to be said for this method.

The pandemic of that age was not SARS, nor HIV/AIDS; it was smallpox. Nothing was known about viruses or bacteria. The classical theory held that smallpox was caused by the increased pressure of the “humors” which were hypothesized to be present. In trying to break out of the body, these pressurized “humors” created little vesicles, like tiny volcanoes, which erupted through the skin. Based upon this hypothesis, the traditional therapy, which was at least 1,500 years old, was that one should facilitate the release of these “evil vapors”. This was done by increasing the pressure and by increasing the fever. Sydenham was a good orthodox doctor and he followed that ancient treatment. But in England there was another problem.

There was no central heating. Even indoors, people were cold in the winter and hot in the summer. The medical treatment for smallpox thus consisted in covering each victim with blankets to retain the heat, giving them strong English whiskey and keeping all the windows closed to keep the air out. This meant that in the summertime the heat treatment was quite effective in heating up the patients – but in the wintertime, such was not the case. Eventually Sydenham noticed that the death rate of his patients was very much higher in the summer than it was in the winter. Such an observation was directly opposite to the theory. According to the theory, the death rate should have been higher during winter months. In fact, the death rate in the summer was close to 50 percent of all patients, and in the winter it was under 10 percent. This was very disturbing to Dr. Sydenham because it directly contradicted theory. Eventually, he had to conclude that the theory and treatment were wrong, and that instead of increasing the fever he should do the opposite. Thereafter, he allowed his patients to remain uncovered, he did not allow them anything stronger than a light English ale, and he kept the windows open. As a result, the death rate of his patients in the summer dropped down to the winter level.

Dr. Sydenham would not keep his mouth shut. This proved to be a big mistake. His colleagues were aghast at this assault on their theory and practice. He was challenged to a duel and threatened with the loss of his medical license. Eventually, he wrote a long letter to a member of the nobility outlining his medical observations and the reaction he was getting. He ended his letter with the comment that, “A medical discovery is like a sapling in the middle of the King’s highway. If it is not fenced in, it will be destroyed by the galloping hordes.” Dr. Hugh Riordan helped us to build these protective fences.

If the medical establishments had had their way for the past 300 years, we would still be treating fevers by making them worse. Dr. Sydenham was eventually supported; he was knighted and became a titled “Sir”, and today he is recognized as the father of clinical bedside medicine as well as one of the first to show that fever should be decreased rather than increased, especially in the treatment of smallpox. Today, there is a bronze plaque dedicated to this great Maverick near Parliament in London. I do not think that Dr. Hugh Riordan was ever challenged to a duel, but he was challenged legally when he wanted to treat his patients with high dose vitamins in the hospital. He won. He deserves a plaque at the University of Kansas School of Medicine, at the very least. Meanwhile, however, one of the domes at

The Center is named after him in his honor. Modern medicine was built by Medical Mavericks such as Dr. Hugh Riordan.

Hugh and I established a relationship when we began to correspond in May of 1989. Later we met in Princeton, New Jersey, in 1990, at a board meeting of the Princeton Brain Bio Center – which had been founded and directed by the late Dr. Carl Pfeiffer. At that time, my wife Rose and I first met Hugh and his wife, Jan. Later, in April of 1994, we met again at a meeting in San Diego on Vitamin C. In his lecture, Hugh described a case of melanoma which he had cured by applying a salve of pyridoxine in castor oil. We had our first extended meeting in Wichita when he invited me to participate in the 14th International Conference on Human Functioning, in September of 1995. He had organized these conferences over the years through his Center for the Improvement of Human Functioning, a unique organization which he had founded in 1975 and directed until his death. He was so gracious and kind to Rose and to me. In 1996, Hugh came to Victoria for peace and quiet and for time in which to work on his books, but he also gave the Cancer Victors of Victoria a remarkable address on his great work. He invited me to come to the 15th International Conference on Human Functioning, although I was unable to attend that year.

Hugh and I worked together, editing the Journal of Orthomolecular Medicine, and we also collaborated on the board of the Canadian Schizophrenia Foundation, now the International Schizophrenia Foundation. Hugh joined the editorial board of the JOM in 1991, and he then became Associate Editor in 2000. He also served on the board of directors for the International Schizophrenia Foundation since 2003. Hugh was a good colleague and friend, very supportive personally and of the work of the Foundation. In 2000, he presented the “Annual Pearl Maker Award” to the Journal of Orthomolecular Medicine, and in 2002 Hugh was honored by the International Society of Medicine with the “Orthomolecular Physician of the Year” Award. We met regularly at various conferences and over the last few years. He traveled to Toronto once or twice annually for a brainstorming session with Steven Carter, the Director and Managing Editor of our Journal. Hugh attended all of our meetings, and made major presentations which I always found enormously interesting and valuable.

In 1990, I reviewed “Medical Mavericks, Volume II” for our Journal, and my review was published in Volume 15 of that year. I wrote,

“This is the second in the series. Another seventeen physicians are described: their major contributions, the criticisms they had to face, and what happened to them. It is not a pretty picture of how the medical establishments treat their fellow physicians who are innovators. But the story is not entirely doom and gloom. The discoveries were eventually accepted, recognized, and became part of medicine. Many of the discoverers were eventually honored in their lifetimes. There is a lot to be said for living a long time.”

Dr. Riordan published four books, including this one, and about 70 clinical and research reports. Dr. Andrew Saul’s impressive website, www.doctoryourself.com, carries a complete list of Hugh’s publications up through 2002. The additional publications are in the Journal of Orthomolecular Medicine. Hugh’s productivity did not go down with age as it does for so many scientists, and he contributed his column regularly to our Journal, each time presenting very interesting cases. These anecdotes are very useful in teaching. Among other topics, his areas of research included histamine metabolism, which arose out of his interest in the classification developed by Dr. Carl Pfeiffer, who had classified some patients as having either too much or too little blood histamine. Hugh did numerous studies on chelation, showing that it has measurable clinical and physiological value. Under his direction, his laboratory has for many years investigated food allergies and uses a cytotoxic test for identifying such foods. But Hugh’s main work had to do with the schizophrenic syndrome, and also with the treatment of cancer using nontoxic vitamin C chemotherapy.

Cancer has become the major disease in the world today. The only acceptable, conventional treatment, as recognized by standard medicine, is a direct attack on the tumor. Unfortunately, every such major attack – which includes surgery, radiation and chemotherapy – is very difficult, highly toxic, and there is very little evidence that such means are effective. Any advantages of the usual chemotherapy are so minor that if a controlled trial involving thousands of patients shows even a five percent advantage over treatment involving a placebo, there is a massive outburst of enthusiasm from the leaders of standard cancer treatment. Meanwhile, means of preventing cancer are much less well funded. Hugh also attacked cancers directly, but his “chemotherapy” is safe. I have not heard of ascorbic acid killing anyone. If it had, such news certainly would have been headlined in the New York Times.

Ascorbic acid has been given in doses as high as 200 grams per infusion, over a matter of hours. At the doses that Hugh used, which he had established through laboratory studies, he found that 100 grams or less of ascorbic acid, given over a five or six hour infusion, is enough to directly attack cancer tumors. Additionally, vitamin C is such a natural, robust healing nutrient that it activates the body's immunological defenses – rather than destroying such defense systems, as standard radiation and chemotherapy do. Hugh's methods improve the body's natural immune defenses and decrease the ability of the cancer cells to resist such defenses. In sharp contrast to standard chemotherapy, which always makes patients feel much worse, Hugh's treatments with ascorbic acid would always make the patients feel much better. Hugh was the leader in making available to cancer patients a treatment that is effective, safe, economical and very tolerable. Few oncologists have ever seen these advantages – unless they visited Hugh's clinic. Oncologists worldwide suffer from the delusion that vitamin C is “toxic”. This is based upon no reports in the medical literature. The vitamin C intravenous chemotherapy studies that Dr. Hugh Riordan begun and established are being continued at the University of Kansas and McGill University in Montreal, among other places.

Very few people knew that Hugh was a psychiatrist. His interest in rational diagnosis and treatment was eclectic. He pioneered the biochemical classification of these patients and the use of rational therapy based upon this classification. Few people realize that psychiatric nomenclature is of very little value since there is almost no relationship between the diagnosis and the treatment. Hugh expanded the use of the mauve factor, later called “kryptopyrrole”, and was part of an international team that is still examining this factor further. It probably is one of the best markers of oxidative stress and is therefore found mostly in patients who are under severe stress. Such patients include those suffering from the various schizophrenias, as well as autistic children, people suffering from a wide host of other mental diseases, and also a number of cancer patients who also are under severe oxidative stress. I think Hugh liked working with schizophrenic patients because he got such good results from his treatment. He and I were of course in complete agreement. If vitamins were ever to be driven off the face of the earth, I would promptly give up all medicine and go into major mourning.

Hugh was one of the Medical Mavericks who fought hard and consistently on behalf of orthomolecular concepts. By doing so, he became a member of an elite group that includes Linus Pauling, Roger Williams (the discoverer of

two vitamins), Carl Pfeiffer, Humphrey Osmond, Irwin Stone, David Hawkins, Robert Cathcart, Allan Cott and many others. Ten of these mavericks were inducted into the Orthomolecular Hall of Fame in 2004; Dr. Hugh Riordan will be added in 2005.

Hugh was not shy about defending orthomolecular medicine. I remember that when Linus Pauling first coined the term in 1968, many from our group who had been administering vitamin B3 were not very happy with the name because it generated so much antagonism. “Orthomolecular medicine” became the favorite epitaph of the American Psychiatric Association. But Hugh relished a good fight. This included writing letters to editors. On April 29th, 2003, the New York Times published an article voicing the concern which many medical experts had about the increasing use of vitamins. Many conventional doctors were afraid that they were “overdosing”. The heading read: “*Vitamins: More May Be Too Many*”. I have always been amazed at the bold faced hypocrisy of these physicians who express such concerns about vitamins. As Dr. Andrew Saul writes, “Where are the bodies?” Until last year, I heard very few of the same doctors expressing any concern about Vioxx, for example, which has killed many thousands of people. There are no deaths from vitamins. I doubt that anyone could commit suicide by overdosing with them.

Hugh responded to the New York Times, on May 1st, 2003, with the following letter:

“What an amazing article, ‘*Vitamins: More May Be Too Many*’. It is missing a few details. According to the latest available U.S. Government statistics, the percentages of Americans over age 20 who are not getting even the RDA of many nutrients is appalling.”

He pointed out that 40 % of Americans are not getting even the abysmally low RDA of vitamin C, 55 % are not getting the low pyridoxine RDA, 70 % are not getting the recommended magnesium allowance and 75 % are not getting enough zinc. Then he added,

“Based upon its own data, our government and a responsible publication like the New York Times should be screaming that the nutrient intake of America is so low in so many that it is a national scandal and a public health menace.”

Hugh was enormously productive in medical history. His three volume series on "[Medical Mavericks](#)" should be required, essential reading in every medical school curriculum. And he was a doer as well, more than just a man of letters. He worked tirelessly in building up The Center for the Improvement of Human Functioning, International, Inc., and in developing this superb treatment center to which I was very happy to refer patients with full confidence that they would be treated seriously, gently and effectively. His research, in a very difficult field and against the opposition of the entire psychiatric and medical establishment, was innovative and productive. He was a great teacher at the meetings he addressed. Most notable is the recent documentary that he produced, in which he featured his "Eat, Exercise, Excel!" program, which he designed and implemented in certain, "problem" elementary schools. Just by introducing proper nutrition, exercise, and a nurturing "family" atmosphere into the schools, Hugh demonstrated that dramatic, even revolutionary results in improved student performance are easily obtained.

He was the first to demonstrate how large doses of vitamin C are chemotherapeutic for cancer patients. This is the first known *safe* chemotherapy. He expanded orthomolecular treatment of the mentally ill, especially the different schizophrenic types, using the most modern laboratory methods – many of which are new to orthomolecular psychiatry, and many of which are old. He was a pioneer in establishing the new paradigm known as "vitamins-as-treatment".

Following Hugh's passing, his family, as well as The Center that he had founded, built and directed, both received a large number of very warm, supportive and helpful letters – all tributes to Dr. Riordan's lifetime of generosity toward others. These letters came from colleagues, from coworkers, from patients, and from reporters. They are all excellent. I have selected one which I believe summarizes the high regard in which Hugh was held by those who knew him. This is from the Hilton Family Foundation, the first foundation to seriously support orthomolecular medicine:

"I first recall meeting Dr. Hugh Riordan at an Orthomolecular Conference in Vancouver in 2000. Dr. Abram Hoffer had introduced him as one of the foremost researchers in vitamin C. I was fascinated to learn about his clinic, and soon thereafter we visited him in Wichita to see for ourselves 'The Bright Spot for Health', its research and educational facilities. At our meeting in Vancouver, we met with Dr.

Riordan and other orthomolecular pioneers to learn what our family could do to best further the development of orthomolecular psychiatry, and he suggested that we have a super orthomolecular website. Thanks to his vision, www.orthomolecular.org was created!

Of course there were countless projects Dr. Riordan led and participated in to further orthomolecular medicine and to save and transform the lives of patients, not the least of which was his authorship of the ‘Medical Mavericks’ book series. (I was so grateful to learn of the ‘Medical Mavericks III’ book being available). And his significant leadership in publishing the Journal of Orthomolecular Medicine lectures was always enlightening for the newcomer as well as for the veteran student of orthomolecular medicine.

Dr. Riordan’s personality and communication style reminded me of my dad’s, and although he was a man of few words, I always got a lot out of his words. Whether it was words of encouragement when we had sponsored the orthomolecular section of the Food As Medicine Conference in 2001, or words of wisdom when he encouraged us to move forward with orthomolecular research studies yet spend our funds judiciously, or guidance on health matters that helped me and others get and stay well, or words of understanding and thoughtful advice about my family, Hugh Riordan was an amazing influence to my family and to all of those who knew him.

All we can do is let his family, friends, associates and his Bright Spot family know we care. I feel so honored and blessed to have gotten to know Hugh Riordan. I am a better person as a result of knowing and working with him, and so is the world better because of the phenomenal contributions of Dr. Hugh Riordan!

As I continue to reflect on the many ways Dr. Riordan has been a teacher to me, my family, the orthomolecular family, his community, and the world, I remain a student and an advocate, more determined than ever to get the word out and make ‘orthomolecular medicine’ a household word and orthomolecular treatment the standard of care for patients around the world!

With love, Julie,
for Charles, Lela and Julie Hilton”

As my dear friend, colleague and fellow maverick, Hugh will be deeply missed. As Hugh's colleague, friend and fellow maverick, I reserve for myself the right to have the last word. This is what I wrote to Hugh's wife, Jan:

"I wish I had the words with which I could accurately describe the enormous shock that I felt when I heard Hugh had died. One would think that hardened by old age and by the experience of death amongst one's family, friends and colleagues that I could be desensitized to the fact. But it does not happen when good women and men die. Hugh's death left an enormous hole in my life and my work, which cannot be filled.

He was active in so many fields as a physician, a healer, teacher, innovator and fearless fighter. Hugh made major contributions to ideas and to organizations that are so dear to me, in the use of nutrition and orthomolecular methods for treating patients and for preventing disease. I cannot think of anyone who has done so much for safe chemotherapy than he did, by his use of intravenous vitamin C. This seminal work made it possible for my son, John, to obtain a research grant to carry on his work on intravenous vitamin C. Several of his important contributions were stymied by NIH, but will eventually be published.

Hugh was far advanced in his understanding of the schizophrenias and of the use of the treatments developed by myself and by Dr. Carl Pfeiffer to recognize the types of psychosis and to treat them properly. Hugh recognized the value of honoring pioneers in medicine in his three 'Medical Mavericks' books, because the history of medicine is incomplete without describing the contributions made by those physicians, not only the ones who are past but also the ones who are following. The history of medicine is a history of conflict. Hugh was a very good teacher. It was a pleasure to hear him deliver his lectures and presentations. As a person, a gentleman in the old English tradition, and a Mensch, he was gracious, kind, honest, interested and concerned. An example was his trip to Victoria several years ago to give me personally the 'Pearl Maker Award' from The Center. This has never happened to me before.

So I hope I have expressed my feelings during this time of tremendous loss, knowing that Hugh will be missed by you, your family, his friends and colleagues, by his patients and by patients who will now not ever have a chance to be healed by him. All I can write is that I am sorry.

But now you know what I mean. Hugh, good friend and scientific colleague, is gone but the good that he did will live on.”

For a comprehensive chronicling of what Dr. Hugh D. Riordan did, you must look up his new website at www.orthomolecular.org. Less than one year ago, Hugh told the Board of Directors of the International Schizophrenia Foundation that this website would be one of the best. It is. This is one of the three websites to which I refer most frequently for reliable information. The other two are the International Schizophrenia Foundation at www.orthomed.org, and Dr. Andrew Saul’s website at www.doctoryourself.com, where you may also request Dr. Saul’s “Doctor Yourself” newsletter.

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